Informing Royal Navy People Strategy: Understanding Career Aspirations and Behaviours of Naval Personnel

Elizabeth Emma Bewley BA (Hons), MSc, C.Psychol, C.Sci, AFBPsS

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Abstract
Following a series of imposed redundancies in the Royal Navy (RN) there was a need to understand the career desires of remaining personnel and how these interact with important organisational behaviours and turnover. Taking a social psychology perspective, this thesis addresses criticisms over the high use of non-working populations in research and provides the first empirical evidence for the utility, applicability and relevance of specific psychological theories to the RN. Chapter 2 explores the relationship between career anchors and psychological contract violation, organisational commitment and turnover. Evidence was found for the applicability and potential generalisability of civilian-based research to the RN. RN career anchor preferences were similar to some non-military organisations, and these preferences differentially influenced the variables explored. Chapter 3 presents an intervention developed to support newly appointed Career Managers to increase awareness of human resource issues, representing the first exploration of induction on later attitudes of ‘experienced newcomers’ in the RN. The induction did not influence attitudes; although time did, indicating the importance of role clarity. Chapter 4 provides a critical literature review of work-family conflict (WFC) and its influence on turnover intentions of military personnel and effects on military spouses. The expected negative relationship between WFC and turnover was found, although not consistently; types of satisfaction mediated this relationship, and WFC was linked to stress. Chapter 5 provides new empirical understanding of the interactions between ethos, organisational identity, and engagement on career motivation, perceived future opportunities and intentions to stay. Differences in these constructs were also explored between discrete RN groupings. The relationship between identity and ethos, and engagement, identity and ethos were explored to advance theoretical understanding of these constructs, finishing with an extension to Chapter 2 through revisiting career anchors. In conclusion, this thesis provides new contextual insights, interactions and relationships for academic knowledge, psychological theory and addresses a practical organisational issue within a highly regarded and inaccessible organisation. The outcomes provide the first empirical evidence of career-related behaviours within the RN, and more generally indicate the applicability of civilian based psychological theories to a military population, in particular, career anchors, ethos and focus on opportunities and their importance for people strategy decisions supporting evidence-based decision making within the workplace.
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Dedication

This thesis is dedicated to my parents, Shirley and Paul Moon; my husband Kevin; my son Peter; and to the memory of my grandparents – Olga and James Dobison, and Muriel and Reginald Moon. I hope I make you all proud.
Declaration

I declare that whilst studying for the Professional Doctorate in Occupational Psychology at London Metropolitan University I have not been registered for any other award at another university. The work undertaken for this degree has not been submitted elsewhere for any other award. The work contained within this submission is my own work and, to the best of my knowledge and belief, it contains no material previously published or written by another person, except where due acknowledgements has been made in the text.

Elizabeth Emma Bewley (nee Moon)
January 2016
Chapter 1 - Prologue

Anecdotally there is a view that military populations are somehow unique and substantially different to civilian based occupations. This is likely to be based on the type of work Service personnel are required to do and environments they work in. Occupational Psychology research practice within military organisations tends to rely on applying published literature and theoretical developments that have predominantly been conducted and developed within non-military populations.

One of the defining features of Occupational Psychology is suggested to be the level of synergy between research and practice (Anderson, 2001). The aim is to produce evidence upon which decisions related to practice can be based (Briner & Rousseau, 2011). However, academically-based research often uses student populations (Foot & Sanford, 2004), and has also been described as failing to address practical issues associated with identifying and making improvements in workplaces (Gelade, 2006). These points raise a question over the relevance and ability to generalise results to working adult populations (Foot & Sanford, 2004; Witt, Donnellan, & Orlando, 2011) and fail to answer the ‘so what?’ question regarding practical implications (Bartunek, 2007).

The research described in this thesis aims to address these shortfalls whilst also focusing on developing knowledge driven by a practical real-world organisational issue. This underpins the core of the scientist-practitioner approach. This research seeks to build a new body of research and extend previous theoretical knowledge through access to what could be argued to be one of the least researched organisations by Occupational Psychologists; the Royal Navy (RN). The focus is on understanding the relevance and applicability of identified theories to a military population. The principal aim is on retention of RN personnel through understanding what they desire from their career, and exploring how important organisational behaviours interact with career motivation and turnover intentions in order to inform strategic decision-making.

This chapter will provide an outline of the collaborating organisation and presenting issue. This is followed by an explanation of the practitioner and conceptual rationales. The penultimate section will outline the components of the thesis, and the final section highlights the personal development objectives identified by the author.
Collaborating Organisation

The collaborating organisation for this Professional Doctorate is one of the most respected and identifiable organisations in the United Kingdom, the RN. The RN consists of four Arms: the Surface Fleet (ships i.e. frigates, destroyers etc.); Submarine Service; Fleet Air Arm (aviation); and Royal Marines (elite amphibious force). The Royal Fleet Auxiliary is also part of the RN and is the civilian-manned fleet (frontline logistic support); due to the focus being principally on military personnel this element of the RN was not included in this research.

The RN is organised in a hierarchical rank structure, with personnel classified as either a Rating, subdivided into Junior and Senior, or Officer (see Appendix A for rank structures used within the RN & Royal Marines). Recruitment for Ratings involves a bottom-up approach in that personnel need to be recruited at the bottom of the structure and ‘grown’ to the Senior Rates. Personnel are also recruited as Officers, but again work from the lower to the senior Officer ranks. Once in the organisation, personnel change jobs approximately every two years, which can present opportunities but also career management challenges.

In 2010, the Government conducted a review of Defence which resulted in instruction to reduce the number of personnel across the United Kingdom Armed Forces. The RN was required to make a cut of approximately 15%, which was achieved through a series of redundancies over a number of years. This reduction influenced the importance of retaining the necessary personnel for the future capability of the RN. It was this requirement that became the focus for the personnel strategy division.

The Commodore Naval Personnel Strategy (CNPS) division is responsible for developing, determining and creating people-related strategy across the RN. In response to the Defence cuts, CNPS was required to review and then develop a suitable strategy to address the revised structure of the RN. The author of this thesis is the CNPS subject matter expert on retention in the RN, and as part of this process was tasked to review the proposed strategy and design a suitable research programme to inform its development. A key concern was identified regarding career-related structures and processes; it is this area that constitutes the organisational need and respective content of this thesis. In particular: a need to understand what personnel desire from their career; how personnel desires are supported; how these desires interact with positive organisational behaviours; and what the RN could do better to help retain those personnel remaining.
As an Occupational Psychologist, the author’s job is to help the RN increase its effectiveness and ensure personnel are satisfied with their job (British Psychological Society, 2013). In response to the imposed reductions on personnel numbers, the author recognised the criticality of retaining experienced and qualified personnel remaining in the Service to ensure the continued provision of sufficient, capable and motivated personnel. Specifically, a need was identified to understand what the personnel that need to be retained desire from their careers, how these desires impact on important organisational behaviours, and ultimately whether these relationships have any effect on intentions to stay in the Service.

The research within this thesis aims to blur the boundary that appears to exist in the academic-practitioner divide by advancing theoretical knowledge, whilst also addressing and informing practice for the participating organisation. It will also explore theories and research that have largely been conducted within civilian populations against a military population; thereby providing justification for senior RN Officers regarding their relevance. Further, consideration will be given to the criticism that Occupational Psychologists are more concerned with management interest rather than employees, based on the issues under exploration usually being chosen by the client (Lefkowitz, 2005). Focus is said to be placed on theoretical and technical expertise, but not the values or moral perspective, in terms of whether it is the right thing to do (Lefkowitz, 2005). To address this criticism, this research will take a scientist-practitioner-humanist approach (Lefkowitz, 2008) through considering the employee perspective.

From a theoretical perspective, this thesis aims to shed light on how the identified concepts outlined within the following ‘Conceptual Rationale’ section relate and interact within a military environment, specifically the RN. No research has previously investigated career related behaviours and attitudes within the RN, or how these relate to turnover intentions. From the practitioner perspective, this thesis will advance the application and suitability of Occupational Psychology theory to a military environment, and explore relationships between variables previously unexplored within the RN.
CHAPTER 1 - PROLOGUE

Conceptual Rationale

Based on the presenting issue, the overarching conceptual rationale was determined to originate within the social psychology field. The author identified a number of theoretical constructs considered relevant to address the issues raised; including their relevance for individual’s career understanding and development in order to provide a fulfilling career. These will be briefly outlined, and then discussed in more detail.

Notably, focus will be placed on exploring the career aspirations of personnel, and how these are linked to broken expectations (psychological contract violation), commitment towards the organisation, and intentions to remain in the Service. Further, the relationships between identity towards the organisation, engagement, and values (ethos) on career-related behaviours, specifically career motivation, perceived future opportunities and turnover intentions will be explored. Based on the unique nature of military life, focus will also be given to the impact of work and family-related aspects within military working contexts. The rationale and link between these theories are noted in more detail below.

Anecdotally, identity towards the RN, and ethos within the RN, are considered as the foundation for motivation, morale and satisfaction, although this has not been empirically explored. Within the published literature, identity (Tajfel, 1981; Tajfel & Turner, 1979) is suggested to be inextricably linked with the concept of a career (Millward & Kyriakidou, 2004). Identity at the organisational level represents the definition of oneself as part of an organisational collective identity (P. Smith, Vieira da Cunha, Giangreco, Vasilaki, & Carugati, 2013), which includes associated values (Ashforth, Harrison, & Corley, 2008). These values, linked to the perceived similarity between the collective group (Bar-Tal, 2000), constitute ‘ethos’ (Oren & Bar-Tal, 2006); this manifests in the attitudes, aspirations and internal values of the organisation (Caza, Barker, & Cameron, 2004).

Career related identity is suggested to be linked to these attitudes, values, motives and experiences (Weber & Ladkin, 2011). In addition to identity and ethos, these factors also appear to relate to the theoretical constructs of engagement (Schaufeli, Bakker, & Salanova, 2006), career motivation (London, 1993; London & Noe, 1997) and future time perspective (Carstensen, 2006; Carstensen et al., 2011). Within the RN, the relationships between the constructs mentioned have not previously been explored. This exploration will provide a level of understanding regarding their influence in a military setting. Further to this is a need to understand the underlying needs and
aspirations of personnel with regards to their career. This is encompassed in the theory of career anchors (Schein, 1992, 1996).

Considered as a central area of the self-concept (e.g. identity) that one will not give up, career anchors are likely to influence whether expectations are met or broken, that is the psychological contract (Rousseau, 2001). If aspirations and expectations are not met, commitment is likely to decrease (Cassar & Briner, 2011; Zhou, Plaisent, Zheng, & Bernard, 2014), and turnover intentions increase (Payne, Culbertson, Lopez, Boswell, & Barger, 2014; Xavier & Jepsen, 2014). Managing the careers of personnel is a related area of interest, particularly in light of the fact that Career Managers change every two years meaning consistency of support is likely to vary. Supporting Career Managers to quickly and effectively transition into their posts (Antonacopoulou & Guttel, 2010; Tuttle, 2002) will be essential if careers are to be managed efficiently, and career aspirations are to be met to reduce turnover intentions. This transition has not been investigated within the RN.

One of the main reasons given by personnel when considering leaving the Service is the impact of Service life on their personal and family life (Defence Statistics, 2011, 2012, 2013a, 2014a, 2015). Theoretically this is encompassed within the work-family conflict concept, a negative perception suggested to be responsible for detrimental effects on work and family outcomes (Michel, Kotrba, Mitchelson, Clark, & Baltes, 2010). As a consequence of the reduced numbers within the RN the likelihood of work-family conflict occurring may be higher due to greater demands placed on individuals, which may result in greater turnover intentions. To address this, there is a desire to understand what research exists in this area within military populations to inform people strategy decisions, both for personnel and their families.

To date, as far as is possible to determine, no empirical research has been conducted on the concepts outlined above within the RN. This research seeks to explore how these relate and apply to the RN and to understand to what degree these theories can be generalised to a military setting, determining their relevance for retention and career related behaviours. The aim is to provide a new body of research which will be valuable to career-related research literature, indicating the utility of associations and relationships identified between the variables under exploration to the RN. This will deepen theoretical understanding of the concepts highlighted, contributing to deficiencies in the current research literature. From a practitioner perspective, this
research will provide greater levels of confidence for senior RN Officers and identify practical implications to support RN people strategy.

Components

This thesis consists of four principal elements which cover discrete aspects associated with the overarching organisational problem to be addressed taking account of personnel and facilitating aspects. Figure 1.1 illustrates how each section relates to the overarching question and the interrelation between sections.

Figure 1.1. Interrelationships between thesis components
Ethics

Ethical permission for the research conducted within this thesis was granted through the London Metropolitan University Ethics Committee (for research contained within Chapters 2, 3 & 5). Additional ethical approval from the Ministry of Defence (MOD) was not required based on the guidance from the MOD Policy for Research Involving Human Participants Joint Service Publication 536 (Ministry of Defence, 2014). This specifies that full MOD ethical approval is not required, when data collected are anonymous, no sensitive questions are asked, participation is anonymous, and participants have the right to withdraw. Permission in these circumstances is granted through line management approval in line with the previously mentioned criteria.

Development Objectives

On commencement of the Professional Doctorate the author completed a strengths, weaknesses, opportunities and threats (SWOT) analysis, a learning styles questionnaire, and a review of the Researcher Development Framework (Vitae, 2010) in order to identify areas for personal development.

The SWOT analysis outcomes can be found in Appendix B along with associated objectives set. These include points such as:

- Ensuring effective time management
- Setting realistic deadlines
- Ensuring time for reflection
- Gaining peer review

The author’s identified underlying learning styles (reflector & theorist; Honey & Mumford, 1982) support aspects highlighted in the SWOT analysis adding weight to the objectives set. The Researcher Development Framework by Vitae (2010) was also reviewed, and skills were identified within each of the domains that were considered to be relevant for development (see Appendix C). These were revisited throughout this research, reflecting on progress using the Gibb’s Reflective Cycle (i.e. context, thoughts, feelings, evaluation, analysis, reframe, future action; 2013).
Chapter 2 – Case Study: Career Aspirations Within the Royal Navy: 
Understanding Career Anchors and Their Relationship With Psychological Contract Violation, Organisational Commitment and Turnover Intentions Through Career

Understanding what employees look for and desire from their careers is something that organisations should be cognisant of. The Royal Navy (RN) is no different. The need to ensure sufficient, capable and motivated personnel are recruited and retained was challenged in 2010 following a Defence review which resulted in redundancies across the Service. Increases in organisational change, for example redundancies, have been found to predict psychological contract breach resulting in reduced contributions towards organisational goals (Conway, Kiefer, Hartley, & Briner, 2014). Such reductions could be extremely detrimental to RN operations, meaning retention, and understanding the career needs and aspirations of personnel through career became a key focus.

Career aspirations represent the attributed needs and values an individual holds and will not give up with regards to their career (Schein, 1978, 1990, 1992, 1996). If such values are not aligned to those of the organisation there is potential for increases in negative behaviours such as broken expectations and lowered commitment. When aligned, commitment and fulfilment of expectations are suggested to increase, and intentions to leave decrease (Baruch & Winkelmann-Gleed, 2002; Coyle-Shapiro, 2002; Danziger & Valency, 2006; Joo & Park, 2010; Tan & Quek, 2001). There is a need for organisations to understand work values of their employees (D'Silva & Hamid, 2014). To the author’s knowledge, there has been no research conducted that has specifically looked to explore the relationship between career aspirations, psychological contract, commitment and turnover intentions within the RN. This paper will look to address this gap. The aim will be to provide the first exploration of career aspirations within the RN, followed by examination of their relationship with psychological contract, commitment and turnover intentions, including their ability to predict turnover intentions. These will help determine whether generalising relationships from other populations to the RN is feasible, and also help identify those more likely to stay based on career aspirations being aligned to what is on offer within the Service. Attention will also be given to how these relationships may or may not change through career, in order to inform career structures and interventions to advance the practitioner knowledge.
CHAPTER 2 – CASE STUDY

Career

The concept of a career can mean different things to different people, from a structured professional life to the development of a specialisation over time (Baruch, 2004); both of which are applicable to the RN. A career represents an important reciprocal relationship between the individual and organisation (Chapman, 2015; D. E. Guest & Rodrigues, 2012). Organisational needs are likely to be fixed, but individuals bring a variety of requirements with them (Chapman, 2015) including objective and subjective criteria of career success (Heslin, 2005), with the latter found to influence the former (Abele & Spurk, 2009). Focus on the subjective criteria underpinning career choices and behaviours, such as needs, values and goals, rather than objective aspects (e.g. salary growth & promotion) is growing (Arthur, Khapova, & Wilderom, 2005; Rodrigues, Guest, & Budjanovcanin, 2013). This highlights careers to involve a process of progression and development, determined by individual characteristics, self-perceived abilities, motives, attitudes and values (Baruch, 2004; Sturges, Guest, Conway, & Davey, 2002). Such intrinsic career values are suggested to be an important resource when individuals enter the workforce (Sortheix, Dietrich, Chow, & Salmela-Aro, 2013), and develop during the first few years of work experience (Tan & Quek, 2001). Research has focused on aspects such as organisational and post-organisational career fields (Mayrhofer et al., 2005) and internal career orientations (Carlson, Derr, & Wadsworth, 2003). These values form the basis for attitudes and behaviours (Ajzen & Madden, 1986; Armitage & Conner, 2001; van Breukelen, van der Vlist, & Steensma, 2004) and are defined as an ‘internal career’ (Schein, 1996) that guide career preferences including what constitutes a successful and suitable career (Tan & Quek, 2001). This contrasts with the ‘external career’ or formal stages and roles required to progress in an occupation (Schein, 1990, 1996). The subjective internal career is captured in the theory of career anchors (Schein, 1996).

Career anchors

Career anchors highlight the important distinction between the process of initial occupational choice and subsequent career identity formation and career choices (Feldman & Bolino, 1996; Schein, 1996). Over time, individuals are suggested to seek a level of congruence towards consistency and integration between aspects of their self-concept (Schein, 1996). Individuals begin to sense what is and is not them. Acting as a stabilising force, if a job is not consistent with their needs and values, an individual’s
anchor will pull them back to an environment congruent with their stable self-image (Chapman, 2015; Feldman & Bolino, 1996). Congruence between job and career anchor has been found to result in positive outcomes (Asamani, Cobbold, & Dai-Kosi, 2015), such as job satisfaction (Danziger & Valency, 2006; Feldman & Bolino, 1996), with the latter also related to job stability (Tan & Quek, 2001).

Schein (1990) proposed eight career anchors, Technical Functional, General Managerial, Autonomy/Independence, Security/Stability, Entrepreneurial Creativity, Sense of Service/Dedication, Pure Challenge and Lifestyle. Technical Functional refers to intrinsically motivated specialism; General Managerial refers to preferring knowledge in several areas; Autonomy/Independence is about doing things your own way; Security/Stability focuses on job security and tenure; Entrepreneurial Creativity is about freedom and creativity; Service/Dedication refers to alignment between personal values and helping society; Pure Challenge is about overcoming impossible objectives; and Lifestyle is integrating the needs of the individual, family and career (see Appendix D for full descriptions). Support for the eight anchors can be found in a number of studies (e.g. Crepeau, Crook, Goslar, & McMurtry, 1992; Danziger & Valency, 2006; Igbaria, Greenhaus, & Parasuraman, 1991; Tan & Quek, 2001), although nine anchors have also been suggested (Danziger, Rachman-Moore, & Valency, 2008; Marshall & Bonner, 2003), as well as alternative categories (Ramakrishna & Potosky, 2003; Shin, 2001).

A further criticism of research into career anchors is based on the populations used. The majority have focused on management/business students and information systems professionals (e.g. Crepeau et al., 1992; Igbaria et al., 1991; Marshall & Bonner, 2003; Ramakrishna & Potosky, 2003; Schein, 1978, 1990). Studies have begun to address these criticisms, focusing on heterogeneous (Danziger et al., 2008; Danziger & Valency, 2006) and alternative occupation samples, such as: educators (Tan & Quek, 2001); oil and gas industry (Chapman & Brown, 2014); aviation organisations (Yarnell, 1998); teachers (Asamani et al., 2015; Cobbold & Asamani, 2015); virtual organisations (Dumitrescu, 2009); corporate trainees (Lokas, 2007); faculty members (Ghalavandi, Arbabisarjou, & Yarmohammadzadeh, 2012); IT professionals (Chang, Jiang, Klein, & Chen, 2012); hospitality and tourism educators (la Lopa, Beck, & Ghiselli, 2009); engineers (Tremblay, Dahan, & Gianecchini, 2014); and the police (Steele, 2009).

To date, no research has explored the concept of career anchors within the RN. Previous research has been conducted within the United States Navy (Derr, 1980; Shin,
2001), however, a number of limitations were identified. Specifically, this research explored: the career anchors of personnel in training at the Naval Postgraduate School; focused only on Officers and differences between specialisms branches and tenure; did not consider work related behaviours; and investigated the initial five anchor model (Schein, 1974) and a later nine anchor model unique to the U.S. Naval researchers work (Derr, 1980; Shin, 2001). This chapter will look to address the gaps identified. In particular, inclusion of both Officers and Other Ranks who are currently in service (opposed to in training), and utilise the more common eight career anchor conceptualisation to provide a level of comparison to previously mentioned studies. This will add to the desire for more heterogeneous samples, a greater variety in occupations, and allow for confidence in generalising other findings to the RN. In addition it will look to assist the RN to understand what career anchors are prevalent in order to direct career management action.

Schein (1990) postulates that individuals will have one salient anchor, although it is acknowledged that career situations often make it possible to fulfil several sets of needs, meaning a choice is unnecessary. That said, this is suggested to simply prevent an individual finding out what is at the top of their hierarchy (i.e. salient anchor). In contrast, research has suggested the possibility and common occurrence of multiple career anchors (Chapman & Brown, 2014; Danziger & Valency, 2006; Feldman & Bolino, 1996; Ramakrishna & Potosky, 2003; Tan & Quek, 2001). Maintaining more than one dominant career anchor is suggested to be possible (Ramakrishna & Potosky, 2003), without compromising career options or feeling unstable (Feldman & Bolino, 1996). That said, it is suggested that congruence between career anchor and outcome is likely to be stronger for those whose anchor is consistent with the dominant profile within the occupation and organisational culture respectively (Feldman & Bolino, 1996). Further, the level of congruence between an individual’s career anchor and the environment is also suggested to determine levels of engagement and commitment (Coetzee, Schreuder, & Tladinyana, 2014). Alignment of the dominant profile and the organisational culture is therefore a key consideration, as without this alignment there may be a potential for greater retention issues, particularly based on career aspirations being found to effect turnover intentions (Vazifehdust & Khosrozadeh, 2014). It is suggested that predicting which career anchor will be most prevalent or successful given a specific industry is not possible, with all career anchors considered potentially relevant to roles in different industries (Chapman, 2015). That said, some career anchors could be hypothesised to be more conducive to the culture of the RN, for
example the chance to become a specialist (Technical Functional), opportunities for challenge (Pure Challenge) and serving the country (Service/Dedication). These aspects will be explored through understanding the dominant career anchor, or profile, of RN personnel and exploring their relationship with turnover intentions. The following hypotheses will be explored:

- The career anchors of Technical Functional, Security/Stability and Pure Challenge will be the three most prevalent single anchor preferences within the RN (Hypothesis 1; $H_1$).
- Career anchors of Technical Functional, Service/Dedication, Security/Stability and Pure Challenge will positively predict intentions to remain in the RN (Hypothesis 2; $H_2$).

Allowing individuals to discover the career option that meets their needs contrasts with a ‘set’ career structure (Feldman & Bolino, 1996) more common in the RN. Career anchors consider the less obvious values and desires of employee to be more critical to staffing decisions than what the organisation considers to be best. Ensuring values held by individuals (aspirations) and the organisation (strategy) correspond (Baruch, 2004) should be a central consideration for RN personnel strategy. Aligning aspirations to the dominant profile and culture (defined as shared basic assumptions, Schein, 2010) of the organisation is likely to influence organisational behaviours, because individual aspirations are suggested to influence attitudes towards work, career and life (Baruch, 2004). Therefore understanding and providing the ‘right’ circumstances for personnel in terms of their career is likely to help align expectations and fulfil promises (Sturges, Conway, Guest, & Liefooghe, 2005), concepts encompassed within the psychological contract.

**Psychological Contract**

Defined as subjective beliefs regarding implicit exchange agreements between an individual and the employing organisation (Rousseau, 2001), the psychological contract is a key consideration for career management. They are suggested to develop during the early stages of employment and evolve into a relatively stable representation about how things are (Dabos & Rousseau, 2004; De Vos, Buyens, & Schalk, 2003; Rousseau, 2001). Conversely, others have suggested psychological contracts are flexible and
continue to evolve over time (Conway & Briner, 2002; David E. Guest, 2004; D E Guest, 2004; Payne et al., 2014) which may reflect a similar developmental process associated with career anchors previously discussed. This may suggest that experiences of psychological contract differ based on tenure, which is something this study will explore.

The proposition behind psychological contracts is that individuals are motivated to reciprocate obligations fulfilled by their employer (Coyle-Shapiro, 2002), but when these are not fulfilled they may look elsewhere to fulfil their career needs (Coyle-Shapiro, 2002; Payne et al., 2014; Xavier & Jepsen, 2014). Relational aspects of the psychological contract such as career development and job security are more important than transactional elements such as financial rewards (Obuya & Rugimbana, 2014). Unfulfilled obligations are suggested to influence discretionary behaviours (S. L. Robinson & Morrison, 1995) and with the downsizing within the RN, the traditional promises of job security in return for hard work (Chambel & Fortuna, 2015; D. E. Guest, 1998) may be in question. When promises are broken, the psychological contract is suggested to have been breached or violated.

Breach and violation are considered to be conceptually and empirically separate concepts (Cassar & Briner, 2011). Breach is suggested to be determined by negative cognitive appraisal and attitudes (Conway, Guest, & Trenberth, 2011; Xavier & Jepsen, 2014), whilst violation invokes intense affective and behavioural responses (Rousseau, 2001; Xavier & Jepsen, 2014). Violation is the subsequent affective reaction to a breach (Morrison & Robinson, 1997). For example, a breach is likely to develop into a violation if the individual believes the organisation has knowingly broken its promise (Xavier & Jepsen, 2014).

Antecedents for breach and violation are suggested to be different (Morrison & Robinson, 1997), although this isn’t a universal finding (Xavier & Jepsen, 2014). The antecedents of contract violation are suggested to vary, from unmet expectations acting as a mediator between violation and behaviours (Turnley & Feldman, 2000), to progression to violation from an initial breach dependent on an interpretation process attributing meaning to the perceived breach (S. L. Robinson & Morrison, 2000). The insinuation is that individuals may experience what they consider to be an unmet expectation, which leads to a perceived breach, and depending on the attributed interpretation of that breach, may or may not lead to violation.
Whether fulfilled or breached, psychological contracts are influential over a number of important organisational outcomes. Whilst fulfilment has been found to positively influence performance and citizenship behaviours (Conway et al., 2011; Ng, Feldman, & Lam, 2010; Turnley, Bolino, Lester, & Bloodgood, 2003), violations have been shown to negatively impact organisational commitment (Bunderson, 2001; Cassar & Briner, 2011; Coyle-Shapiro & Kessler, 2002; Johnson & O'Leary-Kelly, 2003; Lester, Turnley, Bloodgood, & Bolino, 2002; S. L. Robinson & Morrison, 1995; Sturges et al., 2005; Zhou et al., 2014) and turnover intentions (Bhatnagar, 2014; Zhao, Wayne, Glibkowski, & Bravo, 2007). Violation has also been found to partially mediate the relationship between breach and commitment (Cassar & Briner, 2011). Psychological contract violation and breach appear to be differentially influenced, with the link between violation and turnover suggesting that perhaps once individuals reach a violation of their expectations they are likely to leave. The upshot of this is that if organisations can identify when a breach has occurred they may still have an opportunity to do something to ‘fix’ the situation, before violation ensues. This relationship would also seem to apply to career aspirations, in that if an aspiration isn’t aligned to the organisation, personnel may reach the violation stage quicker, providing reduced time for any potential intervention. Preventing breaches and violation of psychological contracts will be of benefit not only for turnover intentions, but also for retaining high levels of commitment towards the organisation. With this in mind, the following hypothesis will be explored, focusing on the career anchors hypothesised to be least aligned to the RN way of life:

- Psychological contract breach and violation will be higher for RN personnel with dominant career anchors of Autonomy, Lifestyle and Entrepreneurial Creativity (Hypothesis 3; $H_3$).

Organisational Commitment

Focused towards the employing organisation, organisational commitment is a multi-dimensional construct (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002) important for predicting employee turnover intentions (Baruch & Winkelmann-Gleed, 2002; Brunetto, Teo, Shacklock, & Farr-Wharton, 2012; Hackett, Bycio, & Hausdorf, 1994; Joo & Park, 2010). It refers to a ‘bond’ employees have for their organisation, in terms of remaining with the organisation based on an emotional attachment - wanting to remain (affective commitment); remaining based on the perceived costs associated with
leaving – a need to remain (continuance commitment); and remaining based on obligation – feeling one ought to do so (normative commitment, Meyer & Allen, 1991; Meyer, Allen, & Smith, 1993). Low levels of organisational commitment have been linked to externally oriented career self-management (Kossek, Roberts, Fisher, & DeMarr, 1998; Sturges et al., 2002), with affective and continuance commitment suggested to be the most influential (Sturges et al., 2005). Although if an individual feels the organisation contributes to their career growth, they are likely to feel a moral sense of obligation towards it i.e. normative commitment (Weng, McElroy, Morrow, & Liu, 2010). There is clearly a link between career related behaviours and how committed or not an individual is. For example, career anchors have been found to be important for enhancing job commitment (Coetzee et al., 2014), with Technical Functional, General Managerial, Autonomy, Pure Challenge, and Lifestyle all found to be salient (Ghalavandi et al., 2012). How commitment links to the career aspirations of personnel may provide the RN with an indication of whether the career options currently offered are suitably positioned to encourage positive behaviours. With this in mind, the following hypothesis will be explored, focusing on the career anchors which are hypothesised to be most conducive with the RN culture:

- Organisational commitment will be higher for RN personnel with dominant career anchors of Technical Functional, Service/Dedication, Security/Stability and Pure Challenge (Hypothesis 4; \( H_4 \)).

Development activities and career opportunities are important factors, and indeed predictors of organisational commitment, (Arnold & Davey, 1999; Weng et al., 2010), as are met or unmet expectations (Cassar & Briner, 2011; Irving & Meyer, 1994; Wanous, Poland, Premack, & Davis, 1992; Zhou et al., 2014). Research has found a close link between higher organisational commitment and fulfilment of psychological contract (Bunderson, 2001; Coyle-Shapiro & Kessler, 2000; Johnson & O'Leary-Kelly, 2003; Lester et al., 2002; Sturges et al., 2005). If promises are not met or supportable within an organisation, then individuals will look to further their career elsewhere. Additionally, values are likely to be differentially represented in individuals, for example, organisational commitment has been found to be stronger for younger workers, whereas contract breach was stronger for older workers (Bal, De Lange, Jansen, & Van Der Velde, 2008). Further, the world of work is suggested to have
changed, meaning some career aspirations may be more suited than others with this likely to change over time (Medsker & O'Connor, 2015).

This highlights the importance of understanding the relationship between career aspirations, commitment and psychological contracts through career within the RN. The RN is bottom fed, i.e. it needs to grow knowledge and experience, meaning there is a major investment in recruitment and training both in time and financially. It is critical therefore that the RN retains personnel to support the hierarchical structure. However, if the career needs of these individuals are not aligned to the organisation, contract breach and lowered commitment may ensue, resulting in a potential retention problem. With this in mind, this study will look to explore whether any differences exist between career anchors, organisational commitment and psychological contract breach and violation through career.

- Career anchor tendencies in the RN will differ between personnel in early, mid and late-career points (Hypothesis 5a; $H_{5a}$).
- Psychological contract breach and violation in the RN will be lower for personnel in late-career (Hypothesis 5b; $H_{5b}$).
- Organisational commitment in the RN will be higher for personnel in late-career (Hypothesis 5c; $H_{5c}$).

Additionally, analyses will be conducted to explore the combined ability of career anchors, organisational commitment and psychological contract breach and violation to explain the variance in intentions to remain in the Service. The following hypotheses will be explored:

- Career anchors of Technical Functional, Service/Dedication, Security/Stability, Pure Challenge, and organisational commitment in the RN will positively predict intentions to remain in the RN (Hypothesis 6a; $H_{6a}$).
- Career anchors of Autonomy, Lifestyle, Entrepreneurial Creativity, and psychological contract violation in the RN will negatively predict intentions to remain in the RN (Hypothesis 6b; $H_{6b}$).
Method

Participants

To determine the appropriate sample size to achieve statistical significance, a calculation was conducted using an online tool (Raosoft, 2004). This tool did not require initial data, so was suited to the context and situation. Ethically, this ensured a sufficient but not excessive number of personnel were approached to participate; an important consideration when asking military personnel to give up their valuable time to participate in a study. Additionally, it provided a level of confidence to the researcher with regards the ability to generalise from the sample to the wider population. Based on a population size of 30,000, a 5% margin of error, 95% confidence level, and 50% response distribution a minimum sample size of 380 was required (Raosoft, 2004). No attempt was made to estimate effect sizes due to the prospective nature of the study, and limited information about the population. Key parameters, such as effect size, would have been purely speculative. A total of 1000 personnel were invited to participate, in order to achieve the required sample (based on a standard response rate of 40% usually achieved within the RN). An overall response rate of 52% was achieved \((N = 520)\), consisting of non-deployed serving personnel from the four Arms of the Service (Surface Fleet \(n = 179\); Submarines \(n = 86\); Fleet Air Arm \(n = 155\); & Royal Marines \(n = 89\); missing information \(n = 11\)), with a mean age of 29.6 years \((SD 8.3)\) and length of service of 10.0 years \((SD 8.6)\). The majority of participants were male \((n = 436)\); female \(n = 77\), which is reflective of the composition of the RN.

Design

A quantitative case study at the organisation level was used with data gathered via questionnaire. A stratified sample based on Arm and location was used to ensure a representative sample was achieved from the key groups within the RN whilst maintaining random selection in order to reduce standard errors (Fife-Shaw, 2000). This took into account the four Arms of the Service (i.e. Surface Fleet, Submarines, Fleet Air Arm & Royal Marines), and the principal Naval Bases and Air Stations. From this sample, random selection within the stratum was used.

Ethical considerations included ensuring anonymity, right to withdraw, chain of command issues and voluntary participation (British Psychological Society, 2009). For full information on ethical permission see Chapter 1 (p. 7). Chain of command issues
refer to concerns over participation negatively impacting on promotion or reporting if commanding officers see individual’s results. This was controlled for through voluntary and anonymous participation. These were outlined on the questionnaire (see Appendix E) and information sheet (see Appendix F) provided.

**Materials**

A single self-administered questionnaire was used with pre-existing measures with suitable reliability and validity (see Table 2.4 in Results for Cronbach Alphas found within this study). A 6-point Likert scale from 1 (*strongly disagree*) to 6 (*strongly agree*) was used unless otherwise stated.

**Career anchors.** Career anchors were measured using Schein’s (1990) forty-item Career Orientation Inventory (COI), with items such as ‘*I seek jobs in organisations that will give me a sense of security and stability*’ and ‘*I will feel successful in my career only if I have a feeling of having made a real contribution to the welfare of society*’. Each component of this scale has generally been found to have a good level of internal consistency (see Table 2.1 for individual alphas; Danziger et al., 2008; Igbaria et al., 1991; Marshall & Bonner, 2003; Steele, 2009; Tan & Quek, 2001).

**Table 2.1**

Previous Cronbach’s Alphas for Individual Career Anchor Scales

<table>
<thead>
<tr>
<th></th>
<th>TF</th>
<th>GM</th>
<th>AU</th>
<th>SE</th>
<th>EC</th>
<th>SV</th>
<th>CH</th>
<th>LS</th>
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</thead>
<tbody>
<tr>
<td>Danziger et al. (2008)</td>
<td>.60</td>
<td>.79</td>
<td>.72</td>
<td>.82</td>
<td>.78</td>
<td>.78</td>
<td>.77</td>
<td>.81</td>
</tr>
<tr>
<td>Igbaria et al. (1991)</td>
<td>.74</td>
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<td>.81</td>
<td>.80</td>
<td>.91</td>
<td>.83</td>
<td>.72</td>
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<td>Marshall &amp; Bonner (2003)</td>
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<td>.82</td>
<td>.80</td>
<td>.74</td>
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<td>.51</td>
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<tr>
<td>Steele (2009)</td>
<td>.59</td>
<td>.73</td>
<td>.73</td>
<td>.77</td>
<td>.75</td>
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<td>.83</td>
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<tr>
<td>Tan &amp; Quek (2011)</td>
<td>.59</td>
<td>.78</td>
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<td>.79</td>
<td>.81</td>
<td>.77</td>
<td>.80</td>
<td>.70</td>
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**Organisational commitment.** Measured using Meyer, Allen and Smith’s (1993) three-component scale, this measured consists of affective, continuance and normative commitment. The three-component model allows for greater granularity and
understanding of the different aspects of commitment for later analysis. Items included ‘This organisation has a great deal of personal meaning for me’, ‘It would be very hard for me to leave my organisation right now, even if I wanted to’, and ‘I would feel guilty if I left the RN/RM right now’. Internal consistency for these scales have been found to be good (see Table 2.2 for individual scale alphas; Hackett et al., 1994; Herscovitch & Meyer, 2002; Klein, Cooper, Molloy, & Swanson, 2014; Meyer et al., 1993; Meyer et al., 2002; Peng et al., 2014; Weng et al., 2010; Yucel, McMillan, & Richard, 2014).

Table 2.2

<table>
<thead>
<tr>
<th></th>
<th>AFC</th>
<th>CTC</th>
<th>NTC</th>
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<td>Hackett et al. (1994)</td>
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<tr>
<td>Klein et al. (2014)</td>
<td>.86</td>
<td>.79</td>
<td>.86</td>
</tr>
<tr>
<td>Meyer et al. (1993)</td>
<td>.87</td>
<td>.79</td>
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<td>.82</td>
<td>.76</td>
<td>.73</td>
</tr>
<tr>
<td>Peng et al. (2014)</td>
<td>.82</td>
<td>.73</td>
<td>.87</td>
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<tr>
<td>Weng et al. (2010)</td>
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<td>.84</td>
<td>.78</td>
</tr>
<tr>
<td>Yucel et al. (2014)</td>
<td>.93</td>
<td>-</td>
<td>.87</td>
</tr>
</tbody>
</table>

Note: AFC – Affective commitment; CTC – Continuance commitment; NTC – Normative commitment

Psychological contract. A four and five-item scale were used to measure violation and breach respectively (S. L. Robinson & Morrison, 1995), items included statements such as ‘Almost all the promises made by the RN/RM when I joined have been kept so far’ and ‘I feel that the RN/RM has violated the contract between us’. Internal consistency for these scales is good (see Table 2.3 for individual scale alphas; Cassar & Briner, 2011; Paille & Dufour, 2013; S. L. Robinson & Morrison, 2000; Xavier & Jepsen, 2014). A higher score represents a higher level of breach or violation.
Table 2.3
Previous Cronbach’s Alphas for Individual Psychological Contract Breach and Violation Scales

<table>
<thead>
<tr>
<th>Study</th>
<th>Breach</th>
<th>Violation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cassar &amp; Briner (2011)</td>
<td>.86</td>
<td>.96</td>
</tr>
<tr>
<td>Paille &amp; Dufour (2013)</td>
<td>.91</td>
<td>.93</td>
</tr>
<tr>
<td>Robinson &amp; Morrison (2000)</td>
<td>.92</td>
<td>.92</td>
</tr>
<tr>
<td>Xavier &amp; Jepsen (2014)</td>
<td>.86</td>
<td>.93</td>
</tr>
</tbody>
</table>

**Turnover and demographics.** Participants were asked to indicate their turnover intention as this has been found to mediate nearly all attitudinal linkages with turnover (Ajzen & Madden, 1986; Armitage & Conner, 2001; Tett & Meyer, 1993; van Breukelen et al., 2004). This was measured with a single item written for this study ‘I intend to stay in the RN/RM as long as I can’. Demographics included Arm, rank, gender, age and length of service.

**Procedure**

Prior to distribution, permissions were sought from the relevant RN authorities in order to gain access. Questionnaires were posted to a designated point of contact for distribution, collection and return. Participants were asked to complete a single questionnaire on one occasion in July 2011, which took approximately 15 minutes to complete. They were all provided with an information sheet outlining the purpose of the research, how results would be used and ethical issues such as right to withdraw and informed consent. Personnel were not required to provide their service number or any other identifying information to ensure participation was anonymous. On completion, personnel were instructed to place their individual questionnaire into a sealable envelope. These were collected and returned to the civilian researcher by the appointed point of contact.
Results

Descriptive statistics, coefficient alphas, and correlations for all variables can be seen in Table 2.4. Overall, organisational commitment was significantly and positively related to intentions to stay in the RN ($r = .63, p < .01$). Each component was also significantly correlated with intentions to stay, with affective commitment demonstrating the greatest correlation ($r = .63, p < .01$), followed by normative commitment ($r = .55, p < .01$) and continuance commitment ($r = .25, p < .01$).

In general, mean psychological breach and violation levels were mid to low, with violation being the lower. Breach and violation were both significantly and negatively correlated with affective commitment ($r = -.45, -.51, p < .01$ respectively) and turnover intentions ($r = -.38, -.37, p < .01$ respectively).

Age and length of service were significantly and negatively correlated with continuance commitment ($r = -.22, -.22, p < .01$ respectively), psychological contract breach ($r = -.12, -.16, p < .01$ respectively) and violation ($r = -.20, -.20, p < .01$ respectively), Autonomy ($r = -.18, -.17, p < .01$ respectively), Entrepreneurial Creativity ($r = -.23, -.23, p < .01$ respectively), Service/Dedication ($r = -.18, -.19, p < .01$ respectively), and Pure Challenge ($r = -.16, -.16, p < .01$ respectively).

Reliability analyses were conducted on each scale using Cronbach’s $\alpha$ (see Table 2.4). Each scale reached the generally accepted level of .7 or above (Field, 2009), except three of the career anchor types. Technical Functional ($\alpha = .52$), General Managerial ($\alpha = .66$) and Security/Stability ($\alpha = .64$) which fell below the standard value expected. It is suggested that the general guidelines associated with Cronbach’s $\alpha$ should be used with caution due questions over whether the $\alpha$ actually relates to the internal structure of a test (Sijtsma, 2009). Uncertainty exists over its use as a measure of unidimensionality based on research demonstrating data sets with the same alphas having different structures (Cortina, 1993; Grayson, 2004). Additionally it is also suggested to be influenced by the number of items within a scale (Field, 2009). It is proposed that values below .7 can be expected based on the diversity of constructs (Kline, 1999), although for personality and ability based scales .7 is considered the minimum. Based on this, the Cronbach’s $\alpha$ values achieved in this study are acknowledged. However, the purpose of this study was not to conduct a construct validation study of the measures included, therefore analyses will be continued, and this point will be noted as one of the potential limitations for the study.
Table 2.4
Item Correlations, Means, Standard Deviations and Internal Consistencies

|   | M   | SD  | α  | 1       | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | 11      | 12      | 13      | 14      | 15      | 16      |
|---|-----|-----|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | TF  | 4.39| .63 | .52    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| 2 | GM  | 3.95| .73 | .66    | .55**  |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| 3 | AU  | 3.98| .81 | .74    | .43**  | .55**  |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| 4 | SE  | 4.20| .71 | .64    | .47**  | .40**  | .33**  |        |        |        |        |        |        |        |        |        |        |        |        |        |
| 5 | EC  | 3.64| .97 | .80    | .33**  | .44**  | .60**  | .20**  |        |        |        |        |        |        |        |        |        |        |        |        |
| 6 | SV  | 4.03| .77 | .71    | .47**  | .46**  | .39**  | .39**  | .43**  |        |        |        |        |        |        |        |        |        |        |        |
| 7 | CH  | 4.26| .80 | .76    | .57**  | .56**  | .42**  | .30**  | .39**  | .63**  |        |        |        |        |        |        |        |        |        |        |
| 8 | LS  | 4.47| .80 | .74    | .37**  | .19**  | .43**  | .44**  | .33**  | .32**  | .23**  |        |        |        |        |        |        |        |        |        |        |
| 9 | AFC | 3.73| 1.01| .77    | .15**  | .16**  | .21**  | .06    | .20**  | .16**  | .23**  | -21**  |        |        |        |        |        |        |        |        |        |
| 10| CTC | 3.56| 1.03| .78    | .16**  | .17**  | .16**  | .21**  | .20**  | .17**  | .13**  | .21**  | .02    |        |        |        |        |        |        |        |        |
| 11| NTC | 3.21| .82  | .24**  | .27**  | .00    | .12**  | .08    | .33**  | .34**  | -12**  | .59**  | .42**  |        |        |        |        |        |        |        |        |
| 12| OC  | 3.50| .79  | .85    | .25**  | .27**  | .02    | .17**  | .04    | .30**  | .31**  | .05    | .71**  | .64**  | .90**  |        |        |        |        |        |        |
| 13| Breach | 3.59| 1.01| .82    | - .10**| .11**  | .05    | .18**  | .11**  | .03    | .17**  | .45**  | .00    | -.38** | -.37** |        |        |        |        |        |        |
| 14| Violation | 2.92| 1.24| .89    | .00    | .03    | .23**  | .00    | .29**  | .04    | .00    | .15**  | -.51** | -.25** | -.28** | .61** |        |        |        |        |        |
| 15| Turnover | 4.00| 1.65| -.18**| -.18** | -.17** | .18**  | -.16** | -.12** | -.17** | -.18** | .63**  | .24**  | .55**  | .63**  | -.38** | -.37** |        |        |        |        |
| 16| Age | 29.6 | 8.26| -.07   | -.08   | -.18** | .02    | -.23** | -.18** | -.16** | -.02   | .17**  | -.22** | -.17** | -.10** | -.12** | -.20** | .11**  |        |        |        |
| 17| LOS | 10.0| 8.55| -.07   | -.05   | -.17** | .01    | -.23** | -.19** | -.16** | -.06   | .18**  | -.22** | -.17** | -.10** | -.16** | -.20** | .11**  | .92**  |        |        |

**p<.01; *p<.05. TF – Technical/functional competence; GM – General managerial competence; AU – Autonomy/independence; SE – Security/stability; EC – Entrepreneurial creativity; SV – Service/dedication; CH – Pure challenge; LS – Lifestyle; AFC – Affective commitment; CTC – Continuance commitment; NTC – Normative commitment; OC – Overall commitment; LOS – Length of Service
**H1:** The Career Anchors of Technical Functional, Security/Stability and Pure Challenge Will be the Three Most Prevalent Single Anchor Preferences Within the RN

Dominant career anchor assignment was determined through calculation of the mean scores for each anchor, with the highest scoring anchor assigned as the dominant anchor (Steele, 2009; Yarnell, 1998). Those without a clear preference were coded as having multiple preferences. For this analysis, these individuals were removed to provide clarity and effective comparisons with previous research.

The majority of the sample demonstrated a tendency towards a single dominant career anchor (73%, n = 381). The greatest preferences were towards Lifestyle (integrated lifestyle), Technical Functional (specialism), and Pure Challenge (overcoming obstacles; see Figure 2.1). Hypothesis 1 was partially supported; Security/Stability was the fourth most popular career anchor preference.

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**Figure 2.1. Distribution of dominant career anchors**

1 TF = Technical functional; GM = General managerial; AU = Autonomy/independence; SE = Security/stability; EC = Entrepreneurial creativity; SV = Service/dedication; CH = Pure challenge; LS = Lifestyle
The career anchor distribution found within the RN was comparable to other populations studied (see Figure 2.2). Management students and professionals were the least similar (Igbaria et al., 1991), followed by educators (Tan & Quek, 2001). Similarities can be seen between the results from an aviation organisation (Yarnell, 1998), a more heterogeneous sample (age, gender & employment type, Danziger & Valency, 2006) and the police (Steele, 2009).

Figure 2.2. Dominant career anchors in the RN compared to other populations

\[ H_2: \text{Career Anchors of Technical Functional, Service/Dedication, Security/Stability and Pure Challenge Will Positively Predict Intentions to Remain in the RN} \]

The second hypothesis was explored through two analyses. The first explored turnover intentions against dominant career anchor preference, and included both single and multiple career anchor preferences. Those identified as having multiple anchors were coded as one group (i.e. multiple anchors). A significant difference was found, \( F(8,506) = 2.895, p = .004 \). Personnel with a preference for Lifestyle (\( M = 3.58 \)) demonstrated a lower intention to remain than those demonstrating a preference towards Technical Functional (\( M = 4.40, p = .019 \)) and Service/Dedication (\( M = 4.81, p = .030 \)).
The second analysis conducted utilised mean career anchor scores to allow for multiple regression analysis. A regression was conducted to explore the ability of career anchor tendencies to predict intentions to stay, in order to determine which anchors may or may not be conducive to the RN (see Table 2.5). Mean career anchor scores were entered in one block against turnover intentions resulting in a significant model, $F(8,506) = 19.931, \ p = .000$. All career anchors except Service/Dedication were predictive of intentions to stay. Lifestyle, Entrepreneurial Creativity and Autonomy negatively predicted intentions to stay, whilst the others were found to be positive predictors. Hypothesis 2 was partially supported, with only Service/Dedication found to be non-predictive.

Table 2.5
Mean Career Anchors Predicting Intentions to Stay

<table>
<thead>
<tr>
<th>Variable</th>
<th>Intentions to Stay</th>
<th>Model</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.517</td>
<td></td>
<td>[1.485, 3.550]</td>
</tr>
<tr>
<td>Technical Functional</td>
<td>.389**</td>
<td></td>
<td>[.114, .663]</td>
</tr>
<tr>
<td>General Managerial</td>
<td>.428**</td>
<td></td>
<td>[.180, .676]</td>
</tr>
<tr>
<td>Autonomy</td>
<td>-.558**</td>
<td></td>
<td>[-.781, -.336]</td>
</tr>
<tr>
<td>Security/Stability</td>
<td>.461**</td>
<td></td>
<td>[.241, .681]</td>
</tr>
<tr>
<td>Entrepreneurial Creativity</td>
<td>-.277**</td>
<td></td>
<td>[-.446, -.108]</td>
</tr>
<tr>
<td>Service/Dedication</td>
<td>.127</td>
<td></td>
<td>[-.098, .352]</td>
</tr>
<tr>
<td>Pure Challenge</td>
<td>.239*</td>
<td></td>
<td>[.007, .472]</td>
</tr>
<tr>
<td>Lifestyle</td>
<td>-.480**</td>
<td></td>
<td>[-.673, -.287]</td>
</tr>
</tbody>
</table>

$R^2 = .240$

$F = 19.931$

Note. CI = confidence interval
** $p<.01$, * $p<.05$
H₃: Psychological Contract Breach and Violation Will be Higher for RN Personnel With Dominant Career Anchors of Autonomy, Lifestyle and Entrepreneurial Creativity

The third hypothesis of the study was to explore the differences in psychological contract breach and violation between dominant career anchor preferences, including a multiple preference. Analysis of Variance (ANOVA) revealed no significant differences between dominant career anchor and psychological contract breach, however, a difference was found for psychological contract violation, $F(8,511) = 2.687$, $p = .007$. Specifically, those with a dominant career anchor of Security/Stability ($M = 2.51$) experienced lower levels of violation than those with a preference towards Entrepreneurial Creativity ($M = 3.71$, $p = .012$). Hypothesis 3 was partially supported; with Entrepreneurial Creativity preference found to be related to higher psychological contract violation.

H₄: Organisational Commitment Will be Higher for RN Personnel With Dominant Career Anchors of Technical Functional, Service/Dedication, Security/Stability and Pure Challenge

The fourth hypothesis was to examine differences in organisational commitment levels against dominant career anchor preference; multiple preference was also included. ANOVAs revealed significant differences between career anchors and affective commitment, $F(8,511) = 3.794$, $p = .000$; normative commitment, $F(8,84.079) = 4.705$, $p = .000$ (Welch’s $F$); and overall commitment, $F(8,83.805) = 2.940$, $p = .006$ (Welch’s $F$). No differences were found for continuance commitment.

For overall commitment, a Lifestyle preference ($M = 3.30$) demonstrated lower levels than Technical Functional ($M = 3.65$, $p = .016$) and Pure Challenge ($M = 3.65$, $p = .036$); therefore Hypothesis 4 was only partially supported.

For affective commitment, those with a preference towards Lifestyle ($M = 3.43$) demonstrated lower levels that those with a preference towards Technical Functional ($M = 3.94$, $p = .014$), Service/dedication ($M = 4.19$, $p = .027$) and Pure Challenge ($M = 3.99$, $p = .008$).

For normative commitment a similar pattern was found, with Lifestyle ($M = 2.80$) demonstrating lower levels than Technical Functional ($M = 3.45$, $p = .000$)
Howell]), Service/Dedication ($M = 3.56, p = .050$ [Games-Howell]), Pure Challenge ($M = 3.49, p = .001$ [Games-Howell]), and Multiple ($M = 3.35, p = .003$ [Games-Howell]).

**Hypothesis 5a:** Career Anchor Tendencies in the RN Will Differ Between Personnel in Early, Mid and Late-Career Points

Length of service (i.e. tenure) was used to indicate career stage; based on its significant and substantial correlation to age ($r = .92$), this is also reflective of age groups. Length of service times were grouped to reflect early (0-4 years, $n = 168$), mid (5-11 years, $n = 171$) and late (12+ years, $n = 157$) career stages. Mean career anchor scores were used.

ANOVA found significant differences between career stage for the career anchors of: Autonomy $F(2,493) = 4.682, p = .010$; Entrepreneurial Creativity, $F(2,493) = 8.656, p = .000$; Service/Dedication, $F(2,493) = 8.204, p = .000$; and Pure Challenge, $F(2,493) = 5.644, p = .004$.

Those in the late-career stage ($M = 3.81$) were less likely to demonstrate a preference towards Autonomy than those early ($M = 4.05, p = .023$) and mid-career ($M = 4.06, p = .020$). Similarly, those late-career ($M = 3.38$) were also less likely to have a preference towards Entrepreneurial Creativity compared to early ($M = 3.82, p = .000$) and mid-career ($M = 3.65, p = .032$). Early-career stage ($M = 4.18$) demonstrated a greater tendency towards Service/Dedication preference than those late-career ($M = 3.84, p = .000$). Similarly, those early-career ($M = 4.38$) were also more likely to have a preference towards Pure Challenge than those late-career ($M = 4.09, p = .002$). Hypothesis 5a was exploratory; support was found, with career anchor tendency found to differ between early, mid and late-career stages.

**Hypothesis 5b:** Psychological Contract Breach and Violation in the RN Will be Lower for Personnel in Late-Career

ANOVA found significant differences between career stage and psychological contract violation, $F(2,493) = 8.160, p = .000$. No differences were found for psychological contract breach. Those late-career ($M = 2.60$) were less likely to have experienced a violation than those early ($M = 2.95, p = .021$) and mid-career ($M = 3.13, p = .000$). Hypothesis 5b was partially supported, with differences only found for violation.
CHAPTER 2 – CASE STUDY

**H5c:** Organisational Commitment in the RN Will be Higher for Personnel in Late-Career

Analysis by ANOVA found significant differences between career stage and all commitment measures: Affective commitment, $F(2,493) = 5.602, p = .004$; Continuance commitment, $F(2,493) = 10.319, p = .000$; Normative commitment, $F(2,493) = 12.170, p = .000$; and Overall commitment, $F(2,493) = 5.163, p = .006$. For Affective commitment, those late-career ($M = 3.95$) had higher levels than those early ($M = 3.64, p = .014$) and mid-career ($M = 3.62, p = .008$). For continuance commitment, those late-career ($M = 3.27$) demonstrated lower levels than those early ($M = 3.78, p = .000$) and mid-career ($M = 3.57, p = .018$). For normative commitment those early-career ($M = 3.53$) had higher levels than those mid ($M = 3.05, p = .000$) and late-career ($M = 3.01, p = .000$). For overall commitment, those early-career ($M = 3.65$) were higher than those mid ($M = 3.42, p = .016$) and late-career ($M = 3.41, p = .015$). Hypothesis 5c was not supported, with overall organisational commitment found to be higher early-career. Although when split into the component parts affective commitment was found to be higher during late-career.

Ancillary analysis was also conducted to explore career stage against turnover intentions. Analysis by ANOVA found significant differences between career stage and turnover, $F(2, 324.934) = 4.921, p = .008$ (Welch’s $F$). Those mid-career ($M = 3.68$) were less likely to stay compared to those late-career ($M = 4.25, p = .005$ [Games Howell]).

**H6a:** Career anchors of Technical Functional, Service/Dedication, Security/Stability, Pure Challenge, and Organisational Commitment in the RN Will Positively Predict Intentions to Remain

**H6b:** Career Anchors of Autonomy, Lifestyle, Entrepreneurial Creativity, and Psychological Contract Violation in the RN Will Negatively Predict Intentions to Remain

The final hypotheses examined the ability of all variables to explain intentions to stay. A hierarchical multiple regression was conducted, with turnover (i.e. intention to stay) as the outcome variable. The predictor variables were the three components of commitment, psychological contract violation and breach, and career anchors (mean values were utilised). The commitment and psychological contract data were entered
first based on previous research demonstrating their relationship with turnover.

Significant models were found, Model 1 $F(5,509) = 90.396, \ p = .000$, and Model 2 $F(13,501) = 41.498, \ p = .000$; see Table 2.6.

Table 2.6
Predictors of Turnover Intentions

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1 $B$</th>
<th>Model 2 $B$</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>.161</td>
<td>.230</td>
<td>[-.847, 1.306]</td>
</tr>
<tr>
<td>Affective Commitment</td>
<td>.734**</td>
<td>.612**</td>
<td>[.462, .761]</td>
</tr>
<tr>
<td>Continuance Commitment</td>
<td>.264**</td>
<td>.279**</td>
<td>[.160, .398]</td>
</tr>
<tr>
<td>Normative Commitment</td>
<td>.259**</td>
<td>.263**</td>
<td>[.120, .407]</td>
</tr>
<tr>
<td>Psychological Contract Breach</td>
<td>-.104</td>
<td>-.080</td>
<td>[-.216, .055]</td>
</tr>
<tr>
<td>Psychological Contract Violation</td>
<td>-.100</td>
<td>-.085</td>
<td>[-.198, .028]</td>
</tr>
<tr>
<td>Technical Functional</td>
<td>.218</td>
<td></td>
<td>[-.003, .439]</td>
</tr>
<tr>
<td>General Managerial</td>
<td>.134</td>
<td></td>
<td>[-.069, .336]</td>
</tr>
<tr>
<td>Autonomy</td>
<td>.205*</td>
<td></td>
<td>[-.389, -.021]</td>
</tr>
<tr>
<td>Security/Stability</td>
<td>.380**</td>
<td></td>
<td>[.203, .557]</td>
</tr>
<tr>
<td>Entrepreneurial Creativity</td>
<td>-.110</td>
<td></td>
<td>[-.252, .032]</td>
</tr>
<tr>
<td>Service/Dedication</td>
<td>-.151</td>
<td></td>
<td>[-.336, .035]</td>
</tr>
<tr>
<td>Pure Challenge</td>
<td>.029</td>
<td></td>
<td>[-.163, .221]</td>
</tr>
<tr>
<td>Lifestyle</td>
<td>.265**</td>
<td></td>
<td>[-.428, -.103]</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.470</td>
<td>.518</td>
<td></td>
</tr>
<tr>
<td>$F$</td>
<td>90.396**</td>
<td>41.498**</td>
<td></td>
</tr>
<tr>
<td>$\Delta R^2$</td>
<td>.048</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\Delta F$</td>
<td>6.264</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. CI = confidence interval

* $p < .05$. ** $p < .01$
Model 2 was able to account for 52% of the variance in intentions to stay. Affective, continuance and normative commitment, along with the career anchor of Security/Stability were all positive predictors, with affective commitment being the most influential. The career anchors of Autonomy and Lifestyle negatively predicted intentions to stay. Psychological contract breach and violation when combined with commitment and career anchors did not predict turnover.

Hypothesis 6a was only partially supported; all commitment components were predictive but the only career anchor to predict intention to remain was the anchor of Security/Stability. Hypothesis 6b was also partially supported, with Autonomy and Lifestyle negatively predicting intentions to remain in the RN. Psychological contract breach and violation were not significant predictors.
Discussion

Overall, the analyses conducted have provided initial insights into the relative importance of career aspirations (i.e. career anchors) for meeting expectations, encouraging commitment and retaining RN personnel. The results demonstrate that affective commitment, normative commitment and the career anchor of Security/Stability to be positive predictors of intentions to stay in the RN, whilst career aspirations of Autonomy and Lifestyle were negative predictors ($H_{6a}, H_{6b}$). Turnover intentions, commitment and psychological contract violation were found to differ across tenure points, as did career anchor preferences ($H_{5a}, H_{5b}, H_{5c}$). Additionally, career aspiration preferences were found to differentially influence psychological contract violation ($H_3$), affective commitment, normative commitment ($H_4$) and intentions to stay in the RN ($H_2$). In general, the distribution of career anchors across the RN were found to be similar to some previously researched populations, although not all.

Results demonstrate that career anchor preferences within the RN are analogous to other organisations and populations, but only those that reflect heterogeneous groups with a range of job types (e.g. Danziger & Valency, 2006; Steele, 2009; Yarnell, 1998). The distribution within the RN was not similar to white collar based occupational groups (Crepeau et al., 1992; Igbaria et al., 1991; Marshall & Bonner, 2003; Ramakrishna & Potosky, 2003; Schein, 1978, 1990). This finding highlights that individuals who join the RN are different to those within certain sectors, but similar to others in terms of what they desire from their career. The utility of this can be applied to recruitment activities, in that the RN could consider individuals from similar organisations knowing they are more likely to have similar career aspirations to those present within the RN and therefore be a better ‘fit’. This is of course based on the current aspirations found within the RN being considered a good ‘fit’.

Differences were found in the career anchor preferences of RN personnel. Single dominant career anchors were found for the majority of the sample ($H_1$). This supports the initial supposition held by Schein (1990, 1996). However, multiple career anchor preference was also found, with just under a quarter of the sample found to demonstrate this preference. This supports previous research which has suggested multiple anchor preference to be common (Chapman & Brown, 2014; Danziger & Valency, 2006; Feldman & Bolino, 1996; Ramakrishna & Potosky, 2003; Tan & Quek, 2001). The pattern of career anchor preferences found reveal that this theory is relevant to the RN, demonstrating similar patterns and trends found in other research. However,
consideration of whether these preferences are positive or negative for the RN is important, particularly for career management strategy. Understanding the differences and different career-related needs and motivations of individuals through career is suggested to be important (Oosthuizen, Coetzee, & Mntonintshi, 2014), with career fit (career anchor & job/organisation) important for work motivation (Medsker & O'Connor, 2015). Providing reflection on one’s career anchor is suggested to provide individuals with valuable insights to assist them in making career decisions (Chapman, 2015). If personnel do not have a dominant career anchor, they may be more flexible in their desires, meaning they may be easier to retain; whilst those with dominant anchors may be very ‘set’ in their desires and therefore less likely to respond positively to retention related strategies.

A third of personnel demonstrated a preference for Lifestyle as their dominant career anchor. This high preference has also been reflected in other research (Danziger et al., 2008; Steele, 2009; Tan & Quek, 2001; Yarnell, 1998), and may indicate support for the suggested change in individuals career anchor over time (Quesenberry & Trauth, 2012) and changes in career anchor distribution over the years, with Lifestyle in particular increasing (Feldman & Bolino, 1996; Schein, 1996). For the RN, individuals with a preference towards Lifestyle were less likely to stay ($H_2$), and demonstrated lower affective, normative and overall commitment towards the organisation ($H_4$). It could be argued that Lifestyle, as a preference, is one of the least congruent anchors to the organisational culture of the RN. Lifestyle aspirations represent a desire for integrating and balancing the needs of the individual, family and career, focusing on flexibility and respect for personal and family concerns (Schein, 1990). Achieving this alongside Service needs and demands can be a challenge, for example personnel can be expected to be deployed for up to nine months at a time and move locations at fairly short notice. Previous research has suggested preferences towards lifestyle choice to be linked to lower objective career success, but greater success towards life outside of work (Tremblay et al., 2014). From the RN perspective this could be considered negative due to the greater focus towards non-work rather than work-related aspects. If personnel with this preference are more concerned about the external aspects of their life, then they are less likely to put themselves out for the organisation. This is reflected in the lowered commitment levels found within this study, and may suggest that this career anchor preference is not consistent or aligned with the profile of the organisational culture.
Results found that Autonomy, Entrepreneurial Creativity, and Lifestyle negatively predicted intentions to stay ($H_2$). Lifestyle and Autonomy continued to negatively predict intentions to stay when combined with organisational commitment, indicating the importance of these anchors for career management decisions and interventions ($H_2$). The inference from this is that these preferences are less aligned to the organisational culture, hence the reduced likelihood of staying in the RN. It may be that opportunities available within the RN career structure do not align with these desires, particularly those with a Lifestyle preference (accounting for a third of the sample). Additionally, aspects associated with being autonomous and creative may not be actively encouraged within the RN, based on the hierarchical structure and requirement to follow orders associated with military service. For these anchor preferences it may be that the opportunities available within a military career are not conducive to what is aspired, consequently do not align to the organisational culture. If personnel do not see opportunities for their career, they are unlikely to feel driven towards sustaining membership of the organisation. For example, normative commitment (i.e. feelings of obligation) has been suggested to be influenced by career growth opportunities (Weng et al., 2010) which if not fulfilled leads to searching for alternative options (Coyle-Shapiro, 2002; Kossek et al., 1998; Sturges et al., 2002).

Conversely, other career anchors could be considered as more conducive for the RN. Specifically commitment was found to be higher in personnel demonstrating a preference towards Technical Functional (specialist knowledge), Pure Challenge, and Service/Dedication ($H_4$), which partially supports previous research which has found the former two to be important for commitment (Ghalavandi et al., 2012). These results appear to be positive, based on the relationship between commitment and turnover previously found (Baruch & Winkelmann-Gleed, 2002; Brunetto et al., 2012; Hackett et al., 1994; Joo & Park, 2010). Results from this study also found evidence for career anchors likely to be more aligned to the RN organisational culture based on their relationship with turnover intentions. Notably, Technical Functional, General Managerial, Security/Stability and Pure Challenge preferences were found to positively predict intentions to stay ($H_2$). It should be noted that the psychometric properties of the Technical Functional anchor were found to be limited (see Results, p. 21), so findings associated with this anchor should be used with some caution. Previous research with teachers found Security/Stability was not influential over turnover (Cobbold & Asamani, 2015), suggesting the occupation may be influential over these relationships. These anchors intuitively appear to be more akin to the RN
organisational culture, for example demonstrated through specialist engineering knowledge, general knowledge required when changing jobs every two years, operational challenges, and security of employment. Meeting such aspirations seems to result in positive intentional behaviour regarding turnover. This finding supports previous suggestions that alignment between career anchors and the dominant profile of an organisation to result in positive outcomes (Feldman & Bolino, 1996). It also highlights the importance of finding ones true ‘calling’ to enhance motivation (Medsker & O'Connor, 2015).

These findings advance theoretical knowledge regarding the relationship between career anchor preferences, commitment and psychological contract violation levels in RN personnel. The relationships found provide an initial evidential basis to understand the importance of helping personnel to discover their career preference. Having a better mutual understanding of individual capabilities and career anchors will be a good way to support choices and career decisions (Tremblay et al., 2014). To this point, the supposition that Security/Stability was important for some personnel was based only on attitudinal and anecdotal evidence. The new empirical evidence should be used to appropriately manage RN careers, particularly based on the costs associated with training individuals, identifying those more likely to remain and thereby mitigating the potential development of turnover intentions. They highlight the need to recognise and understanding the differing career aspirations of personnel, and how these may vary through career.

Results provide a suggestion that career anchors may be more flexible rather than stable. Personnel late-career were found to be less likely to demonstrate a tendency towards Autonomy and Entrepreneurial Creativity; whilst those early career were more likely to have a preference towards Service/Dedication and Pure Challenge ($H_{5a}$). These results suggest that there may be differences between preferences towards career anchors depending on career stage, possibly demonstrating an element of flexibility. Previous research has suggested career anchors to develop during early employment and evolve into a stable preference (Dabos & Rousseau, 2004; De Vos et al., 2003; Rousseau, 2001), whilst others suggest a more flexible and continuous evolvement to occur over time (Conway & Briner, 2002; Payne et al., 2014), as the needs of the individual changes (Quesenberry & Trauth, 2007). If the former suggestion is true, one may expect not to find any differences between career stage and the tendency towards each of the career anchors. This was not found to be the case.
Based on these findings, career management processes will need to be cognisant of the effect of career stage on aspirations. Due to the bottom-fed structure of the RN, senior strategic leaders need to be ‘grown’. This study suggests that individuals demonstrating the qualities associated with autonomy and creativity are less likely to occur in later career stages, implying a lack of personnel with these preferences. However, research has suggested that the qualities associated with these anchors are desirable characteristics for strategic leadership (Graetz, 2000). This may have negative implications for the RN, although the numbers of personnel required in the higher echelons are lower. It may be that general attrition results in loss of those demonstrating these career preferences, but still retains the necessary numbers to fulfil the positions needed. In terms of supporting or refuting the evidence towards the flexibility or stability of career anchors, it should be noted that this study utilised cross-sectional data, therefore did not measure the same people over early, mid and late-career stages. A longitudinal study would be needed to determine whether the differences found truly reflected flexibility and evolvement of career anchors. This would need to explore whether there is a point in career when stability occurs, or whether changes, if any, are perhaps related to generational differences or indeed general maturational changes.

Career stage differences were also found to have an impact on the likelihood of personnel experiencing a psychological contract violation, but not breach ($H_{5b}$). Those in late-career were particularly less inclined to have experienced a contract violation. With a minimum of twelve years’ service, these individuals may be at a point in their career where they are more stable regarding what they want from their career, hence why less violation was experienced. This is supported by previous research which has suggested psychological contracts to develop during early employment and to then become relatively stable (Dabos & Rousseau, 2004; De Vos et al., 2003; Rousseau, 2001). This may explain why less violation is experienced. However, this depends on what constitutes ‘early’ career. In a potential career of forty to fifty years, twelve years could be considered early.

The reverse of this finding is that contract violation was more likely to be experienced by those early and mid-career in that these individuals were more likely to believe the organisation to have broken its promise (Xavier & Jepsen, 2014). This reflects a need to focus on ensuring the obligations and expectations, important for discretionary behaviours (S. L. Robinson & Morrison, 1995), made during the first
eleven years within the RN are kept. Considering the critical need to grow personnel upwards to fill senior positions, this is of crucial importance, particularly as career development is considered to be an important element of the psychological contract (Obuya & Rugimbana, 2014). The relationship of career stage and contract violation is important to understand, particularly based on the greater behavioural influence associated with violation (Rousseau, 2001; Xavier & Jepsen, 2014), potentially reflecting a greater likelihood of enacting behaviours such as turnover.

Behaviours such as turnover and commitment levels of RN personnel were found to be negatively correlated with psychological contract breach and violation. As breach and violation increased, commitment and intentions to remain decreased, which is in line with previous research (Bhatnagar, 2014; Bunderson, 2001; Cassar & Briner, 2011; Coyle-Shapiro & Kessler, 2002; Johnson & O'Leary-Kelly, 2003; Lester et al., 2002; S. L. Robinson & Morrison, 1995; Sturges et al., 2005; Zhao et al., 2007; Zhou et al., 2014). When looking at the components of commitment, this study found the relationship was greatest between affective commitment and psychological contract violation which aligns with the proposition of violation being the affective reaction to a breach (Morrison & Robinson, 1997; Xavier & Jepsen, 2014). For the RN, this means there is a need to prevent and/or identify when psychological contract breach may be occurring in order to avoid affective related outcomes associated with violation. Part of this will also be to understand how commitment related behaviours differ through career in order to understand when affective related behaviours are more likely to influence decisions.

Personnel in early-career were found to be more committed towards the RN based on the need to be employed (continuance commitment) and feelings of obligation (normative commitment; \( H_{5c} \)). This suggests that on joining the RN, personnel are more concerned with the benefits and obligation towards the organisation, rather than an emotional connection. The negative element is that these individuals were also found to be more likely to experience violation (\( H_{5b} \)), indicating a fragile relationship between commitment at this career stage and the potential for negative reactions to broken expectations. This could be explained by the proposition that individuals can enter the employment relationship with slightly exaggerated personal obligations and overly optimistic expectations from the employer (Payne et al., 2014). The experience of violation may represent the setting in of reality (e.g. ‘honeymoon-hangover effect’, Boswell, Shipp, Payne, & Culbertson, 2009), simply the development of a realisation
that things may not be as imagined. Conversely, those in the late-career stage were found to have greater affective commitment and a lower likelihood of experiencing violation ($H_{5b}, H_{5c}$), which aligns to previous research which suggests commitment to be linked to fulfilment of expectations (Bunderson, 2001; Coyle-Shapiro & Kessler, 2000; Johnson & O’Leary-Kelly, 2003; Lester et al., 2002; Sturges et al., 2005). However, other research has suggested that older individuals are more likely to experience contract breach (Bal et al., 2008) and younger individuals to have higher commitment. Support was found for the latter proposition in relation to overall commitment, but not for contract breach (based on age & career stage being highly correlated). Violation levels were found to vary, providing the first empirical evidence for what has to date been anecdotal evidence for the role of broken expectations within the RN. It is unclear from this study at what exact point the focus of commitment changes from benefits to emotional attachment. The change to the latter is important for turnover intentions ($H_{6a}$), so may be an area for further investigation. Work value, identity, promotion and training development opportunities are associated with affective commitment (Meyer & Herscovitch, 2001; Rhoades, Eisenberger, & Armeli, 2001). This indicates areas to focus on to help develop this component of commitment. However, it should also be noted that affective commitment is suggested to be more affected by perceived threats to one’s job (e.g. downsizing, Marques, Galende, Cruz, & Ferreira, 2014), meaning that the threat of redundancy may be negative – a topical fact present at the time of this study. This is an important consideration for the RN to recognise, particularly with future Defence reviews proposed.

Limitations and Further Research

The main limitation associated with this case study is the cross-sectional design and possible construct validity. Cross-sectional designs take a snapshot of opinions at one time point, so reflect attitudes and opinions at that point. This design allows for detection of prevalence, but differentiating cause and effect from association can be a challenge, and inflation of correlations can occur (Lindell & Whitney, 2001; Mann, 2003).

The method used in this research may have introduced bias, in that a single method has been used to measure each of the constructs included (Lund Research, 2012; Trochim, 2006). Additionally there may have been self-report related bias. The latter is suggested to be influenced both by the individual’s motivation and also the construct
being measured (Donaldson & Grant-Vallone, 2002), and can lead to inflation due to common method variance (Spector, 2006). Measurement bias was controlled for as much as possible, through the use of well validated and reliable measures. The results are likely to be comparable within the sample. However, for more confidence, further research that replicates the measures used would provide comparisons to understand whether the findings are representable.

The sample size was good, achieving the necessary numbers quoted through a power calculation. In terms of representation, a greater number of Senior Ratings and Officers would help equal out the rank differences found within this study, allowing for investigation of differences at this level. Although the sample used within this study was representative of the basic shape of the RN.

Data collection was conducted during a time of change within the RN, i.e. just prior to redundancy announcements. This may or may not have influenced feelings of uncertainty. A duplication study would provide some scope as to what impact context and time period had on these results, if any.

The level of reliability found for the career anchor scale was found to vary within this research. Three of the anchors fell below the generally accepted level of .7. The potential limitations regarding use and interpretation of Cronbach’s α were discussed in the results section. This study did not aim to provide a construct validation of the career anchor scale. Previous research has completed examination of the scale with some supporting the eight anchors used within this study (e.g. Crepeau et al., 1992; Danziger & Valency, 2006; Igbaria et al., 1991; Tan & Quek, 2001) whilst others demonstrating slightly different patterns (e.g. Danziger et al., 2008; Marshall & Bonner, 2003; Ramakrishna & Potosky, 2003). The reliability levels found within this study reflect those of previous research and are noted; further research should look to duplicate the results and explore the construct of the scale within a military population.

In terms of future research, a number of suggestions are given. As this was the first study to explore career anchors within the RN, a replication study would be of benefit to explore whether the distribution found was repeated. This would provide confirmation of the initial exploration of this study, and provide a greater evidential base upon which to base potential strategy related decisions.

Research should explore whether the attributes associated with autonomy and creativity related career anchor preferences are what are required for senior strategic leadership positions within the RN. This will allow the RN to determine whether more
needs to be done to encourage and retain personnel with these attributes and preferences.

Work could be conducted to explore the alignment between the career anchors and roles within the RN to determine whether there are any clear cross-overs. Schein (1992, 1996) believes the career anchor resides in the individual, and is not necessarily part of a job. Congruence is still important in terms of greater alignment between anchor and job leading to more positive attitudes (Feldman & Bolino, 1996). Previous research, including this research, has made assumptions that career anchors suit certain jobs (e.g. Bester & Mouton, 2006; Tan & Quek, 2001); this was explored by Steele (2009) who looked to match career anchors to jobs within the Police. Similar work could be conducted within the RN to determine the actual perceived level of congruence.

To address the limitations associated with cross-sectional designs, future research would benefit from taking a longitudinal approach exploring the same variables and participants. Specifically to explore whether career anchors are flexible or stable; how psychological contract develops; and when attitudes towards commitment change through career. This would provide a greater level of confidence in the propositions made in this study. Part of this should involve following the development of expectations from recruitment, to selection, through initial training, and into early and mid-career. This would provide important information as to when violation may begin to become a problem, allowing appropriate retention related action to be initiated before turnover intentions are developed. Research could also consider the use of a civilian control group to determine whether any significant differences are present; this could be drawn from an organisation external to the RN, or indeed utilise the Civil Servants working within the RN.

**Conclusion and Practical Implications**

This is the first study to have reviewed the potential application of career anchors and their relationship with commitment and psychological contract within the RN. It has provided an original insight into the variety of aspirations related to careers of personnel in a generally inaccessible organisation. Additionally, it has added to the increasing variety of populations that career anchors have been applied to, thereby enhancing the research based in this area. Understanding career anchor preferences will be of practical use for the RN in terms of helping to guide selection decisions and development opportunities by matching opportunities to the aspirations associated with
each career anchor. Reassurance has been provided to other practitioners using these measures with military populations. This study adds to the theoretical understanding of what motivates and drives personnel within the RN, and indicates that RN personnel may not be as different to other populations as anecdotally suggested.

The key findings from this chapter are that certain career anchors appear to be more important for intentions to remain in the RN, demonstrating previously unknown knowledge. Lifestyle was the most popular anchor, but demonstrated negative relationships with intentions to stay and commitment. It is suggested that career anchor preferences to possibly differ based on career stage, indicating some potential flexibility with career anchor preference although this could be due to generational or maturational differences; more research is required taking a longitudinal approach to support this supposition.
Chapter 3 – Intervention Process: Exploring the Effectiveness of Moving Into a Career Manager Position Within the Royal Navy

Changing jobs can be a stressful and nerve wracking process (Ellis, Bauer, & Erdogan, 2015). More often than not, individuals move from a job or role that they are comfortable with, know implicitly, and have mastered. Their new role, or even new organisation, will be unfamiliar and have new challenges and requirements. Organisational socialisation is recognised as a key process to ensure effective and efficient integration of newcomers within an organisation (Antonacopoulou & Guttel, 2010; Ellis et al., 2015).

Defined as the process through which individuals internalise experiences which alter behaviours, beliefs, and emotions (Luong, Rauers, & Fingerman, 2015), socialisation is considered to be a learning process (Ardts, Jansen, & van Der Velde, 2001). It is suggested to occur both formally, by being segregated from others and training off the job, and informally, in which little separation occurs between newcomers and existing employees (Bauer, Bodner, Tucker, Erdogan, & Truxillo, 2007). When applied to an organisation, socialisation is the process by which newcomers transition from being outsiders to insiders (Bauer et al., 2007).

This transition involves a period of intense learning (Milligan, Margaryan, & Littlejohn, 2013), and focuses on a number of aspects. These include: developing knowledge of the organisational structure (Antonacopoulou & Guttel, 2010); learning job tasks; understanding priorities and time (role clarity); building confidence (self-efficacy); and becoming accepted by peers (social acceptance; Bauer et al., 2007). Individuals learn what is expected of them in the job through transferring job and task relevant information learned during socialisation. Self-efficacy, a situation-specific form of self-confidence (Simpson & Weiner, 2012), is suggested to moderate the learning process of socialisation (Antonacopoulou & Guttel, 2010). Additionally it has been found to influence transfer of learning, which itself is influenced by the perceived utility of the training (Burke & Hutchins, 2007). This training is often delivered through staff induction programmes (Antonacopoulou & Guttel, 2010).

Induction represents a type of organisational socialisation which includes actions for both the organisation and newcomer to ensure adjustment to a new role is effective (Tuttle, 2002). Their aim is to impart values and expectations (Ardts et al., 2001) to help enable individuals to become functional members of the organisation (Antonacopoulou & Guttel, 2010), whilst also defining the desired character of the
organisation (Birnholtz, Cohen, & Hoch, 2007). This can be achieved either individually or collectively. An example of a collective process would involve newcomers going through common experiences as part of a group, whereas the individual approach would maintain separation (Bauer et al., 2007). Within the Royal Navy (RN), both of these approaches are used, dependent on the type of role an individual moves into and the level of complexity or responsibility involved, for example more senior roles tend to be more individualistic.

Actively becoming embedded in the organisation increases relationships with others, and perceived fit to the organisation (Jiang, Liu, McKay, Lee, & Mitchell, 2012; Mitchell, Holtom, Lee, Sablynski, & Erez, 2001). Peers are an important source of knowledge and learning opportunity, which is provided through discussion, vicarious learning, coaching and mentoring (Eraut, 2007; Filstad, 2004; Milligan et al., 2013). Within the RN this is seen within handover processes between previous and new job incumbents, and support from others. However, research has suggested that to foster commitment, organisations should minimise the influence of current or previous job incumbents, and instead encourage newcomers to develop their own methods for managing their new role (Allen & Meyer, 1990). Additionally, the impact associated with socialisation measures are proposed to reduce over time, as an individual develops and settles into their new environment (Antonacopoulou & Guttel, 2010). This calls into question the utility of socialisation and induction for individuals and the influence of others in this process. Further to this is consideration of potential differences between organisation and department level induction, and levels of experience of those participating in inductions.

Career development opportunities can often involve individuals moving within the organisation to perform new roles (Campion, Cheraskin, & Stevens, 1994; Milligan et al., 2013), but also moving to new organisations. These individuals are described as experienced newcomers i.e. have previous work experience (Carr, Pearson, Vest, & Boyar, 2006). The majority of research related to socialisation of newcomers has focused on initial entry of inexperienced newcomers (i.e. those new to work), rather than consideration of experienced newcomers (i.e. those with work experience; Cooper-Thomas, Anderson, & Cash, 2012; Milligan et al., 2013). Meta-analyses have found that socialisation tactics, such as induction programmes, to be less effective for workers considered as experienced newcomers compared to inexperienced newcomers (Bauer et al., 2007; Saks, Uggerslev, & Fassina, 2007). The distinction between inexperienced
and experienced newcomers and the associated effect of socialisation tactics such as induction is particularly pertinent for the RN.

Career development within an organisation can often involve internal role changes (Milligan et al., 2013), which is the policy adopted within the RN. Once personnel have joined and completed their training, they enter into a cycle of changing jobs approximately every two years. This presents an uncommon socialisation and adaptation process for experienced newcomers, and also questions the context associated with newcomers (e.g. to work, to a job, or to an organisation). After joining the RN, socialisation is not to the organisation, but to the new role or department that personnel have been assigned to as part of their career development. Not all new roles will involve an induction process. Some roles involve a handover process between the previous job holder and the newcomer. One particularly important role that some personnel will be required to perform is that of career management. These individuals are required to manage the careers of RN personnel, often looking after the careers of up to 600 personnel. Ensuring new Career Managers (CM) are clear on the tasks and structure of managing careers, and have the confidence to do so is important.

As part of a new internal RN strategy, there was a requirement to consider the utility and effectiveness of the current induction programme provided to new CM. The role of CM may be changing because of modifications occurring through people strategy. With this in mind, this research will seek to explore, from the perspective of current CM, the efficacy of elements of the career management process within the RN. To achieve this, two studies were completed. The first, an initial qualitative exploration of the attitudes and opinions of CM (Study 1), and the second the development and trial of a pilot intervention to address an issue raised from the first study (Study 2). This constitutes an unexplored area in the socialisation and induction related literature.
CHAPTER 3 – INTERVENTION PROCESS

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Study 1

Before suggesting changes to the career management process a base line understanding of the current perceptions and opinions of CM was required. To this end, an initial qualitative scoping study was conducted to explore the retrospective experienced newcomer experience.

Method

Participants

An initial sample size of twelve was planned, which is considered adequate for exploring common perceptions and experiences of a relatively homogeneous group (G. Guest, Bunce, & Johnson, 2006) when conducting qualitative research. Other researchers suggest having an initial sample size of ten, and continuing until three successive interviews reveal no further themes (Francis et al., 2010); whilst others suggest six to eight to avoid becoming overwhelmed by data (Storey, 2007). For this study, sample size and distribution were less critical than including particular cases (Baker & Edwards, 2012), in this case commonality in position and experience. The initial sample size proposed was also deemed sufficient for potential data saturation.

Saturation is a point in data collection and analysis where similar instances repeatedly occur, with new information producing little or no change (Glaser & Strauss, 2009; G. Guest et al., 2006). The aim of this research was to understand the overarching perceptions and experiences of a relatively homogenous group. Therefore, according to literature on saturation, six to twelve interviews were required, which would allow sufficient and meaningful overarching themes to be developed (G. Guest et al., 2006).

The sample was identified through purposive sampling in order to identify a defined group that would be able to provide relevant experiences. A request for participants was distributed to the population and a total of eleven volunteers assigned as CM volunteered (Logistics $n = 3$; Warfare $n = 3$; Engineering $n = 2$; Royal Marines $n = 3$). Despite being one fewer than the twelve specified $a$ $priori$, this was considered practically acceptable. Participants included Ratings/Other Ranks and Officers, with a mean age of 38 years ($SD$ 5.45) and length of service of 16.9 years ($SD$ 6.02). The majority of participants were male (male $n = 7$; female $n = 4$) and the mean length of time in post for the sample was 16.2 months ($SD$ 8.65; on average personnel will spend
twenty-four months in post). Participants were assigned a unique code for analysis purposes\(^2\) whilst retaining anonymity.

**Materials**

The interview schedule included an introduction, an initial broad question to settle the interviewee, the main questions of the interview, including prompts only where required, a broad question to cool down, and closure (Robson, 2002). Questions were framed in order to extract information regarding participants’ perceived experience of being a CM. These were created based on a review of relevant academic literature (e.g. talent management, Cannon & McGee, 2011; socialisation, Antonacopoulou & Guttel, 2010; & training, Burke & Hutchins, 2007), with an aim to take a broad view to elicit the experiences of personnel within the career management role, rather than pre-empting their responses. Five main questions were created to explore aspects related to views on talent management, socialisation and training involved in career management. The interview schedule was piloted with a number of desk officers for readability and understanding, resulting in no changes. The interviews took between forty-five to sixty minutes to complete. The full interview schedule can be found in Appendix G and the participant information sheet in Appendix H.

**Design**

A qualitative interview approach (King, 2004) was adopted using a semi-structured interview method. This allowed exploration of individual perceptions of processes and reality (King, 2004; Robson, 2002). Standardised and pre-determined open-ended questions were used, as well as probing questions as necessary. This approach allows some flexibility in question order based on the flow of the conversation (Coolican, 2009; Robson, 2002; Turner III, 2010). Ethical considerations included confidentiality and anonymity, right to withdraw, and voluntary participation. For full information on ethical permission see Chapter 1 (p. 7).

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\(^2\) This consisted of a number, gender, branch, and rank they were responsible for; for example 2-F-E-OR is participant number 2, female, Engineer, Other Ranks
CHAPTER 3 – INTERVENTION PROCESS

Procedure

Interviews were conducted on a one-to-one basis in a private room. The research was outlined, including the purpose of the study, what was going to happen, anonymity, right to withdraw, time, what the results would be used for and who the results would be reported to (Turner III, 2010). Participants were asked to give their informed consent to participate in the research and also to having the interview recorded. They were informed that if any names were used during the interview, these would be anonymised during transcription.

On completion of the interview participants were thanked for their involvement, and the recording was stopped. There were times when the ‘hand on the door’ phenomenon occurred (Robson, 2002), that is when the recorder was turned off the interviewee provided additional information. In these instances a note was taken of the point made to ensure no data were lost. By the tenth interview, data saturation was occurring.

Transcriptions were completed and uploaded to MAXQDA qualitative software (VERBI Software, 1995-2006); this was used to help organise, code, annotate and support the process of analysing and interpreting the data. The theoretical framework taken for the analysis was an essentialist/realist epistemology (Bem & de Long, 2003). This stance placed the participants’ accounts of their experience and perceptions to be direct reflections of reality (Bem & de Long, 2003; Braun & Clarke, 2006; Harper, 2012). Based on its flexibility, thematic analysis was selected as the appropriate approach, allowing identifying, analysing and reporting of patterns in the data (Braun & Clarke, 2006). The patterns within the data were identified through an exploratory (inductive) approach (Bem & de Long, 2003; Braun & Clarke, 2006; G. Guest, MacQueen, & Namey, 2012; D. R. Thomas, 2006), linking the themes to the data – no predetermined codes or categories were used. The themes identified were at the semantic (explicit) level, providing the surface meanings of the data (Braun & Clarke, 2006) which was sufficient for this topic. The themes and sub-themes were created based on prevalence (Braun & Clarke, 2006), that is if it appeared in at least two transcripts.
Results & Discussion

Exploration of the interviews began during transcription, and on subsequent re-reads. Initial codes were generated in the form of ideas, concepts and keywords from within the data (Taylor & Gibbs, 2010). Meaningful titles were created to illustrate these codes; this process was systematically completed for all transcripts. Codes were collated into potential themes of interest (Braun & Clarke, 2006); a theme was judged to be important if it appeared in at least two transcripts or more. Three main themes, with corresponding sub-themes were created from the analysis (See Table 3.1).

Table 3.1 Summary of the Themes and Sub-Themes

<table>
<thead>
<tr>
<th>Super-ordinate theme</th>
<th>Sub theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparing for the role of CM</td>
<td>Self-efficacy (intuition and personal experience)</td>
</tr>
<tr>
<td></td>
<td>Reality of self-inefficacy (unpreparedness)</td>
</tr>
<tr>
<td></td>
<td>Training efficacy (utility/sufficient/relevant)</td>
</tr>
<tr>
<td>Accomplishing the role of CM</td>
<td>Interpreting talent</td>
</tr>
<tr>
<td></td>
<td>Perceived barriers</td>
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<tr>
<td></td>
<td>Information utility</td>
</tr>
<tr>
<td>Adverse elements in the role of a CM</td>
<td>Extraneous tensions</td>
</tr>
<tr>
<td></td>
<td>Pessimistic perceptions</td>
</tr>
<tr>
<td></td>
<td>Unrealistic time pressures</td>
</tr>
<tr>
<td></td>
<td>Inadequacy of resources</td>
</tr>
<tr>
<td></td>
<td>Interrelationship continuity and coherence</td>
</tr>
</tbody>
</table>

Due to word limit constraints and the defined requirements for this component of this qualification, only the theme which resulted in the intervention outlined in Study 2 will be discussed, namely ‘Preparing for the role of a CM’ (see Appendix I for all themes). This theme consisted of three sub-themes which explored feelings of self-efficacy (intuition & personal experience), the reality of self-inefficacy (unpreparedness), and training efficacy (utility, sufficiency & relevance).
On entering their role as a CM, participants discussed utilising previous experience and knowledge acquired to date, and then applying this to their new job situation in order to conduct their role;

“We’ve all got experience on HR, the very nature of what we do gives us experience of HR...Divisional Officer, as a Manager, as a Head of Department...feeds into your background in HR”

“Many would say the training you’ve had has actually been through career”

“...it’s just based on your experience I guess”

This reflects a reliance on information, skills and awareness acquired through experience (Simpson & Weiner, 2012). However, it is not necessarily about the type of experience being used, but how this is translated into the new situation (Goldstone, 2012; Nokes, 2009) that is important.

Successful and effective transfer of learning is suggested to be dependent on a number of factors (Argote & Ingram, 2000; Dong-Gil, Kirsh, & King, 2005; Goldstone, 2012; Nokes, 2009) such as the fit between the knowledge available within the individual, and the characteristics of the environment they are transferring that knowledge to (Nokes, 2009). Prior experience is suggested to either be directly suited or clash irrevocably with new posts (Higgins, 2005), possibly limiting positive outcomes (Dokko, Wilk, & Rothbard, 2009). So transferring knowledge is not just a function of considering the similarity between the original experience and the new situation; but also the similarity of work experience and tendency of the individual to be able to make connections between those two contexts (Goldstone, 2012). The results from this study seem to suggest that personnel were ‘forcing’ previous knowledge (e.g. Divisional Officer experience) to fit the new situation. This may be based on not being aware of what knowledge was required for the new role or, more likely, the ‘can-do’ attitude associated with RN personnel. If the knowledge brought to the new role is, in reality, analogous and congruent there is likely to be a positive experience; however this did not seem to be the case;

“...what the job actually is and what I expected are very different things”

“...massively different, it’s a big learning curve”

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3 10-M-E-OF (Male, Engineering, Officer CM)
4 8-M-LOGS-OF (Male, Logistics, Officer CM)
5 3-F-LOGS-OR (Female, Logistics, Ratings CM)
6 6-F-LOGS-OR (Female, Logistics, Junior Rating CM)
“I had no experience of career management I suppose, at the level that we’re doing it here”

“Fourteen months into the job, I’m still learning new things about how to career manage...I’ve come down and went ohh, this is nothing like I thought it was going to be”

Effective connections or transferring knowledge is likened to three mental ‘bridges’ to be crossed (Perkins, 2012), namely ‘detect’, ‘elect’ and ‘connect’. It is suggested that an individual needs to detect a potential link between what they know and the new situation; then elect to explore the link to the similarities and applicability to the new situation; finishing with effectively connecting the earlier learning, or knowledge, to the situation or context they find themselves in (Perkins, 2012). The subsequent reality of the job for the CM interviewed was very different; realisation that the similarities were not present resulted in self-doubt. This disconnection between knowledge and the new situation is an important consideration for those appointing individuals to CM posts and for the individual themselves. Participants did not appear to have a realistic understanding of what the job entailed, so could be suggested to have been unable to ‘cross’ the mental bridges required.

A great deal of the learning involved appears to happen on the job, an interaction between a source and recipient, in that knowledge is transferred, or learnt from a source, and then applied by a recipient (Dong-Gil et al., 2005).

“...you just ask in the office, if you don’t know how to do something...You just get advice”

[Had you done anything like career management before you came into post?]

“Never, no”11

“The best source of information is your predecessor and both of us had two week handovers, which was excellent, being able to sit here and talk about the way through”

This can be effective, as long as the quality and relevance of information is appropriate and able to be effectively applied to the area, for example general Human
Resources (HR) skills. HR practitioners required a range of knowledge, skills, specialist knowledge (e.g. talent management, training), strategy, and supportive ability (Armstrong, 2006; Jun-Yen, Chin-Yi, & Chun-I, 2013; Marsden, Caffrey, & McCaffery, 2013). Having these qualities increases effectiveness (Chartered Institute of Personnel & Development, 2006), and are key for CM to acknowledge and implement. Currently there is no training to develop individuals in this area, which was acknowledged:

“...[we do a] very narrow field of HR I would suggest, and that’s perhaps why we don’t look to go out and do more formalised training than we do now. Arguably we might be better at it if we did”

[Is there any training in people management aspects?] “No”

“I think you just ask in the office, if you don’t know how to do something you just say look what do you think we should do with this bloke”

“...you get nothing on managing people”

“...no training [on managing people]...primarily it’s all just about...navigating about JPA [Joint Personnel Administration] and utilising JPA and key data...

With the new people strategy, CM will be required to manage more in terms of HR related tasks. However, results indicate that the current training focuses on process, not, for example, talent management, engagement or development. When people work beyond their perceived capabilities, job dissatisfaction and turnover intentions can occur (Locke & Latham, 2006) which presents a potential issue for newly appointed CM. As an experienced newcomer, in terms of already being in the organisation, these individuals will require socialising into their new role. This insight is useful, and indicates a need to ensure new CM are appropriately supported and given appropriate training, in order that they feel capable to not only execute the process, but also personally manage the individual. The proposed solution was to introduce an additional element to the induction process to help transition personnel into the world of people management more effectively.

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13 10-M-ENG-OF (Male, Engineering, Officer CM)
14 11-M-RM-OR (Male, Royal Marine, Other Ranks CM)
15 2-M-RM-OR (Male, Royal Marine, Other Ranks CM)
16 3-F-LOGS-OR (Female, Logistics, Other Ranks CM)
17 Online HR system
Study 2

Study 1 identified a need to ensure new CM are appropriately supported and made to feel capable to not only execute the process associated with career management, but also personally manage the individual through HR related concepts. Based on this requirement and research highlighting the importance of induction programmes to the socialisation, self-efficacy and turnover intentions of personnel (e.g. Bauer et al., 2007; Chartered Institute of Personnel & Development, 2006; Jiang et al., 2012; Locke & Latham, 2006; Mitchell et al., 2001), a pilot awareness induction package focusing on HR related aspects was designed and implemented into the current induction programme. This is the first time this area has been researched within the RN.

Method

Participants

A power calculation was not performed due to the pragmatics linked to numbers of personnel per career management course and time restrictions associated with the research and organisational requirements. There was a potential total sample of forty-eight participants\(^{18}\), based on an average of eight delegates per course over a one year timeframe. However, after data cleansing and removal of those who failed to complete all questionnaires, the final sample comprised of thirty-two participants who were split across the control \((n = 11)\), workshop \((n = 10)\) and workbook \((n = 11)\) conditions. Unique tracker numbers were used to ensure anonymity, but allow for matching of data over time\(^{19}\).

Materials

After reviewing current best practice in the HR area (Chartered Institute of Personnel & Development, 2014), organisational resources (Institute for Employment Studies, 2014; IES) and considering the future people strategy requirement, five sections were selected for inclusion in the induction package: Overview of general HR issues; Talent development; Employee engagement; Performance and reward; and Employee relations.

\(^{18}\) The sample size was dependent on the actual number of personnel attending the courses during the testing period.

\(^{19}\) This consisted of: Mother’s maiden name, followed by birthday (DD/MM) for example, Smith15/04
Self-efficacy was shown to be important in Study 1; this is supported by the literature (e.g. Antonacopoulou & Guttel, 2010; Bauer et al., 2007), resulting in this being one of the main measures included. An all-purpose measure of perceived self-efficacy applicable to all situational circumstances does not exist; it has been suggested that scales are tailored to the context in question (Bandura, 2006). Based on this, items from the principal Tri-Service attitude questionnaire (Defence Statistics, 2013a) were used along with some additional items with an aim to reflect self-efficacy in relation to career management and HR awareness within the RN.

Data were analysed by means of a Principle Components Analysis (PCA) with orthogonal rotation (varimax). The Kaiser-Meyer-Olkin (KMO) measure verified the sampling adequacy (KMO .789); Bartlett’s test of sphericity, $\chi^2 (136) = 823.657, p .000$, indicated that correlations between items were sufficiently large for PCA, with an average communality of >.719. Five components had eigen values over Kaiser’s criterion of 1 (based on number of variables <30 & mean communality of >.7, Field, 2009); this was also confirmed in the Scree plot); however, two factors had only two items per construct and had low reliabilities ($\alpha .66; \alpha .47$) so were excluded from further analysis (Field, 2009). This resulted in three components (see Table 3.2). These were labelled: Self-efficacy ($\alpha .82$), Job connection ($\alpha .86$) and HR understanding ($\alpha .85$). A single item was used to measure job satisfaction (see Appendix K for items; see Appendix L for Participant Information sheet).
Table 3.2
Factor Loadings for Exploratory Factor Analysis with Varimax Rotation of all Questionnaire Items

<table>
<thead>
<tr>
<th></th>
<th>Job Connection</th>
<th>Self-Efficacy</th>
<th>HR Understanding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qu 1</td>
<td>.750</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qu 2</td>
<td>.826</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qu 3</td>
<td>.716</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qu 4</td>
<td>.829</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qu 5</td>
<td>.736</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qu 8</td>
<td></td>
<td>.708</td>
<td></td>
</tr>
<tr>
<td>Qu 9</td>
<td></td>
<td>.574</td>
<td></td>
</tr>
<tr>
<td>Qu 12</td>
<td></td>
<td>.685</td>
<td></td>
</tr>
<tr>
<td>Qu 13</td>
<td></td>
<td>.811</td>
<td></td>
</tr>
<tr>
<td>Qu 15</td>
<td></td>
<td>.740</td>
<td></td>
</tr>
<tr>
<td>Qu 16</td>
<td></td>
<td></td>
<td>.834</td>
</tr>
<tr>
<td>Qu 17</td>
<td></td>
<td></td>
<td>.845</td>
</tr>
<tr>
<td>Qu 18</td>
<td></td>
<td></td>
<td>.803</td>
</tr>
</tbody>
</table>

Note: Factor loadings <.3 were suppressed. Questions 6, 7, 10 and 11 were removed due to the resulting factors having low reliabilities.

Design

To determine whether the induction had any effect on participants, a repeated measures design was selected, with measures taken pre-induction (baseline), then again at three weeks and three months following induction (de Vet, Terwee, Mokkink, & Knol, 2011; Warr & Allan, 1999; Wheeler, Rutishauser, Conn, & O'Dea, 1994). Three research conditions were created (see Table 3.3). Those in the experimental groups (workshop & workbook) received the same information but in different formats, whilst nothing additional was supplied to the control group. All participants were asked to completed questionnaires to monitor their awareness. Ethical considerations included right to withdraw, voluntary and anonymous participation. For full information on ethical permission see Chapter 1 (p. 7).
Table 3.3
HR Awareness Induction Experimental Conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Format</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workshop</td>
<td>Half a day</td>
<td>PowerPoint presentation Activities &amp; section assessments Action plans</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tasks completed as a group, smaller groups or individually</td>
</tr>
<tr>
<td>Workbook</td>
<td>Self-guided learning session, half a day</td>
<td>Workbook represented PowerPoint slides Same activities, but done independently</td>
</tr>
<tr>
<td>Control</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Data were collected from CM Induction courses beginning January 2013 and completing in November 2013. Six courses were conducted during this time.

**Procedure**

Through liaison with the CM induction programme manager a suitable timeslot was allocated. All potential participants were given a short brief explaining the purpose of the study, including ethical considerations (anonymity, right to withdraw, voluntary), what would be expected of them and what would be done with the results. Following consent, questionnaires were administered. The workshop and workbook conditions then completed their HR awareness induction. All participants were followed up as per the design until all measurement points had been completed.
Descriptive statistics, coefficient alphas, and correlations for all variables can be seen in Table 3.4. In general, all mean values increased over time points, except for job satisfaction which was seen to rise and then lower again. To explore whether these differences were significant, inferential statistical tests were conducted.

A mixed multifactorial ANOVA was used to explore whether the induction package had any impact on Career Managers (CM). Overall there were no significant interactions found between time points (i.e. pre-induction, three weeks & three months) and condition (i.e. workshop, workbook & control); however, some significant main effects were found.

Analysis of job connection ratings revealed a significant main effect for time, $F(2,58) = 4.889, p < .011$. Job connection was found to be higher at time point three ($M = 3.80$) compared to time point one ($M = 3.54; p = .002$). However, no main effect was found for condition.

A significant main effect was found for time against HR understanding, $F(2,58) = 7.217, p < .002$. HR understanding at time point one ($M = 3.50$) was significantly lower than that demonstrated at time point two ($M = 3.81; p = .035$); similarly HR understanding was also lower at time point one compared to time point three ($M = 3.89; p = .009$). No main effect was found for condition.

A similar pattern was found for self-efficacy. A significant main effect was found for time, $F(1,29) = 5.724, p = .023$. Post hoc analysis revealed self-efficacy to be significantly lower at time point two ($M = 3.72$) compared to time point three ($M = 3.88; p = .025$). No main effect was found for condition.

No significant main effects were found for job satisfaction against time or condition.
Table 3.4
Item Correlations, Means, Standard Deviations and Internal Consistencies

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. T1 JC</td>
<td>3.54</td>
<td>.60</td>
<td>.84</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. T2 JC</td>
<td>3.68</td>
<td>.73</td>
<td>.87</td>
<td>.83**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. T3 JC</td>
<td>3.80</td>
<td>.54</td>
<td>.84</td>
<td>.79**</td>
<td>.69**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>4. T1 SE</td>
<td>3.61</td>
<td>.65</td>
<td>.82</td>
<td>.37*</td>
<td>.17</td>
<td>.32</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. T2 SE</td>
<td>3.72</td>
<td>.60</td>
<td>.83</td>
<td>.32</td>
<td>.35*</td>
<td>.10</td>
<td>.47**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. T3 SE</td>
<td>3.88</td>
<td>.46</td>
<td>.76</td>
<td>.30</td>
<td>.28</td>
<td>.28</td>
<td>.59**</td>
<td>.81**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. T1 HR</td>
<td>3.50</td>
<td>.71</td>
<td>.83</td>
<td>.32</td>
<td>.20</td>
<td>.16</td>
<td>.44*</td>
<td>.18</td>
<td>.15</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>8. T2 HR</td>
<td>3.81</td>
<td>.47</td>
<td>.87</td>
<td>.35*</td>
<td>.45**</td>
<td>.13</td>
<td>.06</td>
<td>.43*</td>
<td>.14</td>
<td>.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. T3 HR</td>
<td>3.89</td>
<td>.40</td>
<td>.85</td>
<td>.10</td>
<td>.19</td>
<td>.14</td>
<td>.03</td>
<td>.23</td>
<td>.32</td>
<td>.29</td>
<td>.28</td>
<td></td>
</tr>
<tr>
<td>10. T1 JS</td>
<td>3.50</td>
<td>.91</td>
<td>-</td>
<td>.74**</td>
<td>.52**</td>
<td>.52**</td>
<td>.63**</td>
<td>.36*</td>
<td>.41*</td>
<td>.35</td>
<td>.06</td>
<td>.02</td>
</tr>
<tr>
<td>11. T2 JS</td>
<td>3.67</td>
<td>.94</td>
<td>-</td>
<td>.71**</td>
<td>.59**</td>
<td>.58**</td>
<td>.44*</td>
<td>.41*</td>
<td>.45*</td>
<td>.20</td>
<td>.11</td>
<td>.13</td>
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<tr>
<td>12. T3 JS</td>
<td>3.53</td>
<td>.91</td>
<td>-</td>
<td>.67**</td>
<td>.51**</td>
<td>.55**</td>
<td>.55**</td>
<td>.51**</td>
<td>.55**</td>
<td>.25</td>
<td>.13</td>
<td>.13</td>
</tr>
</tbody>
</table>

** p<.01; * p<.05. JC – Job Connection; SE – Self-Efficacy; HR – HR Understanding; JS – Job Satisfaction
Discussion

As part of a wider RN organisational review, the utility and effectiveness of the current induction programme for newly appointed Career Managers (CM) needed to be examined. This is the first time such a study has been conducted within the RN. An initial qualitative study was conducted to understand the experiences and opinions of current CM in their roles. This revealed a need to help newly appointed CM feel more confident as they take on their new position and responsibility. A requirement was identified for additional support, training and knowledge acquisition. With the developing people strategy, the RN needs to ensure that those individuals selected and trusted to manage the careers of personnel, the most important element of the RN, feel capable and suitably supported. To address this, a new HR Awareness Induction package was designed and piloted with CM over a one year period.

A selection of CM inductee groups were identified and allocated to one of three research conditions (workshop, workbook or control) and measurements were taken over three time points. This was to determine whether the pilot induction intervention had any effect on the variables measured, but also whether the delivery method had any differential effect. Results suggested that the pilot HR Awareness Induction did not have a significant effect on levels of job connection, self-efficacy, HR understanding or job satisfaction.

Overall, there were no interactions between the conditions (workbook, workshop or control) on any of the variables measured. However, differences were found between time points (pre-induction, three weeks & three months).

Time had an influence on how connected CM felt towards their job, with greater levels of job connection experienced three months after completing the pilot induction. This supports the suggested role of socialisation in providing effective and efficient integration of newcomers (Antonacopoulou & Guttel, 2010) through the development of gaining role clarity (Bauer et al., 2007). The differences in time were found at the three month point which means CM had three months of applying and learning on the job. In this instance the socialisation process is therefore more likely to reflect the general socialisation associated with actually doing the job and interacting with peers. As no differences were found between research conditions and job connection, it is likely that the differences noted are due to the general time related socialisation process involved with gaining job clarity.
A similar outcome was also found for levels of HR understanding, with initial levels being lower than those found at the later time points. A difference was found between the pre-induction time point and the three week time point, but no difference was found between the latter time point and the three month point. This may provide some evidence for the suggestion that the impact associated with socialisation tactics tend to reduce over time (Antonacopoulou & Guttel, 2010). These results seem to imply that initially personnel were less confident and become more confident over the initial few weeks. However beyond that, no differences were found, possibly suggesting the decrease in the effect of the socialisation process over time. That said, these results are not a result of the impact of the induction package, as there were no differences found between the research conditions. The findings may simply reflect the impact of a general settling process and learning on the job that is suggested to occur with newcomers (Wang, Kammeyer-Mueller, Liu, & Li, 2014).

This pattern was not replicated for self-efficacy. Levels of self-efficacy were positively correlated with HR understanding and job connection, although only at the pre-induction and three-week time points; these relationships were not found at the three month time point. This supports the influence of self-efficacy on transfer of learning based on the utility of training (Burke & Hutchins, 2007), providing some indication to the relevance of the training provided, at least for building confidence. This is central based on increased confidence being an important part of the socialisation process (Bauer et al., 2007). Additionally, self-efficacy was found to increase after a few months in post, providing an element of support for a previously suggested moderating effect of self-efficacy on learning associated with socialisation (Antonacopoulou & Guttel, 2010). Self-efficacy was clearly found to be important in the socialisation and learning processes associated with induction programmes in general, developing as individuals gain more experience. However, this does not continue to be related to the level of understanding of HR or job connection which may suggest that personnel do not see the relevance of HR within their jobs as they become more confident. Time in post appears to be more influential; the absence of differences between conditions indicates the pilot induction programme was not influential on self-efficacy.

The ineffective outcome of the HR induction package piloted in this study could be due to the package itself not being effective or perhaps not presenting suitable face or external validity. A review of induction programmes found that external validity or generalisability of inductions can limit their effectiveness (Ingersoll & Strong, 2011).
Although not directly measured in this study, participants did comment on the usefulness of the pilot induction package implying an aspect of face validity and an initial perception of external validity was present. Further, it may be that the culture associated with changing jobs in the RN and the vicarious knowledge and influence of previous incumbents are ingrained. To change this, a change in culture may be required to address the suggestion of newcomers developing their own methods for managing their new role (Allen & Meyer, 1990); as well as to fully appreciate the requirements for HR knowledge within the CM role. Further research will be required to explore the influence of these aspects, beginning with a review of the content to ensure it remains fit for purpose.

An alternative explanation for the pilot induction package providing no changes may be because participants were experienced newcomers in terms of being experienced within the organisation, and newcomers as in to the CM job. Previous research supports this suggestion, implying induction programmes to be less effective for experienced newcomers compared to inexperienced newcomers (Bauer et al., 2007; Saks et al., 2007); particularly for those used to moving roles as part of their career development (Campion et al., 1994; Milligan et al., 2013). Further research is required to explore socialisation methods for experienced newcomers. This should include consideration over the operationalisation of ‘experienced newcomer’ at the experience level (i.e. several years’ work experience versus being new to work), organisational level (coming from a similar organisation), department level (moving within an organisation) and indeed individual job level (variety of relevant & non-relevant experience). Previous research has suggested socialisation amongst experienced newcomers needs to be conducted, based on the majority of research focusing on the inexperienced newcomer (Cooper-Thomas et al., 2012); this research should also take into account defining the type of experienced newcomer.

A further reason for the non-significant findings could be due to the low number of participants involved. If data collection had continued over an additional two years, a higher number of participants would have been involved, which would have improved the statistical power associated with the analyses and may have resulted in different results.
Limitations and Future Research

A number of limitations exist within this study. The number of participants was low, which reduces the statistical power of the results found. This was influenced by the numbers associated with the pre-existing course and timeframe for the work, but also the design adopted. To address the former, testing should be completed over a longer period of time in order to increase the number of participants to achieve greater statistical power and therefore confidence in the findings. In terms of the latter point, a repeated measures design was necessary in order to track the potential impact of the induction on personnel over time. However, such designs carry issues. For example, continuation of the initial motivation can dissipate, resulting in participants dropping out at later time points and their data becoming unusable (Coolican, 2009); and time constraints on participants can mean they fail to complete subsequent questionnaires. These aspects can mean that the sample reduces substantially. Participants were followed up and encouraged to complete the follow-up questionnaires, but unfortunately a number declined to participate further. A further consideration with repeated designs is the lack of control for other extraneous factors that may influence the responses of participants, such as colleagues, work pressures and life events. All of these can affect how an individual perceives their current attitude. The timing of the pilot induction package may have reduced the ability of the CM to absorb and take in the information presented to them. Only a couple of hours were available, and they were expected to get to grips with the material and then consider how to apply it to their job. It may be that the application of the HR information was limited due to the actual process of having to quickly take on the CM role. Although participants discussed the usefulness of the HR induction, it may be that further interventions are needed down the line to reinforce what was learnt. Previous research has suggested that on-the-job development can take more than one year (Moir, Barlin, Gless, & Miles, 2009), therefore the use of continuous support programmes such as mentoring or action learning sets may have been of value. Action learning provides a setting for reflective inquiry in a continual developmental cycle by learning from doing (Miller, 2003; O'Neil & Marsick, 2007; P. A. C. Smith & O'Neil, 2003). Such activity may have helped reinforce the learning and produced a more self-directed approach, and possibly greater motivation, which would have been of benefit.

A further thought, is that the pilot induction could be better placed once the CMs have been in post for a few months, allowing them to assimilate the process elements,
and possibly freeing them up to consider what could be considered the ‘softer’ elements (i.e. HR knowledge) and apply those to their work. Providing the induction at this later point, then followed by action learning sets to reinforce and develop their learning may be a consideration.

HR knowledge and experience prior to the pilot induction varied between participants and groups, and was not able to be controlled for. Some participants had previously been a CM, which may have introduced some bias to the data, whereas some had never been a CM before. There were a few participants who had already been in post for a short time, whilst others were yet to take up their role. This again could have influenced their self-ratings and purity of the repeated measures over the time points. No differentiation was made between rank or Arm participants were responsible for. The HR issues related to Officers vis-a-vis Ratings (e.g. lower & middle management) may be different, so may have impacted on the effectiveness and potential perceived utility of the induction. Due to the low numbers these aspects were unable to be explored.

Further research would be of benefit in the area of socialisation of newcomers. Points to consider include the definition of ‘experienced newcomers’ and the utility of different socialisation methods based on the ‘level’ of newcomer an individual is. This could also take into account the perceived external validity of induction programmes, as well as the role of organisational culture in the acceptance of new induction type programmes.

**Conclusion and Practical Implications**

Overall, the pilot HR Awareness Induction package did not have any direct effect on the level of HR understanding, job satisfaction, job connection or self-efficacy. Differences found were related to time changes rather than the intervention. Further research is required to unpack the relevance of induction packages on individuals considered as experienced newcomers, including how this is operationalised.

For the RN, further work is required to explore and define the actual CM role in order to align with strategy. The current emphasis on personnel learning from previous incumbents is unlikely to help change the cultural norms associated with this particular job. The desire for CM to focus on more than just the process of managing careers means a more robust training system is needed to fully support and prepare personnel,
including follow up support through action learning sets and/or mentoring programme(s). This study has provided an initial exploration of including HR awareness as part of the induction process for CM; clearly more is required to effectively embed and apply this knowledge within the actual job. Support has been found for the ineffectiveness of inductions for experienced newcomers; although further research is needed to unpick this relationship to determine what factors actually influence this relationship. This study represents the first empirical test of induction programmes on later understanding, job connection and self-efficacy within the RN.

The key findings from this chapter highlight the need to focus on providing support to career managers in preparing for their role, accomplishing the role, and adverse elements being experienced. This study focused on the initial preparation stage, and provided the first empirical evidence for the role of time in gaining role clarity and confidence, particularly for experienced newcomers in the RN. No evidence was found for the utility of an additional pilot induction programme; further research is required particularly to increase the number of participants in order to provide greater statistical power to the outcomes and therefore gain more robust evidence for the utility, or not, of the induction programme piloted.

With the increase in dual-earning households (Greenhaus & Allen, 2011; Organisation for Economic Cooperation and Development, 2010, 2011), people have to manage the competing demands from home (e.g. childcare, housework etc.) and work (e.g. deadlines, long working hours etc.). Desire for positive working environments and meaningful time at home has led to a body of research that explores the interaction between work and home life, and vice versa, commonly termed the work-home interface (Rothbard & Dumas, 2013).

One area that has achieved a great deal of attention is the negative aspect of this interface, namely work-family conflict (e.g. Beutell, 2013; Bhave, Kramer, & Glomb, 2013; Braunstein-Bercovitz, 2013; Buonocore & Russo, 2013; Frone & Rice, 1987; Frone, Russell, & Cooper, 1992; Greenhaus, Parasuraman, & Collins, 2001; Kelly et al., 2008; Rantanen, Kinnunen, Mauno, & Tillemann, 2011; Spector et al., 2007). This is suggested to be responsible for detrimental effects on work and family outcomes (for reviews see: Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005; Michel et al., 2010). Considered as a form of inter-role conflict (Bhave et al., 2013), demands from one domain, for example, work, interferes with family related aspects. It is considered to exist as a bidirectional construct, i.e. work interfering with family and family interfering with work known as work-family and family-work conflict respectively (Frone, 2003; Grzywacz & Marks, 2000; Hill, 2005).

Research has examined the effect of work-family conflict in a number of occupational groups, for example nurses (e.g. Buonocore & Russo, 2013), teachers (e.g. Bragger, Rodriguez-Srednicki, Kutcher, Indovino, & Rosner, 2005) and the police (e.g. Hall, Dollard, Tuckey, Winefield, & Thompson, 2010; McDowall & Lindsay, 2013). One occupation that could be argued to have a high level of work-family conflict is the military. The working life of military personnel can be very transient. For example, deployments will take personnel away from their friends and families for long and short periods of time, which is suggested to result in work-family conflict (Britt & Dawson, 2005). For those with children, this can mean the partner left behind, albeit temporarily, becomes a single parent. Then when the military person returns, the dynamic, in terms of the routine and ‘norm’ that has been within the household, may change (Bello-Utu & DeSocio, 2015). Military personnel are also expected to be available when required,
often at short notice. This is a concern, particularly when the predictability of schedules have been suggested to influence work-family conflict (Huffman, Casper, & Payne, 2013). Uncertainty of schedules links not only to deployment situations, but also general postings, which may take personnel away from home to another area in the country. Limited recent research appears to have been conducted looking specifically at the impact of work-family conflict within a military environment. A selection of research has drawn on the concept of work-family conflict to provide background context or to help explain results found between other variables (e.g. Bridger, Kilminster, & Slaven, 2007; Huffman, Adler, Dolan, & Castro, 2005; McFadyen, Kerpelman, & Adler-Baeder, 2005).

With the decreasing spending and sizes of militaries (Rogers & Sedghi, 2012; Walker, 2014) but continued high levels of commitments, the demands on personnel are likely to increase which may impact further on the competing demands between their work and family lives. There is a need to better understand the current research in the area of work-family conflict within the military. This is particularly pertinent as within the United Kingdom (U.K.) Armed Forces one of the main reasons given for leaving the Services by personnel is the impact of Service life on personal and family life (Defence Statistics, 2011, 2012, 2013a, 2014a). Additionally, the spouses/partners of U.K. military personnel report the amount of separation and the impact on children to be two of the most negative aspects about being a Service family (Defence Statistics, 2013b, 2014b). The impact of work i.e. Service life, on personal and family life is clearly represented in the concept of work-family conflict. There are important implications for retention related considerations for military personnel, but also the satisfaction of their respective spouses/partners.

To date, there has been no review that has gathered together research related to work-family conflict in the military. With this in mind, a critical literature review (Denyer & Tranfield, 2009) will be conducted. This will look to identify and review previous research into work-family conflict and turnover behaviours (e.g. turnover/turnover intentions) within the military and also spousal reactions to military related work-family conflict. This will provide initial evidence of the impact of such conflict to inform strategies to address potential retention issues, and identify gaps where research is required.
CHAPTER 4 – CRITICAL LITERATURE REVIEW

Method

Literature Search Strategy

Electronic literature searches were performed using Google Scholar \((n = 2684)\), Wiley Online Library \((n = 22)\), EbscoHost \((n = 2)\), SAGE Journals \((n = 14)\), ScienceDirect \((n = 15)\), BPS PsychSource \((n = 3)\), and Taylor and Francis Online \((n = 8)\) databases up to the 28 February 2015. A list of related keywords were used to identify studies through an iterative process of search and refine, including “work-family conflict” AND “military” AND “review”; “work-family conflict” AND “military” AND “spouse”; “work family spillover/interface” AND “military”. A restriction was also placed on the years of publication, specifically from 2005 through to 2015 to ensure relevance (see later section for justification).

Study Inclusion and Exclusion Criteria

Within the inclusion criteria, a publishing period from 2005-2015 was specified; this was to ensure currency and relevance and also as it reflects a period of change within the Armed Forces. During 2005 and 2015 world military spending was seen to fall (Walker, 2014) and the total strength of UK militaries began to reduce (Rogers & Sedghi, 2012). Such events are likely to impact on the pressures felt by personnel, which in turn may be directly related to perceptions of work-family conflict. Further inclusion criteria included peer-reviewed published primary and secondary research studies. No limitations were placed on study design. Outcome measures for military personnel were turnover or turnover intentions; outcome measures for spouses focused on any behavioural outcome that impacted on them. Only articles in English were included. No restrictions were placed on participants’ age, or number of participants included. Eligible studies were those whose title or abstract specifically indicated the inclusion of work-family conflict, military personnel or the spouses of military personnel. See Table 4.1 for a summary of the key inclusion criteria.
CHAPTER 4 – CRITICAL LITERATURE REVIEW

Table 4.1
Inclusion Criteria

<table>
<thead>
<tr>
<th>Category</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study design</td>
<td>Primary research – quantitative and qualitative methods published between 2005-2015; Secondary research will be considered if the remaining inclusion criteria are met</td>
</tr>
<tr>
<td>Population</td>
<td>Military personnel and/or spouses linked to military personnel</td>
</tr>
<tr>
<td>Intervention</td>
<td>Work-family conflict</td>
</tr>
<tr>
<td>Outcome</td>
<td>At least one of the following outcomes:</td>
</tr>
<tr>
<td></td>
<td>Personnel turnover or turnover intentions (military personnel)</td>
</tr>
<tr>
<td></td>
<td>Effect on spouses (spouses/military)</td>
</tr>
</tbody>
</table>

Exclusion criteria included any articles not published and written in English, and reviews, case reports, theses, dissertations, editorials and letters. This was to ensure relevance and currency, and retain focus on military working populations. Further exclusions included any articles where full-text access was not possible, due to lack of access, funding, or response from main authors.

**Screening and selecting.** Titles and abstracts of identified publications were screened for relevance against the inclusion criteria (Table 4.1). Articles were rejected if it was determined from the abstract that the study failed to meet the criteria outlined. If rejection could not be clearly determined from the abstract, the full text article was consulted (if available) to obtain more information.

All articles that met the inclusion criteria outlined were assessed for their relevance to the review, resulting in thirty potential citations being retained. The full texts of these were obtained where possible. After applying inclusion criteria to these full-text papers, twenty-two were excluded: fourteen did not examine work-family conflict directly; one used a military sample but did not consider turnover; one was a review article; and six full-text papers could not be obtained due to lack of access and funding, and non-response from authors. This resulted in inclusion of eight papers for detailed review (see Figure 4.1 for screening process).
CHAPTER 4 – CRITICAL LITERATURE REVIEW

Figure 4.1. Screening process

**Study Quality**

A revised quality assessment schedule (see Appendix N), including dictionary and marking guide (see Appendix O), were created through amalgamation of the aspects determined to be the most relevant from pre-existing tools (CASP, 2013; Jackson, 2002; B. H. Thomas, Ciliska, Dobbins, & Micucci, 2009a, 2009b) and guidance (Dickson, Cherry, & Boland, 2014). Eight components were included for assessment, namely: selection bias; study design; confounders; blinding; data collection methods; withdrawals and dropouts; analyses; and results. Each section was awarded a rating of strong, moderate or weak based on its assessed quality. These were then combined to determine the overall global rating. In addition, to provide a greater level of granularity between global markings, a new scoring system was also designed and implemented, providing a mean score for each paper. This provided greater differentiation between articles, particularly those that were awarded the same global mark. Each reviewed article was therefore awarded a global mark and a mean score. All studies that met the defined inclusion criteria were assessed utilising the quality tool (see Appendix P for...
individual article quality assessment forms). Results are presented in Table 4.2. One study failed the quality review due to low ratings and a low mean score. This was removed from further analysis.

The overall quality of the studies included was found to be moderate to weak, with one study awarded a global rating of strong. The majority of studies were awarded a moderate global rating (☆☆) and a mean score from 4.7 to 5.4 (out of a possible 7.3).

The majority of articles had response rates under 60%. For two articles it was not possible to determine a response rate, whilst three reported less than 60%, one 60-79%, and one over 80%. No power calculations were presented which made accurate determination of sample size adequacy impossible. This also had implications over determining whether the samples used were very likely or, as in most cases, somewhat likely to be representative of the population. Three studies adopted a cross-sectional design, and four used a cohort design. Details regarding withdrawals varied across the studies. Three provided adequate information in terms of numbers and descriptions, whilst three did not provide the information and it was not possible to determine the information for the remaining article. All but one study used questionnaire items with acceptable indices of validity and reliability to measure the main variables; one study did not provide this information for the measures included. None of the studies specifically discussed whether participants were aware of the research question or not. The majority of the studies provided implications for practice.
### Table 4.2

#### Quality Assessment of Studies

<table>
<thead>
<tr>
<th>Reference</th>
<th>Selection Bias</th>
<th>Study Design</th>
<th>Confounders</th>
<th>Blinding</th>
<th>Data Collection</th>
<th>Withdrawals</th>
<th>Analyses</th>
<th>Results</th>
<th>Strong</th>
<th>Mod</th>
<th>Weak</th>
<th>Global Rating</th>
<th>Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Huffman, Casper, &amp; Payne (2013)</td>
<td>☆☆☆</td>
<td>☆☆☆</td>
<td>☆☆</td>
<td>☆☆☆</td>
<td>☆☆</td>
<td>☆☆</td>
<td>☆☆☆☆</td>
<td>1</td>
<td>7</td>
<td>0</td>
<td>☆☆☆☆</td>
<td>5.14</td>
<td></td>
</tr>
<tr>
<td>Andres, Moelker, &amp; Soeters (2012a)</td>
<td>☆</td>
<td>☆☆</td>
<td>☆☆☆</td>
<td>☆</td>
<td>☆☆☆☆</td>
<td>☆☆☆</td>
<td>☆☆☆</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>☆☆☆☆</td>
<td>5.4</td>
<td></td>
</tr>
<tr>
<td>Andres, Moelker, &amp; Soeters (2012b)</td>
<td>☆</td>
<td>☆☆</td>
<td>☆☆☆</td>
<td>☆</td>
<td>☆☆☆☆</td>
<td>☆☆☆</td>
<td>☆☆☆</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>☆☆☆☆</td>
<td>5.4</td>
<td></td>
</tr>
<tr>
<td>Andres (2014)</td>
<td>☆☆</td>
<td>☆☆☆</td>
<td>☆☆☆☆</td>
<td>☆</td>
<td>☆☆☆☆</td>
<td>☆☆☆</td>
<td>☆☆☆</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>☆☆☆☆</td>
<td>5</td>
<td></td>
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<tr>
<td>Heilmann, Bell, &amp; McDonald (2009)</td>
<td>☆</td>
<td>☆☆</td>
<td>☆☆☆</td>
<td>☆</td>
<td>☆☆☆☆</td>
<td>☆☆☆</td>
<td>☆☆☆</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>☆</td>
<td>5.1</td>
<td></td>
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<tr>
<td>Westman &amp; Etzion (2005)</td>
<td>☆☆</td>
<td>☆</td>
<td>☆☆☆☆</td>
<td>☆</td>
<td>☆☆☆☆</td>
<td>☆☆☆</td>
<td>☆☆☆</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>☆</td>
<td>5.1</td>
<td></td>
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<tr>
<td>Adams et al. (2005)</td>
<td>☆☆</td>
<td>☆</td>
<td>☆☆☆</td>
<td>☆</td>
<td>☆☆☆☆</td>
<td>☆☆☆</td>
<td>☆☆☆</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>☆</td>
<td>4.71</td>
<td></td>
</tr>
<tr>
<td>Vuga &amp; Juvan (2013)</td>
<td>☆☆</td>
<td>☆☆</td>
<td>☆</td>
<td>☆</td>
<td>☆☆☆☆</td>
<td>☆☆☆</td>
<td>☆</td>
<td>0</td>
<td>5</td>
<td>3</td>
<td>☆</td>
<td>3.71*</td>
<td></td>
</tr>
</tbody>
</table>

Global Rating: Strong (☆☆☆☆) = no weak ratings; Moderate (☆☆☆) = one weak rating; Weak (☆☆) = two or more weak ratings; Mod = Moderate; * Removed from analysis.
Results

Data extraction was completed following the quality assessment process in line with guidance (Boland, Cherry, & Dickson, 2014; Hodgkinson & Ford, 2014; Rojon, McDowall, & Saunders, 2011) and previously published reviews (e.g. Barker & Hunsley, 2013; Casellas-Grau, Font, & Vives, 2014). Study characteristics can be found in Table 4.3 (see Appendix Q for individual study data extraction tables).

Five of the studies were carried out and published between 2005 and 2015 (Adams et al., 2005; Andres, 2014; Andres et al., 2012a, 2012b; Heilman et al., 2009). The remaining two studies were published within the specified date range, although the data utilised were secondary data collected in 1999 (Westman & Etzion, 2005), and archival data from two collection points, 1996 and 2000 (Huffman et al., 2013). Inclusion of these studies was continued, due to the global score and mean rating awarded during the quality assessment process; however, the dates of data collection should be noted as falling outside of the publishing dates specified in the inclusion criteria range.

The studies were conducted across two principal countries, notably the United States and Netherlands. Within the latter, data were collected from across the four principal Services (three studies); with the former country, two focused on the Army and two on the Air Force.
Table 4.3

<table>
<thead>
<tr>
<th>Reference</th>
<th>Study design</th>
<th>Aim</th>
<th>Sample</th>
<th>Measures</th>
<th>Key findings</th>
<th>Implications for practice</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Huffman et al. (2013)</td>
<td>Quantitative; Cohort and Cross-sectional; Questionnaire and Archival (secondary data gathered in 1996 &amp; actual turnover information from 2000)</td>
<td>Examine the processes through which spouse career support relates to actual turnover behaviour through work interfering with family and job satisfaction as mechanisms</td>
<td>United States Army</td>
<td>Standard measures not used</td>
<td>Higher spouse support resulted in reduced likelihood of leaving; effect of spouse career support on turnover was partially mediated by WIF; WIF related to turnover directly and indirectly through reduced job satisfaction; effects of parental status moderated WIF-turnover relationship i.e. no children = more likely to leave</td>
<td>Relevance of non-work variables on turnover indicating need to include spouse career support and WIF in turnover models; retention efforts should include spouses; policies that benefit families important; invest in strategies to reduce WIF</td>
<td>US military officers only; archival data meant measures not common; omission of positive forms of work-family spillover</td>
</tr>
<tr>
<td>Reference</td>
<td>Study design</td>
<td>Aim</td>
<td>Sample</td>
<td>Measures</td>
<td>Key findings</td>
<td>Implications for practice</td>
<td>Limitations</td>
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</tr>
<tr>
<td>Andres et al. (2012a)</td>
<td>Quantitative; Cohort (pre, mid, post) Questionnaire</td>
<td>Examine extent of psychological distress reported by spouses over a deployment and how this is explained</td>
<td>Netherlands military (Army, Navy, Air Force, Police) Spouses of deployed personnel (male &amp; female)</td>
<td>Psychological distress (12 item General Health Questionnaire; Goldberg, 1992) WFC scale, 5 items (Netemeyer, Boles &amp; McMurrian, 1996) Life stress, adapted 16 items (Holmes &amp; Rahe, 1967) Social isolation, adapted 4 items (UCLA Loneliness Scale; Russell, 1996)</td>
<td>Higher levels of WFC before and during deployment were associated with higher levels of psychological distress; WFC before predicted distress after; no changes in WFC or stress over time</td>
<td>Ensuring partners don’t become isolated; interventions should be aimed at improving social connectedness; raise awareness in society to help benefit well-being of families</td>
<td>Majority of sample was female (~97%); use of self-report measures</td>
</tr>
<tr>
<td>Reference</td>
<td>Study design</td>
<td>Aim</td>
<td>Sample</td>
<td>Measures</td>
<td>Key findings</td>
<td>Implications for practice</td>
<td>Limitations</td>
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</tr>
<tr>
<td>Andres et al.</td>
<td>Quantitative; Cohort (pre,</td>
<td>Assess changes over time in military personnel WFC experiences,</td>
<td>Netherlands (Army, Navy, Air</td>
<td>WFC scale, 5 items (Netemeyer et al., 1996)</td>
<td>Higher WFC associated with lower relationship satisfaction &amp; higher turnover;</td>
<td>Applying resources in work and family domains to minimise tensions; providing good</td>
<td>Majority of sample male (~96%); military personnel only; longitudinal related attrition from the study</td>
</tr>
<tr>
<td>(2012b)</td>
<td>post); Questionnaire</td>
<td>relationship satisfaction &amp; turnover intentions during a deployment</td>
<td>Force, Police)</td>
<td>Relationship satisfaction, 12 items (ENRICH Marital Satisfaction scale; Fowers &amp; Olson, 1993)</td>
<td>WFC before predict relationship satisfaction and turnover after; relationship satisfaction and turnover not related; turnover intentions before predicted WFC after</td>
<td>communications with home, including social support and time for non-work activities prior to and after deployments</td>
<td></td>
</tr>
<tr>
<td>Reference</td>
<td>Study design</td>
<td>Aim</td>
<td>Sample</td>
<td>Measures</td>
<td>Key findings</td>
<td>Implications for practice</td>
<td>Limitations</td>
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</tr>
<tr>
<td>Andres (2014)</td>
<td>Quantitative; Cohort (pre, mid, post); Questionnaire</td>
<td>Understand how relationships develop and are affected over the course of job-induced separations</td>
<td>Netherlands military Spouses (female) $n = 153$ (completed all time points)</td>
<td>Relationship satisfaction, 12 items (ENRICH Marital Satisfaction scale; Fowers &amp; Olson, 1993) Spousal interactions, self-constructed 3 items Social Support (Social Provisions Scale, Cutrona &amp; Russell, 1987) Psychological distress (12 item General Health Questionnaire; Goldberg, 1992) Life stress, adapted 16 items (Holmes &amp; Rahe, 1967) WFC scale, 5 items (Netemeyer et al., 1996)</td>
<td>Higher WFC before predicted lower relationship satisfaction after; higher social support during predicted higher relationship satisfaction after; most important predictor of relationship satisfaction after was relationship satisfaction before</td>
<td>Focus on Services to balance work and family demands before including quality time, managing plans &amp; expectations; during build lasting and supportive networks; after needs close communication for satisfying relationships</td>
<td>Only female sample; relatively small sample</td>
</tr>
<tr>
<td>Reference</td>
<td>Study design</td>
<td>Aim</td>
<td>Sample</td>
<td>Measures</td>
<td>Key findings</td>
<td>Implications for practice</td>
<td>Limitations</td>
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</tr>
<tr>
<td>Heilmann et al. (2009)</td>
<td>Quantitative; Cross-sectional; Questionnaire</td>
<td>Examine work and family influences on military officers retention</td>
<td>United States Air Force Military officers (male &amp; female) [n = 75, RR 29.9%]</td>
<td>Work overload; Career development opportunities; Advancement aspirations; Advancement expectations; Family involvement; Turnover intentions (Greenhaus, Collins, Singh, &amp; Parasuraman, 1997)</td>
<td>No direct influence of WHC on turnover; family satisfaction with military life predicted WHC; WHC and family satisfaction predict turnover; higher family satisfaction linked to lower turnover intention</td>
<td>Military life satisfaction influences turnover decisions, with family satisfaction considered more than own work-related attitudes</td>
<td>Small sample size; all male, except for one female; self-report measures; cross-sectional</td>
</tr>
</tbody>
</table>

Perceived family satisfaction with military life (written for this study)

WHC (Carlson, Kacmar, & Williams, 2000)
<table>
<thead>
<tr>
<th>Reference</th>
<th>Study design</th>
<th>Aim</th>
<th>Sample</th>
<th>Measures</th>
<th>Key findings</th>
<th>Implications for practice</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Westman &amp; Etzion (2005)</td>
<td>Quantitative; Cross-sectional; secondary analysis</td>
<td>Examine the antecedents of WFC and FWC, and crossover of these between spouses</td>
<td>United States Air Force Military females and spouses $n = 220$ (selected based on marital status from pre-existing data set)</td>
<td>Job stress (20 items); Family stress (4 items); WFC; FWC (Frone, Russell, &amp; Coopers, 1992) Spouse social support (10 items); Co-workers support (5 items); Supervisors support (5 items) (House, 1981)</td>
<td>Positive relationship of WFC with job and family stressors for wives and job stressors for husbands; job and family stressors predicted FWC for wives, not for husbands; spouse support buffered relationship between job stressors &amp; WFC experienced for wives, but accelerated for husbands; bidirectional crossover of WFC from one spouse to the other</td>
<td>None provided; although do suggest understanding these processes will contribute to design of preventative interventions to counter the effects</td>
<td>Cross-sectional; composition of sample limits ability to generalise</td>
</tr>
<tr>
<td>Reference</td>
<td>Study design</td>
<td>Aim</td>
<td>Sample</td>
<td>Measures</td>
<td>Key findings</td>
<td>Implications for practice</td>
<td>Limitations</td>
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</tr>
<tr>
<td>Adams et al. (2005)</td>
<td>Quantitative; Cross-</td>
<td>Develop and test model including direct and indirect relations, through WFC, of Optempo on family and Army outcomes</td>
<td>United States Army Military non-deployed (male &amp; female) Spouses (male &amp; female)</td>
<td>Working conditions, 4 items developed for study WFC 5 items (Netemeyer et al., 1996) Family related outcomes (Walter Reed Army Institute for Research): family functioning (8 items); family outcomes (two single measures) Work related outcomes, 3 items developed for study</td>
<td>Higher working conditions linked to Optempo were related to lower Army outcomes &amp; higher WFC; no direct relation between working conditions &amp; family outcomes; relation of working conditions linked to optempo to Army outcomes was direct, but indirect to family outcomes through relation with WFC</td>
<td>Interventions should be targeted at working conditions and WFC surrounding deployments; continuing programmes, policies and service to help WFC, ensuring soldiers &amp; spouses make use of them</td>
<td>Military majority male (92%); spouses majority female (91%); cross-sectional</td>
</tr>
</tbody>
</table>

WFC = Work-Family Conflict; WIF = Work Interfering with Family i.e. WFC; Work-Home Conflict = WHC; FWC = Family-Work Conflict; Optempo = Operational tempo; RR = Response Rate
Four of the studies used cohorts, with three examining the relationships between variables before, during and after a job-induced separation (i.e. deployment), with the fourth measuring before and after. The remaining studies used a cross-sectional design and were concerned with exploring the general relationship between variables. All studies utilised a quantitative approach.

Four studies utilised the same pre-existing work-family conflict scale providing a level of comparability. Two studies used alternative work-family or work-home conflict scales, whilst the remaining study created their own. Two studies utilised military personnel turnover intention, and one used turnover as a main outcome variable, two looked at stressor related outcomes (one military & spouses; one just spouses), another at satisfaction with relationships (spouses), and the final one on family and work related outcomes (military & spouses).

Two of the studies based in the Netherlands focused on spouses of military personnel, one on both male and female spouses, and the other only on females (see Table 4.4 for participant information). The latter study was the only one within those reviewed to exclusively include female participants. The remaining study was concerned only with military personnel experiences. Within the studies conducted in the United States, two focused on military personnel holding an officer level rank (male & female). The remaining two studies looked at military personnel, both male and female, and their spouses, with one specifically concentrating on military females and their spouses.

Sample sizes varied from 75 to 5505. Two studies provided samples over 1000, three provided samples of approximately 220 to 453 participants, with the remaining two having fewer than 155 participants. The average age across the studies was similar, ranging from 30 to 36 years old, with length of service of the serving member (if applicable) being from 7 to 15.5 years.
Table 4.4
Participant Characteristics

<table>
<thead>
<tr>
<th>Reference</th>
<th>Mean age (years; SD)</th>
<th>Mean Tenure* (years; SD)</th>
<th>Represented Service</th>
<th>Gender</th>
<th>Military/ spouse</th>
<th>Rank</th>
<th>Marital status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Huffman et al. (2013)</td>
<td>33 (5.8)</td>
<td>12.36 (5.44)</td>
<td>Army</td>
<td>Male &amp; Female</td>
<td>Military</td>
<td>Officers</td>
<td>Not stated, but married status required</td>
</tr>
<tr>
<td>Andres et al. (2012a)</td>
<td>32.9 (9.35)</td>
<td>14.5 (9.23)</td>
<td>Army, Navy, Air Force, Police**</td>
<td>Male &amp; female</td>
<td>Spouses</td>
<td>Not stated</td>
<td>Married 59%</td>
</tr>
<tr>
<td>Andres et al. (2012b)</td>
<td>35 (9.16)</td>
<td>15 (9.23)</td>
<td>Army, Navy, Air Force, Police**</td>
<td>Male &amp; Female</td>
<td>Military</td>
<td>Not stated</td>
<td>Married 55%</td>
</tr>
<tr>
<td>Andres (2014)</td>
<td>34 (8.92)</td>
<td>15.5 (8.58)</td>
<td>No specific Service stated</td>
<td>Female</td>
<td>Spouses</td>
<td>N/A</td>
<td>Married 64%</td>
</tr>
<tr>
<td>Heilmann et al. (2009)</td>
<td>30 (6.26)</td>
<td>7 (5.58)</td>
<td>Air Force</td>
<td>Male &amp; Female</td>
<td>Military</td>
<td>2nd &amp; 1st Lieutenants, &amp; Captains</td>
<td>Married (n = 45)</td>
</tr>
<tr>
<td>Westman &amp; Etzion (2005)</td>
<td>Females: 34.3 Males: 36.3 (SD not stated)</td>
<td>9.3 (5.11)</td>
<td>Air Force</td>
<td>Female &amp; Male</td>
<td>Military females &amp; spouses</td>
<td>Not stated</td>
<td>All married</td>
</tr>
<tr>
<td>Adams et al. (2005)</td>
<td>Military: 33.4 (9.97)</td>
<td>Not stated</td>
<td>Army</td>
<td>Male &amp; Female</td>
<td>Military (92% male) &amp; Spouse (91% female)</td>
<td>Soldiers</td>
<td>Married (n = 1384)</td>
</tr>
</tbody>
</table>

Note: For cohort study designs, average age/percentages are provided; *of serving member; ** Majority of respondents were from the Army
Results from the included studies have been organised under three principal areas linking work-family conflict to turnover-related behaviour, stress related outcomes and aspects of satisfaction.

Outcomes

**Work-family conflict and turnover behaviours.** Andres et al. (2012b), Heilmann et al. (2009), and Huffman et al. (2013) considered the relationships between work-family conflict and turnover behaviours within military populations (the former two reviewed turnover intentions; the latter explored turnover). Huffman et al. (2013) and Andres et al. (2012b) found a direct link between work-family conflict and turnover behaviours, in that higher conflict resulted in higher attrition or intentions to leave; although this was not found to be the case in the Heilmann et al. (2009) study. Huffman and colleagues found an indirect link between work-family conflict and turnover through job satisfaction; similarly Heilmann et al. (2009) found family satisfaction with military life to mediate this relationship. Turnover intentions were also found to influence levels of work-family conflict after a separation (Andres et al., 2012b).

**Work-family conflict and stressors.** Andres et al. (2012a) found high levels of work-family conflict before and after separation to predict higher levels of psychological stress. Job and family stressors were found to predict levels of work-family conflict for female military personnel who were married; for their husbands, only job stress was predictive of levels of work-family conflict (Westman & Etzion, 2005). Similarly, job and family stress were also predictive of family-work conflict for married female military personnel; but only job stress for their husbands (Westman & Etzion, 2005). Wives and husbands work-family and family-work conflict were found to affect the levels experienced by each.

**Work-family conflict and satisfaction.** Satisfaction was measured on a number of levels, including relationship satisfaction (Andres, 2014; Andres et al., 2012b), family satisfaction (Heilmann et al., 2009), and work and family-related satisfaction (Adams et al., 2005). Higher work-family conflict before (Andres, 2014), and before and after (Andres et al., 2012b) separation were found to predict lower relationship satisfaction; similarly family satisfaction with military life was also linked to levels of work-family conflict (Heilmann et al., 2009). Work-related satisfaction and levels of operational tempo were found to be directly linked for military personnel, but indirectly linked through work-family conflict for families (Adams et al., 2005).
Discussion

This is the first review of research exploring work-family conflict and its impact on turnover behaviours of military personnel, and its effect on their spouses, published between 2005 and 2015. A thorough search was conducted revealing a narrow range of available research. The review reveals an insight into the different ways work-family conflict has been explored within military populations to date. Aside from the specific outcome of turnover or turnover intentions specified in the inclusion criteria, further outcomes included stress and a range of satisfaction types (job satisfaction, relationship satisfaction & family satisfaction with military life). The discussion will be structured around findings associated with work-life conflict against the three discrete areas of research outcomes identified from the review. The strengths and limitations of the studies will also be discussed, including practical implications and future research suggestions.

The expected relationship between work-family conflict and turnover behaviours of military personnel, in that higher levels of the former would result in high levels of the latter, was found (Andres et al., 2012b; Huffman et al., 2013). However, this finding was not consistent across the studies (Heilman et al., 2009). This may have been due to the different work-family conflict measures used, or indeed the different Armed Forces under investigation. One study was based on the U.S. Army (Huffman et al., 2012), one on the Netherlands militaries (i.e. Navy, Army, Air Force, Police; Andres et al., 2012b), whilst the third study looked at the U.S. Air Force (Heilman et al., 2009); the two U.S. based studies focused on Officers, whilst the Netherlands study did not state rank. Service differences were not reported in the Andres et al. (2012b) study. On contacting the main author the reason for this omission was due to insufficient numbers from across all the included Services which prevented individual level analysis; the majority of the sample was actually Army based. This limits the generalisability of these findings across other Services, for example Navies, and also across different levels of personnel (e.g. junior levels i.e. Ratings). The relationship between work-family conflict and turnover-related behaviours was not found to be universal; further work will be required to support or refute the differing findings, including the suggestion of turnover influencing work-family conflict (Andres et al., 2012b). Ideally, future work should utilise the same measures across the different Services of individual countries, and also ranks in order to provide a greater level of granularity and understanding.
Evidence was found for the mediating role of satisfaction in the work-family conflict and turnover behaviour relationship, which is an important point for retention strategies. Results demonstrate that job satisfaction (Huffman et al., 2013), family satisfaction (Heilman et al., 2009) and relationship satisfaction (Andres et al., 2012b) are key elements within this relationship. The link between satisfaction and turnover-related behaviour supports previous non-military based research regarding this relationship (e.g. Bonenberger, Aikins, Akweongo, & Wyss, 2014; Holtom, Smith, Lindsay, & Burton, 2014; Mudor & Tookson, 2011; Tschopp, Grote, & Gerber, 2014), providing an element of generalisability of these findings. Practically, it is therefore important to provide appropriate conditions to encourage job satisfaction, as it seems that when job satisfaction begins to decline, the negative influence of work-family conflict increases. This could be explained through previous research which has found job satisfaction to influence turnover-related behaviours when individuals have a negative affective reaction towards hygiene factors, or dissatisfiers (Herzberg, 1968, 1974; Pietersen & Oni, 2014). These include working conditions and context (Bakker & Demerouti, 2014; Herzberg, 1968; Ito, 2003). In the context of the military, working conditions are likely to be more demanding than those found in a ‘standard’ working environment, as well as this context being separated from home-life. The risk of such hygiene factors influencing turnover behaviours may be higher, therefore providing some explanation for the results found in the reviewed studies. For military organisations, ensuring job satisfaction is retained is clearly something that needs to be considered in order to help alleviate the occurrence of the work-family conflict-turnover relationship.

Family (Adams et al., 2005; Heilman et al., 2009) and relationship (Andres et al., 2012b) satisfaction were also found to decline over deployment length and to mediate the work-family conflict-turnover relationship. Military organisations are unlikely to be able to influence personal relationship satisfaction, but could consider how to address family-related satisfaction. That said it may be that both the degradation of relationships during deployments and consideration of family satisfaction could be reduced through better communications and support. The ease of this may differ across Services. For example, communications associated with Army deployments are likely to be more easily rectified than those involving Naval deployments – particularly for submarines – purely based on the types of operations the former Service tends to be involved in (i.e. land based). Further, family satisfaction in one study was based on the military person’s view of their family’s perceived satisfaction (Heilman et al., 2009), which may not represent an accurate portrayal of what the family actually felt towards
the situation. The family may ‘hide’ their true thoughts in order not to unduly upset their partner; which is likely to influence both perceived family satisfaction and relationship satisfaction. This links to previous research which has found that questions linked to the level of information that can be shared, how much to share, how to share, and what sort of response the information will receive, to all be key considerations families make when communicating with deployed personnel (Cafferky, 2014). Further, feedback from deployed personnel has been found to reciprocally influence how those at home decided to disclose information in the future. Improving communications may therefore not have a desired effect if the content of the communication cannot relay what individuals really want to talk about.

A further consideration relates to the influence of deployments pre, during and post separation. Evidence was demonstrated for the effect of work-family conflict on family satisfaction (Andres, 2014), stress (Andres et al., 2012a) and relationship satisfaction (Andres et al., 2012b) before separation. This seems to indicate an issue with sufficient time being provided prior to separation for the family to concentrate just on the family. In addition, the impact of pre-separation experience is likely to be more negative if there is uncertainty linked to the proposed schedule (Huffman et al., 2013), for example, a short notice separation. Military organisations need to ensure that adequate notice is provided prior to deployments and moves, and ensure that family time is provided and protected from interference.

During deployments, operational tempo was found to influence work-family conflict, both for the Service person, but also indirectly through work-family conflict for families (Heilmann et al., 2009). If tempo of work during the deployment is so high that personnel are not able to make contact with their family or are too tired to have any meaningful conversations, this is likely to produce a negative outcome. Job stress was found to be the main influencer for those at home, whilst both job and family stress influenced the Service person (Westman & Etzion, 2005). This highlights the need to ensure realistic understanding is provided regarding what to expect from particular deployments, both in terms of availability of communication channels, but also in terms of understanding the potential emotional impact. Research has indicated a range of issues linked to relationships during deployments, including control and power over home aspects, feelings of abandonment, relationship issues, and crisis in trust (Gottman, Gottman, & Atkins, 2011). Influencers appear to emanate from both job and family contexts, suggesting interventions should not just focus on the deployment side, but also
on the home side. Only one study in this review explored the bi-directional nature of the work-family conflict concept (Westman & Etzion, 2005), indicating further work is required in this area to understand this from both angles.

Higher work-family conflict was associated with lower relationship satisfaction (Andres et al., 2012b) and distress after deployment. These findings infer that the presence of work-family conflict on returning negatively influences families and relationships. The degradation of relationships may be influenced by general time away, the experience of the serving person and spouse before and during the separation, and concerns over the reintegration into family life afterwards. For example, research has found lack of social support to influence spouses (Skomorovsky, 2014) and family reunions, particularly for personnel affected by post-traumatic stress disorder (Bello-Utu & DeSocio, 2015). It may be that the negative feelings fostered during the deployment cycle are not able to be rectified on returning; a similar idea to the development of turnover intentions being linked to actual turnover behaviours (Ajzen & Madden, 1986; Armitage & Conner, 2001; Tett & Meyer, 1993; van Breukelen et al., 2004). From the organisation perspective, better information and communication interventions may help alleviate some of the issues linked to family and relationship satisfaction, however the utility of these across Services may need to be considered. Conversely, it may be that the level of information and communication permitted will never be sufficient to satisfy the needs of families or personnel.

Quality of Evidence

Following appraisal of the studies utilising the quality assessment schedule, one study had to be rejected due to lack of methodological quality reported. The seven included studies comprised a total of just under 7500 military personnel and just under 1500 military spouses. Methodological quality varied across the studies, with strengths and limitations associated with each.

One of the most common weaknesses noted related to selection bias; specifically sample size. The response rates reported could be misrepresenting the quality of studies. For example, a response rate of 29% may be sufficient with a sample of 5000, whereas this rate on a sample of 75 may not necessarily be sufficient. That said, this would be determined by the population the samples were drawn from. However, no papers provided power calculations, so it was difficult to determine whether the response rates achieved would have been representative of the wider population. This
raises the importance of providing actual population and respective sample information, both in terms of providing suitable response rates and identifying the representativeness of the study participants.

Study design also tended to be a lower scoring area for each of the studies. Cross-sectional designs were used by three of the studies. In general, such designs are not considered to be very high on the pyramid of evidence used when assessing the quality of articles (e.g. Ho, Peterson, & Masoudi, 2008). Based on the developed quality assessment tool used in this review, such designs are rated as ‘weak’. Limitations associated with cross-sectional designs are generally acknowledged by authors. However this design is likely to continue, particularly when responding to organisational requirements that need to be reported within a short time frame that does not lend itself to longitudinal study design. This means that studies utilising a cross-sectional design should ensure the remaining methodological considerations are strongly met in order to guard against low ratings. Alternatively, consideration of using a cohort study to provide a control group can help increase design ratings. A pre-test measure is considered suitable as a control (B. H. Thomas et al., 2009b), providing greater internal validity compared to cross-sectional design. Randomised Controlled Trials and Controlled Clinical Trials are considered the best design, but these are not common within Occupational Psychology research.

Improvements were also noted in describing information related to withdrawals from the studies and blinding. None of the studies provided information relating to whether participants were aware of the research question, making it impossible to determine whether results were influenced by potential response bias.

Positively, particularly for the field of Occupational Psychology, was the inclusion of implications for practice, which has been a criticism of published research (Bartunek, 2007) in the past. Understanding the relevance and implications for practice are key aspects to consider, given the real-world application. Additionally, the studies reviewed all utilised working adult populations, as opposed to university or college students, which again provides real-world utility in their application. Finally, the use of military populations specifically is positive, particularly based on the limited evidence found within this area during the review.
Limitations and Further Research

Bias at the quality assessment and data extraction stages of the review process were reduced by developing an assessment schedule and data extraction form which were applied by the author; these were checked for accuracy by an anonymous second reviewer. Although efforts were made to identify all available published literature this review may not include all available information and studies, noting that some identified articles could not be accessed. Additionally, the specific areas explored (i.e. work-family conflict against satisfaction, turnover behaviours & stress) were only covered by two or three articles, so although there were elements of potential generalisability, there is more to be done to fully appreciate and understand these areas within the military.

A number of areas for further research were identified through this review, some noted previously. The main suggestion would be explore the variables of interest across all the Armed Services, particularly Naval Services, to determine any subtle or not so subtle differences.

Future research should consider evaluating the interventions discussed within articles, to determine their utility thereby allowing other Services to learn and develop policies and structures. It should also be noted that the studies looking at the relationship between work-family conflict and stress represented the U.S. Air Force and Netherlands military (overall), highlighting again a need to explore these relationships further in the other military Services.

There was also a tendency to focus on the impact of deployments and how the variables discussed are influenced; however, a proportion of personnel’s time will be spent ‘ashore’. A cohort study that explores differences within the work and family domains longitudinally to cover differing posting demands would be of use. This may include tracking of additional events occurring for example promotions or missing out on promotions, frequency of being at home versus being away from home (e.g. if work away during the week, returning home at the weekend), and general levels of work commitment required at different intervals.

Further research may also wish to explore the lived experiences of personnel and their spouses through qualitative research. Work-family conflict has been measured in the studies reviewed, however it is unclear how the participants understood this concept and perceived its impact. This would provide a greater understanding of how different individuals conceptualise this concept, including how it interacts with their daily lives.
A diary study may provide a useful insight into effects over the course of a deployment, by both the military person and their spouse; although this could be costly and time consuming.

Finally, research should be conducted to explore the positive elements associated with the work-family interface. There are a number of conceptualisations proposed to explicate the positive aspects, for example: Work-family enrichment which represents the extent to which experience in one domain (e.g. work) improves the quality of life, or experience, in the other (e.g. family; Carlson, Grzywacz, & Zivnuska, 2009; Carlson, Kacmar, Grzywacz, Tepper, & Whitten, 2013; Greenhaus & Powell, 2006; McNall, Masuda, & Nicklin, 2010; Nicklin & McNall, 2013); Work-family facilitation which represents the extent to which participation in one domain is made easier through opportunities, abilities and experiences acquired from another domain (Balmforth & Gardner, 2006; Frone, 2003; Grzywacz & Butler, 2005; Hill, 2005; Mustapha, Ahmad, Uli, & Idris, 2011); Work-family spillover which is the process where experiences in one domain affect the experiences in another, generating similarities between domains (Devine et al., 2006; J. R. Edwards & Rothbard, 2000; Grzywacz & Marks, 2000; D. E. Guest, 2002; Rothbard & Dumas, 2013); and Work-family synergy which suggests multiple role participation to have positive and beneficial effects for the individual and family resulting in enhancement to the overall quality of life (Beutell, 2010, 2013; Beutell & Wittig-Berman, 2008). Considering the relevance of these aspects alongside the negative perceptions would provide a more complete picture of how the work-family interface interacts within the military environment. Additionally, as the studies in this review were selected based on their military samples, it would be of benefit to provide control groups within the civilian sector to determine whether the relationships found are unique or a general perception.

**Conclusion**

Work-family conflict within military populations does exist, and although it is unclear as to the direct effect of this on turnover behaviours, a mediated relationship through types of satisfaction has been found. For military organisations this highlights the need to focus on job and family satisfaction in order to improve retention linked to work-family conflict. This is particularly pertinent for the U.K. Armed Forces based on the influence of Service life on personal and family life in terms of turnover behaviours (Defence Statistics, 2011, 2012, 2013, 2014, 2015). Family focus before, during and
after deployment separations should be provided. The aim should be to offer sufficient
information on the deployment and protected time for families before, sufficient
communication opportunities during, and social support after. Such approaches should
help alleviate some of the negative aspects linked to work-family conflict found within
this review.

This review has also revealed there to be a clear gap in this area of research related to
Naval Services. This is an important consideration, as there are subtle and not so subtle
differences between the lifestyle, deployment types and requirements associated with
the individual Services. Differences are also likely to be present at the Arm level, for
example a Submarine Service is likely to have a different experience and perspective on
the impact of work-family conflict and deployments than those serving in a Surface
Fleet (i.e. ships).

It will be important for all Armed Forces to consider how work-family conflict is
managed based on the findings of this review. Retaining personnel will continue to be
an important consideration in the future, and understanding how to create a positive
work-family balance is likely to be a key component in that challenge.

The key findings highlight the importance of providing sufficient support to
personnel and their families before, during and after deployments in order to manage the
negative impact of work-family conflict, in particular with regards to levels of stress,
satisfaction and turnover intentions. More research is required in this area to fully
understand the impact of work-family, and family-work conflict within the military
context, particularly for the Naval Services.

Anecdotally, the Royal Navy (RN) provides a distinctive work culture, based on the type of environment personnel are required to work within, and the type of work they complete compared to civilian based occupations. There is a tradition that individual’s join the RN for a career, rather than joining for a job. This distinction is important as currently the RN is a ‘bottom-fed’ organisation, relying on growing its talent for the more senior roles. This has a substantial impact on retention related strategies and policies, as without retention of the correct number of personnel, the RN will be unable to fulfil its operational requirements. This is compounded through imposed redundancies across the RN, changes proposed within the people strategy and the current outflow spike at the early-stage of career. Ensuring that change does not have a significant adverse effect on personnel is at the forefront of the implementation of people strategy. Key to this is the importance of ensuring that career related behaviours remain positive thereby reducing the potential for turnover intentions to develop. Although an element of attrition is required to maintain the structure of the Service, the impact of these two events raised concerns over future sustainability. This resulted in a strategic requirement to understand how positive organisational-related behaviours influence career-related behaviours in general, through career and also between the different divisions of the Service. There was a requirement to determine what career structures were likely to work across the Service, and whether a one-size fits all strategy will be sufficient within people strategy.

This paper looks to explore key aspects associated with career and retention within the RN; specifically, the relationship between identity, ethos and engagement on career motivation, perceived opportunities and turnover intentions. To date, these relationships have not been empirically tested within the RN, and their relevance to the RN is unknown. This paper will look to address this gap in the academic literature, advancing theoretical knowledge, but also informing practice by directing strategic decision-making related to career desires through career within the RN.

This research will aid both practitioners and academics. The latter will benefit from new contextual understanding of the interactions between values and attitudes on career related behaviours within the RN, as well as the role of opportunities and engaging personnel in military populations. It will provide unique access to a military population,
notably the RN, thereby addressing the criticism of high student population use within academic research (Foot & Sanford, 2004; Witt et al., 2011). It will also permit exploration and potential generalisability of relationships found in general psychological literature to this population. From a practitioner perspective, this will provide a level of confidence for senior leaders when theories are applied and practical implications are suggested within the workplace. Understanding how values, attitudes and needs of Service personnel interact with perceptions of their career and intentions to remain will allow the Service to refine the objectives and direction of the strategy. In particular, informing the career management process and career managers, allowing a greater understanding of the influence of identity, ethos, perceived opportunities and engagement through career, with particular reference to how these influence career motivation. Attention will also be given to extending the research conducted in Chapter 2, specifically supporting or refuting the distribution of career anchors.

Self-Concept

A substantial part of an individual’s life is spent at work, meaning behaviour is likely to be influenced by one’s position and role within an organisation (Haslam, 2004). Identification to the organisation is argued to be both an aspect of the psychological processes within an individual and a collective product of the social context (Haslam, Postmes, & Ellemers, 2003) i.e. a cognitive connection when a person’s self-concept contains the same attributes as the perceived organisational identity (Dutton, Dukerich, & Harquail, 1994). This is a concept originated in Social Identity Theory.

Social Identity Theory (SIT; Tajfel, 1981, 1978; Tajfel & Turner, 1979) was originally developed to explain how social context affects relationships between groups. Drawing on category distinctions, individuals were found to enhance similarities within their group, and differences between groups. To achieve ‘identification’, there needs to be a cognitive awareness of membership, an evaluation of value, and an affective investment (Tajfel, 1982). Identity can be described along a continuum from personal through to social identity (Hornsey, 2008). Personal identity (interpersonal) comprises of attitudes, memories, emotions and behaviours which are unique, or idiosyncratic to the individual. At the opposite end, the intergroup perspective, self-concept comprises of one’s ‘social identity’, described as the aspects of the individual’s self-concept taken from the social categories and emotional consequences of group membership (Hornsey, 2008).
As SIT developed, a complimentary and supportive theory evolved, namely Self-Categorisation Theory (SCT; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). SIT and SCT are often jointly described as the social identity approach (Postmes, Tanis, & de Wit, 2001). The principal difference between SIT and SCT is the consideration of identity as operating at different levels of inclusiveness rather than an interpersonal and intergroup level existing on a bipolar spectrum. SCT is based on the notion that in situations, people will organise social information by categorising individuals into groups (Ellemers, de Gilder, & Haslam, 2004). This influences how an individual perceives themselves, defining a different level of self-concept. Three levels of self-categorisation are proposed: superordinate (human identity), intermediate (social identity), and subordinate (personal identity). There is an interconnected nature between desires for individual distinctiveness, self-enhancement and belonging to a group – all of which are considered to be shaped through culture (Hornsey & Jetten, 2004). Nuances are suggested to exist at the intermediate level, allowing additional flexibility in one’s self-concept (Hornsey & Hogg, 2000). The underlying principle for any level of identity is the need for distinctiveness, self-enhancement, and a secure self-concept (Ashforth et al., 2008; Hornsey, 2008; Van Dick, 2004). Considering how important this is for career-related behaviours for RN personnel is of interest.

Salience of social identities have been found to be uniquely associated with a range of positive organisational outcomes (Blader & Tyler, 2009; Haslam, 2004; Van Dick, 2004; van Knippenberg & van Schie, 2000). For example, identity salience and correspondence between one’s role and identity have been found to positively influence levels of engagement (Britt, 2003) and turnover (Alarcon, Lyons, & Tartaglia, 2010). Engagement is also considered to harness the individual self within the work role (Kahn, 1990). Conversely, doubts have been raised as to the importance of identity in terms of causing behaviours (Jenkins, 2008). It is accepted that identity is connected to motivation and behaviour, but this is argued not to be a straightforward relationship and does not necessarily imply causation (Jenkins, 2008). This study is specifically interested in the dynamics between organisational behaviours and social identity, with the latter specifically at the organisational level to reflect a RN identity. This is particularly pertinent based on the suggested relationship of identity to turnover intentions, and the identified RN retention concerns.

Organisational identity is a form of social identity (Ashforth & Mael, 1989), based on the premise that to identify with the organisation, one needs an identity as a member
of that organisation (Haslam & Ellemers, 2005). It reflects the extent to which individuals define themselves in terms of the collective sense of who they are as an organisation (P. Smith et al., 2013), including the values attached to that for one’s self-definition (Ashforth et al., 2008). Similarly to the concept of identity in the social identity approach, organisational identity is concerned with highlighting the similarities to other members through a process of depersonalisation (Cooper & Thatcher, 2010). Although not specifically measured in this study, one could argue that joining the military involves a clear depersonalising process. During training there is an inherent process of stripping away an individual’s incoming identity, in order to move them from being a ‘civilian’ to a ‘military person’. Part of this will be to encourage rebuilding of an identity in the organisations ‘image’, known as divestiture (Ashforth et al., 2008). However, this may potentially result in an incongruent identity that is not able to be maintained, which ultimately may lead to the development of turnover intentions. This is a key consideration for recruitment to the RN, in terms of applicants determining if a career in the RN is suited to them and therefore whether their identity aligns with that of the organisation.

The stronger the shared perceptions of identity are (Cole & Bruch, 2006), the more attitudes and behaviours are suggested to be governed by the membership (Van Dick, 2004). Individuals with high organisational identity will perceive the successes and failures of the organisation as their own (Van Dick, 2004). A shared identity has been found to contribute to effective communication and leadership (Haslam et al., 2003), and act as a strong psychological anchor that discourages turnover intentions (Abrams, Ando, & Hinkle, 1998; Bothma & Roodt, 2012; de Moura, Abrams, Retter, Gunnarsdottir, & Ando, 2009; M. R. Edwards & Peccei, 2010; Madera, King, & Hebl, 2012; Mael & Ashforth, 1995; Rothausen, Henderson, Arnold, & Malshe, 2014; Van Dick, 2004; van Dick, Wagner, Stellmacher, & Christ, 2004; von Hippel, 2011). Turnover is suggested to occur when incongruence threatens an individual’s positive self-concept (Haslam, 2004) in that they do what is required to maintain a positive self-concept. For the RN, this may provide an indication of why personnel choose to leave the organisation. Additionally, considering identity has been suggested to contribute to communication and leadership, this highlights the importance of shared identity between personnel, particularly when achieving operational tasks.

Organisational identity and identification can be considered key to structuring and harnessing the collective nature of an organisation – a particularly significant point for
the RN where team work is essential. Failure in one element could mean the difference between life and death on operational deployments. Belonging to an organisation shapes the sense an individual has over who they are and aren’t, providing a basis for the achievements of the organisation as a whole (Haslam et al., 2003). It is about a connection between the self and the organisation (de Moura et al., 2009). Part of the development of this identity comes from acquiring the ability to process feedback about the self and building self-awareness of one’s own purpose (Law, Meijers, & Wijers, 2002); simply understanding aspirations about one’s development, needs and future goals (Jetten, Iyer, Tsivrikos, & Young, 2008).

‘Needs’, according to the social identity approach, are a reflection of the definition of the self, with the associated motivational aspects altering based on the salience of goals (Haslam, Powell, & Turner, 2000). This contrasts with needs based theories, which propose work motivation to occur through a desire for challenge and development (Maslow, 1943). It seems that an individual’s sense of self, i.e. self-concept, personality and values influences the direction, effort and persistence of behaviour (Leonard, Beauvais, & Scholl, 1999), as well as the value and significance associated with that membership (Tajfel, 1978). It is through shared identity, that individuals become a group or part of a society, and will behave as part of that group (Oren & Bar-Tal, 2006). Individuals are motivated to behave and achieve goals in a manner consistent with their salient self-identity i.e. needs associated with shared membership are internalised and guide behaviour (Haslam et al., 2000; Latham & Pinder, 2004). Important elements of this are the perceived similarities associated with shared membership, which are suggested to be based on shared beliefs (Bar-Tal, 1990, 2000).

Shared beliefs are often considered to constitute what is termed ‘ethos’. Ethos is suggested to give meaning to a social group, and has been described as one of the bases of social identity, providing a common perspective that brings about a sense of belonging and identification (Oren & Bar-Tal, 2006). There seems to be a similarity between one’s self-concept, or identity, and the idea of ethos. This is an important distinction to consider for the RN. Both terms are used interchangeably and given similar weight in terms of their relevance and importance in the RN. Part of the people strategy will be to consider the role of ethos and how this is developed from the new recruit through to an experienced sailor; and whether it differs from identity. With this in mind, the following hypothesis will be explored:
Ethos will predict levels of organisational identity of RN personnel (Hypothesis 3a; $H_{3a}$).

**Values and Attitudes**

**Ethos**

The unique working environment and function of the RN places it as a distinctive organisation within society. Service personnel are expected to be versatile in all manner of environments. The underlying ‘spirit’ that is perceived to facilitate achieving these tasks and retaining this distinctiveness is encapsulated in the RN ethos. This ‘spirit’ is derived from loyalty, high standards and strong leadership, and works to draw personnel together to achieve the Service goals (First Sea Lord, 2007). This ‘can-do’ attitude, professionalism and self-discipline is represented by shared values, standards and commitment (Hughes, 2014) and is considered essential to the military lifestyle.

Previous research has focused on the interaction of ethos within war environments (Coker, 2007; Hays-Parks, 2002); to date, no research has looked at the interaction between ethos at the more fundamental level of RN career-related motivation and turnover.

Ethos is suggested to manifest in the attitudes, aspirations and internal values of the organisation (Caza et al., 2004; McMillan, 2002). It is considered to be instinctual (Hannah & Avolio, 2011), and both implicit (in tacit practices & cognitive habits) and explicit (in values & the behaviours guided by them) in the culture of an organisation (Kitayama, Conway, Pietromonaco, Park, & Plaut, 2010). These attitudes, aspirations and values act together to ensure individuals share and understand the principles that motivate and drive subsequent organisational behaviours (Caza et al., 2004; McMillan, 2002; Simpson & Weiner, 2012). Alignment between an individual’s values and attitudes, and those of the organisation, is likely to result in a more productive relationship (Baruch, 2004), and lead to a greater sense of ‘fit’ (Kristof-Brown, Zimmerman, & Johnson, 2005). The role of ethos is therefore of great importance not only in the traditional and historical sense of the RN, but also in terms of the psychological and cultural attachment personnel have towards the organisation, as well as development of their own self-concept (identity). How ethos develops through career and influences career related behaviours in the RN has not been investigated before.

This is particularly pertinent based on the discrete populations that exist within the four Arms of the RN – Surface Fleet, Submarines, Fleet Air Arm and Royal Marines – each
of which have subtly different cultures and sense of ethos. How these align with individual values is an important consideration. Based on the suggested relationship between one’s identity, values and behaviour, and the proposed link between ethos and identity the following hypothesis will be explored:

- Organisational identity and ethos will positively predict the career motivation of RN personnel (Hypothesis 1a; $H_{1a}$).

Congruence between values (i.e. ethos, that leads to behaviours) and need fulfilment (i.e. attitudes & aspirations; Cable & Edwards, 2004) between the individual and the organisation is said to lead to cultural compatibility, or ‘fit’ (Kristof-Brown et al., 2005). These aspects have been found to lead to positive organisational behaviours such as job satisfaction (Danziger & Valency, 2006; Tan & Quek, 2001), and also to influence application decisions (Darnold, 2008), and career decisions (Baruch, 2004). It seems therefore that the ethos of the RN is likely to have an impact on how attached, or engaged, personnel feel towards the organisation and their perceptions towards their career related decisions and motivations. It is of interest to understand how or why this relationship occurs; with this in mind the following hypothesis will be explored:

- Ethos and engagement will positively predict the career motivation of personnel in the RN, with ethos mediating the relationship between engagement and career motivation (Hypothesis 1b; $H_{1b}$).

Ethos, as the attitudes and internal values one shares with an organisation, is suggested as one of the sources of social identity, or self-concept. This, in turn, provides a route through which to identify and commit to ones work i.e. engagement. There appears to be a cognitive connection shared between ethos, identity and engagement. Determining whether ethos is the basis of later positive organisational behaviour is of interest. One can speculate that one’s identity (self-concept) is directly linked to the concept of ethos, which in turn has connections with engagement and career related behaviours.
Engagement

Employee engagement is a very popular concept that has received a great deal of attention, particularly in the human resources area (e.g. Alfes, Truss, Soane, Rees, & Gatenby, 2010; hr council, 2015; HR Zone, 2015; Kaufman & Markey, 2014; D. Robinson, Perryman, & Hayday, 2004). The operationalisation of engagement is not precise, and no one definition is universally used. Definitions include: a high internal motivational state (Colbert, Mount, Harter, Witt, & Barrick, 2004); emotional and intellectual commitment to the organisation (Kular, Gatenby, Rees, Soane, & Truss, 2008); an indicator for high performance levels (Wellins & Concelman, 2005); a high level of activity and responsibility (Dvir, Eden, Avolio, & Shamir, 2002); and exhibiting discretionary effort (Frank, Finnegan, & Taylor, 2004). An alternative view places engagement as a psychological state (i.e. feeling of energy, involvement), performance (i.e. extra-role behaviour), disposition (positive views of life & work), or a combination of these (Macey & Schneider, 2008). It is this psychological and emotional element which appears to have gained prevalence (Schaufeli et al., 2006), specifically focussing on three factors conceptually linked to engagement, namely dedication, absorption and energy. Vigour denotes high levels of energy, persistence and mental resilience; dedication represents enthusiasm, pride and challenge; and absorption refers to being fully engrossed in work through focused attention and intrinsic enjoyment (Schaufeli & Bakker, 2004). These concepts appear to be aligned to the stereotypical factors considered necessary to be successful within the military, for example resilience, pride and enjoyment.

By absorbing work as part of one’s self-concept (i.e. identity), and implementing their preferred self in their work an individual is suggested to develop and become productive, or engaged (Kahn, 1990; Macey & Schneider, 2008). Engagement is about being psychologically and physically present at, and identifying with work (Kahn, 1990, 1992). In addition to the focus on identity as part of engagement, it is argued that it goes beyond this, comprising of emotions, behaviours and cognitions involved during work performance (Kahn, 1992; Kular et al., 2008) resulting in motivational outcomes (Bakker, Demerouti, & Sanz-Vergel, 2014). These aspects appear to make up the beliefs, attitudes and energy an individual has towards their work – very similar facets to those found within the concept of ethos. Cognitive aspects refer to the beliefs about the organisation, including leaders and working conditions; attitudes, or emotional aspects, refer to how an individual feels, for example whether they have positive or
negative views towards the organisation and leaders; and the physical aspects relate to
the energy an individual exerts (Kular et al., 2008). The definitions used raise a
question as to whether engagement is something unique or simply a rebranding or
repackaging of other constructs, for example identity and ethos. This is important,
particularly when organisations require action out of employee surveys suggested to be
measuring ‘engagement’. With this in mind, the following hypothesis will be explored:

- Organisational identity, engagement and ethos will be positively and highly
correlated (Hypothesis 3b; $H_{3b}$).

Engagement has also been explained in terms of Social Exchange theory (Saks,
2006), occurring through feelings of obligation or reciprocal interdependence, based on
rules of exchange – a two-way relationship. With this view, the extent to which an
individual engages is likely to depend on the exchange of engagement for resources and
benefits from the organisation. This perspective seems to reflect alternative
psychological theories, namely the reciprocal nature of the psychological contract
(e.g. Rousseau, 1989, 1995; Rousseau, 2004) and obligation element of the three-
component model of organisational commitment (e.g. Meyer & Allen, 1991; Meyer &
Allen, 1997; Meyer et al., 1993). This further blurs the definition of engagement.

Creating engagement is not about paying more money, or making people happy;
although the former has a role in attracting & retaining (Towers Perrin, 2003). It is
about good leadership (Breevaart et al., 2014), challenge, autonomy, a sense of control
over ones work, development opportunities (Towers Perrin, 2003), and feeling valued
and involved with an organisation (D. Robinson et al., 2004). The extent to which an
individual finds meaning in their work is proposed to have a substantial impact on how
they feel about their working life in general (Alfes et al., 2010). Additionally,
meaningfulness influences the consistency between work and personal values (Bono &
Judge, 2003), including enhanced extra-role behaviour (Caesens & Stinglhamber,
2014). This highlights the close relationship between the individual and employing
organisation. It would be feasible to suggest that when the goals and values of the
organisation are congruent with the individual, engagement is likely to be greater
(Baruch, 2004; Macey & Schneider, 2008). Further to this, engagement has been found
to mediate the relationship between role clarity, culture and turnover (Alarcon et al.,
2010), and predict intentions to leave an organisation (Saks, 2006). The role of
engagement is clearly of relevance, as is the need to understand what aspects influence it.

Failure of leadership and management is one of the main causes of poor employee engagement (MacLeod & Clarke, 2009); but not the only one. For example, factors such as gender, occupation, seniority and length of service (Alfes et al., 2010; Robertson-Smith & Markwick, 2009) have all been found to influence engagement. Additionally, engagement is suggested to decrease slightly as length of service increases (D. Robinson et al., 2004), whilst initial work engagement predicts an increase in job resources which in turn increases engagement (Schaufeli, Bakker, & Van Rhenen, 2009). The variability shown demonstrates engagement to be a complex concept to manage and influence; something the RN will need to be cognisant of if engagement is found to be an important variable for career motivation and turnover intentions.

In general, engaged employees are likely to have a greater attachment to their organisation (Robertson-Smith & Markwick, 2009) and therefore lower turnover intentions (Schaufeli & Bakker, 2004). Such attachment can lead individuals to identify with the organisation (Macey & Schneider, 2008), with true identity sometimes considered to reflect an authenticity resulting in a connection with work i.e. engaged behaviour (Kahn, 1992). The link between engagement and turnover, and the previously mentioned link between identity and turnover, has not been explored within the RN; in addition it is desirable to explore how these relationships occur. Based on this the following hypothesis will be explored:

- Organisational identity and engagement will positively predict intentions to stay in the RN, with engagement mediating the relationship between identity and intentions to stay (Hypothesis 1c; $H_{1c}$).

Considering how engagement changes over career is an important consideration, in terms of providing opportunities to maintain engagement and motivation. Retention of personnel is of key importance, due to the ‘bottom-fed’ nature of the RN; ensuring engagement is developed and maintained is therefore crucial.
Motives

Career motivation

Motivation refers to energetic forces that instigate individuals to behave in certain ways, in terms of direction, effort and persistence (Arnold et al., 2005; Pinder, 2008; Sullivan, 1989); in many ways a similar idea to that of ethos guiding the shared principles that motivate and drive organisations. Motivation theories have focused on a variety of aspects including, needs (e.g. Maslow, 1943), expectations (e.g. Vroom, 1995), fairness (e.g. CROpanzano & Greenberg, 1977; Greenberg, 1987, 1988, 1990), goal setting (e.g. Locke & Latham, 1990, 2002), intrinsic versus extrinsic factors (e.g. Deci, Koestner, & Ryan, 1999; Deci & Ryan, 1980), and job characteristics (e.g. Hackman & Oldham, 1976) to name a few. For reviews see Judge and Ilies (2002) and Latham and Pinder (2004). Motivation that initiates work-related behaviour is known as work motivation (Pinder, 2008). It is considered to be a psychological process resulting from interactions between the individual and the environment (Latham & Pinder, 2004), reflected through the ability to choose goals, direct efforts and persist in these (Medsker & O'Connor, 2015). The application of motivation theory to comprehend career related behaviours, decisions and plans is known as career motivation (London, 1993).

A career is suggested to be self-defining, providing an identity unique to the individual (Millward & Kyriakidou, 2004). Career, or professional identity as part of one’s organisational identity, relates to the attitudes beliefs, values, motives and experiences of one’s professional role (Weber & Ladkin, 2011). Part of the development of this identity comes from acquiring the ability to process feedback about the self and building self-awareness of one’s own purpose (Law et al., 2002). Career motivation places careers in the context of an individual, rather than within a single organisation (Quigley & Tymon Jr, 2006). Focussing at a more individualistic level, career motivation theory developed from a need to understand how individual differences associated with careers interact with behaviours and influence situational conditions (London & Noe, 1997). Personal and situational characteristics are considered to influence attitudes and behaviours. Personal characteristics may include the point at which an individual is at in their career, the importance of their role, their actual position, how far they are from achieving their career goal and how well the goals of the individual and organisation align (Noe, Noe, & Bachhuber, 1990). Goals are the mechanism by which values, acquired through cognition and experience, lead to action
(Latham & Pinder, 2004). These values are influenced by the context, which affects and is affected by individual needs, personality and values (Latham & Pinder, 2004) – a very similar concept to that of ethos. Situational characteristics refer to externally influential aspects, such as the support from managers and motivating job characteristics, like work role salience and job characteristics (Noe et al., 1990), which are considered to be associated with career motivation (London, 1993) and career stages (Savickas, 1997; Super, 1957, 1981).

Career motivation is described as a multidimensional construct that is internal to an individual, and is influenced by the individual’s background, self-concept and situational context (Blue & Lopez, 2011). It manifests itself in the career related decisions, characteristics and behaviours demonstrated by the individual (Noe et al., 1990), with congruence between this profile and career path found to be positive (Buddeberg-Fischer, Stamm, & Klaghofer, 2010). Decisions, characteristics and behaviours are reflected in the extent an individual defines themselves by their work, has realistic career expectations, and has the determination to persist towards their career goals. These can be categorised into three domains, career identity, career insight and career resilience, which make up London’s (1993) theory of career motivation.

Career identity is the degree to which an individual defines themselves in relation to their work and the organisation that employs them, for example how central their career is to their personal identity (London, 1997; Noe et al., 1990). This includes the extent they immerse themselves in activities related to their job and the organisation, the amount of effort they put towards their work, the perception they have of themselves as a professional or technical expert, and the pride they feel towards their employer (London, 1993, 1997). Career identity has been found to demonstrate significant variance based on tenure (Veenstra, Haslam, & Reynolds, 2004), seniority and age (Weber & Ladkin, 2011). Career insight concerns the clarity and realism an individual has regarding their career goals; simply whether they have realistic career expectations (Noe et al., 1990). Insight is used to establish goals, and understand ones strengths and weaknesses. Career resilience refers to the ability and determination an individual has to adapt to changes in circumstances, even when disruptive (Noe et al., 1990). This could include positive views towards ones job and/or organisational change, self-confidence and a willingness to take risks.

Motivationally, career identity refers to the direction of motivation, insight is the arousal component that encourages involvement in career related activities, and
resilience is persistence or determination (Noe et al., 1990). Each of the three career motivation domains are suggested to be influenced differently. For example, reinforcement for good work and opportunities for achievement are associated with increases to career resilience. Increases to career insight are linked to encouragement for goal setting and information about career opportunities. Enhancement to career identity is considered to occur through opportunities for advancement and development (Noe et al., 1990). There is a clear similarity to the underlying motivations for these domains, namely opportunities. The structure of the RN affords a level of opportunity, but not for all personnel. Understanding how perceived opportunities impact on career-related behaviours in the RN has not been explored, and represents an important consideration for people strategy in terms of determining suitable career paths and structures.

**Focus on opportunities**

The impact of one’s perception of the future can have substantial implications for how an individual progresses. Socioemotional Selectivity Theory (Carstensen, 1992; Carstensen, Isaacowitz, & Charles, 1999; Fung & Carstensen, 2004) predicts that individuals will select goals in accordance with their perceived future i.e. limited or open-ended. Perception of time is a fundamental aspect of this theory, initially focussing on two goal types, namely, regulation of emotion and acquisition of knowledge. Depending on the perceived available time, individuals will choose to place greater importance on one over the other, for example, perceived limited time may result in prioritising emotional goals over knowledge acquisition. The authors later developed this theory into what is commonly entitled ‘Future Time Perspective’ (FTP, Carstensen, 2006; Carstensen & Lang, 1996; Carstensen, Pasupathi, Mayr, & Nesselroade, 2000; Carstensen et al., 2011; Lang & Carstensen, 2002).

Individuals with a longer FTP are suggested to perceive their current behaviour as instrumental in immediate and future goals, so the value associated with the current task is higher, demonstrated through their present behaviour (Simons, Vansteenkiste, Lens, & Lacante, 2004). Outcomes include enhanced motivation, conceptual learning, improved performance and concentrated persistence (Simons et al., 2004), as well as work motivation (Peetsma, 2000) and decreased turnover (Kraimer, Seibert, Wayne, Liden, & Bravo, 2011). Conversely, those with short future time perspective are less able to perceived future goals, so see little value in their current activities (McInerney,
2004), which will become noticeable through their behaviour. Research into FTP has investigated its dimensional nature, determining it to comprise of two distinct, but related, dimensions – focus on opportunities and focus on limitations (Cate & John, 2007; Kozik, Hoppmann, & Gerstorf, 2015).

Focus on opportunities would suggest an individual concentrates on the plans, goals and options available to them in their future, and if positive perceive their future positively. Conversely, focus on limitations would suggest individuals perceive restrictions and boundaries to their future; subsequently their perceived future would be negative. Individuals with a strong focus on opportunities have been reported to have greater levels of work performance (Aspinwall, 2005; Oettingen & Mayer, 2002).

Work performance describes behaviour that contributes to the effective functioning of an organisation, contributes towards its goals, and has important implications for the individual as well as the organisation (Zacher, Heusner, Schmitz, Zwierzanska, & Frese, 2010). Perceived future opportunities have also been found to influence turnover intentions (Kraimer et al., 2011), in that if opportunities are perceived as high, turnover is reduced, whereas if perceived opportunities are low, turnover increases. This indicates the relevance and importance of realistic positive thinking towards the future in terms of motivation, performance and indeed perceptions towards one’s career. If career opportunities do not match those desired by individuals they are more likely to choose to look for alternatives that can meet their needs. From a social identity perspective this would be about maintaining positive group and personal identity; this is also likely to be echoed in lowered engagement, motivation and ethos. This is an important consideration for retention related strategies within the RN, particularly with the need to grow and ultimately retain the expertise and experience of personnel. It seems logical to assume that having a sense of purpose for the future will be important to motivate individuals to engage in activities and work (McInerney, 2004).

Considering this and the previously noted link between engagement and development opportunities, goals and values, the following hypothesis will be explored:

- Having positive perceptions about future opportunities will positively predict the organisational identity, engagement, career motivation, ethos and intentions to remain of RN personnel (Hypothesis 1d; \( H_{1d} \)).

Perceived opportunities may influence how individuals feel towards their career; it may be that these perceptions are also influenced by age. Age-related differences, as
opposed to generation differences (e.g. Generation X, Y, etc.), have been found to better explain some observed differences between employees (Wong, Gardiner, Lang, & Coulon, 2008). Specifically, previous research has suggested age to be the critical dimension against which FTP (Kooij, Bal, & Kanfer, 2014; Padawer, Jacobs-Lawson, Hershey, & Thomas, 2007) and the two related dimensions differ (Zacher & Frese, 2009). This indicates a cognitive-related motivational nature, which is flexible and changing over time (Carstensen, 2006; Cate & John, 2007). Focus on opportunities and focus on limitations have been found to be negatively related to age (Zacher & Frese, 2009), with longer future orientations associated with being male, being older, having a higher income and educational level (Padawer et al., 2007). That said, focus on opportunities is suggested to important across all ages (Venz, Kalde, & Sonnentag, 2014), but this may be represented in subtly different ways.

It is suggested that with age often comes emotional and motivational changes (Carstensen et al., 2000; Lang & Carstensen, 2002), whether family changes or becoming aware of what one will or will not tolerate. Motivation seems to shift, rather than decline with age (Inceoglu, Segers, & Bartram, 2012), for example older individuals tend to be more intrinsically, rather than extrinsically, motivated (De Lange, Van Yperen, Van der Heijden, & Bal, 2010; Kanfer & Ackerman, 2004; Kooij, De Lange, Jansen, & Dikkers, 2008). This highlights that it is not a case of being less motivated, but having differently focused motivations. These findings may go some way to explain the greater tendency for older employees to demonstrate better work performance (Zacher et al., 2010) and contribute more in terms of organisational citizenship behaviours (Ng & Feldman, 2008). For the RN this is of interest, in that as personnel start to ‘settle’ down and have families they are less inclined to want to go away or be posted to other areas of the country, as this means relocating their family. These findings highlight the importance of recognising and understanding individual differences (Twenge, 2010; Wong et al., 2008); understanding these subtle differences will allow the RN to refine the employment offer through career. Taking account of life stage will be significant in terms of understanding and meeting the motivational demands of RN personnel. Age is also of importance, particularly as individuals join the RN at a variety of ages and career stages.

There are clear benefits associated with older employees in terms of commitment and citizenship behaviour (Ng & Feldman, 2008); however, opportunities for progression may be limited. FTP has been found to be significantly related to developmental
fulfilment (Bal, Jansen, Van Der Velde, De Lange, & Rousseau, 2010), yet older employees have been found to be less motivated towards development activities in comparison to younger employees (Colquitt, LePine, & Noe, 2000). Additionally, older workers who feel opportunities are limited are likely to feel less obligated towards the organisation, even when they are offered financial inducements (Bal et al., 2010). Such inducements are likely to lose their relevance for individuals who feel time has ‘run out’, meaning they will be more focused on emotional relationships with their family and friends (Fung & Carstensen, 2004) rather than being obligated towards the organisation. Understanding the impact of perceived opportunities upon retention is a key concern for the RN. If an individual does not perceive opportunities to be available, they may be less motivated. The types of opportunities available are also something for the RN to consider, for example if development is not salient for older individuals then such opportunities will be perceived as irrelevant in terms of their career development and career stage.

Career

Career Stages

Individuals who join the RN do so at different stages of their life. For example, individuals joining as a Rating/Other Rank are currently aged between sixteen and thirty-three; the majority of those tend to be under the age of twenty-four, but approximately seventeen percent are over this age (Defence Statistics, 2014c). For those joining as Officers, ages range from approximately eighteen to thirty-three, with twenty-three percent of these over the age of twenty-four (Defence Statistics, 2014c). These differences are likely to have some implications regarding perceptions towards one’s career. Those in their mid to late-twenties may be considering ‘settling’ down or even have a family/partner already, meaning their desires for their career may be different in terms of being away from their home life. Something those without this commitment may not be concerned about. Further, the older an individual is, the more likely it is that they have some work experience, or possibly have been completing further education (e.g. Master’s degree). This may mean their expectations and appreciation of their career desires may be higher or more defined, compared to those with limited or no experience in these areas. A further dynamic for recruits, is that individuals will join different elements of the Service (i.e. Arms, e.g. Royal Marines, Submarines), with each having subtle and not so subtle differences in terms of the
demands and requirements placed on personnel. This automatically creates differences between the way in which individuals may expect or wish to be career managed. Previous sections have mentioned that older employees tend to be more positively oriented towards the organisation – the question is whether this relates to length of service or age itself. Is it a level of maturity, or time in post? Both factors can influence the career stage an individual may be at. With this in mind, and considering previously discussed links between differences in perceptions of opportunities and engagement, the following hypotheses will be explored:

- Organisational identity, engagement, ethos, career motivation, focus on opportunities and intentions to remain will be different between the Surface Fleet, Submarines, Fleet Air Arm and Royal Marines (Hypothesis 2a; $H_{2a}$).
- Organisational identity, engagement, ethos, career motivation, focus on opportunities and intentions to remain will be more positive in RN personnel during late-career (Hypothesis 2b; $H_{2b}$).
- Organisational identity, engagement, ethos, career motivation, focus on opportunities and intentions to remain will be more positive in older RN personnel (Hypothesis 2c; $H_{2c}$).

A number of models have been proposed to explain career stages, including the career concept model (Brousseau & Driver, 1997; Brousseau, Driver, Eneroth, & Larsson, 1996) and the life-span, life-space approach to career development (Super, 1981; Super, Savickas, & Super, 1996). The idea of career stages highlights adjustments, both psychological and experiential, that individuals’ need to progress through within their career.

The career concept model (Brousseau & Driver, 1997; Brousseau, Driver, Eneroth, & Larsson, 1996) looks to understand and explain the varied concepts of what a career means to an individual, based on individual views and experiences of careers. Conceptually it consists of two factors: the frequency of career change; and the conceptual direction of career change. Taking these into account, four career concepts are proposed, namely, expert, linear, spiral, and transitory (Larsson, Brousseau, Kling, & Sweet, 2007). Expert refers to a career choice related to commitment towards, and mastery of, a single occupation. A linear career choice is focused on upward movement and promotion, with infrequent changes to the career field. Spiral career choice
concerns evolving through a number of occupations (five to ten years in duration) building on past choices to develop new skills. The final category is transitory in which career choice involves frequent changes of field, organisation and job (changing every one to four years) with variety being a dominant focus.

Three of the four concepts appear to be applicable to the RN, but would be too restrictive in terms of categorising personnel to aid career management. Some, but not all, personnel join the organisation for life (Expert), but during that time they will rotate between jobs every two years (Transitory), sometimes within the same field and organisation, but sometimes not (e.g. environments dominated by the other Services). During this time they will remain focused on promotion opportunities (Linear). The spiral choice doesn’t seem to be congruent to the nature of RN employment purely due to the duration of occupations – personnel wouldn’t usually change occupations every five to ten years. Overall, there is too much blending across the boundaries between the stages provided to be of use for the RN. A more flexible concept which takes account of the transient nature of the Service, and the range of age groups and aspirations, would be needed. Focusing on motivational differences may provide greater flexibility and utility, and also align more clearly with the theories of identity, engagement and career motivation.

An alternative approach defines career stages as clusters of attitudes, motivations and behaviours (Super, 1957, 1981) which help formulate and implement ones self-concept, including how this influences vocational behaviours (Savickas, 1997). This is known as the Life-span, Life-space approach to career development (Super et al., 1996). This theory holds that transitions between the career stages are a function of the individual’s characteristics and circumstances rather than of chronological age (Smart & Peterson, 1997). An individual’s status and future path is understood relative to their life-span, life-space and self-concept (Super et al., 1996). Considering the previously mentioned influence of age on motivation, this indicates a more complex interaction. Motivation is suggested to change focus with increasing age, however, the career stage may also have an influence on this based on the respective focus, in terms of life-space (e.g. having children) at any specific point.

Five stages are posited in the Life-span, Life-space approach to career development: Growth, Exploration, Establishment, Maintenance and Disengagement (Super, 1957, 1981; Super et al., 1996). The latter four are more likely to be of interest for the RN. Interests, values, aptitudes, needs and attitudes are considered to influence ones self-
concept and perceptions over the life-span (Sterner, 2012). The life-span structure is described as transitory, not static, developing and often needing adapting and redesigning (Super et al., 1996). This is about the process of choosing and adjusting to roles. This takes in growth (ages ~ four to thirteen), exploration (ages ~ fourteen to twenty-four), establishment (ages ~ twenty-five to forty-five), maintenance (ages ~forty-five to sixty-five) and disengagement (over ~sixty-five). Each stage may comprise of three or four major developmental tasks. Skipping a stage may result in difficulties at a later point, for example missing exploration may result in an individual making a poor job decision (Super et al., 1996); for the RN this would then result in costs associated with training wastage when the individual realises the job is not for them. The ages between the stages are described as very flexible, additionally each transition is considered to involve re-exploration and reestablishment. For example, rather than taking the ‘traditional’ route of entering and progressing in a career, an individual may decide to extend higher education, try a variety of career options or delay entry until a later point. Equally, it is common for individuals to change career midlife; therefore, they may pass through the stages a number of times. Research has provided support for the concept of ‘recycling’ through the stages (Smart & Peterson, 1997). Super took the view that decisions associated with careers are a lifelong process, often with external factors such as redundancy and development needs requiring replication of the career stages (this is a pertinent point with redundancies across the Armed Forces over the last few years). Such replication is likely to enhance an individual’s ability to cope and progress, irrespective of the context they find themselves in.

Life-space considers an individual’s contextual position, observing not only their work related life, but also their personal life i.e. the social positions occupied and roles adopted (Super et al., 1996). This element of the theory demonstrates that people live a life, with multiple roles, whilst also making a living through their career. Individuals are suggested to make decisions about their work-role behaviour, such as job choice and commitment, alongside the social positions which give the individual meaning and focus to their life. Core and peripheral roles will influence an individual’s identity and their general life satisfaction, including their interactions (e.g. making a choice to avoid disappointing a parent). The same job can mean different things for two individuals because of the situation in which they live for example, one may be active as a parent whilst the other is active as a singleton, which is likely to influence choices they make. Certain roles will dominate as the life stages progress (Sterner, 2012). Those who
spend time which is congruent with their values and feelings of commitment are likely to be more satisfied with their lives, both personal and work related (Perrone, Webb, & Blalock, 2005).

The final element of this theory, and the part that links principally with this study, considers the content involved in the choices made and the outcomes of those choices. Choices referred to the abilities and interests of both the individual and those required by the occupation. The fit between these two will predict how well an individual is likely to adjust. A good fit outcome would be reflected in job success, satisfaction and stability (Super et al., 1996). In this theory choice is covered by the conceptions of the self; that is the personal meaning of abilities, interests, values and choices and how these combine into life stages - one’s self-concept. Occupational self-concept refers to those self attributes the individual considers relevant for their vocation (Super et al., 1996). The self-concept has also been highlighted when discussing identity, engagement, ethos, career motivation, and future opportunities, so appears to be an important feature to consider in career management.

Tenure has been found to be important for life-space life-span theory, rather than age, as the former may more accurately characterise the underlying structure, or stage, of an individual’s life (e.g. a stable or transitory career stage; Cohen, 1991). People of all ages can be at any stage of career, therefore their tenure within an organisation is more likely to be representative of their actual stage. This is particularly so within the RN, with people often entering the Service having limited work experience, but also having had several years of experience. This aligns with career identity (as part of career motivation) where variance was found based on tenure (Veenstra et al., 2004); although is counter to FTP and focus on opportunities, where age was considered a key factor (Padawer et al., 2007; Zacher & Frese, 2009). It is important for people strategy to understand these factors, and how they influence people at each stage of their career within the RN.

The culmination of life-span, life-space and self-concept provides a flexible approach to understand the aspects that can influence career stages, including how these may impact on the career motivation of individuals. However, this also depends on what an individual aspires for within their career and how this impacts on retention related behaviours.
Career Anchors

Career aspirations, as defined in the concept of career anchors, have previously been explored in Chapter 2. Although not intended to form a substantial element of this chapter, understanding the generalisability of the aspirations found in Chapter 2 is important. Confirmation of the career anchor profile found will allow greater meaning and relevance for the RN, increasing the potential practical application for career management and recruitment strategy. To situate the concept within this chapter, a brief outline of Career Anchors will be provided.

Career anchors represent a typology that describes individual level non-monetary drivers of career choices (Schein, 1978, 1990, 1992, 1996). They reflect a process of initial occupational choice and subsequent career identity formation and choices, placing the career in the context of the individual (Feldman & Bolino, 1996; Quigley & Tymon Jr, 2006; Schein, 1996). During the first five to ten years of work experience (Schein, 1992), individuals are suggested to become more aware of their self-perceived talents and abilities (what they are good at); self-perceived motives and needs (what they want); and self-perceived attitudes and values (things they value) (Schein, 1992, 1996; Weber & Ladkin, 2011) creating a strong self-concept (Tan & Quek, 2001). This leads to determining which career anchor is best suited to them. Eight anchors are proposed, with each outlining a subtly different aspiration (Technical Functional; General Managerial; Autonomy/Independence; Security/Stability; Entrepreneurial Creativity; Sense of Service/Dedication; Pure Challenge; & Lifestyle; see Appendix D for more details). Over time, an individual is suggested to seek a level of congruency between their self-concept and career choice, which can have a positive impact on job satisfaction (Danziger & Valency, 2006). The proposition is that if a job is not consistent with their values and needs, they will be pulled back to an environment that is congruent. Anchors have been found to differentially influence career trajectories (Gubler, Biemann, Tschopp, & Grote, 2015). It could be argued that providing circumstances that are congruent to the aspirations of personnel will be likely to help align expectations and fulfil promises (Sturges et al., 2005). This may then reduce the development of turnover intentions – a key consideration for the RN.

Although the premise is that individuals will settle on a single dominant anchor (Schein, 1990), the occurrence of multiple career anchor preferences is also possible (e.g. Chapman & Brown, 2014; Danziger & Valency, 2006; Feldman & Bolino, 1996; Ramakrishna & Potosky, 2003; Tan & Quek, 2001). The time it takes for a single
dominant career anchor to emerge could be argued to be substantial, and could form one explanation for the spike in turnover intentions of junior personnel during early-career in the RN. If individuals don’t know what they ‘want’ from their career when they join, they may start to develop an idea of what they will and won’t put up with during those initial years. This then leads to development of turnover intentions. Alternatively it may be that they don’t settle on one anchor, and this multiple preference situation leads them to want to explore alternative options. To replicate Chapter 2, and provide information to inform the early-career turnover spike, the following hypotheses will be explored:

- The Career Anchors of Lifestyle, Technical Functional, and Pure Challenge will be the most popular single anchor preferences within the RN (Hypothesis 4a; \( H_{4a} \)).
- The occurrence of multiple Career Anchor preference will be greater in personnel with shorter tenure (Hypothesis 4b; \( H_{4b} \)).

**Hypotheses**

For clarity, the hypotheses indicated within the literature review can be found below. Each of these will be represented by a sub-heading within the Results and Discussion sections. The first set of hypotheses will explore the interaction between identity, ethos, engagement, perceived opportunities, career motivation and intentions to stay in the RN. These aim to understand how these variables relate and interact within the RN in order to provide empirical evidence and determine the relevance for practice:

- \( H_{1a} \): Organisational identity and ethos will positively predict the career motivation of RN personnel.
- \( H_{1b} \): Ethos and engagement will positively predict the career motivation of personnel in the RN, with ethos mediating the relationship between engagement and career motivation.
- \( H_{1c} \): Organisational identity and engagement will positively predict intentions to stay in the RN, with engagement mediating the relationship between identity and intentions to stay.
- \( H_{1d} \): Having positive perceptions about future opportunities will positively predict the organisational identity, engagement, career motivation, ethos and intentions to remain of RN personnel.
The follow set of hypotheses will examine differences between discrete groupings within the RN (Arm (see Method section for details), length of service (tenure) & age), to help define the relevance and importance of the variables between these distinct groupings:

- $H_{2a}$: Organisational identity, engagement, ethos, career motivation, focus on opportunities and intentions to remain will be different between the Surface Fleet, Submarines, Fleet Air Arm and Royal Marines.

- $H_{2b}$: Organisational identity, engagement, ethos, career motivation, focus on opportunities and intentions to remain will be more positive in RN personnel during late-career.

- $H_{2c}$: Organisational identity, engagement, ethos, career motivation, focus on opportunities and intentions to remain will be more positive in older RN personnel.

The third set of hypotheses provide a critique regarding the relationships between specific constructs, notably the relationships between identity and ethos, and engagement, identity and ethos. This aims to advance theoretical understanding of these constructs:

- $H_{3a}$: Ethos will predict levels of organisational identity of RN personnel.

- $H_{3b}$: Organisational identity, engagement, and ethos within the RN will be positively and highly correlated.

The final set of hypotheses are an extension of Chapter 2, specifically to explore whether the career anchor distribution previously found can be replicated. A further area that will be explored is the occurrence of multiple anchor preferences through career to determine whether this uncertainty may be related to the turnover spike during early-career:

- $H_{4a}$: The Career Anchors of Lifestyle, Technical Functional, and Pure Challenge will be the most popular single anchor preferences within the RN.

- $H_{4b}$: The occurrence of multiple Career Anchor preference will be greater in personnel with shorter tenure.
Method

Participants

To determine the appropriate sample size to achieve statistical significance, a sample size calculation was conducted using an online tool (Raosoft, 2004). This tool did not require initial data, so was suited to the context and situation. Ethically, this ensured a sufficient but not excessive number of personnel were approached to participate; an important consideration when asking military personnel to give up their valuable time to participate in a study. Additionally, it provided a level of confidence to the researcher with regards the ability to generalise from the sample to the wider population. Based on a population size of 30,000, a 5% margin of error, 95% confidence level, and 50% response distribution a minimum sample size of 380 was required (Raosoft, 2004). No attempt was made to estimate effect sizes due to the prospective nature of the study, and limited information about the population. Key parameters, such as effect size, would have been purely speculative. A total of 1000 personnel were invited to participate based on a 40% response rate as usually achieved in organisational surveys within the RN. Overall, a 65% response rate was achieved, resulting in a final sample size of 647 serving personnel from across the four Arms of the RN (Surface Fleet \( n = 111 \); Submarines \( n = 126 \); Fleet Air Arm \( n = 121 \); Royal Marines \( n = 164 \)), covering the main branches (Warfare \( n = 122 \); Logistics \( n = 100 \); Engineering \( n = 194 \); Royal Marines \( n = 163 \)). Ranks included Junior Ratings \( (n = 408) \), Senior Ratings \( (n = 160) \) and Officers \( (n = 69) \), with a mean age of 30.3 years \( (SD = 7.90) \) and length of service of 10.1 years \( (SD = 8.16) \). The majority of participants were male \( (n = 586) \); female \( n = 56 \), which is reflective of the composition of the RN\(^{20}\).

Materials

A single self-administered questionnaire was used and all measures selected were pre-existing with suitable reliability and validity. Unless otherwise stated, each measure used a six-point Likert scale from 1 (‘strongly disagree’) to 2 (‘strongly agree’). All items can be found in Appendix P and all corresponding Cronbach’s Alpha reliability statistics can be found in Table 5.2 in the Results section.

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\(^{20}\) Missing information included Gender \( (n = 5) \), Rank \( (n = 10) \), Arm \( (n = 125) \), Branch \( (n = 68) \).
**Career motivation.** Career motivation was measured using London’s seventeen item scale (London, 1993; London & Noe, 1997), which is further broken down into three subscales – insight, identity, and resilience. Participants were asked to respond to statements such as ‘I have realistic career goals’ and ‘I define myself by my work’. Each component of this scale has a good level of internal consistency (see Table 5.1 for individual scale alphas; London, 1993; London & Noe, 1997; Lopes, 2006; Noe et al., 1990).

Table 5.1  
Previous Cronbach’s Alphas for Career Motivation Scales

<table>
<thead>
<tr>
<th></th>
<th>Insight</th>
<th>Identity</th>
<th>Resilience</th>
</tr>
</thead>
<tbody>
<tr>
<td>London (1993)</td>
<td>.85</td>
<td>.83</td>
<td>.80</td>
</tr>
<tr>
<td>London &amp; Noe (1997)</td>
<td>.78</td>
<td>.78</td>
<td>.87</td>
</tr>
<tr>
<td>Lopes (2006)</td>
<td>.84</td>
<td>.80</td>
<td>.86</td>
</tr>
<tr>
<td>Noe et al. (1990)</td>
<td>.76</td>
<td>.64</td>
<td>.74</td>
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</tbody>
</table>

**Focus on opportunities.** Future Time Perspective was measured specifically through the dimension of ‘focus on opportunities’ as it is this element that relates to the positive views of one’s future, which is something the RN needs to understand further. Focus on opportunities was measured with four items taken from Zacher and Frese (2011). These consisted of three items from Carstensen and Lang’s Future Time Perspective scale (1996; Lang & Carstensen, 2002) with a good level of internal consistency (e.g. \( \alpha .90 \), Zacher & De Lange, 2011; \( \alpha .94 \), Zacher & Frese, 2009; \( \alpha .88 \), Zacher et al., 2010). The final item from the four item scale by Zacher and Frese (2011) also demonstrated good internal consistency (e.g. \( \alpha .91 \), Zacher & Frese, 2011). Participants were asked to respond to statements such as ‘Many opportunities await me in my work-related future’ and ‘My work-related future is filled with possibilities’. These items were adapted in line with previous research to include the word ‘work’ to each item in order to define the concept in line with work-related future.

**Engagement.** Engagement was measured using the short form of the Utrecht Work Engagement Scale (UWES-9; Schaufeli et al., 2006), measured on a seven-point scale from 1 (‘never feel this way’) to 7 (‘every day’). This scale consists of nine items, and has demonstrated good internal consistency (e.g. \( \alpha .94 \), Chung & Angeline, 2010; \( \alpha .88 \), De Lange et al., 2010; \( \alpha .93 \), Halbesleben & Wheeler, 2008; \( \alpha .92 \), Schaufeli et al.,
The scale consists of three areas which reflect the underlying dimensions of engagement – Vigour (VI; three items), Dedication (DE; three items) and Absorption (AB; three items). For example, ‘At my work I feel bursting with energy’ (VI), ‘I am enthusiastic about my job’ (DE), and ‘I feel happy when I am working intensely’ (AB).

Organisational identity. Identity was measured using the four item scale by Doosje, Ellemers and Spears (1995) which was adapted to be relevant to the RN. For example ‘I see myself as a member of the RN/RM’ and ‘I identify with other members of the RN/RM’. This scale is suitable as a measure of both social identification and social identity salience (Haslam, 2004). The internal consistency for this scale is good (e.g. $\alpha = .77$, Doosje et al., 1995; $\alpha = .87$, McKimmie et al., 2003).

Ethos. Three pre-existing items from the Armed Forces Continuous Attitude Survey (Defence Statistics, 2011) were used to measure ethos for example, ‘I understand the values and standards of the RN/RM’.

Career anchors. The Career Orientation Inventory (Schein, 1990) was used to measure career anchor preferences. Participants were asked to respond to statements such as ‘I seek jobs in organisations that will give me a sense of security and stability’ and ‘I will feel successful in my career only if I have a feeling of having made a real contribution to the welfare of society’. Each component of this scale had a good level of internal consistency (see Chapter 2 Materials section for previously published Cronbach’s Alphas, p. 18; for this study, Technical Functional $\alpha = .61$; General Managerial $\alpha = .61$; Autonomy $\alpha = .68$; Security/Stability $\alpha = .64$; Entrepreneurial Creativity $\alpha = .74$; Service/Dedication $\alpha = .72$; Pure Challenge $\alpha = .73$; & Lifestyle $\alpha = .70$). The Cronbach’s Alphas achieved in this chapter are similar to those found in Chapter 2.

Turnover intentions. Turnover intentions were measured with one item focussing on individual’s future turnover intention (‘I intend to stay in the RN/RM as long as I can’) based on the attitudinal linkages with actual turnover (Ajzen & Madden, 1986; Armitage & Conner, 2001; Tett & Meyer, 1993; van Breukelen et al., 2004). Demographics were also collected, including gender, age, length of service, rank, Arm and branch.

A Flesch Readability test was conducted on the questionnaire prior to distribution resulting in suitability for ages 16+ years (Flesch reading ease 50.2; Flesch-Kincaid grade level 10.3). Additionally the questionnaire underwent a usability pilot to ensure it
was suitable for the intended audience using military desk staff within Navy Command Headquarters. This resulted in some amendments to specific words to ensure clarity.

**Design**

A quantitative approach was taken using a stratified sample. Participants were grouped based on their Arm taking into account Surface Fleet, Submarines, Fleet Air Arm, and Royal Marines. Data were collected from across the main bases and air stations. From this sample, random selection within the stratum was used. Ethical considerations included anonymity, right to withdraw, voluntary participation and chain of command issues. Chain of command issues include concerns over participation negatively impacting on promotion or reporting if commanding officers see individual results. This was controlled for through voluntary and anonymous participation. Ethical considerations were outlined on the questionnaire. For full information on general ethical permission for this study, see Chapter 1 (p. 7).

**Procedure**

Prior to distribution of the questionnaire, permissions were sought from the relevant authorities, i.e. Commanding Officers of the relevant bases/stations. Questionnaires were posted to a designated point of contact for distribution, collection and return. Participants were asked to complete a single questionnaire on one occasion in October 2012, which took approximately 15 minutes to complete. Information was provided outlining the purpose of the research, how results would be used and ethical issues such as right to withdraw and informed consent (see Appendix F). Personnel were not required to provide their Service number or any other identifying information to ensure participation was anonymous and eliminating any concerns regarding chain of command visibility. On completion, personnel were instructed to place their individual questionnaire into a sealable envelope. These were collected and returned to the civilian researcher by the appointed point of contact.
Results

Results for each hypothesis will be presented in turn. It should be noted that the terms organisational identity and identity will be used interchangeably. Table 5.2 shows the mean, standard deviation, internal consistencies and correlations for all items measured within this chapter. There are a number of significant correlations present, however only substantial correlations will be discussed (i.e. \( \rho > .5 \)). Of particular interest is the statistically significant, positive and substantial correlation found between identity and ethos against engagement respectively. Identity and ethos demonstrated the highest level of positive correlation within the study. Career motivation was significantly and positively correlated with identity, ethos, and engagement. Focus on opportunities was also positively and significantly correlated with career motivation but just under the .5 level. In terms of intentions to remain in the RN, all variables were significantly and positively correlated, but identity and engagement were the highest. Negative correlations were found for age and length of service (i.e. tenure) against focus on opportunities.

\( H_{1a} \): Organisational Identity and Ethos will Positively Predict the Career Motivation of RN Personnel

Ethos and identity were found to be significantly correlated with career motivation (\( \rho .66 \) & \( \rho .64 \) respectively, \( p<.01 \)). Identity and ethos were also significantly and positively correlated to the component parts of career motivation, namely insight, identity and resilience (identity: \( \rho .446, .663, \) & .535 respectively, \( p<.01 \); ethos: \( \rho .470, .671, \) & .548 respectively, \( p<.01 \); see Table 5.2 for correlations).

Two simple regressions were conducted to explore the ability of identity and ethos to predict career motivation (see Appendix S Table S1 for statistics). The first included identity as the predictor and career motivation as the outcome, revealing a significant model, \( F(1,645) = 471.278, p.000 \), accounting for 42\% of the variance in career motivation. The second model included ethos as the predictor and career motivation as the outcome, which also revealed a significant model, \( F(1,645) = 499.220, p.000 \), accounting for 44\% of the variance in career motivation. Taken singularly, ethos was able to account for 2\% more of the variance in career motivation than identity.
<table>
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<tr>
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<th>M</th>
<th>SD</th>
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<td>Eng (overall)</td>
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<td>.09**</td>
<td>.06</td>
<td>.57**</td>
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<td>.43**</td>
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<tr>
<td>Eng (vigour)</td>
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<td>1.52</td>
<td>.83</td>
<td>.08*</td>
<td>.05</td>
<td>.52**</td>
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<td>Eng (dedication)</td>
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<td>1.49</td>
<td>.86</td>
<td>.11**</td>
<td>.07*</td>
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<td>.08*</td>
<td>.06</td>
<td>.49**</td>
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<td>CM (overall)</td>
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<td>.69</td>
<td>.91</td>
<td>.02</td>
<td>.01</td>
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<td>.58**</td>
<td>.57**</td>
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<td>CM (insight)</td>
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<td>.003</td>
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<td>.44**</td>
<td>.47**</td>
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<td>CM (identity)</td>
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<td>.04</td>
<td>.03</td>
<td>.66**</td>
<td>.67**</td>
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<td>.92**</td>
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<td>CM (resilience)</td>
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<td>-.02</td>
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<td>.50**</td>
<td>.86**</td>
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<tr>
<td>Turnover</td>
<td>4.17</td>
<td>1.67</td>
<td>-</td>
<td>.09*</td>
<td>.08*</td>
<td>.55**</td>
<td>.47**</td>
<td>.28**</td>
<td>.50**</td>
<td>.45**</td>
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<td>.44**</td>
<td>.47**</td>
<td>.29**</td>
<td>.51**</td>
<td>.38**</td>
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</table>

** p < .01; * p < .05. LOS – Length of Service; Eng – Engagement; CM – Career Motivation; FoO – Focus on Opportunities; α = Cronbach’s Alpha
Based on the close relationship of identity and ethos in predicting career motivation, a multiple regression was conducted, with ethos entered first based on the greater correlation found between ethos and career motivation, and identity second. A significant model was found, $F(2,644) = 276.888$, $p<.000$, which explained 46\% of the variance in career motivation; 2\% more than that accounted for by ethos alone (see Appendix S Table S2 for statistics). Ethos remained the most influential factor in the model. Hypothesis 1a was supported.

Further analyses were completed to explore differences between Arms and tenure, in order to address retention issues and potential differences required for RN people strategy. Length of service times were grouped to allow analysis between groups. These groupings were created to reflect early, mid and late career stage in line with exit points in the Service (0-4 years $n = 204$; 5-11 years $n = 208$; 12+years $n = 215$).

Analysis was conducted splitting the dataset by Arm and using a multiple regression (see Appendix S Table S3 for statistics). Ethos and identity were entered against career motivation revealing significant models for all Arms: Surface Fleet, $F(2,108) = 60.485$, $p<.000$; Submarines, $F(2,123) = 56.808$, $p<.000$; Royal Marines, $F(2,161) = 87.399$, $p<.000$; and Fleet Air Arm, $F(2,118) = 21.806$, $p<.000$. A range of variance was explained within each Arm with the greatest found for the Surface Fleet (53\%) and Royal Marines (52\%). Only ethos remained significant for the Royal Marines ($p<.01$), but for the Surface Fleet both ethos ($p<.01$) and identity ($p<.05$) were significant, with the former having the greatest impact. The reverse was true for Submariners, with identity ($p<.01$) found to have a greater impact than ethos ($p<.01$; model accounted for 48\% variance). For the Fleet Air Arm, only identity remained significant ($p<.05$; model accounted for 27\% variance).

The analysis was repeated splitting the data by tenure in order to explore any differences at the early-career point (the typical retention negative point; see Appendix S Table S4 for statistics). Analysis revealed significant models for all tenure groupings: 0-4 years, $F(2,202) = 156.627$, $p<.000$; 5-11 years, $F(2,205) = 79.070$, $p<.000$; and 12+ years, $F(2,211) = 68.143$, $p<.000$. The amount of variance accounted for declined as tenure increased. Ethos ($p<.01$) was important for career motivation at the 0-4 year point, explaining 61\% of the variance. For 5-11 years tenure ethos ($p<.01$) and identity ($p<.01$) were both predictive, explaining 44\% of the variance. For tenure of 12+ years, ethos ($p<.01$) and identity ($p<.01$) were also predictive, explaining 39\% of variance;
however, ethos had the greatest impact which is opposite from the relationship found for 5-11 years tenure.

As one of the principal concerns for the RN is retaining personnel, ancillary analysis was conducted to explore ethos, identity and career motivation against intentions to remain in the Service. All were significantly and positively correlated with turnover (ethos, \( \rho = 0.473 \); identity, \( \rho = 0.553 \); career motivation, \( \rho = 0.479 \)). A multiple regression with ethos, identity and career motivation as the predictor variables and intentions to remain as the outcome revealed a significant model, \( F(3,640) = 97.277, p < 0.000 \), accounting for 31% of the variance in intentions to remain (see Appendix S Table S5 for statistics). Identity (\( p < 0.01 \)) and career motivation (\( p < 0.01 \)) predicted intentions to remain, with identity having the greatest impact; ethos was not significant.

Further analysis was conducted splitting the dataset by Arm and using a multiple regression (see Appendix S Table S6 for statistics). Ethos, identity and career motivation were entered against intentions to remain, revealing significant models for all Arms: Surface Fleet, \( F(3,106) = 17.372, p < 0.000 \); Submariners, \( F(3,121) = 22.937, p < 0.000 \); Royal Marines, \( F(3,160) = 21.995, p < 0.000 \); and Fleet Air Arm, \( F(3,117) = 20.923, p < 0.000 \). A range of variance was explained within each Arm, with the greatest found within Submariners (36%) and Fleet Air Arm (35%). Identity had the greatest impact within all Arms. Identity was the only significant predictor for Submariners (\( p < 0.01 \); 36% variance) and Royal Marines (\( p < 0.01 \); 29%). For the Surface Fleet, career motivation (\( p < 0.01 \)) and identity (\( p < 0.01 \)) were predictive, accounting for 33% of the variance. For the Fleet Air Arm, all variables were predictive (all at \( p < 0.01 \)), accounting for 35% of the variance; although, ethos negatively predicted intention to remain suggesting that as ethos decreases so does the intention to remain.

The analysis was repeated splitting the data by tenure (see Appendix S Table S7 for statistics). Analysis revealed significant models for all tenure groupings: 0-4 years, \( F(3,200) = 28.001, p < 0.000 \); 5-11 years, \( F(3,203) = 44.636, p < 0.000 \); and 12+ years, \( F(3,209) = 27.344, p < 0.000 \). The amount of variance accounted for increases mid-career, and then reduces back to initial levels. Identity was found to be predictive of intentions to remain through career. At the 0-4 year point identity was the only variable to predict intentions to remain (\( p < 0.05 \); 30% variance). For 5-11 years, identity and career motivation were predictive, accounting for 40% of the variance; identity was the most influential. The same pattern was found for 12+ years, with identity (\( p < 0.01 \)) and career
motivation ($p < .01$) predicting turnover intentions, accounting for 28% of the variance; however, career motivation was the most influential variable.

**H$_{1b}$**: Ethos and engagement will positively predict the career motivation of personnel in the RN, with ethos mediating the relationship between engagement and career motivation

Career motivation was significantly and positively correlated with ethos ($\rho .66$, $p < .01$) and engagement ($\rho .61$, $p < .01$). Ethos and engagement were also significantly and positively correlated ($\rho .57$, $p < .01$; see Table 5.2 for correlations).

A simple regression has previously been conducted looking at ethos predicting career motivation (see $H_{1a}$) which resulted in a significant model. A further simple regression was conducted with career motivation as the outcome variable, and engagement as the predictor (see Appendix T Table T1 for statistics). This resulted in a significant model, $F(1,644) = 357.684$, $p .000$, with engagement able to account for 36% of the variance in career motivation. A further simple regression with ethos predicting engagement was completed, resulting in a significant model, $F(1,644) = 363.275$, $p .000$, with ethos accounting for 36% of the variance in engagement (see Appendix T Table T2 for statistics).

A multiple regression was conducted to determine the combined relationship of ethos and engagement on career motivation, resulting in a significant model, $F(2,643) = 320.146$, $p .000$ (see Appendix T Table T3 for statistics). Ethos ($p < .01$) and engagement ($p < .01$) were able to account for 50% of the variance in career motivation; ethos had the greatest impact. This supports the first part of Hypothesis 1b.

When split by Arm, four significant models were also found, but the variance accounted for varied: Surface Fleet, $F(2,108) = 98.109$, $p .000$; Submarines, $F(2,123) = 72.154$, $p .000$; Royal Marines, $F(2,161) = 93.995$, $p .000$; Fleet Air Arm, $F(2,118) = 30.609$, $p .000$. The greatest variance explained was for the Surface Fleet, with both ethos ($p < .01$) and engagement ($p < .01$) accounting for 65% of career motivation. The same significance was found for Submarines (54% variance), Royal Marines (54% variance) and Fleet Air Arm (34%) but the variance differed (see Appendix T Table T4 for statistics). Ethos was the most influential variable for all Arms, except for Submarines, where engagement was more important.
The same multiple regression was conducted but split against tenure (see Appendix T Table T5 for statistics). This resulted in three significant models for each grouping: 0-4 years, \( F(2,202) = 166.752, p = .000 \); 5-11 years, \( F(2,205) = 93.780, p = .000 \); and 12+ years, \( F(2,211) = 108.154, p = .000 \). Ethos \((p<.01)\) and engagement \((p<.01)\) predicted career motivation, with the greatest variance found for those with 0-4 years tenure (62%; 5-11 years 48% variance; 12+ years 51% variance); ethos was the most influential.

Ethos appeared to be an influential variable and it was of interest to explore whether there was any causal sequence related to the variables analysed. To explore whether there was any mediating effect of ethos on the relationship between engagement and career motivation further exploratory analysis was conducted through a mediation analysis (Baron & Kenny, 1986; MacKinnon, Fairchild, & Fritz, 2007; Warner, 2012). This approach was selected in order to understand how or why the relationship may occur, rather than exploring whether the variable enhances or reduces the relationship (i.e. moderation). Regressions were completed between engagement and career motivation; engagement and ethos; and engagement and ethos against career motivation (see Appendix T Table T6 for statistics).

As the variables have been measured in arbitrary units (e.g. scale of 1-6), the standardised coefficients have been used for calculations throughout (Warner, 2012), unless otherwise stated. As illustrated in Figure 5.1, the standardised regression coefficient between engagement and ethos was statistically significant, as was the coefficient between ethos and career motivation. Analysis indicated the indirect effect was statistically significant resulting in a significant mediation \((p<.0001)\).

![Figure 5.1. Mediation relationship between engagement, ethos and career motivation](image)

Sobel test = 11.234 (SE .013), \( p<.0001 \)
Lower confidence level = .117
Upper confidence level = .166
Unstandardized indirect effect \(a \times b = .142\)

\(a = .446 (.601)^*\)
\(b = .317 (.471)^*\)
\(c^1 = .157 (.315)^*\)  
\([c = .298 (.598)^*]\)  

\(B\) stated; Standardised \(Beta\) in parentheses (Warner, 2012)
CHAPTER 5 – EMPIRICAL RESEARCH PROJECT

The mediation partitioned the total effect of engagement on career motivation ($c = c^1 + ab = .598$) into direct ($c^1 = .315$) and mediated (indirect) effects ($ab = .283$). One standard deviation increase in engagement predicted a .283 increase in career motivation through ethos. The indirect path from engagement through ethos to career motivation accounted for approximately 47% of the total effect on career motivation ($ab/c = .473$). The indirect to total ratio measure indicates how large the indirect effect is in relation to the total effect, with higher values indicating larger relative indirect effects (Jose, 2013). This partially supports the second part of Hypothesis 1b.

$H_{1c}$: Organisational identity and engagement will positively predict intentions to stay in the RN, with engagement mediating the relationship between identity and intentions to stay

Correlation analyses revealed identity and engagement to be substantially and significantly correlated ($\rho .57, p<.01$). Identity and engagement were also substantially and significantly correlated with turnover ($\rho .55, p<.01; \rho .50, p<.01$ respectively; see Table 5.2 for correlations). A series of simple regressions were conducted to explore the relationship between these variables.

A simple regression with identity as the predictor and engagement as the outcome resulted in a significant model, $F(1, 644) = 377.432, p.000$, explaining 37% of the variance in engagement (see Appendix U Table U1 for statistics).

A simple regression with identity as the predictor, and turnover intentions as the outcome variable, resulted in a significant model, $F(1,642) = 275.879, p.000$, accounting for 30% of the variance in turnover. A further simple regression, with engagement as the predictor and turnover as the outcome variable also resulted in a significant model, $F(1,641) = 251.042, p.000$, accounting for 28% of the variance in intentions to stay (see Appendix U Table U2 for statistics).

To explore the combined effect of these two variables on intentions to remain, an initial multiple regression was conducted with all variables to help determine their relevance and importance alongside the other variables. Identity, engagement, ethos, career motivation, and focus on opportunities were entered as the predictor variables, and intention to remain as the outcome (see Appendix U Table U3 for statistics). A significant model was found, $F(5,636) = 73.411, p.000$, accounting for 37% of the
variance in intentions to remain; only engagement \( (p<.01) \) and identity \( (p<.01) \) were found to be significant predictors. This supports the first part of Hypothesis 1c.

Previous research has indicated engagement to mediate the relationship between identity and turnover intentions. With this in mind, a mediation analysis was conducted to explore whether this relationship was generalisable to the RN (see Appendix U Table U4 for statistics). This approach was selected in order to understand how or why the relationship may occur, rather than exploring whether the variable enhances or reduces the relationship (i.e. moderation). As illustrated in Figure 5.2, the standardised regression coefficient between identity and engagement was statistically significant, as was the coefficient between engagement and turnover. Analysis indicated the indirect effect was statistically significant resulting in a significant mediation \( (p<.0001) \). The relationship between identity and turnover was mediated by engagement.

![Diagram](image)

Figure 5.2. Mediation relationship between identity, engagement and intentions to stay

The mediation partitioned the total effect of identity on turnover \( (c = c^1 + ab = .548) \) into direct \( (c^1 = .358) \) and mediated (indirect) effects \( (ab = .190) \). One standard deviation increase in identity predicted a .190 increase in intentions to stay through engagement. The indirect path from identity through engagement to turnover intentions accounted for approximately 35% of the total effect on intentions to remain \( (ab/c = .346) \). This partially support the second half of Hypothesis 1c.
**H1a: Having Positive Perceptions About Future Opportunities Will Positively Predict the Organisational Identity, Engagement, Career Motivation, Ethos and Intentions to Remain of RN Personnel**

The correlation between focus on opportunities and intentions to remain was significant and positive, albeit low ($\rho .29$, $p<.01$; see Table 5.2 for all discussed correlations), with 9% of the variance in turnover accounted for by having positive perceptions of the future, $F(1,641) = 60.094, p.000$ (see Appendix V Table V1 for statistics).

Analysis looking at focus on opportunities and its relationship with career motivation found a significant and positive correlation ($\rho .49$, $p<.01$). Further exploration using a simple regression, with career motivation (overall) as the outcome variable and focus on opportunities as the predictor, resulted in a significant model $F(1,644) = 208.916, p.000$ (see Appendix V Table V2 for statistics). This was able to explain 25% of the variance in career motivation.

The relationship between focus on opportunities and career motivation was further explored by splitting the dataset by Arm and tenure as this will be important to allow tailored career management processes. Four simple regressions with focus on opportunity as the predictor and career motivation as the outcome were completed; four significant models were found: Surface Fleet, $F(1,109) = 12.860, p.001$; Submarines, $F(1,124)=87.142, p.000$; Royal Marines, $F(1,162) = 77.460, p.000$; Fleet Air Arm, $F(1,119) = 22.132, p.000$. Focus on opportunity accounted for 41% of career motivation for Submarines; 11% for Surface Fleet; 32% for Royal Marines; and 16% for the Fleet Air Arm (see Appendix V Table V3 for statistics).

The same multiple regression was conducted but split against tenure (see Appendix V Table V4 for statistics). This resulted in three significant models for each grouping: 0-4 years, $F(1,203) = 125.239, p.000$; 5-11 years, $F(1,205) = 87.356, p.000$; and 12+ years, $F(1,212) = 34.236, p.000$. Similarly to $H_{1b}$, the amount of variance accounted for decreased as tenure increased (0-4 years 38%; 5-11 years 30%; & 12+ years 14%).

Based on the suggested influence of self-awareness of one’s purpose about future development on identity, analysis was also completed between focus on opportunities and identity. Identity and future opportunities were significantly and positively correlated ($\rho .36, p<.01$). A simple regression with identity as the outcome variable and focus on opportunities as the predictor variable revealed a significant model,
\[ F(1,644) = 99.478, p.000, \text{ with } 13\% \text{ of the variance of identity accounted for through positive future perceptions (see Appendix V Table V5 for statistics).} \]

Focus on opportunities was positively and significantly correlated to engagement \((\rho .436, p<.01)\). A simple regression, with engagement as the outcome variable and focus on opportunities as the predictor variable revealed a significant model, \(F(1,643) = 127.194, p.000, \text{ accounting for } 17\% \text{ of the variance in engagement (see Appendix V Table V6 for statistics).} \)

Focus on opportunities was also significantly and positively correlated with ethos \((\rho .375, p<.01)\). A simple regression with focus on opportunities as the predictor variable and ethos as the outcome revealed a significant model, \(F(1,644) = 101.387, p.000, \text{ accounting for } 14\% \text{ of the variance in ethos (see Appendix V Table V7 for statistics).} \) Hypothesis 1d was supported.

\(H_{2a}: \text{Organisational Identity, Engagement, Ethos, Career Motivation, Focus on Opportunities and Intentions to Remain Will be Different Between the Surface Fleet, Submarines, Fleet Air Arm and Royal Marines}\)

Significant differences were found between Arms on ethos, \(F(3,518) = 6.978, p .000, \text{ with post hoc analyses revealing that Royal Marines } (M = 5.2) \text{ had significantly higher ethos than both the Surface Fleet } (M = 4.8; p.009) \text{ and Submariners } (M = 4.72; p.001); \text{ additionally, the Fleet Air Arm } (M = 5.11) \text{ had significantly higher ethos compared to Submariners } (p.014). \text{ Although the Royal Marines and Fleet Air Arm demonstrated the highest level of ethos, it should be noted that the other Arms were above the mid-point on the one to six scale used.} \)

A similar pattern was found for engagement. Analysis looking at engagement overall found a significant difference, \(F(3,518) = 6.577, p.000, \text{ with Royal Marines } (M = 5.3) \text{ demonstrating significantly higher engagement than both the Surface Fleet } (M = 4.78, p.010) \text{ and Submariners } (M = 4.66, p.000). \text{ Fleet Air Arm } (M = 5.13) \text{ again demonstrated significantly higher engagement than Submariners } (p.041). \text{ When breaking this down to the components of engagement, significance differences were found between Arms on Vigour, } F(3,517) = 8.584, p.000; \text{ Dedication, } F(3,270.436) = 4.833, p.003 \text{ (Welch’s } F); \text{ and Absorption, } F(3,517) = 5.265, p.001. \text{ For vigour, Royal Marines } (M = 5.25) \text{ came out as significantly higher than the Surface Fleet } (M = 4.51, p.000) \text{ and Submarines } (M = 4.48, p.000). \text{ Dedication was also found to be significantly}
higher in Royal Marines ($M = 5.46$) compared to the Surface Fleet ($M = 4.92, p.019$) and Submarines ($M = 4.90, p.008$). Absorption was significantly lower in Submarines ($M = 4.59$) compared to Royal Marines ($M = 5.20, p.002$) and the Fleet Air Arm ($M = 5.14, p.014$) respectively.

Understanding how Arm differences interact with turnover was explored. Analysis was conducted to explore any general differences between Arms on turnover intentions, revealing a significant difference, $F(3,516) = 5.095, p.002$. Post hoc analysis found that the Surface Fleet ($M = 3.66$) were significantly less likely to stay than Royal Marines ($M = 4.31, p.009$) and Fleet Air Arm ($M = 4.39, p.005$).

No significant differences were found between Arms on career motivation, focus on opportunities or identity. Overall, Hypothesis 2a was partially supported, with only some of the variables being significantly different across Arms.

**H2b: Organisational Identity, Engagement, Ethos, Career Motivation, Focus on Opportunities and Intentions to Remain Will be More Positive in RN Personnel During Late-Career**

The same groupings used in Hypotheses 1 were utilised, to reflect early, mid and late career stage (0-4 years $n = 204$; 5-11 years $n = 208$; 12+years $n = 215$).

Analysis by ANOVA revealed a significant difference between tenure on turnover, $F(2,621) = 4.520, p.011$. Post hoc analysis revealed those with 12+ years ($M = 4.44$) service were more likely to remain than those with 0-4 years ($M = 4.05, p.045$) and 5-11 years ($M = 3.99, p.016$) of service.

A significant difference was also found between tenure on identity, $F(2,407.771) = 8.214, p.000$ (Welch’s $F$) with those with 12+ years’ service ($M = 5.18$) having significantly higher identity than those with 0-4 ($M = 4.95, p.040$) and 5-11 years ($M = 4.81, p.000$) of service.

A significant difference was found for ethos, $F(2,410.376) = 10.211, p .000$ (Welch’s $F$). Post hoc analysis revealed those with 12+ years’ service ($M = 5.22$) having significantly greater levels of ethos in comparison to those with 0-4 ($M = 4.94, p.014$) and 5-11 years ($M = 4.80, p.000$) of service.

Analysis revealed a significant difference for focus on opportunities against tenure, $F(2,413.907) = 11.852, p.000$ (Welch’s $F$), with those with 12+ years’ service ($M =
3.97) significantly less positive about future opportunities compared with 0-4 \( (M = 4.49, p.000) \) and 5-11 years \( (M = 4.26, p.023) \) of service. This is further reflected in the significant negative correlation found between focus on opportunities and length of service \( (rho -.205, p.<.01; \text{see Table 5.2 for correlation}) \).

Analysis revealed a significant difference between engagement (overall), \( F(2,624) = 4.373, p.013 \), and two of the individual components namely vigour, \( F(2,624) = 4.655, p.010 \) and absorption, \( F(2,623) = 3.631, p.027 \). Post hoc analyses revealed those with 12+ years’ service \( (M = 5.25) \) had significantly higher engagement than those with 0-4 \( (M = 4.89, p.020) \) and 5-11 years \( (M = 4.93, p.045) \) of service. No specific differences were found for vigour. For absorption those with 12+ years \( (M = 5.23) \) were significantly more absorbed than those with 0-4 years of service \( (M = 4.87, p.026) \).

A significant difference was found between career motivation (overall), \( F(2,403.687) = 4.631, p.01 \) (Welch’s \( F \)), and two of the components namely career identity, \( F(2,410.160) = 5.862, p.003 \) (Welch’s \( F \)), and resilience, \( F(2,405.495) = 3.060, p.048 \) (Welch’s \( F \)). Post hoc analyses revealed a significant difference on career motivation overall, with those with 12+ years \( (M = 4.79) \) service significantly more motivated than those with 5-11 years \( (M = 4.60, p.006) \) of service. A difference for career identity was found between 12+ years \( (M = 4.70) \) and 5-11 years \( (M = 4.44, p.002) \) of service, with 12+ years identifying more to their career. A similar difference was also found between 12+ years \( (M = 4.77) \) and 5-11 years \( (M = 4.62, p.038) \) on resilience, with 12+ years being more resilient. Length of service was found to positively correlate with career motivation and the individual components, apart from career resilience, which was significantly and negatively correlated (see Table 5.2 for correlation). Overall, Hypothesis 2b was supported.

**H3c: Organisational Identity, Engagement, Ethos, Career Motivation, Focus on Opportunities and Intentions to Remain Will be More Positive in Older RN Personnel**

Age was grouped to allow analysis between groups. These groupings were created to reflect three age ranges – 18-24 years \( (n=172) \), 25-32 years \( (n=258) \) and 33 years and over \( (n=202) \). These were loosely based on the average joining ages, end of initial engagement and beyond.
No significant differences were found between age groups for turnover or career motivation. However, a significant difference was found between levels of identity, \( F(2, 393.979) = 4.989, p = .007 \) (Welch’s \( F \)). Post hoc differences revealed those aged 18-24 (\( M = 4.05 \)) identified significantly less to the organisation than those aged 33 and above (\( M = 4.34, p = .021 \)).

A significant difference was found between ethos \( F(2, 397.570) = 7.751, p = .000 \), with those aged 18-24 (\( M = 4.86 \)) demonstrating significantly lower levels of ethos compared to those aged 33 and above (\( M = 5.20, p = .003 \)).

Analysis found a difference between focus on opportunities on age \( F(2, 394.262) = 13.627, p = .000 \). Post hoc analysis revealed those aged 33 and above (\( M = 3.92 \)) were significantly less positive about perceived future opportunities compared to 18-24 (\( M = 4.50, p = .000 \)) and 25-35 (\( M = 4.30, p = .001 \)) year olds. This was also reflected in the significant negative correlation between focus on opportunities and age (\( \rho = -.204, p < .01 \)).

A significant difference was found for Engagement overall, \( F(2, 390.835) = 4.277, p = .015 \) (Welch’s \( F \)), and two of the components, namely dedication, \( F(2, 629) = 4.130, p = .017 \), and absorption, \( F(2, 389.356) = 4.269, p = .015 \) (Welch’s \( F \)). Post hoc analysis revealed the difference for engagement overall to be between 18-24 year olds (\( M = 4.84 \)) and 33 and over (\( M = 5.24, p = .016 \)), with the former demonstrating significantly lower engagement. For dedication a similar pattern was found with 18-24 year olds (\( M = 5.03 \)) significantly less dedicated than those aged 33 and above (\( M = 5.44, p = .020 \)); and again for absorption, those aged 18-24 (\( M = 4.81 \)) were significantly less absorbed than those aged 33 and above (\( M = 5.23, p = .013 \)). Overall, Hypothesis 2c was partially supported, with differences not found for intentions to remain and career motivation.

\[ H_{3a}: \text{Ethos will Predict Levels of Organisational Identity of RN Personnel} \]

Based on the suggestion of ethos being a base for identity, a simple regression with ethos as the predictor variable and identity as the outcome resulted in a significant model, \( F(1, 645) = 1805.422, p = .000 \) (see Appendix W Table W1 for statistics). Ethos was able to account for 74\% of the variance in identity, supporting Hypothesis 3a.

This seems unsurprising when considering the significant, positive and high correlation found between ethos and identity (\( \rho = .85, p < .01 \); see Table 5.2 for correlation). Due to this high correlation, further exploration was conducted into the
two constructs, as this level of correlation is suggestive that the two constructs are one in the same. To investigate this relationship an exploratory Factor Analysis using principal component method and oblique rotation was conducted (there was reason to believe these two variables were related based on the high correlation found). The indicators of factorability were met. One overall factor was found (see Table 5.3 for loadings), with a high level of reliability (α .938). For the sake of clarity, this factor will be referred to as ‘self-concept’ throughout this section of the analysis and corresponding discussion.

Table 5.3
Factor Loadings for Exploratory Factor Analysis With Oblique Rotation of Identity and Ethos Items

<table>
<thead>
<tr>
<th></th>
<th>Self-Concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am pleased to be a member of the RN/RM*</td>
<td>.867</td>
</tr>
<tr>
<td>The ethos of the RN/RM is an important part of life in the RN/RM</td>
<td>.864</td>
</tr>
<tr>
<td>I identify with other members of the RN/RM*</td>
<td>.855</td>
</tr>
<tr>
<td>I see myself as a member of the RN/RM*</td>
<td>.850</td>
</tr>
<tr>
<td>I feel strong ties with members of the RN/RM*</td>
<td>.840</td>
</tr>
<tr>
<td>I understand the values &amp; standards of the RN/RM</td>
<td>.825</td>
</tr>
</tbody>
</table>

Note: Factor loadings <.3 were suppressed. Items from the initial identity scale are indicated by ‘*’; remaining items make up the initial ethos scale.

Based on the relationship between identity and ethos against career motivation found in Hypothesis 1a, a simple regression, with ‘self-concept’ as the predictor variable and career motivation as the outcome variable was conducted to test the new construct (see Appendix W Table W2 for statistics). This resulted in a significant model, $F(1,645) = 549.567, p.000$, which accounted for 46% of the variance in career motivation, which resembles the amount accounted for by ethos and identity (Hypotheses 1a).

A similar exploration was done against intentions to remain, and a significant model was found, $F(1,642) = 259.235, p.000$, accounting for 29% of the variance in turnover (see Appendix W Table W3 for statistics).
$H_{3b}$: Organisational Identity, Engagement, and Ethos Within the RN Will be Positively and Highly Correlated

Both identity and ethos correlated with engagement at the .5 level (identity, $\rho_{.574}$; ethos, $\rho_{.571}$; see Table 5.2 for correlation), which suggests they are related but separate constructs; this partially supports Hypothesis 3b. To explore this relationship further, regression analyses were conducted.

A simple regression with identity as the predictor and engagement as the outcome resulted in a significant model, $F(1, 644) = 377.432$, $p.<000$, explaining 37% of the variance in engagement (see Appendix X for statistics).

An exploratory Factor Analysis, using principal component method and varimax rotation was also conducted. The indicators of factorability were met. Two overall factors were found (see Table 5.4 for loadings), which reflected the previously highlighted self-concept scale (combination of identity & ethos) and the engagement scale. This provides additional evidence regarding the independent nature of engagement from the self-concept construct.
Table 5.4
Factor Loadings for Exploratory Factor Analysis With Varimax Rotation of Engagement, Identity and Ethos Items

<table>
<thead>
<tr>
<th></th>
<th>Engagement</th>
<th>Self-Concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>At my work I feel bursting with energy</td>
<td>.760</td>
<td></td>
</tr>
<tr>
<td>I am enthusiastic about my job</td>
<td>.785</td>
<td></td>
</tr>
<tr>
<td>I feel happy when I am working intensely</td>
<td>.713</td>
<td></td>
</tr>
<tr>
<td>At my job I feel strong &amp; vigorous</td>
<td>.765</td>
<td></td>
</tr>
<tr>
<td>My job inspires me</td>
<td>.819</td>
<td></td>
</tr>
<tr>
<td>I am immersed in my work</td>
<td>.785</td>
<td></td>
</tr>
<tr>
<td>When I get up in the morning, I feel like going to work</td>
<td>.807</td>
<td></td>
</tr>
<tr>
<td>I am proud of the work that I do</td>
<td>.691</td>
<td></td>
</tr>
<tr>
<td>I get carried away when I am working</td>
<td>.689</td>
<td></td>
</tr>
<tr>
<td>I see myself as a member of the RN/RM</td>
<td></td>
<td>.832</td>
</tr>
<tr>
<td>I understand the values &amp; standards of the RN/RM</td>
<td></td>
<td>.821</td>
</tr>
<tr>
<td>The ethos of the RN/RM is an important part of life in the RN/RM</td>
<td></td>
<td>.801</td>
</tr>
<tr>
<td>I feel strong ties with members of the RN/RM</td>
<td></td>
<td>.782</td>
</tr>
<tr>
<td>I am pleased to be a member of the RN/RM</td>
<td></td>
<td>.802</td>
</tr>
<tr>
<td>The RN/RM ethos is important to me</td>
<td></td>
<td>.814</td>
</tr>
<tr>
<td>I identify with other members of the RN/RM</td>
<td></td>
<td>.813</td>
</tr>
</tbody>
</table>

Note: Factor loadings <.3 were suppressed; Self-Concept reflects the combined identity and ethos scales.

$H_{4a}$: The Career Anchors of Lifestyle, Technical Functional, and Pure Challenge Will be the Most Popular Single Anchor Preferences Within the RN

In Chapter 2, results demonstrated that 33% of personnel within the Service sample had a preference for the career anchor of Lifestyle (p. 23). To further explore this pattern, the same analysis was conducted in order to provide a comparative and confirmatory outcome. As before, each participant was allocated their dominant career anchor based on their highest mean value. Those who did not have a clear preference were coded as having multiple career anchors. Overall, 73% of participants had a single
dominant career anchor, with the remaining 27% demonstrating multiple preferences which is the same as found in Chapter 2.

For those with a single dominant career anchor, the greatest preference was towards a desire for an integrated lifestyle (Lifestyle), followed by specialism (Technical Functional) and overcoming obstacles (Pure Challenge). These figures replicate the results from Chapter 2 (see Figure 5.3). The results from Chapter 2 are referred to as study A, and the results this chapter are referred to as study B. A Chi square test demonstrated no significant difference between the occurrence of dominant career anchors found between study A and study B, $\chi^2 = 9.702$, df = 7, $p = 0.206$, supporting Hypothesis 4a.

Figure 5.3. Distribution of dominant career anchors in Study A and Study B

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**H₄b: The Occurrence of Multiple Career Anchor Preference Will be Greater in Personnel with Shorter Tenure**

To explore the distribution of multiple career anchor preference, length of service groupings were coded to allow for a greater level of granularity. As expected, the majority of those demonstrating multiple preferences were those with 1-5 years tenure (11.5%). The percentage of the sample demonstrating multiple preferences decreased as tenure increased (see Table 5.5), supporting Hypothesis 4b. Personnel with 1-5 years of service were approximately twice as likely as those with 6-9 years of service to demonstrate multiple preferences.

**Table 5.5**

Percentage of Participants Demonstrating Multiple Career Anchor Preferences by Tenure

<table>
<thead>
<tr>
<th>Tenure (years)</th>
<th>1-5</th>
<th>6-9</th>
<th>10-14</th>
<th>15-18</th>
<th>19-22</th>
<th>23-26</th>
<th>27+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage</td>
<td>11.5%</td>
<td>5.7%</td>
<td>3.6%</td>
<td>1.5%</td>
<td>1.4%</td>
<td>1.4%</td>
<td>1.9%</td>
</tr>
<tr>
<td>n</td>
<td>72</td>
<td>35</td>
<td>22</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>12</td>
</tr>
</tbody>
</table>
Discussion

The aim of this chapter was to understand what impacts the drive and motivation of RN personnel towards their career in order to inform theoretical and Occupational Psychology practice development, with the latter linked to informing RN people strategy. The experience and knowledge required to provide sufficient, capable and motivated personnel within the RN relies on growing and retaining personnel. Following a series of imposed redundancies and a spike in turnover during early-career stage, the need to ensure proposed changes did not have significant adverse effect on personnel was at the forefront of people strategy.

This chapter explored the relationship between organisational identity, ethos, and engagement on the career motivation, perceived opportunities and turnover intentions of RN personnel. To date, these relationships have not been empirically tested within the RN. This research provides evidence of the applicability of general psychological theories to what is anecdotally considered to be a unique and different population. Utilising a specialist working population provides a greater level of application and relevance to military practice.

What is presented here is a discussion of each hypothesis, followed by conclusions, practical implications, limitations and future research suggestions.

\( H_{1a} \): Organisational Identity and Ethos Will Positively Predict the Career Motivation of RN Personnel

This hypothesis aimed to explore any relationships between career motivation, ethos and identity, including the influence of these variables on RN groupings. Ancillary analysis was also conducted on these variables against intentions to remain in the RN. Overall, the ethos and identity of personnel were found to be important for career motivation, with the former found to have the greatest impact. Subtle differences were found between each of the Arms and tenure points. This has important implications for the development of people strategy, moving from the need for a general to a more specific approach.

Results provide a link between ethos and career motivation, with ethos found to be important for career motivation. This finding supports previous suggestions regarding the influence of ethos on positive organisational behaviours including career-related choices (Baruch, 2004). In addition, it provides evidence towards the proposition of
goals being the mechanism through which values (ethos) are enacted (Latham & Pinder, 2004). The relationship found indicates the values an individual holds, or ethos in the case of the RN, are influential over how motivated an individual feels towards their career. This seems intuitive, but is something that needs to be recognised within the people strategy. Ethos is very rarely discussed as a problem within the Service. There is almost an expectation that ethos is high. However, the relationship found in this study suggests it is particularly important when considering the determination personnel have towards their careers. Therefore, the extent to which individuals ‘buy-in’ to the ethos is something that needs to be considered in order to create positive career motivation.

In addition, levels of organisational identity were also found to be important for career motivation. This links to previous suggestions regarding the link between one’s sense of self and positive behaviours such as direction and persistence (Haslam et al., 2000; Latham & Pinder, 2004; Leonard et al., 1999), encompassed in career motivation. Belonging to an organisation is suggested to shape the sense an individual has over who they are – a connection between the self and the organisation (de Moura et al., 2009; Haslam et al., 2003). The relationship found between identity and career motivation reflects the link between understanding one’s own purpose and developing a salient identity (Law et al., 2002), with ‘purpose’ representing the level of career motivation an individual has.

Compatibility of values, based on the close and positive relationship found between ethos and identity, appears to result in a more positive and career motivated individual. Results indicated that both ethos and identity were important for career motivation, both individually, and when combined. This supports the idea that values, as represented by ethos, influence career motivation when aligned to the individual’s self-concept (Noe et al., 1990; Quigley & Tymon Jr, 2006). The alignment between ethos and identity can be inferred from the high correlation found (see Table 5.2). Generally, personnel with a high level of ethos were likely to have a higher level of identity, providing evidence of the link between values and identity previously noted. Instinctually, having higher identity and greater alignment towards the organisation’s values, or ethos, makes sense. Research suggests feeling part of the organisation, through identifying with it, occurs through fulfilment of needs and attitudes which become internalised and guide working behaviour (Haslam et al., 2000; Latham & Pinder, 2004). These needs are proposed to be based on shared values and subsequent goals (i.e. career motivation). The differences
found between the Arms raises the importance of distinguishing between the different divisions of the RN when considering career structures; a similar consideration will be required for tenure.

Ethos was particularly important at the early-career stage (0-4 years), whilst both ethos and identity were important at the mid- and later-career stages (5-11; 12+ years). This highlights the importance of values on both those joining and those early in their career within the RN. Career fit is proposed to be important for work motivation (Medsker & O'Connor, 2015), with career choice suggested to be influenced by values (Schein, 1992, 1996). Therefore considering how likely people are to ‘fit’ (Kristof-Brown et al., 2005) the organisation in terms of its values is important for developing a positive organisational identity (Super et al., 1996). This resonates, based on the finding that identity was important for early-career stage intentions to remain, and the reality of a turnover spike which may suggest misalignment during early-career. The link between career and one’s self-concept is important. The initial role of ethos, in terms of one’s values fitting with the organisations seems to become central to the development of organisational identity and therefore retention. Perhaps a more flexible value proposition early on that provides greater level of choice over what the individual values should be considered, whilst maintaining the necessary organisational view.

Having a strong value/ethos statement and ensuring it is enacted will be important for RN people strategy, and allow applicants to assess this against their own values in a truthful and relevant manner.

Motivation within this study appears to be related to social identification and values represented in the link between identity (needs) and ethos (values), and their relationship with career motivation (goals). This seems to support the suggestion that motivation is often consistent with one’s salient identity (Haslam et al., 2000; Latham & Pinder, 2004), as opposed to needs based theory propositions (Maslow, 1943). The importance of motivation and identity was also illustrated in the strong and positive relationship between the identity element of career motivation and ethos and identity. This component of career motivation is suggested to influence the direction of motivation (Noe et al., 1990). It could therefore be inferred that personnel with low career motivation, and subsequently low career identity, may not feel their needs are being met. In terms of organisational identity, this would be explained by a reduction in identification to the organisation, which in turn signifies a reduction in alignment to the values or ethos of the organisation. If personnel are identifying at the RN level, they are
more likely to be motivated to attain goals that are compatible with this salient identity. If they no longer have a salient identity at the organisational level (e.g. their identity begins to erode), and do not share common values, then theory suggests they will look to redress the balance to retain the fundamental need for a positive self-concept (Ellemers et al., 2004; Hornsey, 2008; Tajfel, 1981, 1978; Tajfel & Turner, 1979). This is likely to manifest in the consideration of alternative employment options, and development of turnover intentions, which have been found to be predictive of actual turnover (Ajzen & Madden, 1986; Armitage & Conner, 2001; Tett & Meyer, 1993; van Breukelen et al., 2004). This indicates that the RN needs to be cognisant of how personnel identify themselves, and try to predict the moment when personnel start to become indifferent towards the organisation. Once this occurs, personnel may start to develop turnover intentions, which are likely to lead to actual turnover behaviours (Ajzen & Madden, 1986; Armitage & Conner, 2001; Tett & Meyer, 1993; van Breukelen et al., 2004). This is particularly important based on the relationship found between identity and turnover within this research.

Identity accounted for just under a third of the variance in turnover intentions. This supports previous research which has described identity as a predictor of turnover intentions (Wegge, Van Dick, Fisher, Wecking, & Moltzen, 2006) and a strong psychological anchor that discourages turnover intentions (Abrams et al., 1998; Bothma & Roodt, 2012; de Moura et al., 2009; M. R. Edwards & Peccei, 2010; Madera et al., 2012; Mael & Ashforth, 1995; Rothausen et al., 2014; Van Dick, 2004; van Dick et al., 2004; von Hippel, 2011). When explored across Arms, identity remained important, but with the addition of career motivation for the Surface Fleet and Fleet Air Arm; the latter was also influenced by ethos. The importance of identity for turnover is clear which refutes previous questions over the importance of identity (Jenkins, 2008). The need for a positive self-concept through a positive image of the organisation is an important consideration for the people strategy. The results of this study indicate that if identity begins to decline, that levels of ethos and career motivation are also likely to decline meaning a separation between the values of the individual and organisation. As previously noted, this can be detrimental for the development of turnover intentions. A further consideration for positive self-concept relates to the suggested importance of individuals own perceptions of the image of the organisation, and their assessment of others perceptions (Lievens, Van Hoye, & Anseel, 2007). In terms of retaining positive self-concepts, people strategy therefore needs to consider how to raise awareness of the different Arms of the Service, ensuring each has its own subtle identity which will
provide a greater affiliation, positive perceptions and a desire for membership. In addition, the differences between the Arms should be considered in retention related strategy. Career motivation was important for both the Surface Fleet and Fleet Air Arm turnover intentions, so ensuring appropriate goals and utilising expertise accordingly is likely to help reduce turnover.

Identity was clearly a more influential variable in terms of turnover; and although identity was still predictive of career motivation, ethos was a greater predictor of this variable. This could be explained by the role values are suggested to have within a career (Baruch, 2004; Sturges et al., 2002). This indicates that the relationship between identity and ethos, or the values of an organisation, is important for building and sustaining positive career motivation, a key consideration for career management processes within the RN.

**H1b: Ethos and engagement will positively predict the career motivation of personnel in the RN, with ethos mediating the relationship between engagement and career motivation**

This hypothesis looked to explore the relationship between engagement and career motivation on the values of personnel as represented by their ethos. Overall, ethos was found to have the greatest influence on career motivation, and was found to mediate the relationship between engagement and career motivation.

Results found a connection between engagement, career motivation and ethos, supporting previous research which has suggested a link to exist between engagement, goals (i.e. career motivation) and the values (ethos) of the organisation (Baruch, 2004; Bono & Judge, 2003; Macey & Schneider, 2008). Engagement was predictive of career motivation. This supports previous research which explains engagement to be about behaviours and cognitions (Kahn, 1992; Kular et al., 2008), including behaviours associated with direction, persistence, energy, dedication and effort (Arnold et al., 2005; Pinder, 2008; Schaufeli & Bakker, 2004; Sullivan, 1989), which are reflected in the concept of career motivation (London & Noe, 1997). This explanation is based on the premise of career motivation (i.e. goals) being the conduit through which values (i.e. ethos) are enacted, and engagement being important for the direction and persistence afforded to that motivation (i.e. goal).
Initial analysis found engagement and ethos accounted for half of what makes up career motivation, with ethos representing the greatest influence. When explored by Arm and tenure there was a difference found between the levels of variance explained. Ethos and engagement accounted for more variance for members of the Surface Fleet, whilst those in the Fleet Air Arm demonstrated the least variance. These variables were also important for those in the early-career stage over those mid- and late-career. This highlights the differential role of engagement and ethos for the Arms in terms of building motivation towards ones career and also ensuring these elements are supported during the early-career stage.

Further analysis found ethos to have a mediating role between engagement and career motivation. This may reflect the idea that the level of meaning (an important element of engagement) an individual has towards their work substantially impacts on their attitudes towards work (Alfes et al., 2010), analogous to the attitudes associated with ethos, which in turn is enacted in the motivation they have. Ethos is considered to embody the culture and values of the RN, so understanding the importance of its role with engagement and career motivation will be essential for the development of people strategy. This also applies to considerations for recruitment, in terms of whether the RN should expect individuals to change themselves to adopt the ethos of the organisation, or whether selection should identify those who will best fit the values of the organisation from the outset.

**H1c**: Organisational identity and engagement will positively predict intentions to stay in the RN, with engagement mediating the relationship between identity and intentions to stay

This hypothesis aimed to investigate the relationship between identity, engagement and turnover. Overall, engagement and identity were found to be important for turnover.

Results found identity was both correlated and predictive of levels of engagement and turnover. This aligns with previous research findings (e.g. Alarcon et al., 2010; Britt, 2003; Kahn, 1992; Macey & Schneider, 2008), highlighting the importance of identity as a positive influence on engagement (Britt, 2003) and turnover intentions (Alarcon et al., 2010; de Moura et al., 2009; Schaufeli & Bakker, 2004; Van Dick, 2004; van Dick et al., 2004). The salience of the role of identity has been further
supported, refuting criticisms (Jenkins, 2008), and providing evidence for the RN in terms of the relevance and need to encourage and maintain identification towards the RN to encourage engagement and intentions to stay.

Engagement was also found to be important for turnover intentions singularly and in combination with identity, although identity had the greatest influence. This supports previous suggestions regarding engaged employees having a greater attachment to the organisation and more positive turnover intentions i.e. more likely to remain (Robertson-Smith & Markwick, 2009; Schaufeli & Bakker, 2004). Both identity and engagement were the principal predictors of intentions to remain when taking into account all the variables in this study. It seems that within the RN, personnel who identify with the organisation more, tend to be more engaged and are more likely to wish to remain in the organisation. This highlights the importance of creating opportunities for personnel to build their organisational identity, and also the impact that a drop in identity can have on these two important organisational behaviours.

In line with previous research, engagement mediated the effect of identity on intentions to remain (e.g. Alarcon et al., 2010; Britt, 2003; Rich, LePine, & Crawford, 2010; Saks, 2006; Schaufeli & Bakker, 2004). Personnel who had higher levels of identity were more likely to remain through higher levels of engagement, which aligns to the proposition of absorbing work as part of one’s self-concept (i.e. identity), and implementing that self in one’s work leading to greater engagement (Kahn, 1990; Macey & Schneider, 2008). In addition, a shared organisational identity is suggested to discourage turnover intentions (Abrams et al., 1998; de Moura et al., 2009; Mael & Ashforth, 1995; Van Dick, 2004; van Dick et al., 2004), a finding reflected in the greater likelihood of personnel with higher identification and engagement being more likely to remain in the RN. It should be noted that the amount of mediation in this study could be described as partial, whereas previous research has found evidence for full mediation through engagement (e.g. Alarcon et al., 2010). This means ethos was unable to fully explain why engagement relates to career motivation, suggesting other mechanisms are also possible. For instance, within this study, identity was also been found to be important for career motivation ($H_{1a}$), with this importance implied through other research (Jetten et al., 2008; Law et al., 2002). Similarly, perceived opportunities were found to be important for career motivation ($H_{1b}$), also implied within previous research (Carstensen, 1992; Carstensen et al., 1999; Fung & Carstensen, 2004).
**H1a: Having Positive Perceptions About Future Opportunities Will Positively Predict the Organisational Identity, Engagement, Career Motivation, Ethos and Intentions to Remain of RN Personnel**

Overall, focus on opportunities was found to be moderately related to all variables, however demonstrated the greatest relationship with career motivation and engagement.

Career motivation and focus on opportunities were found to be positively correlated with each other, suggesting higher levels of career motivation are likely to be associated with positive perceptions of future opportunities. Overall, having positive perceptions about one’s future opportunities was found to predict levels of career motivation in personnel. This provides support for the premise behind the socioemotional selectivity theory, in which goal selection is suggested to occur in accordance to one’s perceived future (Carstensen, 1992; Carstensen et al., 1999; Fung & Carstensen, 2004). If an individual does not perceive a positive future, then their current goal selection will reflect a more negative view. Having an open-ended view of the future and opportunities is proposed to lead to greater motivation towards one’s career, and probable higher work performance (Aspinwall, 2005; Oettingen & Mayer, 2002). Although the latter was not measured directly, this could be inferred from the positive and predictive relationship found in this study between focus on opportunities and engagement, with the latter itself suggested to be linked to work performance (Kular et al., 2008; Macey & Schneider, 2008; Wellins & Concelman, 2005).

Having positive perceptions about future opportunities was more important for career motivation in some Arms (e.g. Submarines & Royal Marines). Additionally, the impact of future opportunities on motivation differed by tenure, with the impact of future opportunities reducing with longer lengths of service. This seems intuitive, in that fewer opportunities may be available to individuals further into their career, or individuals may desire less. However, whether increasing opportunities for these individuals would be beneficial is unclear, as it may be that they don’t really see such options as being important, or don’t see options being available. Conversely, individuals early in their career perceive future opportunities as being very influential on their career motivation. This highlights the need to ensure opportunities are available throughout career, but particularly during early-career if the Service is to overcome the turnover spike during early-career. Providing positive future orientations for personnel in their career management process will be important, in order to
encourage relevant and positive goal selection to benefit the individual’s career and the organisations objectives.

Findings suggest the development of identity is influence by building self-awareness regarding one’s purpose, including values (i.e. ethos), needs and future goals, supporting previous research (Jetten et al., 2008; Law et al., 2002). Having a positive perception of future opportunities was found to have a small influence over identity towards the organisation and levels of ethos. Considering the suggested premise that individuals are driven to maintain positive self-concept (Hornsey, 2008), it could also be argued that reduced future opportunities may impact on the level of ethos and therefore level of identity an individual has towards an organisation. Subsequently, personnel may start to consider whether their current employment is providing the positive self-concept they desire. This was further supported, with perceived opportunities demonstrating a small influence on intentions to stay. Those who were more positive about their future opportunities were more inclined to remain in the organisation. This supports previous research (Kraimer et al., 2011) providing evidence for the importance of ensuring opportunities are available for personnel to help reduce the development of turnover intentions.

H2a: Organisational Identity, Engagement, Ethos, Career Motivation, Focus on Opportunities and Intentions to Remain Will be Different Between the Surface Fleet, Submarines, Fleet Air Arm and Royal Marines

Career motivation, perception of future opportunities and identity were not found to differ between the four Arms of the RN. However, ethos did differ. Royal Marines demonstrated the highest level of ethos in comparison to the Surface Fleet and Submarines, but were similar to the Fleet Air Arm. It could be argued that the Royal Marines have the most defined and distinct ethos of all the Arms in the RN, embodied in the level of training required and reward of their green beret on successful completion. The award of an ‘emblem’ may be significant, as the Fleet Air Arm also receive ‘wings’ on completion of their training; although not all Fleet Air Arm personnel qualify for this based on the role they take on. This may suggest that the distinction of being a specialist element of the RN to be sufficient to engender high levels of ethos. That said, Submariners, who had lower levels of ethos, all receive the ‘golden dolphins’ on completion of their training, but had similar levels of ethos as the Surface Fleet who do not receive any special emblem. The Surface Fleet could be
suggested to have the least defined ethos and identity of all the Arms. It seems therefore that specialisation and emblems may not be the main underlying influencers.

Although levels of ethos differed between Arms, it should be noted that ethos was not low, with all levels above the mid-point on the measurement scale. However, as ethos represents the shared values, attitudes and aspirations (Caza et al., 2004; McMillan, 2002) that in turn motivate behaviour, there is clearly a continued need to maintain and possibly look to increase ethos in both the Surface Fleet and Submarine Arms. This is particularly pertinent based on the relationship found between ethos and identity within this study, in that low ethos may lead to lowered identity and subsequent turnover intentions. It could be suggested that personnel from the Royal Marines and Fleet Air Arm are more aligned to the values and attitudes of the organisation, based on ethos reflecting a sense of ‘fit’ (Kristof-Brown et al., 2005). For people strategy, consideration needs to be given as to what is leading to this reduced level of ethos, and what can be done to reinvigorate this within the two Arms identified.

Results demonstrated differing levels of engagement across Arms, supporting previous suggestions of occupation influencing engagement (Alfes et al., 2010; Robertson-Smith & Markwick, 2009). The same pattern found for ethos was presented for levels of engagement across the four Arms, with Royal Marines and Fleet Air Arm demonstrating the highest levels. The Surface Fleet and Submariners were once again less engaged, but still at a reasonable level i.e. they couldn’t be considered to have low engagement based on their mean scores. Leadership, challenge, autonomy and feeling valued (D. Robinson et al., 2004; Towers Perrin, 2003) are all suggested to be encompassed in engagement, which might suggest that the Royal Marines and Fleet Air Arm perceive greater levels of these elements in comparison to the other Arms. The Surface Fleet and Submarine Arms should consider focussing on leadership, challenge, autonomy and making personnel feel valued to increase their engagement.

When looking at the constituent parts of engagement, there was no difference in the levels of absorption between Royal Marines, Fleet Air Arm and the Surface Fleet suggesting personnel are all focused on their work and have intrinsic enjoyment (Schaufeli & Bakker, 2004). Vigour and dedication also didn’t differ between the Royal Marines and Fleet Air Arm, demonstrating energy, persistence, enthusiasm, pride and challenge (Schaufeli & Bakker, 2004) are similar between these Arms. However, in comparison, Submariners demonstrated lower levels, suggesting they may be less intrinsically engaged. Considering they had lower ethos as well, this provides evidence
that the job may not be living up to their expectations, therefore personnel are less driven or enthusiastic towards their job.

Based on the relationship of engagement with career motivation found, it is clear that engagement has an important role in building and sustaining the level of motivation personnel feel towards their career. One consideration for the RN may be how to ensure personnel find meaning in their work. Meaningfulness has been found to be linked to engagement and disengagement (Kahn, 1990; May, Gilson, & Harter, 2004), with the extent an individual finds meaning in their work suggested to impact on general feelings towards their working life (Alfes et al., 2010). The alignment between organisational and individual values are also suggested to be influenced by levels of meaningfulness (Bono & Judge, 2003). Individuals who find consistency or alignment between organisation and individual values are likely to find meaningfulness in their work, and therefore be more engaged and less likely to leave. Job enrichment and role fit are proposed to be positive predictors of meaningfulness (May et al., 2004), which links back to the idea of ensuring ‘fit’ is achieved as early as possible in an individual’s career within the RN. Having clarity of one’s role and the culture in which one is situated are also suggested to influence engagement (Alarcon et al., 2010). Considering the results found in this study, this may suggest that people joining the Royal Marines and Fleet Air Arm are more successfully self-selecting themselves, resulting in greater ‘fit’ and therefore higher job enrichment. Applicants selecting the Surface Fleet and Submarines may feel they ‘fit’ during selection, but on joining may find that the reality of life on a ship, and particularly on a boat, does not meet expectations. Although Royal Marines and the Fleet Air Arm either use ships as transportation or work on them, the focus of their job is not ship based, it is combat and air craft respectively. The ship element is merely a conduit to allow them to do their jobs. This highlights the importance of considering role fit during the recruitment and selection process, whether through testing or through ensuring potential applicants have adequate information to self-determine what area of the RN they would be better suited to. Once recruited, there is clearly a different approach required within each Arm, with different focus perhaps required for example on pride, challenge, intrinsic enjoyment, ethos, and dedication.
$H_{2b}$: Organisational Identity, Engagement, Ethos, Career Motivation, Focus on Opportunities and Intentions to Remain Will be More Positive in RN Personnel During Late-Career

When exploring length of service differences, there was a clear pattern across all but one of the variables. Levels of ethos, identity, engagement and career motivation were all significantly higher in personnel who had completed 12 years of service or more; conversely, this group were less positive about opportunities available to them in their future.

Personnel with 12 years or more service had a higher sense of identity, ethos, engagement, and career motivation than those with 0-11 years. This could be explained by divestiture (Ashforth et al., 2008), with 12 years allowing sufficient time to rebuild and embed one’s identity. Alternatively, it may be that a strong identity is related to the hierarchical level an individual is at within the organisation (Cole & Bruch, 2006). Those with greater tenure are likely to be more senior, although that is not always the case. A further explanation may be through the life-space life-span approach (Super, 1957, 1981; Super et al., 1996), in that personnel at this point in their career are in a more stable career stage (Cohen, 1991) having moved through the exploring, establishing and maintaining stages. This aligns with the idea of career stage reflecting attitudes, motivation and behaviours which help formulate and implement self-concept and vocational related behaviours (Savickas, 1997; Super, 1957, 1981; Super et al., 1996). Those with 12 years or more service are likely to have a more defined self-concept; these individuals were also more likely to remain in the organisation demonstrating a link to organisational behaviours.

With career motivation, personnel with 12 years or more service were more motivated that those mid-career, indicating a dip in motivation. This is something to consider for the people strategy, as it may be that more effort is required to motivate personnel at the mid-career stage. Taking this approach to career development also places more of an emphasis on circumstances and characteristics rather than chronological age (Smart & Peterson, 1997) which is important for the RN as personnel can join in their thirties. This also links to the proposition behind the life-span life-space approach (Savickas, 1997; Super, 1957, 1981; Super et al., 1996), indicating individuals to recycle through exploration, establishing and maintaining elements of their career decisions. For those with over 12 years of service, it would appear that they consider their career as positive and a good fit, reflected in being more likely to want to
remain and having greater career motivation, engagement, identity and ethos. This links to the suggestion that a good ‘fit’ is reflected through success, satisfaction and stability (Sterner, 2012), all influenced by self-concept (i.e. identity), which is made up of values (i.e. ethos), needs (i.e. motivation) and attitudes (i.e. engagement).

That said, those with 12 years or more service were found to perceive their future opportunities as less positive compared to those with less service time. This finding is supported in the initial correlation analysis, which indicated a negative relationship between length of service and focus on opportunities; suggesting the longer personnel are in the Service, the less positive their perceptions are about future opportunities. Individuals are suggested to select goals in accordance with their perceived future i.e. limited or open-ended (Carstensen, 1992; Carstensen et al., 1999; Fung & Carstensen, 2004). This seems intuitive and is reflected in the results of the study. Personnel early in their careers perceived their future opportunities more positively, possibly reflecting a focus on the acquisition of knowledge due to availability of time; whereas those in late career perceive less time available, therefore are more concerned with emotional goals (Carstensen, 2006; Carstensen & Lang, 1996; Carstensen et al., 2000; Carstensen et al., 2011; Lang & Carstensen, 2002). Although perceptions towards remaining time were not measured, considering the greater emphasis linked to the latter group for identity, ethos, and engagement it would seem plausible to assume this may be what is influencing these individuals.

Previous research has suggested individuals with a strong focus on opportunities deliver better work performance (Aspinwall, 2005; Oettingen & Mayer, 2002). This wasn’t directly measured in this study; however, personnel with longer lengths of service appeared to be generally more positive, except with regards to their available future opportunities. Their turnover intentions were more positive as well, which seems contradictory to the proposition that when perceived career opportunities are low, turnover will be high (Kraimer et al., 2011). However, personnel with fewer years of service were less likely to remain, so it seems this proposition is dependent on one’s career stage.

Age is suggested to be the critical dimension against which focus on opportunities differs (Padawer et al., 2007), however this study provides evidence for career stage being important in perceptions. Those later in their career stage could be argued to have shorter future time perspective in relation to those earlier in their career. It is suggested that a shorter future time perspective leads to reduced goals, and less value in
activities which is evidenced in subsequent behaviour (Simons et al., 2004). However, personnel with 12+ years’ service seem to be demonstrating positive organisational behaviours as well as a potential short future time perspective which reinforces the idea of future perceptions being linked to career stage. Conversely, personnel with less than 12 years of service, appear to have longer future time perspective, but were not as engaged, identified less with the organisation and had lower levels of ethos. The differences noted could also represent the desire of personnel with fewer years of service to be concerned with maintaining positive self-concept i.e. identity. This is something the RN needs to be aware of in terms of their retention strategy in the new employment model.

Career identity, as part of career motivation, was found to be greater in those with 12 years or more service which supports the suggested variance in career identity based on tenure (Veenstra et al., 2004). This suggests these personnel have placed their career as central to their personal identity (London & Noe, 1997; Noe et al., 1990). Career identity is proposed to include the extent to which an individual immerses themselves in activities related to their job and the organisation, the effort exuded, and pride (London, 1993; London & Noe, 1997). This seems to explain the attitudes found within personnel with 12 years or more service. Although, enhancement to career identity is suggested to occur through having opportunities for advancement and development (Noe et al., 1990) which seems counter to the perceptions these individuals had towards future opportunities.

Engagement was found to differ based on length of service supporting previous proposals (Alfes et al., 2010; Robertson-Smith & Markwick, 2009). Previous research has suggested that engagement decreases slightly as length of service increases (D. Robinson et al., 2004). No significant positive or negative correlation was found between engagement and length of service. However, engagement was found to be significantly greater for those with longer length of service, which seems contrary to previous suggestions.
**H2c: Organisational Identity, Engagement, Ethos, Career Motivation, Focus on Opportunities and Intentions to Remain Will be More Positive in Older RN Personnel**

Identity and ethos were found to be lowest in the youngest age group. Based on the high correlation between age and length of service in this study, it may not be surprising that ethos and identity were also lower within the younger personnel. It may be that they have not had enough time to fully align to the RN. Considering how to encourage younger personnel to consider their career as part of their identity is something to explore for the people strategy.

Positive perceptions about future opportunities were found to be significantly lower in personnel in the higher age category. The same pattern was found in length of service, i.e. perceiving fewer opportunities to be available. It is difficult to say therefore whether it is career stage or age that influences this perception.

Results found that older personnel in this study did not demonstrate longer future orientations as previously noted (Padawer et al., 2007), although focus on opportunities was found to be negatively related to age (Zacher & Frese, 2009) and did change over time (Carstensen, 2006; Cate & John, 2007). This is not just time relative to age, but also to tenure as previously noted. The differentiation between focus on opportunities was the same for higher age groups and higher lengths of service, or career stage. It may be because future opportunities are related to developmental fulfilment (Bal et al., 2010), and perhaps older personnel have already fulfilled their key aims. Results may also support the proposition that older employees are less motivated towards development activities than younger (Colquitt et al., 2000), reflected in the lowered sense of future opportunities of older personnel. The greater perception of future opportunities associated with younger personnel may be related to the greater perceived opportunity for promotion and development; two of the key reasons people join the RN (Defence Statistics, 2015).

This raises an interesting question over what motivates older and younger personnel. It may be that younger personnel are focused on development activities, whereas older personnel have other desires, such as working nearer home or having the security of an extension to their service. Personnel were not asked about their planned tenure length in terms of how many years they have ‘signed on’ for, however previous research has suggested that the security of tenure can lead to greater enthusiasm towards the organisation (Veenstra et al., 2004), which might explain the higher levels of
engagement, identity and ethos found within older personnel. However, no differences were found between the general career motivation of personnel or their turnover intentions based on age.

Research suggests individuals with longer future time perspective tend to have greater motivation, performance and persistence (Peetsma, 2000; Simons et al., 2004), which in the case of this study would be personnel in the 18-32 range. However, these individuals were found to have lower identity, engagement and ethos in comparison to older personnel. In contrast, the latter had shorter future time perspective but indicated greater affinity with the organisation. This seems counter to the idea that older personnel are more emotionally driven towards family and friends rather than the organisation (Fung & Carstensen, 2004). As older personnel remained more engaged than younger personnel, it would seem that older personnel retain a link to the organisation. At the 12 year point, personnel may still have another 12 years remaining, so it seems future opportunities may be less of an issue the older or longer a person is in the Service.

In the case of these individuals, the idea that having a sense of purpose for the future motivates engagement in ones work (McInerney, 2004), seems counter to the results found. The results may be explained by a shift in motivation rather than a decline with age (Inceoglu et al., 2012), reflecting more intrinsic motivation for older personnel (De Lange et al., 2010; Kanfer & Ackerman, 2004; Kooij et al., 2008) and possibly explaining the greater engagement, sense of ethos and identity of this group which may be linked to better performance and organisational citizenship behaviours (Ng & Feldman, 2008; Zacher et al., 2010).

Older personnel were significantly more engaged than younger personnel, including greater dedication and absorption within the organisation, which is also reflected in the pattern found for career identity as part of career motivation. It seems older personnel have a greater link between their attitudes, values and motivations towards the RN than younger people. This may be a product of maturity, or indeed career stage based on the high correlation between age and length of service. The consideration for the organisation is how to improve these qualities in younger personnel to encourage retention. That said, no differences were found in turnover intentions across age, but they were for tenure.

Career identity was the only factor of career motivation that was found to reflect a difference between age groups. The middle age group had the lowest level of career
identity, which may reflect an interaction between the life events generally associated with the age group (e.g., marriage, having children). This result provides partial evidence that career identity demonstrates variance based on age (Weber & Ladkin, 2011), although the difference found was only between the middle and higher age groups, not the lower, so the level of variance is questionable. For older personnel, their career identity was considered to be central to their identity (London & Noe, 1997; Noe et al., 1990), resulting in immersion in their work and pride, which is reflected in their levels of engagement, identity and ethos. It may be that the groupings used to suggest such a variance were more granular than those used in this study. It is not possible to say that career stage has influenced identity, as individuals within this group could have only just joined, or indeed have been in for several years. However, as previously noted, there was a positive correlation between age and length of service in this study, so career stage may be a more accurate judgement. This pattern may reflect the bottom-fed nature of the RN, meaning the majority of personnel tend to join for a career, rather than a short-lived job.

**H3a: Ethos will Predict Levels of Organisational Identity of RN Personnel**

Ethos and identity as terms are used interchangeably within the RN, with a greater emphasis usually placed on the role of ethos. This hypothesis provides a critique and initial analysis of the constructs of ethos and identity as measured within the RN, to understand how they interact.

Ethos and organisational identity were highly related to each other, in that an increase in one reflected an increase in the other. Ethos was found to account for a large proportion of what makes up identity, which provides empirical support for the previous suggestion that ethos is one of the bases of identity (Oren & Bar-Tal, 2006). The implication of this is important in terms of ensuring the ethos of the RN is adequately developed, in order to inculcate a sense of organisational identity within new recruits and maintain it in serving personnel. Shared understanding of the motivational principles of an organisation is a key component of ethos (Caza et al., 2004; McMillan, 2002; Simpson & Weiner, 2012) and important for positive organisational behaviours such as turnover. This is an important consideration for people strategy decisions.

The high correlation and resulting one factor from the factor analysis suggests the constructs of ethos and identity are highly similar. This is of interest for the RN, as
emphasis is put on ethos as a key element of RN culture. Whether these two variables should be combined into a single ‘self-concept’ scale is debatable, as when the two separate constructs were analysed against other variables, they were found to differentially influence them. If they were truly one in the same, one would expect them to behave similarly throughout the analysis. Further research would be required to determine whether the constructs themselves are suitable. There has been a vast amount of research on identity (e.g. Haslam, 2004; Haslam & Ellemers, 2005; Haslam et al., 2003; Haslam et al., 2000; Hornsey, 2008; Rothausen et al., 2014; Tajfel, 1981; Tajfel, 1982; Tajfel, 1978; Tajfel & Turner, 1979), indicating it to be a well-defined and evidenced concept. This may suggest that more consideration needs to be given to exploring the construct of ethos. The ethos measure may need to reflect a greater level of differentiation and granularity; it is currently based on only three items. Additionally, limitations associated with factor analysis are acknowledged, specifically the assumption that the factors represent psychological constructs with the nature of those constructs interpreted based on the loadings. Different descriptions and perspectives throw a different light on things. Additionally it is also proposed that factors are statistical truths only, and can’t be directly measured (Field, 2009). Further work is required to explore this.

**H₃b: Organisational Identity, Engagement, and Ethos Within the RN Will be Positively and Highly Correlated**

A further critique exploring the relationship between engagement, organisational identity and ethos was also conducted. The correlation between these constructs was significant, but not as high as that found between organisational identity and ethos, suggesting they are related but separate constructs. This was further supported, with engagement remaining as an individual factor against the combined measure (self-concept) found in H₃a. These findings support previous suggestions that identity is linked to the development of engagement (Kahn, 1990; Macey & Schneider, 2008), but that the two remain as separate and distinct constructs. Analysis maintained engagement as a single construct providing additional evidence for the utility and reliability for the short form measure (Schaufeli et al., 2006). This is further supported in the differential influences of these constructs in previous analyses (e.g. Hypotheses 1 & 2). Similarly, aspects associated with ethos appear comparable to those suggested to be linked to engagement, for example influencing, motivating and driving behaviours
There is an indication that values, represented through ethos, lead to greater engagement, and subsequently more positive outcomes such as motivation (Bakker et al., 2014). The separation between the three constructs explored, and previous findings ($H_{3a}$), may suggest that ethos leads to the development of organisational identity, which leads to increased engagement. Correlations and regression analyses do not prove direction of relationships, but combined with previous suggestions (e.g. Kahn, 1990, 1992; Macey & Schneider, 2008) this is a possible explanation for their relationship. This supports the idea that when the organisational values are congruent with the individual this results in shared beliefs, or ethos (Bar-Tal, 1990, 2000). In turn, this gives meaning to one’s social group (Oren & Bar-Tal, 2006) and subsequently their identity. As a consequence of this alignment engagement is then likely to be greater (Baruch, 2004; Leonard et al., 1999; Macey & Schneider, 2008).

$H_{4a}$: The Career Anchors of Lifestyle, Technical Functional, and Pure Challenge Will be the Most Popular Single Anchor Preferences Within the RN

Career anchor distribution within this study provided support for the results found in Chapter 2. This provides a greater ability to infer the distribution of career anchor preferences across the RN, and draw conclusions from this distribution to assist with career management issues. Lifestyle remains the highest preference, which could be argued to be the most difficult to maintain and support based on the type of work the Service conducts. It could be argued that the RN requires more autonomy and entrepreneurial creativity within its more senior level personnel, but this study demonstrates that as a preference it is something that is not generally seen. Specialism (i.e. Technical Functional), Security, Pure Challenge and Lifestyle are all high in the RN. All but one of these seems conducive. Lifestyle remains the factor which provides the greatest challenge. An internal RN attitude survey has found that balancing ones career with home life is something that is frequently the subject of great dissatisfaction (Defence Statistics, 2011, 2012, 2013a, 2014a, 2015). It is the effect of these preferences on important organisational behaviours which is going to be important to explore as people strategy is implemented.
**H₄b: The Occurrence of Multiple Career Anchor Preference Will be Greater in Personnel with Shorter Tenure**

The proportion of participants who demonstrated multiple career anchor preferences made up just over a quarter of the sample. This is similar to Chapter 2 and supports research which suggests multiple preferences to be possible and even common (Danziger & Valency, 2006; Feldman & Bolino, 1996; Ramakrishna & Potosky, 2003; Tan & Quek, 2001). Work experience is crucial, as it is what is suggested to help individuals determine their abilities, motives and needs and therefore settle upon a dominant career anchor preference (Feldman & Bolino, 1996; Quigley & Tynon Jr, 2006; Schein, 1992, 1996; Weber & Ladkin, 2011).

To explore this more accurately, the distribution of multiple anchor preference was explored against tenure. Participants with fewer years’ tenure were found to be more likely to demonstrate a preference towards multiple career anchors. As tenure increased, the occurrence of multiple anchors decreased which supports the idea of career anchor preference developing with work experience (Schein, 1996). This finding suggests the RN needs to provide a supportive environment during the first few years in the Service to help personnel understand their preferences and learn what they want from their career. This is particularly important based on retention concerns during early-career, and may be one explanation for the peak in turnover during early-career. It is possible that this is a point where individuals are starting to understand what they will and won’t put up with, having had a number of years of experience. The implication is that the Service takes on personnel, spends time training and investing in them for them to discover a few years down the line that the RN is not congruent to what they actually want from their career. However, it may be something that is unavoidable if it takes work experience to determine one’s career preference.

It should be noted, however, that a proportion of personnel did demonstrate single career anchor preference at the lower tenure point; therefore it is not a universal truth. It may be that those who are unsure of what they want/need are those who provide the turnover issue experienced at the early-career point. Not all personnel leave at this stage. Further, some personnel with longer tenure also presented multiple preferences, although this figure was lower. Providing realistic job previews and being clear on expectations at the selection and recruitment stage is something that should be considered to potentially help individuals make a self-determination of the suitability of a job in the RN for their aspirations. Consideration should also be given for the
meaning behind the different anchors to different people and occupations. For example, Pure challenge could involve a high paced sales job, or in the case of the Royal Marines, facing insurgents in combat. This raises a potential limitation to the concept of career anchors in terms of their definitions and applicability.

**Limitations & Further Research**

The main limitation associated with this study was the cross-sectional design and use of self-reported measures. As participation was through self-selection, there may have been potential measurement bias with only those motivated to participate doing so. However, well validated and reliable measures were used to control for this as much as possible. Additionally, mono-method bias may have been present, due to single measures being used for each of the constructs included (Donaldson & Grant-Vallone, 2002; Spector, 2006); use of multiple measures through additional studies would help determine the extent this type of bias was present. However, this was not possible due to the timeframe and practicalities of working with the RN. This was achieved to an extent with the Career Orientations Inventory, with the same distribution and similar reliabilities found across both Chapters 2 and 5.

The sample size was good, and achieved the required numbers associated with the power analysis completed. However, representation across the ranks could have been better. To allow for analysis between ranks and gender, a greater number of Senior Ranks, Officers and females were required; as the numbers were insufficient, no analyses were not conducted (Officers n = 69; Senior Rates n = 160; Junior Rates n = 408; male = 586; female = 56). That said the composition of the sample was representative of the structure of the RN, but may render the generalisability of the results to more balanced organisations limited, in terms of gender comparisons.

The measures selected for exploration within this study were done so based on the perceived relevance to the presenting organisational issue. Specifically, a need to understand how aspects related to membership of the RN (identity, ethos & engagement) influence positive career related outcomes (career motivation, positive future perceptions & intentions to remain); the principle focus was on retaining those personnel remaining following redundancies and understanding aspects that may help retain those during the early-career turnover spike. Other measures linked to retention could have been included and explored, for instance the theory of job-embeddedness
(Crossley, Bennett, Jex, & Burnfield, 2007; Mitchell et al., 2001) which refers to why individuals cannot leave their job, taking a different perspective with regards addressing retention; or person-environment fit (Kristof-Brown et al., 2005) which may have helped explore the idea of ‘fit’ against career related behaviours and initial career choice decisions during recruitment processes. However, although these theories were of interest, they were not deemed suitable to address the presenting problem at the time.

There are a number of further research opportunities to come out of this study. Consideration of the theories noted above is one area of potential interest. However, the principal suggestion would be to take a longitudinal approach focusing on the measures used within this study – this would address the cross-sectional limitation previously noted. The aim would be to provide a more accurate reflection of the interactions between the variables and determine whether the observed changes within this study through career represent actual changes. Currently it is only able to reveal a snapshot in time of how personnel felt towards the constructs under examination.

Research should be conducted to explore how ethos and identity develop through career, and how their relationship with career motivation and turnover are influenced by life and/or career stage. Taking a cohort from the beginning of, during and following training, as well as continuing through career would present a more defined picture of the changes experienced, particularly during early-career where the spike in retention is being experienced. This would allow for life stage elements to be recorded and applied to the results and inferences made as to the possible impact. Use of a civilian control group (e.g. civil servants) would also be of interest in order to determine whether the role of ethos and identity found within this research is distinctive to military personnel.

Further definition of how ethos is measured should be explored; the similarity found between ethos and identity may have been due to the construct for ethos not being sufficiently defined. A general ethos scale for use within military settings should be created and validated in order to help determine the differentiation between this construct and identity.

**Conclusion and Practical Implications**

In conclusion, this chapter provides new insights into the interactions, relevance and utility of key psychological theories and constructs within a current and distinctive organisation, namely the RN. Many of the interactions between the variables found in
civilian-based research have been replicated within this study to an extent, although some differences were also found. In addition, there are also a number of practical implications the RN needs to be cognisant of when developing future people strategy.

Results provide the first empirical evidence for the importance and application of ethos for positive organisational behaviours within the RN, notably identity, engagement, career motivation and future opportunities. The RN should help potential applicants and newly recruited individuals self-determine the alignment between their values (i.e. ethos) and the organisation during recruitment, training and into early-career. This will help potential recruits to determine their suitability in terms of aspirations and values for a career in the RN. This will help build positive organisational identity, career motivation and engagement, which were all found to be important for turnover intentions. People strategy will need to consider these elements as it moves forwards.

Arm differences were found, indicating the RN should provide greater clarity on the value propositions for the individual Arms as well as the Service as a whole. This is particularly pertinent for the Surface Fleet, with arguably the least distinct identity and nomenclature. Representing the nuances of each Arm will help develop and sustain personnel values, and should be communicated from recruitment and throughout career. Based on the fluctuating nature of ethos found within this study, there is a possibility that the traditional and historical values currently associated with the Service are not fit for purpose or aligned with the expectations and reality for today’s potential applicants and those in early-career. Senior Officers need to be cognisant of a potential disconnect between the values as represented when they joined, to those desired by current generations and society.

Life stages were also found to be important in positive organisational behaviours, highlighting the need to include these in career management decisions; particularly providing opportunities through career and not just in the early stages, in order to build motivation. Focus is needed leading up to the early-career departure point and into mid-career. Interventions that increase feelings of engagement or enhance individual and organisational values, or ideally both, are likely to be positive for career motivation.

Career management processes should explore, discuss and take account of career aspiration preferences of personnel in order to provide a career that will be of value and align with expectations. A high preference was found towards a career that takes account of family and personal life, as well as ones career, highlighting the need to
implement and protect flexible working options, provision of childcare, support for families and general provision of opportunities that align with aspirations focused around lifestyle. Career managers will also need to encourage personnel to reflect on the positive elements of their employment and career to identify where they align; and if not, what could be done to address the misalignment in terms of fulfilling their career desires. Realistic discussions should be conducted if it seems personnel values are not aligned, meaning they may be less likely to wish to remain in the RN. Having honest conversations through career should help alleviate any ‘sudden’ increases in turnover intentions. Additionally, encouragement to recognise ones values is likely to help individuals realise the RN is not the career for them, before a significant investment is placed in them. The more that can be done pre-joining, the better for the individual and organisation.

Finally, levels of identity, ethos, engagement, perceived opportunities and career motivation are likely to be affected by changes occurring with the RN and wider Ministry of Defence (MOD). With the upcoming Strategic Defence and Security Review (SDSR) 2015, there is a potential for personnel to become disengaged and begin to look elsewhere to fulfil their career desires and maintain positive identity, depending on the outcome of the review. The impending concern is the uncertainty related to the previous and upcoming SDSR, in that it could result in further retention problems. This will need to be managed prudently, ensuring that the career management of personnel is handled carefully and considers opportunities and career stage in decisions and planning.

In conclusion, findings from this chapter indicate the importance of ethos and identity for career motivation within the RN, including ethos providing a mediating role between engagement and career motivation. Ethos was also found to be important for identity development. Differences between Arms suggest that people strategy and policy decisions should take account of these, particularly with regards to career-related aspects. Career stage was influential over positive organisational behaviours (ethos, identity, engagement & career motivation). Additionally, evidence suggested perceived opportunities to be important for career-related behaviours, particularly at early and mid-career points, but also throughout career. Strategy will need to take into account these aspects, as well as differences in career aspirations, with a focus on providing a balance between home, family, and working life.
Chapter 6 - Epilogue

The research described in this thesis addresses identified deficiencies in the academic literature. Notably the overuse of student populations (Foot & Sanford, 2004) and therefore relevance to working adult populations (Foot & Sanford, 2004; Witt et al., 2011), failure to address practical implications (Bartunek, 2007; Gelade, 2006), and the relevance and applicability of identified theories to a military population, the Royal Navy (RN). This research has built a new body of research and extends previous theoretical knowledge driven by a practical real-world organisational issue. Research was conducted to explore what personnel desire from their career and how important organisational behaviours interact with career motivation and turnover intentions. The outcomes have provided a better understanding regarding career aspirations and behaviours of RN personnel, helping to support positive retention.

Theoretically this thesis has shed light on understanding the career aspirations of RN personnel and how these interact with expectations and commitment; how identity, ethos, and engagement relate to career motivation, perceived future opportunities and turnover intentions within a military environment; reviewed the socialisation process for those managing personnel careers within the RN; and explored what research has been completed on work-family conflict to help inform one of the main reasons given for turnover intentions within the RN.

Each component of the thesis will be discussed in turn, outlining the theoretical development and practical implications. The final section provides a reflective account of the author’s development, both in terms of academic and practitioner competence.

Case Study

The case study (Chapter 2) provides the first theoretical application of the Career Orientation Inventory (i.e. Career Anchors; Schein, 1996) to the RN, addressing a deficiency in current literature. Prior to this study, career anchors had been applied to a variety of occupational groups, for example educators (Tan & Quek, 2001); teachers (Asamani et al., 2015), faculty members (Ghalavandi et al., 2012), IT professionals (Chang et al., 2012), engineers (Tremblay et al., 2014), and the police (Steele, 2009). Research has been conducted in 1980 and 2011 applying career anchors to Officers in training at the U.S. Naval Postgraduate School; however the inventory used was unique to the U.S. Naval researchers work, and only Officers were included. No research has
applied the more common eight anchor model (Schein, 1996) to the RN, or considered how career anchor preferences interact with expectations and commitment of RN personnel.

Similarities were found between the career preferences of people in the RN and other non-military organisations, thereby empirically demonstrating the applicability and potential generalisability of civilian-based research in this area to the military. However, this was found only to be the case compared to certain types of civilian populations (e.g. heterogeneous by age, gender & employment type, Danziger & Valency, 2006; police, Steele, 2009; aviation, Yarnell, 1998). Clear differences were found between populations considered as more ‘white-collar’ (e.g. management professionals, Igbaria et al., 1991; educators, Tan & Quek, 2001). Further, the first empirical support for the utility and efficacy of career anchor theory to the RN was found, indicated through the duplication of career anchor preferences over two separate samples and time points (Chapters 2 & 5). This provides reassurance to other practitioners aspiring to use this measure within military populations, including the potential for comparisons to some other organisations.

Career anchor preferences in the RN were empirically found to differentially influence psychological contract violation, organisational commitment (affective & normative) and intentions to remain. Results provide an insight into the relative importance of career aspirations for the RN, suggesting it to be possible to determine the likely occurrence of psychological contract violation based on career anchor preference. This provides the first empirical evidence for understanding the types of career anchor preference that may be more (e.g. Security/Stability) or less (e.g. Lifestyle, Autonomy) conducive with the RN, based on the likelihood of contract violation and turnover intentions occurring. Further, it was found that psychological contract violation during early-career was linked to negative intentions to remain, providing practical and theoretical evidence for what has to date been hearsay. This chapter provides new insights, which are valuable for career-related research literature.

Practically, the findings from this chapter are important for recruitment and career management decisions. They indicate the need to encourage applicants to consider their career aspirations during recruitment and consideration of these when guiding selection decisions. For Career Managers, results suggest the need to guide and refine development opportunities to encourage positive turnover intentions by exploring the career aspirations of personnel and how to meet them. The RN will need to consider the
‘offer’, and highlight extrinsic aspects associated with employment in the RN initially, moving to more intrinsic elements in later career.

**Intervention Process**

Chapter 3 outlines an intervention process developed from an initial need to understand the demands placed on Career Managers, resulting in the design and implementation of additional support to help them when taking on their role. This involved the first empirical exploration of induction and socialisation processes on later understanding, job connection and self-efficacy within the RN. Results advance knowledge in the socialisation literature by addressing the criticism that this area of research tends to focus on inexperienced newcomers (Cooper-Thomas et al., 2012; Milligan et al., 2013), by considering experienced newcomers. The induction package trialled was not found to have any significant effect on the level of HR understanding, job satisfaction, job connection or self-efficacy of Career Managers. This provided theoretical support for the suggested ineffectiveness of inductions for experienced newcomers (e.g. Bauer et al., 2007; Saks et al., 2007), although further research is required to unpick this finding to determine what factors actually influence this relationship. For example, results suggested that becoming competent for experienced newcomers in the RN may not be reliant on induction-related socialisation. For the RN, it would appear that general socialisation associated with actually doing the job, interacting with peers and gaining job clarity over time influenced capability. This may be specific to organisations who base their career development processes on mobility (e.g. Campion et al., 1994; Milligan et al., 2013), for example, moving every two years within the RN.

A further finding was the need to gain clarity on the operationalisation of experienced newcomers, particularly whether this should be focused on the experience, organisation, department or individual job level. In the RN, experienced newcomers are experienced with regards to work, the organisation and their underlying specialisation (e.g. engineer, logistics); whereas previous research has defined experienced newcomers as simply having several years of previous work experience (e.g. Milligan et al., 2013). RN personnel could be described as inexperienced newcomers at the individual role level, for example, pilots moving from flying helicopters to managing careers of hundreds of personnel, but not in terms of general work experience.
Practically, based on the two-year cycle of job placements within the RN, consideration will need to be given as to whether transition between jobs can be improved through a different process; and if a two-year period is appropriate. The desire for career managers to focus on more than just the process of managing careers means a more robust training system to fully support and prepare personnel is required. Understanding the induction and socialisation processes associated with individual roles and job moves is something the RN will need to consider further.

**Critical Literature Review**

Chapter 4 synthesised literatures published between the years of 2005 and 2015 on work-family conflict and its influence on turnover behaviours of military personnel and the effect on spouses. A narrow range of research was available. This review highlighted deficiencies in the current research literature on work-family conflict within the military. Seven studies were reviewed, and explored work-family conflict and its relationship with military turnover behaviours, a number of satisfaction types (job, relationship & family satisfaction with military life) and stress.

The predicted negative relationship between work-family conflict and turnover behaviours were supported by two studies (Andres et al., 2012b; Huffman et al., 2013), but refuted by a third (Heilmann et al., 2009), indicating that the theoretical link between these concepts is not as clear cut as one may assume. Further, gaps were identified in the populations used to explore this relationship, with Naval Services clearly unrepresented. This raised questions over the generalisation of findings to Naval Services, particularly with deployments being quite different in terms of length and type (e.g. submarine deployments).

The relationship between job satisfaction and turnover is well documented (e.g. Bonenberger et al., 2014; Holtom et al., 2014; Mudor & Tookson, 2011; Tschopp et al., 2014). When linked to work-family conflict within the military, job satisfaction was found to have a mediating role on turnover intentions indicating a development of the theoretical understanding of these concepts. Hygiene factors (e.g. working conditions/context) which are suggested to influence the job satisfaction-turnover relationship, may explain the relationships found within the review; although this is just a proposition.
Relationship satisfaction and family satisfaction were also empirically linked to the work-family conflict-turnover relationship within the military, providing a mediating effect. The effect of these relationships were present before, during and after separations, with uncertainty linked to schedules likely to cause negative experiences (Huffman et al., 2013). Job and family stress were also found be influencers, emanating from both job and family contexts. Only one article reviewed the bi-directional nature of work-family conflict, with more work required to understand this interaction. Lower relationship satisfaction was linked to distress after deployment, which may indicate a lack of social support to spouses (Skomorovsky, 2014) and families (Bello-Utu & DeSocio, 2015) on reuniting.

General improvements for published articles identified from the review included selection bias, specifically sample size details and power calculations, use of designs other than cross-sectional, and information of any withdrawals and blinding. Areas identified for further research included use of Naval Services and civilian control groups, positive side to work-family conflict, use of qualitative methodologies and evaluation of interventions to address work-family conflict aspects.

Practically, the RN will need to focus on job and family satisfaction, in order to potentially improve retention linked to work-family conflict. Providing focus and support for families before, during and after imposed separations will be important to manage the negative implications associated with work-family conflict. Sufficient communication opportunities and realistic perceptions about the possibility of such communications should be provided. More work is required to include Naval Services to understand whether the nuances associated with Service type influences the experience and impact of work-family conflict.

**Empirical Research Project**

Chapter 5 presents the first examination of the relationships between career-related behaviours and retention within the RN. The results provide new contextual understanding of the interactions between values and attitudes on career-related behaviours, in a specialised working population. This research further addresses the criticisms over the high use of non-working populations in research (Foot & Sanford, 2004; Witt et al., 2011) and provides evidence for the applicability and relevance of psychological theories to the RN context.
To date, as far as the author is aware, research exploring ethos within military contexts has focused primarily on the extreme context of war environments (e.g. Coker, 2007; Hays-Parks, 2002). There is an absence of research focusing on the day-to-day role of ethos; which, considering the perceived importance of this for RN life, represents a deficiency in the current literature. Particularly how ethos theoretically interacts with organisational identity, engagement, career motivation, perceived future opportunities, and turnover intentions within the RN. This chapter addresses this deficiency providing new insights for career-related research literature.

Ethos and identity are anecdotally considered to be important for the RN; this research provides the first empirical evidence of their utility and relevance for important and positive organisational behaviours within the RN. Further to this, additional evidence was found for the link of identity to turnover intentions within the RN, indicating the relevance of applying general psychological literature to military populations (e.g. Bothma & Roodt, 2012; Rothausen et al., 2014). The initial role of ethos, or values, during early career was found to be central to the development of organisational identity and consequently retention of personnel (Oren & Bar-Tal, 2006). This advances the theoretical understanding regarding the influence of ethos on identity development for the RN. Further to this, ethos, organisational identity and engagement were found to be important for building and sustaining positive career motivation.

This chapter also presented the first evidence of a potential link between ethos and identity at a construct level, raising a question over the theoretical similarities between these concepts. More work will be needed to explore the construct of ethos, based on the level of support for identity as a unique construct within the literature (e.g. Blader & Tyler, 2009; Haslam, 2004; Hornsey, 2008).

The outcomes of this chapter are relevant for recruitment, selection, training and continued career progression and development of RN personnel. Observed differences were noted between organisational identity, ethos, engagement, career motivation and intentions to remain in the Service across tenure points, thereby providing evidence for the need to differentially manage personnel according to their length of service. The importance of perceived opportunities were empirically linked to tenure points; which was an important observation based on the connection between perceived future opportunities and career motivation found for RN personnel. These differences indicate a need for individual-level focused career management approaches.
Consideration will need to be given to the ‘offer’, ensuring that opportunities are available throughout career, moving from extrinsic to intrinsic related aspects. The constructs explored were found to have practical relevance and utility for the RN, indicating the ability to generalise findings from civilian-based literature to that of the RN. Determining the distinct ethos of each of the Arms is an area for potential improvement, as is the need to consider whether the current values of the organisation are fit for the new generations entering the Service. Career Managers will also need to consider life stage, tenure and aspirations in the decisions implemented in personnel career plans. Focus needs to be placed on helping personnel determine their aspirations and identifying positive opportunities to fulfil these. With the upcoming Defence Review, the RN will need to be aware of the potential impact on the important organisational behaviours noted in this study.

**Overall Conclusion**

Following a series of redundancies across the Service imposed by the Government Defence Review, there was an increased criticality to retain and provide a desirable career to personnel within the RN. The aim of this research was therefore to provide new insights into understanding the career aspirations of RN personnel and how these influence organisational behaviours in order to inform and guide people strategy decisions. Research was conducted to explore the personnel aspects and also aspects considered to be facilitative with regards to careers and turnover.

Research was conducted to understand the career aspirations within the RN, and whether these aspirations were aligned to the RN culture through understanding their relationship with commitment and expectations (Chapter 2). Certain career anchors appeared to be more influential over intentions to remain, expectation violation and commitment. A high preference was demonstrated towards a desire for a balanced lifestyle, with a negative relationship found between this aspiration and intentions to stay and commitment. Career aspiration preferences appeared to differ based on career stage, indicating some flexibility in this preference, although this could be due to generational or maturational differences; more research is required taking a longitudinal approach to support this supposition.

Chapter 2 provided an initial insight into aspirations which were more and less likely to be aligned to the RN, however, did not consider how to encourage and develop
positive career-related outcomes, notably career motivation and intentions to remain. With redundancies and observed early-career retention spike, it was desirable to understand whether identity, ethos and engagement, constructs found to be influential over turnover intentions, had any impact on career-related behaviours, notably career motivation and perceptions over future opportunities, as well as turnover intentions (Chapter 5). The role of ethos was found to be particularly salient for identity development, career motivation and mediating the relationship between engagement and career motivation. Arm differences were prevalent, indicating the need for people strategy decisions to realise a ‘one-size fits all’ approach to career-related behaviours is unlikely to fulfil desires across the Service. Life stage was found to be influential over positive organisational behaviours (ethos, identity, engagement & career motivation) highlighting the need for people strategy to provide career paths which account for changes in life stage in order to retain positive outcomes. Perceived opportunities were also important, particularly during early and mid-career points, but also throughout career.

Understanding aspects linked to the career-related attitudes of personnel was the first step in answer the overarching research question of this thesis. The second was to explore related groups who were likely to be influential or facilitative, namely career managers and families.

Once an initial insight into the career behaviours of personnel had been achieved, the question turned to whether those individuals responsible for managing the careers of RN personnel were suitably supported and able to fulfil personnel desires. Research was conducted to explore the general experiences of career managers, how they manage talent and people, and aspects associated with entering the role of a career manager (Chapter 3). This highlighted deficiencies in their training and preparation, leading to the development and trial of a pilot HR awareness intervention to address this. Results indicated a need to focus on providing support to career managers in preparing for their role, accomplishing the role, and adverse elements being experienced. Evidence was found for the role of time in gaining role clarity and confidence, particularly for experienced newcomers in the RN. The pilot HR awareness induction that was trialled did not demonstrate any significant utility, however the numbers involved were very small, therefore further research is required to increase the number of participants before a robust conclusion can be drawn.
Within the military the influence of the family can also have positive and negative effects on the military person. This in turn is likely to positively or negatively influence attitudes towards one's career and ultimately intentions to remain in the Service. The final piece of research in this thesis consisted of a critical literature review to explore an area previously identified as impacting on Service personnel turnover intentions, notably the impact of Service life on family life, contained within the work-family construct (Chapter 4). This chapter provided the first review of literature exploring this area linked to Service personnel turnover behaviours and any impact this had on spouses. Results demonstrated the importance of providing sufficient support to personal and families before, during and after deployments to negate the negative impact of work-family conflict, particularly regarding levels of stress, satisfaction and turnover intentions. Further research is needed in this area to fully understand the general impact of work-family, and family-work conflict within the military context, but particularly within the Naval Services.

The new insights provided through this research will be invaluable for developing people strategy within the RN in order to continue to provide a desirable career option for people.

**Professional Development**

Over the duration of this research degree, I feel I have developed both as a practitioner and also academically, addressing skills initially identified for development (see Appendix C). As a working practitioner psychologist, the time available for focused development on psychological related skills is limited. Continued professional development is part of the requirement to maintain registration with the Health and Care Professions Council, however, this tends to occur on and off, rather than over a prolonged period. This can make it difficult to quantify and truly reflect on one's development from a macro view. However, over the duration of this Professional Doctorate, I have noticed a marked improvement in my written work. For example, sentence structuring, referencing, drawing inferences, making theoretical and practical links, and synthesising vast quantities of information, both literature and statistical. This has been clear from the process of writing drafts and then revisiting them later; even up until the last revisions to the overarching thesis. I feel I have also developed in my writing style at work, even though it is quite distinct from an academic style, evident in the greater confidence I feel when writing briefs for high ranking Officers.
Each element of my thesis has provided a different challenge and development opportunity, including determining and refining research questions, hypothesis writing, managing large amounts of literature and data, and identifying and designing potential improvements to processes. Distinct skills I have learnt during this period of research include how to conduct a thorough critical literature review (Denyer & Tranfield, 2009) and also mediation analysis (Baron & Kenny, 1986; MacKinnon et al., 2007; Warner, 2012). From a practitioner perspective, these skills have enhanced my ability and confidence to take on different tasks, and have re-invigorated my practitioner-researcher identity. All of these developments are of direct value to my organisation in how I perform my job, develop in my professional role, and support and develop those I am responsible for.

During the course of the Doctorate, I achieved a promotion at work which significantly changed my role and responsibilities. The main change was taking responsibility for the development of trainee Occupational Psychologists, as well as managing the research programme for the RN. I have been able to pass on the new knowledge I have learnt during this qualification to aid in my staff’s development; personally, this has improved my confidence as a Manager and in my role as the Senior Occupational Psychologist for the Service, encouraging me to consider opportunities at the next grade.

I have learnt a great deal about my ability to persevere, how to organise my time and have also become more resilient. This was particularly noticeable on return to my studies after a period off for maternity leave. Managing my time to balance a full-time job with a high level of stress and responsibility, part-time Doctorate, home-life and a toddler presented additional challenges to those I experienced during the early years of my study. On reflection, my work-life balance has not been as positive as I would have liked. This has mainly been the case during my final year, during which I have utilised my leave to progress my writing up. Knowing it was a short-term measure has made it manageable. There were also positives from being able to take a number of consecutive days to focus on writing up. I have noticed a positive change in my writing and thinking style during this final year, which I don’t think I would have achieved by using non-consecutive days throughout the year. Additionally, it allowed me to reflect on the bigger picture of my thesis, which was one of my objectives (Appendix B).

I have addressed my objective to identify opportunities to present my work, by having three posters on my Doctorate work accepted at two conferences (see Appendix
Y). One was based on my Case Study (Chapter 2) and was presented at the Division of Occupational Psychology Conference 2012 (“Informing a new employment framework: Understanding the career aspirations of Naval personnel”). The other two were from my Empirical Research Project (Chapter 5) and were presented at the British Psychological Society Annual Conference 2015 (“Royal Navy Ethos: Understanding the interactions between ethos, engagement and career motivation”; “Exploring the influence of ethos and identity on career motivation of Royal Navy personnel”). I plan to submit aspects of my work to the Division of Occupational Psychology conference 2016, notably the Intervention Process, Critical Literature Review, and an element of my Empirical Research Project. I have also submitted my Critical Literature Review (Chapter 4) and an element from Chapter 5 for consideration by peer-reviewed journals (see Appendix Z for submission confirmations). It was my aspiration to publish my work throughout the process, however due to time pressures previously mentioned this was not a realistic option. I hope to rectify this once I have completed this qualification, based on then having ‘free’ time to dedicate to this activity.
References


demands, job satisfaction, and turnover intentions and work-family conflict.


## Appendix A

### Rank Structures Across the Royal Navy and Royal Marines

<table>
<thead>
<tr>
<th>Junior Ratings</th>
<th>Senior Ratings</th>
<th>Officers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Royal Navy</td>
<td>Royal Marines</td>
<td>Royal Navy</td>
</tr>
<tr>
<td>Able Seaman</td>
<td>Marine</td>
<td>Petty Officer</td>
</tr>
<tr>
<td>Leading Hand</td>
<td>Lance Corporal</td>
<td>Chief Petty Officer</td>
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<tr>
<td></td>
<td></td>
<td>Warrant Officer</td>
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</tbody>
</table>
### Appendix B

**SWOT Analysis Outcomes and Identified Objectives**

<table>
<thead>
<tr>
<th></th>
<th>Analysis</th>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengths</strong></td>
<td>• Determined and self-motivated</td>
<td>• Be open to different statistical testing methods</td>
</tr>
<tr>
<td></td>
<td>• Can set deadlines and meet them</td>
<td>• Set clear deadlines and stick to them</td>
</tr>
<tr>
<td></td>
<td>• Good qualitative and quantitative analysis ability</td>
<td>• Manage time effectively; ensure work-life balance</td>
</tr>
<tr>
<td></td>
<td>• Relative job security to afford the time for long period of study</td>
<td></td>
</tr>
<tr>
<td><strong>Weaknesses</strong></td>
<td>• Taking on too much</td>
<td>• Plan realistic deadlines and say ‘no’ to extraneous tasks</td>
</tr>
<tr>
<td></td>
<td>• Self-critical</td>
<td>• Identify achievements and areas for improvements</td>
</tr>
<tr>
<td></td>
<td>• Focus on smaller aspects rather than the bigger picture</td>
<td>• Allow time to reflect on the bigger picture; to help with practical and theoretical implications</td>
</tr>
<tr>
<td><strong>Opportunities</strong></td>
<td>• Research Development Programme (RDP)</td>
<td>• Identify and complete relevant online courses available through RDP</td>
</tr>
<tr>
<td></td>
<td>• Opportunities to present</td>
<td>• Identify relevant conferences and/or journals</td>
</tr>
<tr>
<td><strong>Threats</strong></td>
<td>• Competing demands on my time (e.g. full-time work; promotion; new baby)</td>
<td>• Negotiate for time during the week for doctorate research</td>
</tr>
<tr>
<td></td>
<td>• Being a distance learning student</td>
<td>• Maintain regular contact with supervisors</td>
</tr>
</tbody>
</table>
## Appendix C

### Identified Skills for Development

<table>
<thead>
<tr>
<th>Key Development Domains</th>
<th>Skills</th>
<th>Behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Knowledge and intellectual abilities</strong></td>
<td>Creativity</td>
<td>Intellectual insight</td>
</tr>
<tr>
<td></td>
<td>Cognitive abilities</td>
<td>Analysing, synthesising, critical thinking, evaluating, problem solving</td>
</tr>
<tr>
<td></td>
<td>Knowledge base</td>
<td>Increase subject knowledge, practical application of methodologies, management of information, theoretical knowledge of methods</td>
</tr>
<tr>
<td><strong>Personal effectiveness</strong></td>
<td>Personal qualities</td>
<td>Maintaining enthusiasm, self-confidence, responsibility</td>
</tr>
<tr>
<td></td>
<td>Self-management</td>
<td>Time management, work-life balance, commitment to research</td>
</tr>
<tr>
<td></td>
<td>Professional and career development</td>
<td>Career management, CPD, responding to opportunities</td>
</tr>
<tr>
<td><strong>Research governance and organisation</strong></td>
<td>Research management</td>
<td>Research strategy, project planning, risk management</td>
</tr>
<tr>
<td></td>
<td>Professional conduct</td>
<td>Ethics, principles, practice</td>
</tr>
<tr>
<td><strong>Engagement influence and impact</strong></td>
<td>Engagement and impact</td>
<td>Public engagement</td>
</tr>
<tr>
<td></td>
<td>Communication and dissemination</td>
<td>Communication methods, publication</td>
</tr>
<tr>
<td></td>
<td>Working with others</td>
<td>People management, supervision, team working</td>
</tr>
</tbody>
</table>

### Career Anchor Descriptions

<table>
<thead>
<tr>
<th>Career anchor</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical functional competence (TF)</td>
<td>Intrinsically motivated by the content of their work, they value the opportunity for further development and learning in their speciality. Recognition from professional peers is more important than rewards from management levels e.g. a pat on the back from an unknowledgeable supervisor is worth less than acknowledgement from a professional peer or even subordinate who understands the difficulty associated with the achievement.</td>
</tr>
<tr>
<td>General managerial competence (GM)</td>
<td>Preferring knowledge in several areas, the members of this anchor view specialisation as a trap. General levels of ability in analytical, emotional, interpersonal and intergroup competence are required. They are happy to be tied to an organisation particularly if good retirement benefits are provided. Promotion should be based on merit with their ability to get results being the critical criterion.</td>
</tr>
<tr>
<td>Autonomy/independence (AU)</td>
<td>Primarily motivated to seek work situations that are free from organisational constraints, these individuals have an overriding need to do things their own way. They want to set their own pace and standards, disliking close supervision. Individuals in this anchor would be terrified of being tied to an organisation, particularly if it entailed loss of autonomy.</td>
</tr>
<tr>
<td>Security/Stability (SE)</td>
<td>Motivated primarily by job security and tenure, these individuals prefer stable, predictable work and are more concerned about the context of the work that the nature of the work itself. They prefer recognition for their loyalty through reassurances of further stability and continued employment.</td>
</tr>
<tr>
<td>Entrepreneurial creativity (EC)</td>
<td>Motivated towards building or creating a new organisation, product or services, ownership is the ultimately important issue. Easily bored, they desire power and freedom to move into roles considered to meet their own needs.</td>
</tr>
<tr>
<td>Sense of service/dedication to a cause (SV)</td>
<td>Individuals in this anchor have a desire to improve the world around them, aligning their work activities with personal values about helping society. Recognition of contribution is important, with promotion based on this desire with fair pay for their contribution important.</td>
</tr>
<tr>
<td>Pure challenge (CH)</td>
<td>Motivated to conquer anything or anyone, success is defined by overcoming impossible obstacles, solving problems or winning out over extremely tough situations. Challenges in terms of interpersonal and competition is important, these individuals are very single minded and may be intolerant of those without comparable aspirations.</td>
</tr>
<tr>
<td>Lifestyle (LS)</td>
<td>Integrating their career with total lifestyle is important for these individuals. This is not simply about balancing personal and professional lives, but finding a way to integrate the needs of the individual, family and career. They will value flexibility above anything else, looking for organisations that reflect respect for personal and family concerns.</td>
</tr>
</tbody>
</table>

Adapted from Schein (1990)
Appendix E

Questionnaire Items

Career Anchors

1. I aspire to be so good at what I do that my expert advice will be sought continuously
2. I am most fulfilled in my work when I have been able to integrate and manage the efforts of others
3. I aspire to have a career that will allow me the freedom to do a job my own way and according to my own schedule
4. Security and stability are more important to me than freedom and independence
5. I am always on the lookout for ideas that would permit me to start my own business
6. I will feel successful in my career only if I have a feeling of having made a real contribution to the welfare of society
7. I aspire to have a career in which I can solve problems or win out in situations that are extremely challenging
8. I would rather leave my organisation than be placed in a job that would compromise my ability to pursue personal and family concerns
9. I will feel successful in my career only if I can develop my technical or functional skills to a very high level of competence
10. I aspire to be in charge of a complex organisation and to make decisions that affect many people
11. I am most fulfilled in my work when I am completely free to define my own tasks, schedules and procedures
12. I would rather leave my organisation altogether than accept an assignment that would jeopardize my security in that organisation
13. Building my own business is more important to me than achieving a high-level managerial position in someone else’s organisation
14. I am most fulfilled in my career when I have been able to use my talents in the service of others
15. I will feel successful in my career only if I face and overcome very difficult challenges
16. I aspire to have a career that will permit me to integrate my personal, family and work needs
17. Becoming senior specialist management in my area of expertise is more attractive to me than being general management level
18. I will feel successful in my career only if I reach a general management level in some organisation
19. I will feel successful in my career only if I achieve complete independence and freedom
20. I seek jobs in organisations that will give me a sense of security and stability
21. I am most fulfilled in my career when I have been able to build something that is entirely the result of my own ideas and efforts
22. Using my skills to make the world a better place to live and work in is more important to me than achieving a high-level managerial position
23. I have been most fulfilled in my career when I have solved seemingly unsolvable problems or won out over seemingly impossible odds
24. I feel successful in my life only if I have been able to balance my personal, family and career requirements
25. I would rather leave my organisation than accept a rotational assignment that would take me out of my area of expertise
26. Becoming general management is more attractive to me than becoming senior specialist management in my current area of expertise
27. The chance to do a job my own way, free of rules and constraints, is more important to me than security
28. I am most fulfilled in my work when I feel that I have complete financial and employment security
29. I will feel successful in my career only if I have succeeded in creating or building something that is entirely my own product or idea
30. I aspire to have a career that makes a real contribution to humanity and society
31. I seek out work opportunities that strongly challenge my problem-solving and/or competitive skills
32. Balancing the demands of personal and professional life is more important to me than achieving a high level managerial position
33. I am most fulfilled in my work when I have been able to use my specialist skills and talents
34. I would rather leave my organisation than accept a job that would take me away from a general management track
35. I would rather leave my organisation than accept a job that would reduce my independence and freedom
36. I aspire to have a career that will allow me to feel a sense of security and stability
37. I aspire to start up and build my own business
38. I would rather leave my organisation than accept an assignment that would undermine my ability to be of service to others
39. Working on problems that are almost unsolvable is more important to me than achieving a high level managerial position
40. I have always sought out work opportunities that would minimize interference with personal or family concerns

**Organisational commitment**

1. I would be very happy to spend the rest of my career with the RN/RM
2. Right now, staying with the RN/RM is a matter of necessity as much as desire
3. I do not feel any obligation to remain with the RN/RM (R)
4. I really feel as if the RN/RM’s problems are my own
5. It would be very hard for me to leave the RN/RM right now, even if I wanted to
6. Even if it were to my advantage I do not feel it would be right to leave the RN/RM now
7. I do not feel a strong sense of ‘belonging’ to the RN/RM (R)
8. Too much of my life would be disrupted if I decided I wanted to leave the RN/RM now
9. I would feel guilty if I left the RN/RM now
10. I do not feel emotionally attached to the RN/RM (R)
11. I feel that I have too few options to consider leaving the RN/RM
12. The RN/RM deserves my loyalty
13. I do not feel like ‘part of the family’ in the RN/RM (R)
14. If I had not already put so much of myself into the RN/RM I might consider working elsewhere
15. I would not leave the RN/RM right now because I have a sense of obligation to the people in it
16. The RN/RM has a great deal of personal meaning for me
17. One of the few negative consequences of leaving the RN/RM would be the lack of available alternatives
18. I owe a great deal to the RN/RM
Psychological contract breach and violation

1. Almost all the promises made by the RN/RM when I joined have been kept so far (R)
2. I have not received everything promised to me in exchange for my contributions
3. I feel that the RN/RM has come through in fulfilling the promises made to me when I joined (R)
4. I feel extremely frustrated by how I have been treated by the RN/RM
5. I feel betrayed by the RN/RM
6. I feel that the RN/RM has violated the contract (promises made) between us
7. So far the RN/RM has done an excellent job of fulfilling its promises to me (R)
8. The RN/RM has broken many of its promises to me even though I’ve upheld my side of the deal
9. I feel a great deal of anger towards the RN/RM

Turnover intentions

1. I intend to stay in the RN/RM as long as I can
Appendix F

Participant Information

Understanding what motivates personnel through their career is a key aim of the Royal Navy People Strategy. In support of this, the Commodore Naval Personnel Strategy (CNPS) Research Team has been tasked to investigate the career aspirations and motivations of Naval Personnel to inform future career structures. This work aims to ensure future direction is based on evidence taken directly from the heart of the Naval Service – our personnel.

You are invited to complete the enclosed questionnaire which provides you with the opportunity to help the RN/RM better understand your career aspirations. The information from only 15 minutes of your time will allow us to provide robust evidence of your opinions in order to better inform and advise future policy and strategy decision. Results of the research will be reported to CNPS, CNPers and 2SL.

Please note:

- All completed questionnaires are anonymous
- Participation is voluntary
- No individual responses will be seen outside of the civilian research team
- No person from your chain of command will see your responses
- Only a summary of responses are reported

The completed questionnaires will be securely held for a minimum of 12 months. All information will be subject to the current conditions of the Data Protection Act 1998.

If taking part in this survey causes you any distress, or you wish to talk about any personal issues further, please speak to your Unit Welfare Officer, Chaplain or contact one of the support networks listed below:

**Occupational Welfare Support.** Tel: xxx

**Naval Support Line.** Tel: xxx

If you have any queries of questions about this, please do not hesitate to contact the Principal Researcher: xxx

Please sign to provide your informed consent to participate.
Appendix G

Interview Schedule

Introduce self

Introduce interview

Following the SDSR and initiation of the New Employment Model (NEM) programme, there was a need to understand the career aspirations of Naval Service (NS) personnel through career. A programme of research has been designed by the CNPS Research Team to explore this.

The first stage of this research programme looked to explore the career needs of personnel. The next stage is focusing on our current career management process in order to identify the effective and ineffective aspects in order to better manage personnel career aspirations and our talent. My role is to get a deeper understanding of these aspects from the individuals who deal with it on a day to day basis – our career managers.

I am conducting a series of interview with career managers of different ranks. The interview will run for approximately 45-60 minutes. Participation is anonymous – you will not be asked to record our name or Service number at any point. I will ask you to complete a short demographics information sheet – this is purely to allow me to report on the general demographic of participants – it will not be used to identify you personally. I work under strict professional guidelines of the British Psychological Society code of conduct and the Health and Care Professions Council standards.

Taking part is voluntary. If you don’t want to stay, or need to leave, you are free to do so.

I would like to record the session, purely for my own information to ensure I don’t miss any vital pieces of information. I will ask for your permission to do so and for your consent to participate. The recording will be transcribed and used to explore the key themes coming out of the interview. Only I will have access to the transcripts which of course will remain anonymous. During the discussion I may also make some notes.

Only a summary of what is discussed will be reported. The information gathered will be used to inform personnel strategy in the development of the NEM as it goes forward.
Questions

Warm-up.

1. How do you do career management?

Main body.

2. What are your thoughts on how we manage careers in the NS?
   - Prompt: process used; decisions about career directions; talent vs career management; actually manage careers; career aspirations versus service needs; empowered to make decisions

3. What constraints, if any, do you think there are on CM?
   - Prompt: What helps/hinders; own background going into the job; length of time in post; training prior to taking up post; people management training

4. Thinking about our talent, how do you manage it?
   - Prompt: identify it; develop it; progress it; make sure skills are used; difference between career management and talent management

Cool-down.

5. Is there anything else you would like to add about your role as a CM (in terms of positive or negative aspects of the CM role you would like to add)?

Closure.
Appendix H

Participant Information

Understanding what motivates personnel through their career is a key aim of the Royal Navy People Strategy. In support of this, the Commodore Naval Personnel Strategy (CNPS) Research Team has been tasked to investigate the current career management processes – both effective and ineffective – in order to inform future career process requirements. This work aims to ensure future direction is based on evidence taken directly from the heart of the Naval Service – our personnel.

You are invited to participate in an interview, which provides you with the opportunity to help the RN/RM better understand your views on career management. The information will allow us to provide robust evidence of your opinions in order to better inform and advise future policy and strategy decision. Results of the research will be reported to CNPS, CNPers and 2SL. The interview will be recorded to allow for transcription and later analysis.

Please note:

- You will not be personally identifiable
- All recordings will be destroyed once transcriptions have been completed
- Participation is voluntary
- No individual responses will be seen outside of the civilian research team
- No person from your chain of command will see your responses
- Only a summary of responses are reported

Your transcript will be securely held for a minimum of 12 months. All information will be subject to the current conditions of the Data Protection Act 1998.

If taking part in this interview causes you any distress, or you wish to talk about any personal issues further, please speak to your Unit Welfare Officer, Chaplain or contact one of the support networks listed: Occupational Welfare Support. Tel: xxx; Naval Support Line. Tel: xxx

If you have any queries of questions about this, please do not hesitate to contact the Principal Researcher: xxx

Please sign to provide your informed consent to participate.
## Appendix I

### Themes and Subthemes

<table>
<thead>
<tr>
<th>Super-ordinate theme</th>
<th>Sub theme</th>
<th>Participant contributing to sub theme</th>
<th>Indicative quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparing for the role of CM</td>
<td>Self-efficacy (intuition and personal experience)</td>
<td>1-M-WAR-OF</td>
<td>“Because we are trained as warfare officers to make snap decisions without all the information ...because if you don’t everything stops and people could die, so...thats what we’re trained to do. Entirely the wrong approach with anything to do with human beings and HR”</td>
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<td>3-F-LOGS-OR</td>
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<td></td>
<td>8-M-LOGS-OF</td>
<td>“We are trained to approach problems in a holistic way...I’ve got it now, the whole issue, this is what needs to happen. Absolutely the wrong approach, there is no one solution and everyone has got an opinion”</td>
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<td>9-M-RM-OF</td>
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<td>10-M-X-OF</td>
<td>“It’s just based on your experience I guess”</td>
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<td></td>
<td>11-M-RM-OR</td>
<td>“I’ve got a PO caterer, all he’s done is cook in galleys and now he’s managing people”</td>
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<td></td>
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<td></td>
<td>“I think but in terms of actual training I suppose many would say the training you’ve had has actually been through career; of career interviews, of having a relationship with your Career Manager”</td>
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<td></td>
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<td>“I haven’t been taught any of it, you just get to grips with it”</td>
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<td>“in terms of the real talent management, the people management side of it that is all I think experience and knowledge of the branch and knowledge of the good jobs and the lesser profile jobs and just getting to know your people and reading their files and realising who are the stars and who are the spoons”</td>
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<td>“...being on the receiving end of it for six years”</td>
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<td></td>
<td>“We’ve all got experience on HR, the very nature of what we do gives us experience of HR, whether it’s as a Divisional Officer, as a Manager, as a Head of Department at sea, all that feeds into your background in HR”</td>
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<td></td>
<td>“The further up the ranks they do, the majority of the time, because they are being questioned on forms of career management by their subordinates”</td>
</tr>
<tr>
<td>Reality of self-infficacy (unpreparedness)</td>
<td>2-M-RM-OR</td>
<td>“massively different, it’s a big learning curve”</td>
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<td></td>
<td>4-M-EXEC-OR</td>
<td>“it takes a good six months to learn the job because you are learning something new every day”</td>
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<td></td>
<td>6-F-LOGS-JR</td>
<td>“Fourteen months into the job I’m still learning new things about how to career manage”</td>
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<td>7-F-X-JR</td>
<td>“It’s getting the message out because before I came to Career Management I didn’t have a clue what we did and I’ve come down and went ooh, this is nothing like I thought it was going to be”</td>
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<td></td>
<td>10-M-X-OF</td>
<td>“It’s a very weird way of working, it’s nothing like I’ve done before and everyone’s got their own way of career managing”</td>
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<td>“never really had a grasp of how it was done previously”</td>
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<td>“what the job actually is and what I expected are very different things”</td>
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<tr>
<td>[Had you done anything like career management before you came into this post?]</td>
<td>“Never, no”</td>
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<td></td>
<td>“I had no experience of career management I suppose, at the level that we’re doing it here”</td>
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<tr>
<th>Training efficacy (utility/sufficient/relevant)</th>
<th>2-M-RM-OR</th>
<th>“been on the JPA course here and I’ve been on the various Dii”</th>
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<td></td>
<td>3-F-LOGS-OR</td>
<td>“I think you just in the ask in the office, if you don’t know how to do something you just say look what do you think we should do with this bloke? You just get advice”</td>
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<td></td>
<td>4-M-EXEC-OR</td>
<td>“What we are introducing in the Logistics branch is a mentoring scheme. I had a great day last week on mentoring, how to mentor people”</td>
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<td>5-F-WAR-JR</td>
<td>“we get a week but that’s generally on JPA and other things but no, you get nothing on managing people, apart from the Divisional Officers course which you do, as everybody does to become Division Officer”</td>
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<td>6-F-LOGS-JR</td>
<td>“no training. I’ve got a PO caterer, all he’s done is cook in galleys and now he’s managing people”</td>
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<td>7-F-X-JR</td>
<td>“No, we get no additional [training]”</td>
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<td>8-M-LOGS-OF</td>
<td>“It’s about two or three days I think, run by XX XXX. Then it’s just using the expertise of the other people in the office”</td>
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<td>9-M-RM-OF</td>
<td>“I got no advice on talent management”</td>
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<td>10-M-X-OF</td>
<td>“it does teach you everything that you pretty much need to know and there’s loads of crib notes and everything but it’s just getting the hang of things and getting your head around if that person needs to go”</td>
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<td></td>
<td>11-M-RM-OR</td>
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there then that person has to go there and it’s the trail really and stuff”

“I had no clue in warfare whatsoever. When I first saw all these course names I was like oh no, now I can reel off what a gunner will need to do what courses or what an AWT course, what he’ll need to, I can reel them off now but no it took a while”

“I went on the two day course, it’s extended now to four days”

“primarily it’s all just about career management, i.e. just navigating about JPA and utilising JPA and key data so it’s looking at preferences”

“I can’t honestly say I remember any sort of talent management advice being given “

“Career Manager’s Guide came out for logistics side”

“We’d done a course. When I done it was two days up at Fleet with XXX. It was a lot to take in and I done the course before I joined”

“nothing trains you to deal with these people, there is no training to deal with the individual that comes in and says I’ve just heard my wife’s got cancer and I realise now it’s all about being at home, I want a year out or six months unpaid leave, it’s just life I suppose”

“When I came to this job I had no training in terms of interviewing people”

“the other training was being on the receiving end of it for six years”

“I didn’t really have that much training if I’m honest with you, it was just muddle on through but I think we put a lot of stock in career managing people into these roles”

“The best source of information is your predecessor and both of us had two week handovers, which was excellent, being able to sit here and talk about the way through”

“Formal training, we don’t run a course and give a certificate at the end of it that says you’re a Career Manager. I suppose if we take the SQEP argument, what we concentrate on is the E bit rather than the Q bit, so experience rather than the qualification, so we don’t go and do a two month Career Manager’s course. We do, like I say, the induction course as the career management process but it’s in-house and then the rest of it is part of that, so no there’s no what you would call specific talent management training”
“very narrow field of HR I would suggest, and that’s perhaps why we don’t look to go out and do more formalised training than we do now. Arguably we might be better at it if we did”

“this time there’s a definite improvement in the whole joining package for working with NCHQ”

[Have you had any sort of training in terms of career management, talent management or people management type stuff?] “No”

“there wouldn’t be a generic career management course because everybody does things slightly differently for that branch’s different reasons”

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<thead>
<tr>
<th>Accomplishing the role of CM</th>
<th>Interpreting talent</th>
<th>1-M-WAR-OF</th>
<th>“It depends how you define talent. Is it talent for a job or a talent as in potential?”</th>
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<tr>
<td>2-M-RM-OR</td>
<td>“There’s not enough time in the day. If you sat down and career managed every single person you wouldn’t go home at night”</td>
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<td>3-F-LOGS-OR</td>
<td>“it’s not based on talent it’s just you happened to have done that course”</td>
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<td>4-M-EXEC-OR</td>
<td>“I suppose you’re then looking at the different definition of what talent management actually is because to me talent management would almost mean that you would take your plot and stream, as I said A, B and C or 1, 2 and 3”</td>
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<td>5-F-WAR-JR</td>
<td>“it’s not based on talent it’s just you happened to have done that course”</td>
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<td>6-F-LOGS-JR</td>
<td>“I think they’ve always been spotted. I just don’t think we’ve ever sort of made a huge song and dance about it or formalised it”</td>
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<td>7-F-X-JR</td>
<td>“I think now it’s absolutely vital that these people are identified and actively sought out to find the guys who are going to be our next rear or vice admiral because I think if you’re not a Cdr by the time you’re 36 you time out with your commission by the time you have a chance to be a 2*”</td>
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<td>8-M-LOGS-OF</td>
<td>“if COs are being encouraged to look closely at their guys, more closely than they ever have before and saying ‘do you see this person as a Flag rank one day, and if you do, lets flag that up now, and see how we can manage their career, to maximise their long term potential early on”</td>
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<td>9-M-RM-OF</td>
<td>“Let’s design a system which genuinely rewards the best people and actually the ones who don’t cut it then languish in and don’t get automate promotion after a certain time, I think that needs to happen”</td>
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<td>10-M-X-OF</td>
<td>“I think individuals are looked at quite closely probably without even realising we’re doing it and</td>
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<td>11-M-RM-OR</td>
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“then they will get not pushed down that path”

“I feel that at AB and the Junior Leading Hand level that’s the job of the DO and the divisional chain”

“it’s knowing, when you’re talent managing, who to take advice from but not going solely with one person”

“I think talent management is making sure that you’ve got bits of information from lots of different people and building my own opinion of whether that person is the right person for the job”

“it depends on the ship really and how their line manager is with progressing people”

“I think that would be done by the ship”

“they have to be recommended. Even though they might have done all the exams and qualifications to be promoted, to get selected they have to be recommended by their line manager to be promoted”

“There are a small number of people, both at the SO2 and the SO1 level who I would say we are talent managing”

“I would do it because I’ve got access to all the data”

“I think it is something we could get better at and we are getting better at”

“I suppose the element of talent management with me is making sure that the more demanding jobs on my plot are filled by the quality kind of blokes”

“It’s very much subjective I suppose. You try and be as objective as you can but invariably there’s an element of subjectiveness but you try to spread that across as wider group of people as possible so that your feelings aren’t overriding or overdriving that person’s career but invariably you’re the one that tries and comes up with the plan but you might do it in discussion with their current employers or port flot or whoever in order to ensure that it’s appropriate”

“The most important thing about talent management is, well it’s the Navy overall, it ensures we’re getting the best people into the most demanding and influential jobs”

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<th>Perceived barriers</th>
<th>1-M-WAR-OF</th>
<th>8-M-LOGS-OF</th>
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<td>10-M-X-OF</td>
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“forget the zones, let’s get rid of promotion zones, ok, let’s get rid of commission transfer zones, let’s just make it purely merit based”

“why we link rank to pay”
"Why not make rank...why not reward people for professional qualification"

"I just think we need that flexibility, why do....we own the system why don’t we design it to work for us”

"a huge amount needs to change with the way we manage careers, I think things do need to change with the system we are working to”

"I think the Navy needs to think about how it does its career management”

"not sure that’s the same for everybody and everybody will run it slightly different but my focus tends to be career development along with personal preferences, if I can meet those two then usually by default I’m meeting the other two as well”

“We currently, within the Engineers office, are trying to come up with a more formalised process of talent management because it sort of relies (like so much of what we do) on the individual Career Managers. We all do it in much of a muchness, and there are just little nuances about how we do it. We all get the information from the same place but some of us might read reports slightly differently from others, we’re looking for different things perhaps so we’re trying to come up with a more aligned and formalised process for talent management”

“We’ve sort of identified what we think the key tenants are and those are pretty much what we’ve covered. What we now have to do is sort of formalise how we’re going to gather the intelligence because it’s sort of on a personal level at the moment, like I say by communication”

“Processors, process handcuffs is something we’ve started looked at as a group as well. What process is in place which either hinders or stops us doing our job?”

“People are always trying to align what the Navy does to what commerce and industry do but it doesn’t always align with what commerce and industry do and actually commerce and industry might look at the way we treat our people and say you’re mad”

“It’s the way we’ve chosen to go, to career manage our peer groups and for the most part that’s what we do. Most Career Managers are managing their peer group”

“we should be understanding of what the people do because each branch is subtly different. The requirements are significantly different and the way our people are managed, trained, treated they’re all
different. If you come from that peer group you’ve got an understanding for those nuances I suppose, that probably would give you an advantage”

“There may be other more efficient ways of doing it, I’m sure, but I don’t know”

“There may be other more efficient ways of doing it, I’m sure, but I don’t know”

“Potential’s judged through the SJAR process”

“it gives you guidelines of how to assess it. It’s still fairly subjective”

“It’s still a fairly subjective assessment and there is no guarantee that people will read it but actually the JSP is very good at taking people through the steps on how to judge performance and potential”

“honesty of reporting. When everyone’s written up as brilliant, then we’ve all got 100% of stars”

“the standard of reporting is pretty poor”

“It’s pretty obvious, everyone’s overwritten and if a Signal comes out and we say how on earth did he or she get promoted? It’s because they’re overwritten”

“I’d say a third if that of Reporting Officers refer to the JSP, they sit down with an empty box and go this is the sort of thing I get in my SJAR and type away and it’s really good. Well actually no, evidence. I don’t think they sit down with the definition of merit. Those people who are written on smartly may get promoted over people that aren’t”

“Some peoples’ Reporting Officers don’t even understand the system. They can be RAF, they can be civil servant and some of them are Army, some of them don’t necessarily know what the Navy’s after and they don’t seek the advice”

“The system’s there to promote the right people but it’s not necessarily being followed. We don’t quality control it”

“nobody likes to write things about people but the SJAR system is really good, it is absolutely there to identify talent. It has a performance section that’s divorced from potential so you can identify the people that are doing good performance. It’s got a potential side for potential”

“that’s the way we identify talent”

“you look at their SJAR and that would be great, if the SJAR was honest”

“I have people phone me up and go oh my God he’s the wrong person for that job and he can’t possibly do it. Well let me just see what you wrote on his
SJAR two months ago that he’s brilliant, he can go and do it”

“the SJARs are coming through and going yep file, yep file, yep file whereas if they actually thought there was more honesty attached to it they could say right, ah I’ve got a job in Portsmouth, now here are my Portsmouth preferences, take those first, let’s have a look”

“there’s even letters that come out saying common mistakes, common errors and that does the rounds”

“when it comes to sitting there, filling in the box because you know you’ve got to face somebody it just seems to go to pot”

“if they could never report on them in a good enough way they’re never going to get selected so I think it does depend on their line managers and ships”

“What one person thinks of someone might not be what another person thinks”

“It’s all down to people really and how people judge others”

“We wouldn’t look too much into SJARs but again only if it was a specific job or we thought this person’s going to be a singleton”

“I mean it’s not just about reading OJARs but obviously reading OJARs is really important”

[Do you ever get a situation where there’s conflicting opinion about an individual in terms of whether they’re great or not?]

“Worth talent management. Oh yes, definitely, yeah”

“Reporting is subjective so that’s where the issues come because I maybe being cynical having been in the job for 18 months, no one gets a bad report”

“The only way we can do it but it’s a flawed system in that the reporting system only works if the ROs are honest with their subjects and if they’re not honest with their subjects and a lot of people find it very difficult to be honest with their subjects, if they’re not honest then how am I supposed to talent manage them as a Career Manager effectively?”

“This is the biggest failing I think. If the potential and the performance paragraph, not so much the performance but the potential paragraphs don’t really back up the recommendations they’ve made then it’s easy to see where the mistakes are. If you read a narrative and you go this is an average report and you turn to the recommendations and he’s got a high recommendation for promotion
immediately if you’re in a board or whatever else you’re putting a question mark next to that. Where’s the truth here?”

“Is it actually he’s high and the Reporting Officer’s failed to write well on him or is it that the Reporting Officer had done an honest appraisal in the narrative but has then gone well he’ll be really disappointed if I don’t give him a high for promotion, or he is the bloke who’s right on the cusp of promotion therefore he needs a high to get him promoted, but that whole he needs something to get promoted is wrong - has he justified that?”

“the flaw of the system, being cynical now, is the reporting and if the only thing you can judge them on is the reporting then you can’t really get a clear view of talent, I don’t think,”

“The board can make an informed decision about whether you’re talent or not and it’s not necessarily linked to pure reporting and everything else, so therefore, actually that process, if you are talent you will promote very early on”

“I mean talent will always out through reports and that kind of thing but I just feel that the current reporting process isn’t strong enough to really allow Career Managers or all people to recognise talent”

“you need honest reporting for talent to be identified”

“How can you make reporting better? Make it more objective rather than subjective, that’s my view”

“We’ve got the OJARs which are fairly formalised but intelligence gathering is on a much more personal and informal basis. We perhaps need to start putting that down. How we achieve that I don’t know, that’s probably the next bit that we’ve got to address”

“maybe it’s making sure that we take charge of the OJAR process and say if you identify these people spell it out clearly. You know, don’t be so woolly in how you write your OJARs, which is a problem”

<table>
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<tr>
<th>Adverse elements in the role of a CM</th>
<th>Extraneous tensions</th>
<th>3-F-LOGS-OR</th>
<th>6-F-LOGS-JR</th>
<th>8-M-LOGS-OF</th>
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<td>“The people that take up our time the most are not individuals but the employers, which is why everyone says that’s okay, we’ll just go, we’ll cut your people, go back to drafting, stop the individuals. Individuals don’t really mind, they’re not really that high maintenance, its employers because they’re not the right person or it’s they’re not joining at the right time or we’re giving them a gap”</td>
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“That’s the biggest constraint. A bit of ignorance by employers; a bit of awkwardness.”

“a lot of the work that’s created for is by employers. If employers left us alone we could manage more on the individuals.”

“My time is consumed often by satisfying the employer as a career manager and not managing the careers of our people and that’s what’s frustrating. We’re there. I would like to spend my days doing the, right let’s take ten people out of the plot and let’s just discuss them and more active involvement in my guys’ business rather than spending my day fielding phone calls from employers.”

“A lot of the time we’re speaking to the employers, which isn’t right really. As a career management team we should be properly managing the people.”

“You spend more of your time dealing with employers than people and people on the whole generally seem to be happy. I’d say 10%, less than 10% end up not happy with their drafting.”

“do get the odd call from people who are looking to do a bit of talent management like, this is my best person, I think they should go to this job.”

“sometimes you’re getting people sort of going I don’t care, I’m going to send my guy to this position, because of talent management but that is what promotions is for.”

“It’s not really your call to say we don’t want the individual, you have to give the person a chance to get to the job and give it a go before you start envisioning them not being able to do the job.”

“Commanders some of them are really quite needy and there’s almost a constant dialogue”

“Employer engagement is really important”

Pessimistic perceptions

1-M-WAR-OF
3-F-LOGS-OR
4-M-EXEC-OR
6-F-LOGS-JR
7-F-X-JR
8-M-LOGS-OF
11-M-RM-OR

“People’s perception that is the number one factor in whether you are by any measure a successful CM”

“I’d say 90% of whether you are a good CM is the perception of whether you are a good CM.”

“I’ve worked with guys who won’t pick up the phone unless they’ve got a 95% solution for that person.”

“selected because they, you know, are going to do the best for their people. But it’s how that comes across.”
“the other sort of big factor which you can never ignore is people have this, perception that you are this omnipotent infallible, all powerful being that if you upset the CM, ohh my God”

“I want to hear from you...not this, they’re so timid and ahh...you just think for gods sake I’m human ok...I swear I fart I do all the stuff, you know. What can I do to sort of break down this barrier, you know, that I’m just a guy on the end of the phone who’s going to try and do his best”

“there’s lots of needs of the service. You can use that...you can play that card to pretty much justify any plan you make. But if you’re having to use that card then...it’s like trying to get, it’s like getting respect purely because you’ve got rank on your shoulder, you know”

“best CO in the Fleet, nasty CM doesn’t get it”

“we ring the COs and give them the news so the CO breaks the good news, we always, we make the phone call direct to the individual to tell them they weren’t promoted or they didn’t get the ship they wanted. So it’s the nature of the beast”

“I’ve never been in a better job for, my plan is rarely cross checked, because I’m trusted”

“We feel sometimes they don’t trust our judgement or they want to have their say”

“We don’t nominate to employing officers anymore, we tell an individual, an individual then has to then go say right this is my relief and you get people phoning up saying but why aren’t you phoning me to discuss this relief? ”

“The pains we go through to get people to be on our side are because it’s like chasing a bubble round the wallpaper. The minute we start firing out a 100 draft orders a day, my phone is going to be going to be going nuclear because that person won’t accept a no, they will just go to their line manager who will then pick up the phone”

“If they’re not happy they will go to their 2RO or go up the chain until they get a satisfactory answer”

“By career managing people and getting them onside and there’s always a standing joke that the draft room lie to you and we don’t, we have to be honest but there are ways of encouraging people and getting them to see what’s good for them”

“It’s a good job, I do enjoy my job but it’s just getting the message out I think to the rest of the Navy that there are certain boundaries that we have as Career Managers”
“it’s just educating and getting the message out that there are boundaries to career managing and people have to respect them and know where their boundaries particularly lie”

[When an AB joins your overarching plot is it explained to them how the process works?] “I don’t think it is”

“never a case of right I’m your Career Manager, this is what I can do for you and I’ve never had it explained to me so hopefully this guide will get that information out there but other than that there’s nothing out there”

“one day going oh thank you so much, you’re brilliant blah-blah and then you see they’ve written something scathing on Facebook about you and you’re like oh thank you”

“sometimes you just wish people would understand that unfortunately as much as we do try to get you what you want it’s just not always attainable really but that’s just the way it’s going to be”

“Sometimes you can do a really good job and people are ever so grateful”

“other times people just think you’re just out to get them. That’s just the nature of the beast really”

“always going to be someone who’s happy and someone who’s not”

“Until I came here I’ve never even spoken to the person that done my drafting. I think in fact it was before I came here, when this was set up as a WMO it was and then I knew the girl that done my drafting and I said oh could I come in, she went yeah, yeah come on in and I said well I’ve never ever set foot in Centurion ever when our drafting was done there and it was nice to come in and meet the people”

“we are known for our level of engagement with the plot themselves, and I think that’s appreciated”

“phone in and say can I come in for a chat and then obviously you develop a career management discussion from there. In broad terms that is how we engage with the plot”

“If he sits there and won’t tell you the truth as to why he wants to do something then that’s what becomes difficult”

“It’s good that the guys get to see that we are human beings”

“So we go there and the Junior Marines sees us laughing and joking with all the other guys and go hang on a minute, that person does know somebody
else and they see you speaking and say have you got any questions and what we do then is we divide the groups up so we’ll send all the Sergeants off with the Sergeant, we’ll send all the Captains off with me and we’ll send all the Corporal with the Corporal so it’s peer head discussion as opposed to me sitting there with a whole load of Marines and they just go…”

“it’s not what you do it’s how you do what you do”

Unrealistic time pressures

1-M-WAR-OF

“The other way is inordinately time consuming as you would imagine and with a large number of people it actually it’s almost impossible. You can do it to a certain degree but you can’t spend an enormous amount of time on an individual not when you’ve got the numbers in involved”

3-F-LOGS-OR

“Perhaps because of the numbers and the volumes and the time, they haven’t got time to apply considered thought”

4-M-EXEC-OR

“There’s not enough time in the day. If you sat down and career managed every single person you wouldn’t go home at night”

9-M-RM-OF

“There would just not be enough time in the day to do it so there needs to be, this is my personal opinion, a line drawn and say right if you’re above that line you can sit and discuss your career to any point. There and below you can contact your Career Manager to let him know, that line and below you do not contact your Career Manager, you can directly go through the divisional chain”

11-M-RM-OR

[What constraints do you think there are on career management?] “Time”

“Not enough hours in the day”

Inadequacy of resources

1-M-WAR-OF

“I’m struggling to fill the jobs we’ve already got. That’s a constraint yeah. Always additional calls for manpower”

3-F-LOGS-OR

“I don’t have enough people, that’s one of the biggest constraints, and the jobs keep expanding, but I say by and large the system does work”

6-F-LOGS-JR

“we need to make sure all the billets are filled, however, at the moment with redundancies we’ve got more positions than people”

8-M-LOGS-OF

“now it’s in priority order”

10-M-X-OF

“the right qualified person into a billet, which is the overriding factor”

“I said that’s all very well but when 90% of people
want their talent managed and know that they all want the same 10% of jobs, nine people want one job, eight out of those people are going to be disappointed so it’s not achievable for everyone”

“in Junior Rates, time and manpower because they’re drafting but that comes out of the service need. The constraints are that we have x-amount of positions”

“we’ve got more positions at the moment because of the redundancies, technically we should have the same amount of jobs”

“You’ve got your scales. We’ve got is all things like Afghanistan here that’s extra, pregnancy, broken legs, everyone who’s on leave before recovering from operations like as in Afghanistan, you’ve got everyone who’s resettling. They all need to be filled as well as jobs. Liability and non-liability, they’re all non-liable so actually the constraint we’ve got is we haven’t got enough people to fill everything”

“As the Navy becomes smaller your flexibility reduces”

“The job is going to get more and more difficult, at a time where even career management is downsizing but the answer is you then start to cross these off (circles) and the answer will be just go bums on seats and service requirement so you deny the opportunity”

“there’s loads of frustrations”

“the needs of the service and having to push people around and make lots of short notice changes and all of that have been a theme of this year, particularly the last six months and that’s just a function of the time”

“lot of talk about will the savings measures bring impact in the DNPers area, which means we move to less contact with the plot”

“It’s a balance isn’t it? I mean in an ideal world you would love to be able to put anybody anywhere they want to be, you can’t do that, you’ve only got so many jobs in Portsmouth, you’ve only got so many jobs in Plymouth, you’ve only got so many jobs in Bristol so there’s the geographical aspect of it. There’s the type of job you’re sending them to, the competence area that their job might be in”

“Constraints outside the norm, well it swings one of two ways; it’s not enough people or too many people”
Interrelationship continuity and coherence

2-M-RM-OR “I’m at the beginning of it really, I do the very first few steps and then they go off and pick their SQs”

3-F-LOGS-OR “I can’t spot the AB that I can pull through to Warrant Officer because I get them when they’re at PO”

5-F-WAR-JR “there’s no cohesion in career management over sight because they’re split, Junior Rates and Senior Rates”

6-F-LOGS-JR “you don’t get that through-pull so perhaps it’s too late when they get to me at PO. I don’t necessarily think we talent manage in that way”

8-M-LOGS-OF “I don’t see the Junior Rates come through until they’re POs, I can’t identify someone”

9-M-RM-OI “When your Career Manager is changing over all the time and then they’re moving to an organisation the person is going to get lost in the system”

10-M-X-OI “if we’re not identifying it properly then goodness knows how we’re going to manage it,”

“The system we’ve got, which is people move on after 18 months, so I think more consistency of career management, more time to sit and think and sit and do it”

“Once they get to Leading Hand level and they get selected for Senior Ratings I don’t know then because they’ll go off my plot onto the Senior Rates”

“We couldn’t really ever, because we never get to know the person as well or anything and I don’t think the person gets to know”

“I’ve been in the job a lot longer than a lot of people I know kind of what sort of would help them and stuff like that so I can always give them that advice. I think it does generally help being in the job for a long time because you get to know a lot more. When I first come here I had no clue on warfare and it took me a good six, seven, eight months to get into the role as a Career Manager”

“I think it’s quite good really because two years I think is just enough time to get yourself in there, get established”

“you can sort of become a bit stale if you’re maybe in the job for too long because it is just a bit like, ah right, a bit monotonous”

“What I see as talent management is the longer term development”

“I think there is an argument that says you should do longer. I am a great believer, and have done so in a number of jobs, particularly big project jobs of being very happy to do two half, three”
“I think there is a case for doing longer and, as I say, I think that’s a case I think in a lot of jobs. I think we bounce people around too quickly”

“I think one of the challenges, but clearly it is important, is the coherence across various career managers”

“I mean talent will always out through reports and that kind of thing but I just feel that the current reporting process isn’t strong enough to really allow Career Managers or all people to recognise talent”

“Yes continuity of the business enterprises perhaps isn’t as good as it should be. What we do in career management isn’t limited to career management, its endemic throughout the Navy. It’s the way the Navy does its business, moving people every two years. We accept that there’s a break in continuity but we think the advantages that come from that in terms of individual development, in terms of innovation outweigh the disadvantages”
Appendix J

Workbook/Workshop Contents

Introduction to Personnel & HR

Development of Personnel Induction

Research was recently conducted with Career Managers (CMs) to understand the effective and ineffective aspects of Career Management. One of the recommendations was that CMs could benefit from greater support when coming into their new position, specifically in the area of Personnel and Human Resources (HR).

As an outcome, the Institute for Employment Studies (IES) developed an HR induction package. This was adapted by the CNPS FP Research Team to provide a focused introduction to general HR issues for Career Managers on induction to their role. This initiative is endorsed by NavSec, CNPers and by DACOS(CM).

As this part of the induction is new your input will be essential in refining it; please offer any comments or observations to the researcher. You will be asked to complete anonymous questionnaires regarding your views on the CM role in order to evaluate the effectiveness of the workbook. You will be informed about this in full when the questionnaire is distributed.
The aims of this workbook

- Introduce you to Personnel & general HR issues
- Improve your knowledge and understanding of Personnel & general HR issues
- Raise your awareness about the scope of HR
- Think about HR in the specific context of RN/RM Career Management
- Begin thinking of practical issues and solutions from an HR perspective

You will be allocated the afternoon to complete this workbook and you should expect it to take approximately 1.5 hours to complete.

Any queries or comments can be directed to the researcher who will be available throughout the session.

NB: The terms ‘HR’ and ‘Personnel’ will be used interchangeably.

Objectives

After completing the workbook you will be able to:

- Demonstrate a basic understanding of some key HR principles
- State how an awareness of HR principles can assist you in your CM role
- State how you can apply HR principles in practice
- State that you feel more confident in your role
Contents

1) An overview of Personnel issues & general HR
2) Talent development
3) Employee engagement
4) Performance and reward
5) Employee relations
6) Next steps and action planning

Format of this workbook

This book is interactive and questions are posed throughout to stimulate and challenge your thinking. A short assessment is included at the end which you will be asked to complete and share with the researcher. This is to allow the researcher to evaluate whether the workbook has helped support you in your understanding of general HR related issues.

Where you notice a green asterisk:

- this requires a direct response

Where you notice a purple arrow:

- this requires you to pause and consider the link to your role as a CM

At these points you should make notes which will assist you in the assessment at the end of the workbook.

To ensure confidentiality and so that you receive your workbook back once it has been evaluated, please provide your personal MoD e-mail address below so that you can be contacted for confirmation of your current address details.
Section 1
Introduction and overview of Personnel issues & HR

Career Management: The definition

BR3 defines Career Management as:

“…the assignment of individuals in accordance with endorsed current and future service requirements, exploiting skills, career development needs and, whenever possible, personal preferences, whilst providing advice on future career paths”

(Para 5801, BR3)

‘Skills’, ‘needs’ and ‘preferences’ are key individual aspects in this definition.

➢ To what extent do you think you will need to understand these elements?
What does HR have to do with Career Management?

- Thinking about individuals’ skills, needs and preferences, which of the following areas do you think you’ll need to address as a CM? Please tick all that apply

  - Understand individuals’ attitudes, beliefs and values regarding work (e.g. Employee engagement)? □
  - Identifying learning and development needs for individuals? □
  - Understand individuals’ motivation towards their work/ career? □
  - Understanding how to improve performance through appropriate reward initiatives? □
  - Planning individuals’ learning & development requirements? □
  - Ensuring the RN/ RM has a committed ‘fit for the future’ workforce needed to deliver its strategic ambition? □
  - Managing the relationship between the RN/ RM and individuals (e.g. Employee relations)? □

If you selected all of these points then you would be correct

HR consists of a variety of techniques and strategies, and these points have been identified as key areas where HR and Career Management are linked. They also highlight the importance of each person individually.

When considering the link between HR and CM, only certain tasks and responsibilities of HR are likely to be included in the CM role. The table below highlights some key HR roles which may apply to Career Management (Ulrich, 2005).

<table>
<thead>
<tr>
<th>Role</th>
<th>Duty</th>
<th>Activity</th>
<th>Deliverable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Partner</td>
<td>Management of strategic resources</td>
<td>Aligning HR and business strategy</td>
<td>Executing Strategy</td>
</tr>
<tr>
<td>Administrative Expert</td>
<td>Management of organisation’s infrastructure</td>
<td>Re-engineering process</td>
<td>Building an efficient infrastructure</td>
</tr>
<tr>
<td>Employee Champion</td>
<td>Management of transformation and change</td>
<td>Listening and responding to employees</td>
<td>Increasing employee commitment and capability</td>
</tr>
<tr>
<td>Change Agent</td>
<td>Building future workforce</td>
<td>Managing transformation and change</td>
<td>Creating a renewed atmosphere</td>
</tr>
</tbody>
</table>
HR Roles: The Ulrich Model (2005)


It is useful to identify key activities and deliverables related to different roles within HR so that you are aware of the impact your role has on individuals you are working with and on the RN/ RM as a whole.

- Consider which of the roles from the table relate to specific CM tasks you know about.

HR styles from the ‘customer’ viewpoint

In addition to separate roles, research shows that personnel think of HR as operating in three styles: Remote, Bogged-down or Pro-active. Although the language is very business-orientated, the underlying message remains important for the RN/ RM.
Remote, Bogged-down or Pro-active… Which HR type is Career Management?

Using your experience and knowledge of the CM role:

- Which type of HR do you view CM as?
- Do you think your work will represent pro-active HR?
- What do you think you could do to make your area of HR more pro-active?
Summary

This is the end of Section 1. We have reviewed:

• The definition of Career Management
• How HR and CM are inter-related
• The roles of HR
• The operating types of HR from the viewpoint of the ‘customer’.

Note two key points you have learnt from this section:

1)

2)
As Career Managers you are involved in the identification, development, deployment and retention of individuals. This section aims to assist you in judgements of potential when managing and developing the personnel on your plot.

‘Talent’ is used in a variety of ways, to mean a number of different things, from the most ‘talented’, i.e. individuals with high aptitude and potential, to generically meaning an organisation’s total workforce. After all, everyone has ‘talent’ or ‘ability’ otherwise why are they in the RN/ RM?!

Work is currently underway between the RN/RM and MOD to determine an agreed definition of talent and to understand how to identify, manage and retain it.

- How would you describe ‘talent management’ within the RN/ RM?

**Talent and Talent Management- working definitions**

Currently, the RN/ RM (DRAFT) definitions of Talent and Talent Management are as follows:

Talent: ‘Talent consists of those individuals who can make a difference to operationally capable ships, units and formations and to organisational performance through their immediate contribution and in the longer term by demonstrating the highest level of potential.’

Talent Management (TM): ‘Policies and practices to attract, identify, develop, deploy and retain individuals with the personal and professional skills that will optimise current RN operational capability and influence future UK maritime operational and strategic foreign and security policy objectives.’

How does an individual’s talent influence their development?

As a Career Manager, you will consider what an individual needs to do to develop for their current and future job. How capable they are, or their aptitude, can influence this development.

Development can be viewed in terms of career opportunities and abilities, which occur through moves and work experience, for example:

- Functional and professional development
- Development of business knowledge and understanding
- Generic and leadership development

How far do OJARs/ SJARs assist you in making decisions regarding an individual’s development?

How else can you gather relevant information regarding skills, aptitudes and abilities which individuals in your plot need to develop?

How can you help individuals to develop and gain appropriate skills to support their career needs and preferences?

Talent Pipelines

This flow-chart demonstrates how talent management and planning work together in manning decisions. The benefits to this process include the ability to:

- Manage short term manning risks
- Develop longer term pipelines
- Offer development and career opportunities for all to optimise current and future RN/ RM operational capability
Refer to the previous flow-chart to decide:

Current & future demands on the organisation & what people will need to perform well in senior or critical roles

Which of our people may be able to fill our senior & critical roles in future? What development will they need to make them credible candidates?

POSTS

Succession thinking

Talent thinking

PEOPLE

Where will we need our best people to work & what career experiences will give them the necessary skills & knowledge

Employees who are high potential or critical to the organisation & their strengths & aspirations

Consider:

What might Succession vs Talent thinking mean?

What does this suggest about the way in which Branch Managers, Planners and Career Managers would work together best?

The areas where Branch Managers, Planners and Career Managers may have their main influence

Which of our people may be able to fill our senior & critical roles in future?

What development will they need to make them credible candidates?

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The areas where Branch Managers, Planners and Career Managers may have their main influence

Which of our people may be able to fill our senior & critical roles in future?

What development will they need to make them credible candidates?
Is talent more than potential for promotion?

In lieu of an accepted definition of talent and how to manage or develop it, you should always ask yourself: “talent, or potential, for what?”

Charan (2010) wrote about the leadership pipeline and growing leaders from within organisations. He offers ideas for a simple definition of potential:

- **High Upward Potential** – Potential to move upwards one rank or more
- **Potential for Growth** – Potential to do a bigger role in the current rank
- **Develop in similar role** – Likely to remain in their current or similar role


Potential can clearly mean different things. This decision should be made in line with individual desires – an individual will be more motivated and less likely to leave if they can fulfil their career preferences, rather than being pushed into something they do not want to do.

Potential in the RN/ RM

The following page presents some traits which may indicate potential. It also acts as a reminder that potential can be demonstrated in a number of ways and progressing to a higher rank is not always the goal.

The aim is to link:

- **Succession** (Who have you got who could do this?)
- with **Talent** (Who has the highest potential, ability or skill set?)
- & **Development** (What do they need to grow?)

Consider what development you can offer:

- Remember developmental experiences as well as skills and knowledge
Example - Potential as more than just leadership: key traits to identify

<table>
<thead>
<tr>
<th>Courage</th>
<th>Breadth</th>
<th>Judgement</th>
<th>Influence</th>
<th>Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>How willing you are to be visible / accountable: The readiness to reach independent conclusions, the ability to express them, being sensitive to the needs of an integrated team.</td>
<td>How broadly you think: The ability to look at complex business situations, people and data from a higher vantage point with simultaneous attention to relevant detail, to place facts and problems within a broader context and identify important issues taking into consideration the bigger picture.</td>
<td>How well you think: The ability, using a degree of common sense, to take full account of the business and commercial realities of a situation, to identify priorities and to make sound decisions which take all relevant perspectives into account.</td>
<td>How effectively you take people with you: The ability to form and maintain relationships with relevant people inside and outside the organisation, to communicate coherently, clearly and simply, and to gain trust from others whilst engaging people in moving towards the accomplishment of key objectives.</td>
<td>How well you deliver: The will, confidence and determination to turn plans into substantive actions and to deliver promised results, whatever the circumstances, difficulties or challenges. The desire to continuously improve.</td>
</tr>
</tbody>
</table>

**HIGH PERFORMANCE**

**VALUES AND ETHOS**
Summary

This is the end of Section 2. We have reviewed:

- A variety of perspectives on definitions of talent, talent management and potential
- How talent can influence development
- Talent pipelines
- The interplay between succession, talent and individual preferences

Note two key points you have learnt from this section:

1) 

Section 3: Employee Engagement
### Industry definitions:

<table>
<thead>
<tr>
<th>Company</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nokia Siemens Networks</strong></td>
<td>‘an emotional attachment to the organisation, pride and a willingness to be an advocate of the organisation, a rational understanding of the organisation’s strategic goals, values and how employees fit and motivation and willingness to invest discretionary effort to go above and beyond.’</td>
</tr>
<tr>
<td><strong>Vodafone</strong></td>
<td>‘an outcome measured or seen as a result of people being committed to something or someone in the business – a very best effort that is willingly given.’</td>
</tr>
<tr>
<td><strong>Johnson &amp; Johnson</strong></td>
<td>‘the degree to which employees are satisfied with their jobs, feel valued, and experience collaboration and trust. Engaged employees will stay with the company longer and continually find smarter, more effective ways to add value to the organisation.’</td>
</tr>
<tr>
<td><strong>Barclays</strong></td>
<td>‘the extent to which an employee feels a sense of attachment to the organisation he or she works for, believes in its goals and supports its values.’</td>
</tr>
</tbody>
</table>

### Consultancy definitions:

<table>
<thead>
<tr>
<th>Company</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mercer</strong></td>
<td>‘a state of mind in which employees feel a vested interest in the company’s success and are both willing and motivated to perform to levels that exceed the stated job requirements. It is the result of how employees feel about the work experience – the organisation, its leaders, the work and the work environment’</td>
</tr>
<tr>
<td><strong>IES</strong></td>
<td>‘A positive attitude held by the employee towards the organisation and its values. An engaged employee is aware of business context and works with colleagues to improve performance within the job for the benefit of the organisation. The organisation must work to develop and nurture engagement which requires a two-way relationship between employer and employee.’</td>
</tr>
<tr>
<td><strong>CIPD</strong></td>
<td>‘can be seen as a combination of commitment to the organisation and its values plus a willingness to help out colleagues organisational citizenship). It goes beyond job satisfaction and is not simply motivation. Engagement is something the employee has to offer: it cannot be ‘required’ as part of the employment contract’</td>
</tr>
</tbody>
</table>
What would an RN/ RM definition of engagement look like?

- Write below your own definition of employee engagement for the RN/ RM.

- How do you think you could achieve this with personnel in your plot?

Why does it matter?

Benefits

Organisations, including the RN/ RM, are interested in improving employee engagement as it has been linked to many positive organisational factors.

These include:

- Employee retention
- Increased productivity
- Discretionary effort
- Higher levels of performance
- Adaptation to change
- Job satisfaction
- Improved health and well-being
- Increased motivation
- Promotion of the organisation to others
How can you enable engagement?

Many research studies suggest that engagement can be increased.

Your role is to connect with the individual and to provide the conditions which will help them to feel engaged with their job and with the RN/RM.

These conditions include:

- **Interesting work**: taking into account individuals’ preferences and skills, and aligning these with their assigned jobs.
- Showing concern for their **safety & well-being**: if they feel physically and mentally content they will be more engaged.
- Offering **timely and relevant** development opportunities: an MSc in an unrelated area to the individual’s preferences may even reduce engagement.
- **Acknowledging** achievements: a simple ‘well done’ can be very motivating and help to build engagement.
- **Rewarding** as appropriate and where possible: this isn’t necessarily monetary reward – consider other options.

Barriers to engagement

It is helpful to be aware of the various barriers to engagement as it is within your power to identify and even break down these barriers for personnel, thus improving their engagement. The following points have been identified as common barriers within the RN/RM:

- Lack of notice for assignments
- Bureaucracy
- Heavy workloads
- Poor communication
- Lack of trust
- Impact of work on personal life
- Operational tempo and churn
How can I be an engaging Career Manager?

- What other barriers can you think of?

- How can you help to overcome them?

Effective communication

Even when it is not possible to remove all the barriers to engagement, a strategy for facilitating engagement which you do have control over is to ensure that your communication is clear and responsive. This applies to both your personnel and the employers.

How?

- Explain processes and rationale where needed
- Use easily understandable language
- Reflect the listeners pace of speaking…
- …unless they are anxious or angry, in which case reduce the pace and volume of your speech to de-escalate the situation
- Listen: Reflect back summaries of what the person has said, to gain understanding and show you are listening
- Consult: ask for opinions or input where possible
- Involve personnel in decision-making

- What other things could you do to improve communication?
Facing the difficult conversations

There are times as a CM when you will have to have difficult conversations with personnel. For example, discussing a personal problem which will impact on their future career. Equally, you could have to deal with poor performers and ‘tricky’ individuals.

Research has provided information on key manager behaviours in these situations. Effective managers were described as below:

‘They face it and have difficult conversations, in a supportive way.’

These key behaviours may also help you to be engaging CMs:

- find out the facts
- tackle issues immediately
- keep calm
- use empathy and get on their wavelength
- get tricky people on side
- coach to improve
- set clear goals and expectations
- but get tough if necessary

(The Engaging Manager Series, Institute for Employment Studies, July 2012)

Delivering bad news

Employees participating in the research also identified effective manager behaviours in the way that bad news was delivered:

‘He took a fairly direct approach. He explained why. He empathised, but made it clear that we still had to get on.’

The following points may help you to effectively deliver bad news whilst also maintaining engagement:

- Do your homework – know the situation
- Be open and honest
- Remain calm and serious
- Be sensitive to individual circumstances
- Answer questions straightforwardly, or refer to someone who can answer them
- Give people time to reflect about the impact
What do you think?

Considering what you have read, how else do you think CMs can help to facilitate employee engagement?

Make 5 suggestions

✦

✦

✦

✦

✦

Summary

In this section we have reviewed:

• The meaning and importance of employee engagement
• How to enable engagement
• Barriers to engagement and how to overcome them
• Effective communication as a CM

Note two key points you have learnt from this section:

1)

2)
Section 4: Performance and reward
Identifying and using sources of motivation

CIPD definition for external organisations:

‘Performance and Reward initiatives within organisations build a high-performance culture by delivering programmes that recognise and reward critical skills, capabilities, experience and performance, and ensures that reward systems are market-based, equitable and cost-effective.’

These are key issues which will be useful to explore within your CM role:

➢ How does this definition relate to the RN/ RM?

➢ How does the RN/ RM recognise and reward critical skills, capabilities, experience and performance?
Why reward employees?

Reward as a motivator

Reward systems are often in place to motivate personnel and to improve performance, engagement and retention.

When we think of rewards we often think of monetary or financial gains. Financial rewards are used to incentivise performance or retention in the RN/RM. FRIs (Financial Retention Incentives) are an example of this.

Reward systems based on financial gain have been described as extrinsic motivators because the motivation is related to an external source, e.g. money. Money can be attractive initially (e.g. Recruitment and Retention Payments), but generally does not play a role once an individual has joined an organisation. However, if an individual becomes unhappy with other factors within their job, then dissatisfaction with monetary factors can become a problem.

Other RN/RM reward systems also reward and recognise the attainment of achievements or qualifications required by the Services, such as AIP (Accelerated Incremental Progression).

Money as a motivator

Some of the circumstances where financial reward may not motivate as intended are shown below:

- **Is it used as a proxy for value?**
  For employees to feel valued they require more than financial bonuses, e.g. Managerial and peer praise.

- **Is it a symbol of competence or presumed to be the norm?**
  Money can motivate if it provides the employee with feedback on their performance. It could de-motivate if there is a presumption it will be received in return for completing the core tasks of the job.

- **Is pay low and vital to survival?**
  Money in this situation will not be perceived as feedback on performance but as fulfilling a need for security.

- **Are there no better alternatives?**
  Motivation may not improve if money is the organisation’s ‘go-to’ option for reward.

Consider:

- When have FRIs worked and not worked?
- Why might this be the case?
Intrinsic motivation arises from within the individual as a response to perceiving the task or goal they are working towards as being inherently satisfying. Being intrinsically motivated has been linked to discretionary effort at work and increased rates of engagement. This effect is greater for those who have intrinsic motivation over those who receive extrinsic motivators.

As a CM you have influence over your personnel’s motivation to complete their job effectively and to engage in positive discretionary behaviours such as volunteering for tasks or helping a colleague with additional work.

To explain how this is done please complete the following exercise.

**Exercise:**

- Why do you come to work?
- What makes you feel pride in your work?
- What would you miss if you did not work anymore?

The reasons you have given above reflect your personal motivations for work. They reveal the influencing factors that are likely to make you work harder, better or for longer.

- How much of your motivation to work is financial?
There are other factors:

Research highlights the importance of equity

- Employees are more concerned with **fairness** and **equity** than with levels of pay.
- If the process used to make pay decisions is considered fair then employee commitment can be predicted up to 25 times more than if employees were satisfied with the amount of pay they receive.
- The issue of pay has been shown in research to only become a problem when other issues affecting job satisfaction already exist.
- Recent Tri-service research has found no significant relationships between Service Personnel’s intention to stay/leave and financial incentives, bonuses or entitlements.

➢ Considering these points, how might you approach pay issues with personnel on your plot?

You need to understand the workforce

“...the cat bringing you a dead rat as a reward shows that the cat knows nothing of what interests you”

Graham White HR Director
Westminster City Council
Why are people motivated by different things?

List below some differences between individuals which could influence their motivation:

- 
- 
- 
- 
- 
- 

Understand individual differences

Motivation varies by …

Personal/job characteristics

- Age
- Rank/ trade/ branch
- Length of service
- Family life
- Gender/ ethnicity

Work experiences

- Harassment/bullying
- Number and length of operational tours completed
- Interactions with managers(especially appraisal and development)

Individual attitudes and values

- Some individuals will value money and financial incentives
- Others may value the satisfaction that arises from doing their job
- Others may simply see it as their duty or an obligation to come to work and not expect any benefits

-
A model for reward and employee engagement

The model below depicts the factors which lead to and from employee motivation and engagement.
Which factors can CMs influence?
What would improved business performance look like for the RN/RM?

**Summary**

In this section we have reviewed:

- Performance and reward initiatives
- The role of financial rewards in motivation
- Pay equity and fairness
- Intrinsic motivation
- Individual differences in motivation
- Links between rewards and motivation, job satisfaction, employee commitment, engagement and discretionary effort at work.

Note two key points you have learnt from this section:

1)  

2)
Section 5:
Employee Relations

Impact of good employee relations

Employee Relations are: ‘The maintenance of employee – employer relationships that contribute to satisfactory productivity, motivate employees and ensure healthy employee morale.’

Good employee relations can contribute to high performance working in the following ways:

• **High involvement practices** aim to create opportunities for employee engagement with the organisation by:
  – giving employees more autonomy and responsibility for their own work quality
  – senior personnel personally delivering unit briefings
  – teams participating in goal setting and achievement

• **Human resource practices** focus on building skill levels, motivation and ability
  – Utilising personal development plans (OJARs, SJARs) as a tool for identifying appropriate training which will challenge and stretch personnel abilities
  – Rewarding personnel by identifying jobs which fit their skills, preferences and long-term goals is likely to help build morale and motivation

Good employee relations can help build trust, loyalty and identity with the organisation, all of which are crucial for retention.

Employee relations as an influence on behaviour

Research suggests the action that employees take to resolve conflict depends on perceptions of how well they have been treated, known as 'organisational justice' (Skarlicki & Folger, 1997).

There are three types of organisational justice:

• Distributive justice – the perceived fairness of outcomes
• Procedural justice – the perceived fairness of the procedures by which outcomes are determined
• Interactional justice – the perceived fairness of interpersonal treatment

Whilst all three types are important in employee perceptions of justice at work, research shows that the procedures used to arrive at a decision and the perception of fair treatment matter more than the outcome (Cropanzano, Bowen, & Gililand, 2007).

NB: This is the same principle of fairness and equity which was covered in the previous section on rewards and pay.


Complete the questions below:

- What employee conflict or grievance might you encounter in your CM role?

- In terms of your personnel plot, what do the previous points about Employee Relations suggest about the way you could handle this conflict?
The Psychological Contract

The psychological contract is a key concept underpinning Employee Relations.

It is a term used to describe mutual obligations perceived between employee and employer. It is based on reciprocity and exchange, or what the employee expects in return for their efforts at work and what the employer expects from the employee.

These obligations, expectations and beliefs of what is promised tend to be unwritten and are often formed before employees join an organisation.

The psychological contract concerns issues of fairness and equity and if breached can have negative consequences.

If the employee thinks that they have not received what they thought was promised to them then motivation, satisfaction, engagement and commitment may be reduced. This can potentially lead to the development of intentions to leave.

Exploring the psychological contract

- Complete the boxes below to outline what a psychological contract in the RN/RM might look like. (Remember this is usually an unwritten contract)

<table>
<thead>
<tr>
<th>GETTING</th>
<th>GIVING</th>
</tr>
</thead>
<tbody>
<tr>
<td>• What do employees get from working for the RN/RM?</td>
<td>• What do employees give the RN/RM?</td>
</tr>
<tr>
<td>• What does the RN/RM give its employees?</td>
<td>• What does the RN/RM get from its employees?</td>
</tr>
</tbody>
</table>

- Think about scenarios when an individual’s expectations of what they will give and receive from work are not aligned with the reality.
- What might happen?
- How might you be able to intervene? (Hint: think about the areas already covered in the workbook).
The impact of Employee Relations

As Career Managers the influence you have with personnel on your plot can have far-reaching effects.

Maintaining good Employee Relations with your personnel is a key part of ensuring that your influence is positive and that your working relationship is mutually rewarding.

Summary

In this section we have reviewed:

- The importance of good employee relations
- Perceptions of workplace justice
- The psychological contract

Note 2 key points you have learnt from this section:

1) 

2) 

It is important to integrate all parts of the learning from this workbook in order to result in best practice and to achieve the best results for your personnel. The next section will focus on how you aim to take this learning forward.
Integrating HR best practice into your work after today

Complete the questions on the following pages:

- The WHAT of HR – which of the ideas from the workbook will you carry forward into your work?
- The HOW of HR – how will you change the way you work with employers or personnel?
What would help you carry your learning from today into practice?

End of workbook assessment

Complete the following assessment without referring back to the workbook where possible. Once finished please hand the entire workbook to the researcher so that it can be assessed and individual feedback provided.

Your responses will remain confidential and only the researcher and you will have access to your workbook. No other action will be taken regarding your responses and the workbook will be returned to you for your future reference. This is an essential component of the HR induction and once completed can be marked as achieved.

Your engagement with the assessment will allow the HR induction to be evaluated and taken forward for future Career Managers.

Please contact the lead researcher if you have any queries:

XXXX
Question 1:  
**Role of HR**

Match up the HR role type with the deliverable, as defined in Ulrich’s 2005 model.

<table>
<thead>
<tr>
<th>Role title</th>
<th>Deliverable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Partner:</td>
<td>Increasing employee commitment and capability</td>
</tr>
<tr>
<td>Administrative Expert:</td>
<td>Building an efficient infrastructure</td>
</tr>
<tr>
<td>Employee Champion:</td>
<td>Creating a renewed infrastructure</td>
</tr>
<tr>
<td>Change Agent:</td>
<td>Executing strategy</td>
</tr>
</tbody>
</table>

Question 2:  
**Purpose of HR:**

What could you do to move from ‘bogged-down’ to ‘pro-active’ HR? Tick all that apply:

- Work effectively with your cases
- Pass responsibility to someone else
- Complete the core processes correctly
- Ensure admin procedures are running smoothly
- Reduce contact with customers and employers
- Support and coach employers where possible
Question 3:
Talent Management:

Complete the RN draft definition of Talent Management by filling in the blanks using the options below:

“Policies and ............ to attract, ..........., develop, ............ and retain individuals with the personal and .............. skills that will ............ current RN operational capability and influence future UK maritime operational and .............. foreign and security policy objectives”

identify optimise practices

Question 4:
Identifying potential

Unscramble the letters below to reveal key traits you may look for in someone when identifying potential:

reagouc ............
nineuflec ............
threadb ............
vileredy ............
etdujgem ............
**Question 5: Employee engagement**

Tick all the enablers for effective communication:

- Explain rationale behind decisions
- Interrupt and raise your voice if the employer does not seem to be listening to you
- Reflect back summaries of what the person has said to you, to check their meaning
- Consult and involve employees in decision-making
- If the person you are speaking with becomes angry, raise your voice to match their volume

**Question 6: Benefits of employee engagement**

Which of the below workforce benefits may arise from high employee engagement?

- Financial Retention Incentive (FRI)
- Retention
- Productivity
- Increased holiday entitlement
- Discretionary effort
Question 7: Performance and Reward

Which statement is supported by organisational research? (Tick just one)

□ FRIs are the only way proven to keep personnel motivated

□ Payment is the only form of reward which personnel value

□ Employees are more concerned with fairness and equity of rewards than with levels of pay

Question 8: Rewards strategy

Circle 3 from the list on the right which could be offered as part of a total rewards strategy:

- Work/ life balance
- Performance & Recognition
- Mandatory MOSS training
- OJAR reviews
- Completing AFCAS
- Development & career opportunities
Question 9: Employee Relations

Draw in connecting lines to match up the term with its definition:

- **Distributive Justice**: The perceived fairness of the *procedures* by which outcomes are determined
- **Procedural Justice**: The perceived fairness of *interpersonal treatment*
- **Interactional Justice**: The perceived fairness of *outcomes*

Question 10: Psychological contract

Which of the below are key features of the psychological contract?

- Workforce planning
- Organisational change
- Mutual trust (between employer and employee)
- Unwritten expectations
- What you give and what you get
End of assessment

Thank you for completing the workbook and the assessment: please now return your finished copy to the researcher.

Completed workbooks will remain confidential and your responses will only be known to the lead researcher. Feedback will be sent directly to you; please ensure you have provided your e-mail address on page 5.

This is an essential component of the HR induction and once completed will contribute towards your ‘Career Manager Competence’ award.

If you have any queries about the research or the workbook please either speak to the researcher present or contact her directly:

xxxx
Appendix K

Questionnaire Items

Self-efficacy
1. I have the knowledge and skills I need to perform my job successfully
2. I know how to find the information I need to ensure I can do my job to the best of my ability
3. I am confident that I have the ability to perform successfully in my role as CM
4. I feel prepared for my job as a CM
5. My NS experience prior to joining the CM role is sufficient for me to perform my CM role effectively

Job connection
1. I am proud when I tell others I am a CM
2. I would recommend CM as a great role
3. I feel a strong personal attachment to my CM role
4. Working within CNPers inspires me to do the best in my job
5. Working within CNPers motivates me to help it achieve its objectives

HR understanding
1. I understand the basic principles of HR
2. I can explain how HR principles are important to the CM
3. I can describe how I use HR principles within my role

Job satisfaction
1. I am satisfied with my job as a CM

Items removed from analysis due to low reliability
1. I feel valued as a CM
2. I understand the aim of my role
3. I have access to other CM who can act as a support network to me
5. I feel supported by my seniors in my role as CM
Appendix L

Participation Information

Following recent research conducted by CNPS FP Research Team which explored the effective and ineffective aspects associated with the job of managing careers, a pilot HR awareness induction has been designed. The aim of this induction programme is to better support newly appointed Career Managers.

You have been invited to participate in the pilot of this new induction programme. The aim is to assess its effectiveness in preparing you for your new role as a Career Manager. You will be asked to complete a short initial questionnaire; you will then be allocated into one of three groups – two of these groups will receive the pilot induction programme through different methods, whilst the third group will not receive it. This will allow the researchers to determine whether the pilot induction has any effect.

All groups will receive the short questionnaire during their standard induction, and then again three weeks and three months later. To ensure your responses remain anonymous, you will be asked to create your own unique identifier. The following guidance will be provided at each stage to ensure you create the same identifier at the different time points:

Mother’s maiden name: ………………. Birthday (DD/MM):………………………

The information from this research will go towards informing strategy decisions of the New Employment Model post Defence Review. Results will be reported to 2SL, NavSec, CNPS and CNPers to directly inform strategy decisions.

Please note:

- You will not be personally identifiable
- Participation is voluntary – you are free to withdraw at any time
- No individual responses will be seen outside of the civilian research team
- No person from your chain of command will see your responses
- Only a summary of responses are reported

Your questionnaires will be securely held for a minimum of 12 months. All information will be subject to the current conditions of the Data Protection Act 1998.
If taking part in this interview causes you any distress, or you wish to talk about any personal issues further, please speak to your Unit Welfare Officer, Chaplain or contact one of the support networks listed: Occupational Welfare Support. Tel xxxx/Naval Support Line. Tel: xxxx

If you have any queries of questions about this, please do not hesitate to contact the Principal Researcher:

Please sign below to provide your informed consent:
Appendix M

Full Text Citations Assessed for Inclusion

Included articles


Excluded articles


**Inaccessible:**


### Quality Assessment Schedule

<table>
<thead>
<tr>
<th><strong>Screening</strong></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Have the inclusion criteria been met</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>2</td>
<td>Did the study address a clearly focused issue (e.g. population studied, outcomes considered)</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>3</td>
<td>Were participants recruited in an acceptable way</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>Continue?</strong></td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

### A. Selection Bias

<table>
<thead>
<tr>
<th>1</th>
<th>Are the individuals selected likely to be representative of the target population?</th>
<th>Very likely (4)</th>
<th>Somewhat likely (3)</th>
<th>Not likely (2)</th>
<th>Can’t tell (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>What percentage of selected individuals agreed to participate</td>
<td>80-100% (5)</td>
<td>60-79% (4)</td>
<td>Less 60% (3)</td>
<td>Can’t tell (2)</td>
</tr>
<tr>
<td><strong>Rate this section</strong></td>
<td>Strong</td>
<td>Moderate</td>
<td>Weak</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### B. Study Design

<table>
<thead>
<tr>
<th>1</th>
<th>Indicate the study design</th>
<th>Randomised Controlled Trial</th>
<th>Controlled Clinical Trial</th>
<th>Cohort analytic (two group pre/ post)</th>
<th>Cohort (one group pre/ post)</th>
<th>Cross-sectional</th>
<th>Time Series</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Was a control group used</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>If no, should one have been used</td>
<td>Yes</td>
<td>No</td>
<td>n/a</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Rate this section</strong></td>
<td>Strong</td>
<td>Moderate</td>
<td>Weak</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### C. Confounders

| 1 | Were there important differences between groups (race, sex, marital/family status, age) | Yes (2) | No (3) | Can’t tell (1) |
| 2 | If yes, indicate the percentage of relevant confounders that were controlled (i.e. in design or analysis) | 80-100% (most) (4) | 60-79% (some) (3) | Less than 60% (few or none) (2) | Can’t tell (1) |

**Rate this section** Strong Moderate Weak

### D. Blinding

| 1 | Were participants aware of the research question | Yes (2) | No (3) | Can’t tell (1) |
| 2 | Were participants blinded to exposure | Yes (3) | No (2) | Can’t tell (1) | n/a (0) |
| 3 | If no, does this matter | Yes (3) | No (2) | Can’t tell (1) | n/a (0) |

**Rate this section** Strong Moderate Weak

### E. Data collection methods

| 1 | Were data collection tools/measures shown to be valid | Yes (3) | No (1) | Can’t tell (2) |
| 2 | Were data collection tools shown to be reliable | Yes (3) | No (1) | Can’t tell (2) |

**Rate this section** Strong Moderate Weak

### F. Withdrawals and drop-outs

| 1 | Were withdrawals and drop-outs reported in terms of numbers and/or reasons per group? | Yes (3) | No (1) | Can’t tell (2) | n/a (0) |

**Rate this section** Strong Moderate Weak
### G. Analyses

<table>
<thead>
<tr>
<th></th>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Not reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Is there a sample size calculation/power calculation</td>
<td>(2)</td>
<td></td>
<td>(1)</td>
</tr>
<tr>
<td>2</td>
<td>Are the statistical/analysis methods used appropriate</td>
<td>Yes (3)</td>
<td>No (1)</td>
<td>Not reported (2)</td>
</tr>
</tbody>
</table>

**Rate this section** | Strong | Moderate | Weak

### H. Results

<table>
<thead>
<tr>
<th></th>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Can’t tell</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Are the results believable</td>
<td>Yes (3)</td>
<td>No (1)</td>
<td>Can’t tell (2)</td>
</tr>
<tr>
<td>2</td>
<td>Can the results be applied to the population (quantify the local benefits/harms, local setting differ from that of the study)</td>
<td>Yes (3)</td>
<td>No (1)</td>
<td>Can’t tell (2)</td>
</tr>
<tr>
<td>3</td>
<td>Was the study design appropriate to answer the question</td>
<td>Yes (3)</td>
<td>No (1)</td>
<td>Can’t tell (2)</td>
</tr>
<tr>
<td>4</td>
<td>Are recommendations for practice included</td>
<td>Yes (3)</td>
<td>No (1)</td>
<td>Can’t tell (2)</td>
</tr>
</tbody>
</table>

**Rate this section** | Strong | Moderate | Weak

### Component Ratings

<table>
<thead>
<tr>
<th>Component</th>
<th>Strong</th>
<th>Moderate</th>
<th>Weak</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Selection Bias</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Study Design</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>C. Confounders</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Blinding</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. Data Collection Methods</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F. Withdrawals and Dropouts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G. Analyses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H. Results</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Global rating for this paper:**

1. Strong (no weak ratings) (☆☆☆☆)
2. Moderate (one weak rating) (☆☆)
3. Weak (two or more weak ratings) (☆)

**Score for this paper** (total divided by 7):
Appendix O

Quality Assessment Schedule Dictionary and Scoring System

The dictionary is based on that devised by Thomas, Ciliska, Dobbins and Micucci (2009b), with some additions and alterations made to reflect the changes and additions made to the schedule. The purpose is to describe items in the tool to assist the rating process. Opinions are based on the information contained in the study rather than inferences about what the authors intended. Any ratings of ‘0’ should be unscored and score based on the initial question that will be scored.

A. Selection Bias

1. Participants more likely to be representative of the population if randomly selected from a comprehensive list of individuals in the population (score very likely). They may not be representative if referred from a source (e.g. administration system, clinic) in a systematic manner (score somewhat likely) or self-referred (score not likely)

2. Refers to the percentages of participants in the control and comparison groups that agreed to participate

Ratings

Strong: The selected participants are very likely to be representative of the population (Q1 is 4) and there is greater than 80% participation (Q2 is 5).

Moderate: The selected participants are at least somewhat likely to be representative (Q1 is 4 or 3); and there is 60-79% participation (Q2 is 4). Moderate may also be assigned if Q1 is 4 or 3 and Q2 is 1 (can’t tell).

Weak: The selected participants are not likely to be representative (Q1 is 2); or there is less than 60% participation (Q2 is 3) or selection is not described (Q1 is 1); and the level of participation is not described (Q2 is 1)

B. Study Design

This aims to assess the likelihood of bias due to the allocation process. The type of design is considered to be a good indicator of the extent of bias.
Randomised controlled trial – Randomly allocation process in experimental study, control group is present; use of terms random allocation/assignment, method of randomisation described, method appropriate? – if not then randomised clinical trial

Controlled clinical trial – Allocation of participants is open to individuals responsible for recruiting e.g. open list of random numbers/allocating by date of birth etc.

Cohort analytic (two group pre and post) – Observational design where groups are assembled according to whether or not exposure to the intervention has occurred.

Cohort (one group pre and post) – Same group is pretested, given an intervention, and tested after application. The intervention group, by means of the pre-test, are considered to act as their own control group.

Cross-sectional – One group are tested at a single point in time i.e. measurements are taken at one time point

Time series – Multiple observations over time; observations can be on the same individuals over time or on different but similar units. Time-series studies are conducted to determine the effect of an intervention or treatment.

Ratings
Strong: Articles describing Randomised and Controlled Clinical Trials
Moderate: Articles describing a cohort analytic or cohort study
Weak: Articles that used any other method or did not state the method used

C. Confounders
A confounder is a variable that may not be controlled for due to aspects outside of the researchers’ control. Authors should indicate if confounders were controlled in the design or the analysis.

Ratings
Strong: Articles that controlled for at least 80% of confounders (Q1 is 2); or (Q2 is 4); or (Q1 is 3)
Moderate: Articles that controlled for 60-79% of confounders (Q1 is 2) and (Q2 is 3)
Weak: Articles that controlled for less than 60% of confounders (Q1 is 2) and (Q2 is 2) or control of confounders was not described (Q1 is 1) and (Q2 is 1)

D. Blinding

Study participants should not be aware of the research question i.e. they should be blinded to it. The reason for this is to protect against reporting bias.

Ratings

Strong: Participants are not aware of the research question (Q1 is 3; Q2 is 3)
Moderate: Blinding not described (Q1 is 1; Q2 is 1)
Weak: Participants are aware of the research question (Q1 is 2; Q2 is 2 or 3)

E. Data Collection Methods

Measures used should be described as reliable and valid. If face or content validity is demonstrated this is acceptable. Some standard assessment tools have known reliability and validity or the authors may report these details e.g. Cronbach’s Alpha.

Ratings

Strong: Tools are shown to be valid (Q1 is 3); and reliable (Q2 is 3)
Moderate: Tools are shown to be valid (Q1 is 3) or validity is not described (Q1 is 2); but not shown to be reliable (Q2 is 1) or reliability is not described (Q2 is 2)
Weak: Tools are not shown to be valid (Q1 is 1) or reliable (Q2 is 1); or both reliability and validity are not described (Q1 is 2, Q2 is 2)

F. Withdrawals and Dropouts

Score yes if the authors describe both the numbers and reasons for withdrawals and drop-outs; no if either the numbers or reasons are not reported; if can’t tell score can’t tell; if n/a mark as n/a.

Ratings

Strong: If score yes (Q1 is 3)
Moderate: If score can’t tell (Q1 is 2)
Weak: If score no (Q1 is 1)
G. Analyses

Was a power calculation used to determine the required sample size against the population for reliable significance testing; was the quantitative or qualitative analysis appropriate to the research question asked?

Ratings

**Strong**: Sample size is justified (Q1 is 2); and appropriate analyses are used (Q2 is 3)

**Moderate**: Sample size is not justified (Q1 is 1); but appropriate analyses are used (Q2 is 3)

**Weak**: Sample size is not justified (Q1 is 1); and appropriate analyses are not used (Q2 is 1) or not explained (Q2 is 2)

H. Results

Consideration of whether the results appear to be believable i.e. make sense; whether the results can be applied to the population (e.g. location tested differ from actual application); study design appropriate to answer the question; and whether practical implications are included.

Ratings

**Strong**: Results make sense considering the variables included (Q1 is 3); the results are applicable to the population (Q2 is 3); the study design appeared appropriate for the question asked (Q3 is 3); and recommendations for practice are included (Q4 is 3)

**Moderate**: Results make sense considering the variables included (Q1 is 3); the results are/are not applicable to the population (Q2 is 3 or 1); the study design appeared appropriate for the question asked (Q3 is 3); and recommendations for practice are included (Q4 is 3 or 2)

**Weak**: Results do not make sense, considering the variables included (Q1 is 1 or 2); the results are not applicable to the population (Q2 is 1 or 2); the study design appeared inappropriate for the question asked (Q3 is 1 or 2); and recommendations for practice are not included (Q4 is 1 or 2)

In the case where the combination of scores are not represented, the rating which represents the greatest number of individual results should be selected (e.g. if Q1 is yes, Q2 and 3 are can’t tell, and Q4 is no, then Weak would be selected.)
Component ratings & scores

Mark an ‘x’ in each box – note that component B is n/a for a score due to the design itself representing the global rating. Each component ‘score’ should be added together and marked for each section within the table.

Global rating

An overall rating of strong should be awarded for papers with no weak ratings; moderate for papers with one weak rating; weak for papers with two or more weak ratings.

Score for the paper

Take the total score and divide by 7 to represent the components (out of a maximum mean of 7.3). Section B is not counted due to no score being assigned. Only a global rating is provided based on the strength of design utilised. The higher the score the better a paper has been assessed as.
## Appendix P

### Quality Assessment Forms for Included Articles

| --- | --- |

<table>
<thead>
<tr>
<th>Screening</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Have the inclusion criteria been met</td>
<td>Yes</td>
</tr>
<tr>
<td>2 Did the study address a clearly focused issue (e.g. population studied, outcomes considered)</td>
<td>Yes</td>
</tr>
<tr>
<td>3 Were participants recruited in an acceptable way</td>
<td>Yes</td>
</tr>
<tr>
<td>Continue?</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### A. Selection Bias

<table>
<thead>
<tr>
<th>1 Are the individuals selected likely to be representative of the target population?</th>
<th>Very likely (4)</th>
<th>Somewhat likely (3)</th>
<th>Not likely (2)</th>
<th>Can’t tell (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 What percentage of selected individuals agreed to participate</td>
<td>80-100% (5)</td>
<td>60-79% (4)</td>
<td>Less 60% (3)</td>
<td>Can’t tell (2)</td>
</tr>
<tr>
<td>Rate this section</td>
<td>Strong</td>
<td>Moderate</td>
<td>Weak</td>
<td></td>
</tr>
</tbody>
</table>

### B. Study Design

<table>
<thead>
<tr>
<th>1 Indicate the study design</th>
<th>Randomised Controlled Trial</th>
<th>Controlled Clinical Trial</th>
<th>Cohort analytic (two group pre/post)</th>
<th>Cohort (one group pre/post)</th>
<th>Cross-sectional</th>
<th>Time Series</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Was a control group used</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 If no, should one have been used</td>
<td>Yes</td>
<td>No</td>
<td>n/a</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rate this section</td>
<td>Strong</td>
<td>Moderate</td>
<td>Weak</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
### C. Confounders

<table>
<thead>
<tr>
<th></th>
<th>Were there important differences between groups (race, sex, marital/family status, age)</th>
<th>Yes (2) (more males 81%)</th>
<th>No (3)</th>
<th>Can’t tell (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>If yes, indicate the percentage of relevant confounders that were controlled (i.e. in design or analysis)</td>
<td>80-100% (most) (4)</td>
<td>60-79% (some) (3)</td>
<td>Less than 60% (few or none) (2)</td>
</tr>
</tbody>
</table>

**Rate this section** | Strong | Moderate | Weak

### D. Blinding

<table>
<thead>
<tr>
<th></th>
<th>Were participants aware of the research question</th>
<th>Yes (2)</th>
<th>No (3)</th>
<th>Can’t tell (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Were participants blinded to exposure</td>
<td>Yes (3)</td>
<td>No (2)</td>
<td>Can’t tell (1)</td>
</tr>
<tr>
<td>3</td>
<td>If no, does this matter</td>
<td>Yes (3)</td>
<td>No (2)</td>
<td>Can’t tell (1)</td>
</tr>
</tbody>
</table>

**Rate this section** | Strong | Moderate | Weak

### E. Data collection methods

<table>
<thead>
<tr>
<th></th>
<th>Were data collection tools/measures shown to be valid</th>
<th>Yes (3)</th>
<th>No (1)</th>
<th>Can’t tell (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Were data collection tools shown to be reliable</td>
<td>Yes (3)</td>
<td>No (1)</td>
<td>Can’t tell (2)</td>
</tr>
</tbody>
</table>

**Rate this section** | Strong | Moderate | Weak

### F. Withdrawals and drop-outs

<table>
<thead>
<tr>
<th></th>
<th>Were withdrawals and drop-outs reported in terms of numbers and/or reasons per group?</th>
<th>Yes (3)</th>
<th>No (1)</th>
<th>Can’t tell (2)</th>
<th>n/a (0)</th>
</tr>
</thead>
</table>

**Rate this section** | Strong | Moderate | Weak
G. Analyses

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Not reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Is there a sample size calculations/power calculation</td>
<td>Yes (2)</td>
<td>No (1)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Are the statistical/analysis methods used appropriate</td>
<td>Yes (3)</td>
<td>No (1)</td>
<td>Not reported (2)</td>
</tr>
</tbody>
</table>

Rate this section: Strong, Moderate, Weak

H. Results

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Can’t tell</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Are the results believable</td>
<td>Yes (3)</td>
<td>No (1)</td>
<td>Can’t tell (2)</td>
</tr>
<tr>
<td>2</td>
<td>Can the results be applied to the population (quantify the local benefits/harms, local setting differ from that of the study)</td>
<td>Yes (3)</td>
<td>No (1)</td>
<td>Can’t tell (2)</td>
</tr>
<tr>
<td>3</td>
<td>Was the study design appropriate to answer the question</td>
<td>Yes (3)</td>
<td>No (1)</td>
<td>Can’t tell (2)</td>
</tr>
<tr>
<td>4</td>
<td>Are recommendations for practice included</td>
<td>Yes (3)</td>
<td>No (1)</td>
<td>Can’t tell (2)</td>
</tr>
</tbody>
</table>

Rate this section: Strong, Moderate, Weak

Component Ratings

<table>
<thead>
<tr>
<th></th>
<th>Strong</th>
<th>Moderate</th>
<th>Weak</th>
<th>Score</th>
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<tbody>
<tr>
<td>A. Selection Bias</td>
<td>X</td>
<td></td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>B. Study Design</td>
<td>X</td>
<td></td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>C. Confounders</td>
<td>X</td>
<td></td>
<td>5</td>
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</tr>
<tr>
<td>D. Blinding</td>
<td>X</td>
<td></td>
<td>1</td>
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</tr>
<tr>
<td>E. Data Collection Methods</td>
<td>X</td>
<td></td>
<td>5</td>
<td></td>
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<tr>
<td>F. Withdrawals and Dropouts</td>
<td>X</td>
<td></td>
<td>2</td>
<td></td>
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<tr>
<td>G. Analyses</td>
<td>X</td>
<td></td>
<td>4</td>
<td></td>
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<tr>
<td>H. Results</td>
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Global rating for this paper:

1. Strong (no weak ratings) (☆☆☆)
2. Moderate (one weak rating) (☆☆)
3. Weak (two or more weak ratings) (☆)

Score for this paper (total divided by 7): 5.14
|---|---|

### Screening

<p>| | | | |</p>
<table>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Have the inclusion criteria been met</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>2</td>
<td>Did the study address a clearly focused issue (e.g. population studied, outcomes considered)</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>3</td>
<td>Were participants recruited in an acceptable way</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>Continue?</strong></td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

### A. Selection Bias

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<tbody>
<tr>
<td>1</td>
<td>Are the individuals selected likely to be representative of the target population?</td>
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<td>Not likely (2)</td>
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<td>2</td>
<td>What percentage of selected individuals agreed to participate</td>
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</tbody>
</table>

**Rate this section** | Strong | Moderate | Weak |

### B. Study Design

<table>
<thead>
<tr>
<th></th>
<th>Randomised Controlled Trial</th>
<th>Controlled Clinical Trial</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Indicate the study design</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Was a control group used</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>If no, should one have been used</td>
<td>Yes</td>
<td>No</td>
<td>n/a</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Rate this section** | Strong | Moderate | Weak |
### C. Confounders

<table>
<thead>
<tr>
<th></th>
<th>Were there important differences between groups (race, sex, marital/family status, age)</th>
<th>Yes (2)</th>
<th>No (3)</th>
<th>Can’t tell (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(majority women ~2.6% male)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>If yes, indicate the percentage of relevant confounders that were controlled (i.e. in design or analysis)</td>
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</table>

**Rate this section** | Strong | Moderate | Weak

### D. Blinding

<table>
<thead>
<tr>
<th></th>
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<th>Yes (2)</th>
<th>No (3)</th>
<th>Can’t tell (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Were participants blinded to exposure</td>
<td>Yes (3)</td>
<td>No (2)</td>
<td>Can’t tell (1)</td>
</tr>
<tr>
<td>3</td>
<td>If no, does this matter</td>
<td>Yes (3)</td>
<td>No (2)</td>
<td>Can’t tell (1)</td>
</tr>
</tbody>
</table>

**Rate this section** | Strong | Moderate | Weak

### E. Data collection methods

<table>
<thead>
<tr>
<th></th>
<th>Were data collection tools/measures shown to be valid</th>
<th>Yes (3)</th>
<th>No (1)</th>
<th>Can’t tell (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Were data collection tools shown to be reliable</td>
<td>Yes (3)</td>
<td>No (1)</td>
<td>Can’t tell (2)</td>
</tr>
</tbody>
</table>

**Rate this section** | Strong | Moderate | Weak

### F. Withdrawals and drop-outs

<table>
<thead>
<tr>
<th></th>
<th>Were withdrawals and drop-outs reported in terms of numbers and/or reasons per group?</th>
<th>Yes (3)</th>
<th>No (1)</th>
<th>Can’t tell (2)</th>
<th>n/a (0)</th>
</tr>
</thead>
</table>

**Rate this section** | Strong | Moderate | Weak
### G. Analyses

<table>
<thead>
<tr>
<th></th>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Not reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Is there a sample size calculations/power calculation</td>
<td>Yes</td>
<td>(2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>(1)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Are the statistical/analytical methods used appropriate</td>
<td>Yes</td>
<td>(3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>(1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not reported</td>
<td>(2)</td>
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</tr>
</tbody>
</table>

**Rate this section**: Strong  Moderate  Weak

### H. Results

<table>
<thead>
<tr>
<th></th>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Can’t tell</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Are the results believable</td>
<td>Yes</td>
<td>(3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>(1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Can’t tell</td>
<td>(2)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Can the results be applied to the population (quantify local benefits/harms, local setting differ from that of the study)</td>
<td>Yes</td>
<td>(3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>(1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Can’t tell</td>
<td>(2)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Was the study design appropriate to answer the question</td>
<td>Yes</td>
<td>(3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>(1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Can’t tell</td>
<td>(2)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Are recommendations for practice included</td>
<td>Yes</td>
<td>(3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
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<td>Can’t tell</td>
<td>(2)</td>
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</table>

**Rate this section**: Strong  Moderate  Weak

### Component Ratings

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<th>Strong</th>
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<th>Weak</th>
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<td>B. Study Design</td>
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<td>n/a</td>
</tr>
<tr>
<td>C. Confounders</td>
<td>X</td>
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<td></td>
<td>6</td>
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<tr>
<td>D. Blinding</td>
<td>X</td>
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<tr>
<td>E. Data Collection Methods</td>
<td>X</td>
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<tr>
<td>F. Withdrawals and Dropouts</td>
<td>X</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>G. Analyses</td>
<td>X</td>
<td></td>
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<td>4</td>
</tr>
<tr>
<td>H. Results</td>
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</table>

### Global rating for this paper:

1. Strong (no weak ratings) (☆☆☆)
2. Moderate (one weak rating) (☆☆)
3. Weak (two or more weak ratings) (☆)

**Score for this paper** (total divided by 7): 5.43
**Reference**

### Screening

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<tr>
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<th>Yes</th>
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<th>Can’t tell</th>
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<tr>
<td>1</td>
<td>Have the inclusion criteria been met</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Did the study address a clearly focused issue (e.g. population studied, outcomes considered)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Were participants recruited in an acceptable way</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

**Continue?** Yes No

### A. Selection Bias

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Very likely (4)</th>
<th>Somewhat likely (3)</th>
<th>Not likely (2)</th>
<th>Can’t tell (1)</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Are the individuals selected likely to be representative of the target population?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>What percentage of selected individuals agreed to participate</td>
<td>80-100% (5)</td>
<td>60-79% (4)</td>
<td>Less 60% (3)</td>
<td>Can’t tell (2)</td>
</tr>
</tbody>
</table>

**Rate this section** Strong Moderate Weak

### B. Study Design

<table>
<thead>
<tr>
<th></th>
<th>Randomised Controlled Trial</th>
<th>Controlled Clinical Trial</th>
<th>Cohort analytic (two group pre/ post)</th>
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<th>Cross-sectional</th>
<th>Time Series</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Indicate the study design</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Was a control group used</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>If no, should one have been used</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n/a</td>
</tr>
</tbody>
</table>

**Rate this section** Strong Moderate Weak
### C. Confounders

| 1 | Were there important differences between groups (race, sex, marital/family status, age) | Yes (2) (majority male ~4% female) | No (3) | Can’t tell (1) |
| 2 | If yes, indicate the percentage of relevant confounders that were controlled (i.e. in design or analysis) | 80-100% (most) (4) | 60-79% (some) (3) | Less than 60% (few or none) (2) | Can’t tell (1) |

Rate this section | Strong | Moderate | Weak

### D. Blinding

| 1 | Were participants aware of the research question | Yes (2) | No (3) | Can’t tell (1) |
| 2 | Were participants blinded to exposure | Yes (3) | No (2) | Can’t tell (1) | n/a (0) |
| 3 | If no, does this matter | Yes (3) | No (2) | Can’t tell (1) | n/a (0) |

Rate this section | Strong | Moderate | Weak

### E. Data collection methods

| 1 | Were data collection tools/measures shown to be valid | Yes (3) | No (1) | Can’t tell (2) |
| 2 | Were data collection tools shown to be reliable | Yes (3) | No (1) | Can’t tell (2) |

Rate this section | Strong | Moderate | Weak

### F. Withdrawals and drop-outs

| 1 | Were withdrawals and drop-outs reported in terms of numbers and/or reasons per group? | Yes (3) | No (1) | Can’t tell (2) | n/a (0) |

Rate this section | Strong | Moderate | Weak
### G. Analyses

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Yes (No)</th>
<th>No (1)</th>
<th>Not reported (2)</th>
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<tbody>
<tr>
<td>1</td>
<td>Is there a sample size calculations/power calculation</td>
<td>Yes (2)</td>
<td>No (1)</td>
<td></td>
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<tr>
<td>2</td>
<td>Are the statistical/analysis methods used appropriate</td>
<td>Yes (3)</td>
<td>No (1)</td>
<td>Not reported (2)</td>
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**Rate this section** Strong | Moderate | Weak

### H. Results

<table>
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<th></th>
<th>Description</th>
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<th>No (1)</th>
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<tr>
<td>1</td>
<td>Are the results believable</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2</td>
<td>Can the results be applied to the population (quantify the local benefits/harms, local setting differ from that of the study)</td>
<td>Yes (3)</td>
<td>No (1)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Was the study design appropriate to answer the question</td>
<td>Yes (3)</td>
<td>No (1)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Are recommendations for practice included</td>
<td>Yes (3)</td>
<td>No (1)</td>
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**Rate this section** Strong | Moderate | Weak

**Component Ratings**

<table>
<thead>
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<th>Weak</th>
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<td></td>
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<td>B. Study Design</td>
<td></td>
<td>X</td>
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<td>C. Confounders</td>
<td>X</td>
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<td>D. Blinding</td>
<td></td>
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<td>E. Data Collection Methods</td>
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<td>F. Withdrawals and Dropouts</td>
<td>X</td>
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<td>3</td>
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<td>G. Analyses</td>
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<td>H. Results</td>
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**Global rating for this paper:**

1. **Strong (no weak ratings)** (☆☆☆)
2. **Moderate (one weak rating)** (☆☆)
3. **Weak (two or more weak ratings)** (☆)

**Score for this paper** (total divided by 7): 5.43
|---|---|

| Screening |  |
|---|---|---|---|
| 1 Have the inclusion criteria been met | Yes | No | Can’t tell |
| 2 Did the study address a clearly focused issue (e.g. population studied, outcomes considered) | Yes | No | Can’t tell |
| 3 Were participants recruited in an acceptable way | Yes | No | Can’t tell |

| A. Selection Bias |  |
|---|---|---|---|---|---|---|
| 1 Are the individuals selected likely to be representative of the target population? | Very likely (4) | Somewhat likely (3) | Not likely (2) | Can’t tell (1) |
| 2 What percentage of selected individuals agreed to participate | 80-100% (5) | 60-79% (4) | Less 60% (3) | Can’t tell (2) | n/a (1) |

| Rate this section | Strong | Moderate | Weak |

| B. Study Design |  |
|---|---|---|---|---|---|---|---|---|
| 1 Indicate the study design | Randomised Controlled Trial | Controlled Clinical Trial | Cohort analytic (two group pre/ post) | Cohort (one group pre/ post) &mid | Cross-sectional | Time Series | Other |
| 2 Was a control group used | Yes | No |  |
| 3 If no, should one have been used | Yes | No | n/a |

| Rate this section | Strong | Moderate | Weak |
### C. Confounders

<table>
<thead>
<tr>
<th></th>
<th>Were there important differences between groups (race, sex, marital/family status, age)</th>
<th>Yes (2)</th>
<th>No (3)</th>
<th>Can’t tell (1)</th>
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</thead>
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<tr>
<td>1</td>
<td>If yes, indicate the percentage of relevant confounders that were controlled (i.e. in design or analysis)</td>
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<td>60-79% (some) (3)</td>
<td>Less than 60% (few or none) (2)</td>
</tr>
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<td>Weak</td>
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### D. Blinding

<table>
<thead>
<tr>
<th></th>
<th>Were participants aware of the research question</th>
<th>Yes (2)</th>
<th>No (3)</th>
<th>Can’t tell (1)</th>
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<tbody>
<tr>
<td>1</td>
<td>Were participants blinded to exposure</td>
<td>Yes (3)</td>
<td>No (2)</td>
<td>Can’t tell (1)</td>
</tr>
<tr>
<td>2</td>
<td>If no, does this matter</td>
<td>Yes (3)</td>
<td>No (2)</td>
<td>Can’t tell (1)</td>
</tr>
<tr>
<td>3</td>
<td>Rate this section</td>
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### E. Data collection methods

<table>
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<th></th>
<th>Were data collection tools/measure shown to be valid</th>
<th>Yes (3)</th>
<th>No (1)</th>
<th>Can’t tell (2)</th>
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</thead>
<tbody>
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<td>1</td>
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<td>No (1)</td>
<td>Can’t tell (2)</td>
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### F. Withdrawals and drop-outs

<table>
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<th></th>
<th>Were withdrawals and drop-outs reported in terms of numbers and/or reasons per group?</th>
<th>Yes (3)</th>
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### G. Analyses

<table>
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<th>Is there a sample size calculations/power calculation</th>
<th>Yes (2)</th>
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<tr>
<td>2</td>
<td>Are the statistical/analysis methods used appropriate</td>
<td>Yes (3)</td>
<td>No (1)</td>
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<td></td>
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<table>
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<tr>
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<th>Are the results believable</th>
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<tr>
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<td>Can the results be applied to the population (quantify the local benefits/harms, local setting differ from that of the study)</td>
<td>Yes (3)</td>
<td>No (1)</td>
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<td>3</td>
<td>Was the study design appropriate to answer the question</td>
<td>Yes (3)</td>
<td>No (1)</td>
<td>Can’t tell (2)</td>
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<td>4</td>
<td>Are recommendations for practice included</td>
<td>Yes (3)</td>
<td>No (1)</td>
<td>Can’t tell (2)</td>
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**Component Ratings**

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<td>B. Study Design</td>
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<td>C. Confounders</td>
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**Global rating for this paper:**

1. **Strong (no weak ratings) (☆☆☆)**
2. **Moderate (one weak rating) (☆☆)**
3. **Weak (two or more weak ratings) (☆)**

**Score for this paper** (total divided by 7) 5
|---|---|

### Screening

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<th>Can’t tell</th>
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<th></th>
<th>Did the study address a clearly focused issue (e.g. population studied, outcomes considered)</th>
<th>Yes</th>
<th>No</th>
<th>Can’t tell</th>
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<table>
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<th>Were participants recruited in an acceptable way</th>
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<th>Can’t tell</th>
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### A. Selection Bias

<table>
<thead>
<tr>
<th></th>
<th>Are the individuals selected likely to be representative of the target population?</th>
<th>Very likely (4)</th>
<th>Somewhat likely (3)</th>
<th>Not likely (2)</th>
<th>Can’t tell (1)</th>
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<tr>
<td>1</td>
<td><strong>Very likely</strong> (4)</td>
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<table>
<thead>
<tr>
<th></th>
<th>What percentage of selected individuals agreed to participate</th>
<th>80-100% (5)</th>
<th>60-79% (4)</th>
<th>Less 60% (3)</th>
<th>Can’t tell (2)</th>
<th>n/a (1)</th>
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<td>2</td>
<td><strong>Very likely</strong> (5)</td>
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### B. Study Design

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<tr>
<th></th>
<th>Indicate the study design</th>
<th>Randomised Controlled Trial</th>
<th>Controlled Clinical Trial</th>
<th>Cohort analytic (two group pre/ post)</th>
<th>Cohort (one group pre/ post)</th>
<th>Cross-sectional</th>
<th>Time Series</th>
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<table>
<thead>
<tr>
<th></th>
<th>Was a control group used</th>
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<table>
<thead>
<tr>
<th></th>
<th>If no, should one have been used</th>
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<th>n/a</th>
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<tr>
<td>3</td>
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|   | | | | | | | | | | |
### C. Confounders

<table>
<thead>
<tr>
<th>1</th>
<th>Were there important differences between groups (race, sex, marital/family status, age)</th>
<th>Yes (2) (mainly male)</th>
<th>No (3)</th>
<th>Can’t tell (1)</th>
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<td>2</td>
<td>If yes, indicate the percentage of relevant confounders that were controlled (i.e. in design or analysis)</td>
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**Rate this section** | Strong | Moderate | Weak

### D. Blinding

<table>
<thead>
<tr>
<th>1</th>
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<th>Yes (2)</th>
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<tr>
<td>2</td>
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<td>No (2)</td>
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<td>3</td>
<td>If no, does this matter</td>
<td>Yes (3)</td>
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**Rate this section** | Strong | Moderate | Weak

### E. Data collection methods

<table>
<thead>
<tr>
<th>1</th>
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<td>2</td>
<td>Were data collection tools shown to be reliable</td>
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<td>No (1)</td>
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**Rate this section** | Strong | Moderate | Weak

### F. Withdrawals and drop-outs

| 1 | Were withdrawals and drop-outs reported in terms of numbers and/or reasons per group? | Yes (3) | No (1) | Can’t tell (2) | n/a (0) |

**Rate this section** | Strong | Moderate | Weak
### G. Analyses

<table>
<thead>
<tr>
<th></th>
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<th>Yes</th>
<th>No</th>
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<td>(1)</td>
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<tr>
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<td>(2)</td>
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**Rate this section**
- Strong
- Moderate
- Weak

### H. Results

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<tr>
<th></th>
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<th>No</th>
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**Rate this section**
- Strong
- Moderate
- Weak

#### Component Ratings

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**Total**
- 3
- 3
- 2
- 36

**Global rating for this paper:**

1. Strong (no weak ratings) (☆☆☆)
2. Moderate (one weak rating) (☆☆)
3. Weak (two or more weak ratings) (☆)

**Score for this paper** (total divided by 7): 5.14
### Reference

### Screening

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<td>1</td>
<td>Did the study address a clearly focused issue (e.g. population studied, outcomes considered)</td>
<td>Yes</td>
<td>No</td>
<td>Can’t tell</td>
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<td>3</td>
<td>Were participants recruited in an acceptable way</td>
<td>Yes</td>
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</table>

**Continue?** Yes

### A. Selection Bias

<table>
<thead>
<tr>
<th></th>
<th>Are the individuals selected likely to be representative of the target population?</th>
<th>Very likely (4)</th>
<th>Somewhat likely (3)</th>
<th>Not likely (2)</th>
<th>Can’t tell (1)</th>
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</thead>
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<table>
<thead>
<tr>
<th></th>
<th>What percentage of selected individuals agreed to participate</th>
<th>80-100% (5)</th>
<th>60-79% (4)</th>
<th>Less 60% (3)</th>
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<th>n/a (1)</th>
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**Rate this section** Strong

### B. Study Design

<table>
<thead>
<tr>
<th></th>
<th>Indicate the study design</th>
<th>Randomised Controlled Trial</th>
<th>Controlled Clinical Trial</th>
<th>Cohort analytic (two group pre/post)</th>
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<table>
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<th></th>
<th>Was a control group used</th>
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<th>No</th>
<th>n/a</th>
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<table>
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<th></th>
<th>If no, should one have been used</th>
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<tr>
<td>3</td>
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**Rate this section** Strong
### C. Confounders

<table>
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<tr>
<th></th>
<th>Were there important differences between groups (race, sex, marital/family status, age)</th>
<th>Yes (2)</th>
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<th>Can’t tell (1)</th>
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<tr>
<td>1</td>
<td>If yes, indicate the percentage of relevant confounders that were controlled (i.e. in design or analysis)</td>
<td>80-100% (most) (4)</td>
<td>60-79% (some) (3)</td>
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**Rate this section**: Strong

### D. Blinding

<table>
<thead>
<tr>
<th></th>
<th>Were participants aware of the research question</th>
<th>Yes (2)</th>
<th>No (3)</th>
<th>Can’t tell (1)</th>
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<td>1</td>
<td>Were participants blinded to exposure</td>
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<td>No (2)</td>
<td>Can’t tell (1)</td>
</tr>
<tr>
<td>2</td>
<td>If no, does this matter</td>
<td>Yes (3)</td>
<td>No (2)</td>
<td>Can’t tell (1)</td>
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</tbody>
</table>

**Rate this section**: Strong

### E. Data collection methods

<table>
<thead>
<tr>
<th></th>
<th>Were data collection tools/measures shown to be valid</th>
<th>Yes (3)</th>
<th>No (1)</th>
<th>Can’t tell (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Were data collection tools shown to be reliable</td>
<td>Yes (3)</td>
<td>No (1)</td>
<td>Can’t tell (2)</td>
</tr>
</tbody>
</table>

**Rate this section**: Strong

### F. Withdrawals and drop-outs

<table>
<thead>
<tr>
<th></th>
<th>Were withdrawals and drop-outs reported in terms of numbers and/or reasons per group?</th>
<th>Yes (3)</th>
<th>No (1)</th>
<th>Can’t tell (2)</th>
<th>n/a (0)</th>
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**Rate this section**: Strong
### G. Analyses

<table>
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<th></th>
<th>Is there a sample size calculations/power calculation</th>
<th>Yes (2)</th>
<th>No (1)</th>
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<tbody>
<tr>
<td>2</td>
<td>Are the statistical/analysis methods used appropriate</td>
<td>Yes (3)</td>
<td>No (1)</td>
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**Rate this section** Strong Moderate Weak

### H. Results

<table>
<thead>
<tr>
<th></th>
<th>Are the results believable</th>
<th>Yes (3)</th>
<th>No (1)</th>
<th>Can’t tell (2)</th>
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</thead>
<tbody>
<tr>
<td>2</td>
<td>Can the results be applied to the population (quantify the local benefits/harms, local setting differ from that of the study)</td>
<td>Yes (3)</td>
<td>No (1)</td>
<td>Can’t tell (2)</td>
</tr>
<tr>
<td>3</td>
<td>Was the study design appropriate to answer the question</td>
<td>Yes (3)</td>
<td>No (1)</td>
<td>Can’t tell (2)</td>
</tr>
<tr>
<td>4</td>
<td>Are recommendations for practice included</td>
<td>Yes (3)</td>
<td>No (1)</td>
<td>Can’t tell (2)</td>
</tr>
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**Rate this section** Strong Moderate Weak

### Component Ratings

<table>
<thead>
<tr>
<th></th>
<th>Strong</th>
<th>Moderate</th>
<th>Weak</th>
<th>Score</th>
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<tr>
<td>A. Selection Bias</td>
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<td></td>
<td></td>
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<td>B. Study Design</td>
<td></td>
<td>X</td>
<td>n/a</td>
<td>n/a</td>
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<td>C. Confounders</td>
<td>X</td>
<td></td>
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<td>D. Blinding</td>
<td>X</td>
<td></td>
<td></td>
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<td>E. Data Collection Methods</td>
<td>X</td>
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<td>6</td>
<td></td>
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<td>F. Withdrawals and Dropouts</td>
<td>X</td>
<td></td>
<td>1</td>
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<tr>
<td>G. Analyses</td>
<td>X</td>
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<td>H. Results</td>
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<td>2</td>
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**Global rating for this paper:**

1. Strong (no weak ratings) (☆☆☆)

2. Moderate (one weak rating) (☆☆)

3. **Weak (two or more weak ratings)** (☆)

**Score for this paper** (total divided by 7): 5.14
**Reference**  

<table>
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<th>Have the inclusion criteria been met</th>
<th>Yes</th>
<th>No</th>
<th>Can’t tell</th>
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<tr>
<td>1</td>
<td>Did the study address a clearly focused issue (e.g. population studied, outcomes considered)</td>
<td>Yes</td>
<td>No</td>
<td>Can’t tell</td>
</tr>
<tr>
<td>2</td>
<td>Were participants recruited in an acceptable way</td>
<td>Yes</td>
<td>No</td>
<td>Can’t tell</td>
</tr>
<tr>
<td><strong>Continue?</strong></td>
<td></td>
<td>Yes</td>
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<td>No</td>
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**A. Selection Bias**

<table>
<thead>
<tr>
<th>1</th>
<th>Are the individuals selected likely to be representative of the target population?</th>
<th>Very likely (4)</th>
<th>Somewhat likely (3) (convenience)</th>
<th>Not likely (2)</th>
<th>Can’t tell (1)</th>
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<tbody>
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<td>2</td>
<td>What percentage of selected individuals agreed to participate</td>
<td>80-100% (5)</td>
<td>60-79% (4)</td>
<td>Less 60% (3)</td>
<td>Can’t tell (2)</td>
</tr>
<tr>
<td><strong>Rate this section</strong></td>
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**B. Study Design**

<table>
<thead>
<tr>
<th>1</th>
<th>Indicate the study design</th>
<th>Randomised Controlled Trial</th>
<th>Controlled Clinical Trial</th>
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<th>Cohort (one group pre/ post)</th>
<th>Cross-sectional (military &amp; spouse)</th>
<th>Time Series</th>
<th>Other</th>
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<tbody>
<tr>
<td>2</td>
<td>Was a control group used</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>If no, should one have been used</td>
<td>Yes</td>
<td></td>
<td>No</td>
<td></td>
<td>n/a</td>
<td></td>
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</table>
### C. Confounders

<table>
<thead>
<tr>
<th></th>
<th>Were there important differences between groups (race, sex, marital/family status, age)</th>
<th>Yes (2)</th>
<th>No (3)</th>
<th>Can’t tell (1)</th>
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<tr>
<td>1</td>
<td>(1384 mil 92% M; 709 spouses 91% F)</td>
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If yes, indicate the percentage of relevant confounders that were controlled (i.e. in design or analysis):

<table>
<thead>
<tr>
<th></th>
<th>80-100% (most)</th>
<th>60-79% (some)</th>
<th>Less than 60% (few or none)</th>
<th>Can’t tell</th>
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<tr>
<td>2</td>
<td>(4)</td>
<td>(3)</td>
<td>(2)</td>
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**Rate this section** Strong Moderate Weak

### D. Blinding

<table>
<thead>
<tr>
<th></th>
<th>Were participants aware of the research question</th>
<th>Yes (2)</th>
<th>No (3)</th>
<th>Can’t tell (1)</th>
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<tbody>
<tr>
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If no, does this matter:

<table>
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<tr>
<th></th>
<th>Yes (3)</th>
<th>No (2)</th>
<th>Can’t tell (1)</th>
<th>n/a (0)</th>
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**Rate this section** Strong Moderate Weak

### E. Data collection methods

<table>
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<tr>
<th></th>
<th>Were data collection tools/measures shown to be valid</th>
<th>Yes (3)</th>
<th>No (1)</th>
<th>Can’t tell (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td></td>
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</tbody>
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If no, were data collection tools shown to be reliable:

<table>
<thead>
<tr>
<th></th>
<th>Yes (3)</th>
<th>No (1)</th>
<th>Can’t tell (2)</th>
</tr>
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<tbody>
<tr>
<td>2</td>
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**Rate this section** Strong Moderate Weak

### F. Withdrawals and drop-outs

<table>
<thead>
<tr>
<th></th>
<th>Were withdrawals and drop-outs reported in terms of numbers and/or reasons per group?</th>
<th>Yes (3)</th>
<th>No (1)</th>
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**Rate this section** Strong Moderate Weak
G. Analyses

<table>
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<tr>
<th></th>
<th></th>
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<tr>
<td>1</td>
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<td>(2)</td>
<td>(1)</td>
<td></td>
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<tr>
<td>2</td>
<td>Are the statistical/analysis methods used appropriate</td>
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<td>No (1)</td>
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H. Results

<table>
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<tr>
<th></th>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Can’t tell</th>
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<td>Are the results believable</td>
<td>(3)</td>
<td>(1)</td>
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<tr>
<td>2</td>
<td>Can the results be applied to the population (quantify the local benefits/harms, local setting differ from that of the study)</td>
<td>Yes (3)</td>
<td>No (1)</td>
<td>Can’t tell (2)</td>
</tr>
<tr>
<td>3</td>
<td>Was the study design appropriate to answer the question</td>
<td>Yes (3)</td>
<td>No (1)</td>
<td>Can’t tell (2)</td>
</tr>
<tr>
<td>4</td>
<td>Are recommendations for practice included</td>
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<td>No (1)</td>
<td>Can’t tell (2)</td>
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<td></td>
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Component Ratings

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<tr>
<td>A. Selection Bias</td>
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Total 1 5 2 33

Global rating for this paper:

1. Strong (no weak ratings) (☆☆☆)
2. Moderate (one weak rating) (☆☆)
3. Weak (two or more weak ratings) (☆)

Score for this paper (total divided by 7): 4.71
| --- | --- |

### Screening

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<th>Have the inclusion criteria been met</th>
<th>Yes</th>
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<th>Can’t tell</th>
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<tr>
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<td>Did the study address a clearly focused issue (e.g. population studied, outcomes considered)</td>
<td>Yes</td>
<td>No</td>
<td>Can’t tell</td>
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<tr>
<td>3</td>
<td>Were participants recruited in an acceptable way</td>
<td>Yes</td>
<td>No</td>
<td>Can’t tell</td>
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**Continue?** Yes No

### A. Selection Bias

<table>
<thead>
<tr>
<th></th>
<th>Are the individuals selected likely to be representative of the target population?</th>
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<th>Not likely (2)</th>
<th>Can’t tell (1)</th>
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</tr>
<tr>
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<td>What percentage of selected individuals agreed to participate</td>
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<td>60-79% (4)</td>
<td>Less 60% (3)</td>
<td>Can’t tell (2)</td>
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**Rate this section** Strong Moderate Weak

### B. Study Design

<table>
<thead>
<tr>
<th></th>
<th>Indicate the study design</th>
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<th>Cohort analytic (two group pre/post)</th>
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<tr>
<td>2</td>
<td>Was a control group used</td>
<td>Yes</td>
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<tr>
<td>3</td>
<td>If no, should one have been used</td>
<td>Yes</td>
<td>No</td>
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**Rate this section** Strong Moderate Weak
### C. Confounders

<table>
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<tr>
<th></th>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Can’t tell</th>
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<td>1</td>
<td>Were there important differences between groups (race, sex, marital/family status, age)</td>
<td>Yes (2)</td>
<td>No (3)</td>
<td>Can’t tell (1) (secondary data from 5 studies)</td>
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<tr>
<td></td>
<td>If yes, indicate the percentage of relevant confounders that were controlled (i.e. in design or analysis)</td>
<td>80-100% (most) (4)</td>
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<td>Less than 60% (few or none) (2)</td>
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</tbody>
</table>

**Rate this section** | Strong | Moderate | Weak

### D. Blinding

<table>
<thead>
<tr>
<th></th>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Can’t tell</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Were participants aware of the research question</td>
<td>Yes (2)</td>
<td>No (3)</td>
<td>Can’t tell (1)</td>
</tr>
<tr>
<td>2</td>
<td>Were participants blinded to exposure</td>
<td>Yes (3)</td>
<td>No (2)</td>
<td>Can’t tell (1)</td>
</tr>
<tr>
<td>3</td>
<td>If no, does this matter</td>
<td>Yes (3)</td>
<td>No (2)</td>
<td>Can’t tell (1)</td>
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**Rate this section** | Strong | Moderate | Weak

### E. Data collection methods

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<td>2</td>
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**Rate this section** | Strong | Moderate | Weak

### F. Withdrawals and drop-outs

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<td>Can the results be applied to the population (quantify the local benefits/harms, local setting differ from that of the study)</td>
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<td>Was the study design appropriate to answer the question?</td>
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<td>4</td>
<td>Are recommendations for practice included?</td>
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### Component Ratings

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<td>B. Study Design</td>
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<td>C. Confounders</td>
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<td>E. Data Collection Methods</td>
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<td>F. Withdrawals and Dropouts</td>
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<td>G. Analyses</td>
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### Global rating for this paper:

1. Strong (no weak ratings) (☆☆☆)

2. Moderate (one weak rating) (☆☆)

3. Weak (two or more weak ratings) (☆)

**Score for this paper** (total divided by 7): 3.71
Appendix Q

Data Extraction Tables for Included Articles

Table Q1


<table>
<thead>
<tr>
<th>Study Characteristics</th>
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<th>Page</th>
</tr>
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<tbody>
<tr>
<td>Study design</td>
<td>Quantitative; Cohort (compared to actual turnover 4 years later); Questionnaire &amp; archival</td>
<td></td>
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<tr>
<td>Inclusion criteria</td>
<td>Secondary research; Military; work-family conflict; job satisfaction; turnover</td>
<td></td>
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<tr>
<td>Country &amp; Service</td>
<td>United States; Army</td>
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</tr>
<tr>
<td>Aim</td>
<td>Examine the processes through which spouse career support relates to actual turnover behaviour through work interfering with family and job satisfaction as mechanisms</td>
<td>195</td>
</tr>
<tr>
<td>Background</td>
<td>Turnover long been a focus due to high recruitment and selection costs to replace individuals; previous models looked at characteristics of work environment, but excluded characteristics of non-work environment; non-work and cross domain received little attention, such as spouse support (non-work) and work-family conflict (cross-domain); integrate traditional turnover theory with resource and demands model and conservation of resources theory to examine how spouse career support relates to turnover through effects on work-family conflict and job satisfaction as mechanisms</td>
<td>194-195</td>
</tr>
</tbody>
</table>

Examine role of spouse in work decisions; examine emergent construct in turnover theory of interrole conflict drawing on work and non-work factors to predict turnover; study work behaviour rather than attitudes or behavioural intentions and examine effects of work-family conflict over time; theoretically shed light on why spouse career support and work to family conflict relate to employee turnover; Spouse support for an employee’s career reduces the odds of employee turnover; this relationship occurs through sequential mediator variables: work interfering with family and job satisfaction; focus only on work-family conflict (i.e. support from spouse that benefits career should reduce work demands thus relate to lower WIF);
only few studies examine WIF relating to actual turnover

Literature covered

Resources and demands model; Conservation of resources theory; turnover theory; work-family conflict; job satisfaction; spouse career support

Hypotheses

H1: Spouse career support is negatively related to turnover
H2: Spouse career support is negatively related to WIF
H3: Work interfering with family is positively related to turnover
H4: Work interfering with family partially mediates the relationship between spouse career support and turnover
H5: Job satisfaction partially mediates the WIF-turnover relationship

Method

1996 Survey on Officer Careers conducted by US Army Research Institute for Behavioural Social Sciences (N = 9146) – primary purpose to identify factors that relate to officers career decisions; mail survey; random sampling worldwide; survey data matched by social security number with archival turnover data four years after survey administration (~2000); data available for 8142 (89%) of respondents;

Sample

5505 Army Officers (60%) once matched over time; male = 4461; female = 1044; length of service up to 29 years (M = 12.36, SD = 5.44); average 33 years old (SD = 5.8 years; 81% male); unmarried, involuntary leavers, unknown if voluntary exit were excluded

Measures

Measures were not from standard measures, they were developed from theoretical conceptualisations of the constructs of interest

Demographics (covariates): sex, number of children, employment status of spouse, tenure

Work interfering with family: two items consistent with Netemeyer, Boles, & McMurrian (1996) conceptualisation of WIF – an Army career would/does create a lot of conflict between my work and my family life; demands of an Army career would/does make it difficult to have the kind of family life I would like. No α reported, but correlation with Netemeyer et al
measure was $r = .62, p < .05$

Job satisfaction: six items used e.g. how satisfied are you with your current job; current assignment; life as an officer; quality of supervision you receive in your current assignment; all in all how satisfied are you with your job; career prospects in the Army. $\alpha = .84$, correlated with Quinn & Shepard established measure of job satisfaction $r = .81, p < .05$

Spouse career support: 1 item - how supportive is your spouse of you making a career of the Army, correlated with King, Mattimore, King & Adams (1995) family support inventory for workers was $r = .57, p < .05$

Turnover: Collected from Officer longitudinal research database, archive (Hunter, Rachford, Kelly & Duncan, 1987); coded as stayed and voluntary left – 1641 (20%) voluntarily left by the year 2000

Results

Women officers with more children and those who had been deployed were more likely to turnover than men officers with fewer children and those who had not been deployed

Spouse career support and job satisfaction were significantly related to turnover in the direction hypothesised

H1 supported – spouse career support was negatively related to turnover

H2 supported – spouse career support was negatively related to WIF

H3 supported – for every one unit increase in WIF the odds of leaving the Army within four years increased significantly by 1.52 times

H4 supported – effects of spouse career support on turnover were partially mediated by WIF

H5 supported – effects of WIF on turnover were partially mediated by job satisfaction

Spouse career support decreased the odds of turnover; work interfering with family and job satisfaction sequentially mediated the relationship with lower WIF and higher job satisfaction reducing the odds of turnover

Confirmed important role of spouse career support in turnover decisions i.e. spouse attitudes important to employee attitudes;
higher spouse support led to reduced likelihood of leaving military up to four years later; some relationship of spouse career support with turnover was indirect through a reduction of WIF and enhancement of job satisfaction; direct effect of spouse support on turnover still remained however; exploratory analysis revealed parental status moderated WIF-turnover relationship in that those without children were more likely to leave than those with children; men and women equally likely to leave as a function of WIF; WIF relates to turnover both directly and indirectly through reduced job satisfaction; job satisfaction was a key mechanism through which WIF relates to turnover

**Implications for practice**

Relevance of non-work variables on turnover, indicating need to include both spouse career support and WIF in any turnover models; benefit from retention efforts that include spouses as well as employees; invest in policies that benefit families and market them directly to spouses e.g. websites for one-stop access to information; make sure well-informed about what organisation does for families; hosting family friendly social events; investment in strategies to reduce WIF benefit in long term by retention of top talent

**Future research**

Explore whether WIF affects turnover at both shorter and longer time lags to understand how influence of non-work variables on turnover unfolds over time; additional insight into how variables from family domain relate to employee turnover; how spouse support and WIF relate to other forms of work withdrawal behaviour e.g. absenteeism, tardiness; examine whether work to family enrichment can reduce the odds of turnover; extend model to explore degree to which spouse career support is associated with experiences of family to work enrichment

**Limitations**

US military officers, so generalisability unknown; benefits package may influence extent non-work factors relate to turnover by providing a strong incentive to remain until retirement; use of archival data meant measure not commonly used in literature; omission of variables tapping into positive forms of work-family spillover e.g. work-family enrichment

**Table Q2**

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<tr>
<th>Study Characteristics</th>
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<td>Study design</td>
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<td></td>
</tr>
<tr>
<td>Inclusion criteria</td>
<td>Primary research; spouses; work-family conflict; psychological distress</td>
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<tr>
<td>Country &amp; Service</td>
<td>Netherlands; Netherlands military (Army, Navy, Air Force, Police)</td>
<td>282, 277</td>
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<tr>
<td>Aim</td>
<td>What is the extent of psychological distress reported by spouses over a deployment, and how can the distress be explained</td>
<td>272</td>
</tr>
<tr>
<td>Background</td>
<td>Stressors families face in the course of deployments relate to isolation, powerlessness, ambiguity; soldiers’ and families’ well-being is presumed to affect organisational outcomes like morale, readiness and retention, and improve relationships; knowledge regarding how stressors evolve over time is limited; unclear if psychological distress associated with deployment of military personnel can be uniquely associated to either work-related factors or non-work related factors (i.e. WFC/FWC)</td>
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<tr>
<td>Literature covered</td>
<td>Psychological distress; work-family conflict (focus on job demand interfering with family life); life stress; social isolation</td>
<td>271-272</td>
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<tr>
<td>Hypotheses</td>
<td>H1: Earlier states of psychological distress among partners of military personnel are predictive of later states of psychological distress among partners</td>
<td></td>
</tr>
<tr>
<td></td>
<td>H2a: Interference of military job demands with family life positively affects partners psychological distress within time frames</td>
<td></td>
</tr>
<tr>
<td></td>
<td>H2b: Interference of military job demands with family life positively affects partners psychological distress over time</td>
<td></td>
</tr>
<tr>
<td></td>
<td>H3a: Life stress among partners of military personnel positively affects psychological distress among partners within time</td>
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</tr>
</tbody>
</table>

272-275
H3b: Life stress among partners of military personnel positively affects psychological distress among partners over time

H4a: Social isolation among partners of military personnel positively affects psychological distress among partners within time frames

H4b: Social isolation among partners of military personnel positively affects psychological distress among partners over time

H4c: Social isolation among partners of military personnel moderates the effect of work-family conflict on psychological distress

H4d: Social isolation among partners of military personnel moderates the effect of life stress on psychological distress

Method
Data taken from a longitudinal study of military families; questionnaires administered over three time points (time 1 approximately one month prior to deploying; time 2 mid way through; time 3 three months after returning)

Sample
Partners of deployed personnel; time 1 (N = 867) 453 completed questionnaires at time 1 (response rate 52%); time 2 (N = 832) 386 completed (response rate 46%); time 3 (N = 635) 235 completed (response rate 37%); majority female (97.4%, 97.1%, 97.9%), married (58.8%, 57.2%, 61.4%), with children (57%, 57.2%, 61.1%), employed (85.1%, 86.1%, 84.7) with spouses in the Army (90.9%); average age 33 years (M 32.9; SD 9.35); in relationship for about 11 years (M 11; SD 8.53); spouse been in military for around 14 years (M 14.5; SD 9.23)

Measures
Psychological distress: 12 item General Health Questionnaire (Goldberg, 1992); e.g. ability to concentrate, worry, strain, feeling of unhappiness or distress; α T1 .84, T2 .84, T3 .85

Work-family conflict: 5 item scale (Netemeyer, Boles & McMurrian, 1996) – slightly modified (don’t state what modification was); e.g. demands of my partners work interfere with my home and family life; α T1 .87, T2 .86, T3 .86

Life stress: Adapted 16 items from Holmes and Rahe (1967); asked if had experienced 16 life stressors e.g. divorce, death, personal injury; α n/a
Social isolation: Adapted four items of the UCLA loneliness scale (Russell, 1996); e.g. how often do you feel alone; α T1 .61, T2 .61, T3 .69

**Results**

H1, H2a, H2b, H3a, and H4a were supported; H3b, H4b, H4c, and H4d were not supported.

Moderately significant effect of time on psychological distress, large effect of time on social isolation; differences in work-family conflict or life stress ratings across time were not statistically significant.

Psychological distress at T1 predicted ratings at T2 and T3; ratings at T2 predicted ratings at T3 – supporting H1.

Higher levels of work-family conflict, life stress and social isolation at T1 associated with higher levels of psychological stress and social isolation at T1 – supporting H2a, 3a, 4a.

Higher levels of work-family conflict at T1 predicted higher levels of psychological distress at T3 – supporting H2b.

Higher levels of social isolation at T3 were associated with higher levels of psychological distress at T3 – supporting H4a.

Life stress and social isolation in early stages were not predictive of psychological distress at later stages (contrary to H3b & 4b); no moderating effects of social isolation on the relationship between work-family conflict or life stress and psychological stress (i.e. H4c & 4d).

Stressful life events, job interfering with family, feeling socially isolated contributed to feeling psychologically distressed to some extent.

Higher levels of work-family conflict before and during deployment were significantly associated with higher levels of psychological distress; work-family conflict before the separation also predicted levels of psychological distress afterward; no significant changes were found in levels of life stress or work-family conflict over time, so deployments between 4 and 6 months did not generate fluctuations in the perception that military job demands interfered with family life.

**Implications for practice**

Importance of partners of military personnel not becoming isolated; interventions aimed at improving social connectedness, raising awareness in society will benefit well-being of families; underlines importance of fostering balance between work and...
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<th>Family life</th>
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<tr>
<td><strong>Future research</strong></td>
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<td><strong>Limitations</strong></td>
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<td>Aim</td>
<td>To assess within-person changes over time in employees’ work-family conflict experiences, relationship satisfaction and turnover intentions; examine the interrelations between these variables over the course of a project that requires family separation</td>
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<tr>
<td>Background</td>
<td>Rising number of dual-earning families introducing new challenges for balancing work and family life; conflict arises when work and family demands are incompatible; military separations impose pressures on employees and families; work-family experiences in the course of job-induced separation have rarely been studied (except by Westman et al., 2008) and rely on cross-sectional designs; using a longitudinal design to give insight into interrelations between work-family conflict and work (i.e. turnover) and non-work (i.e. relationship satisfaction) over time</td>
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<tr>
<td>Hypotheses</td>
<td>1: Are there any significant changes in work-family conflict, relationship satisfaction, and turnover intentions over the course of a project-oriented assignment abroad?</td>
</tr>
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<td>2: How do work-family conflict, relationship satisfaction, and turnover intentions interrelate over the course of a project oriented assignment abroad?</td>
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Method
Data part of a larger research project collected from employees of Dutch Armed Forces; personnel deployed abroad for 4-6 months with a partner registered; only those in committed relationship included.

Sample
Military personnel; 867 questionnaires sent at time 1 (1 month before); time 2 questionnaire sent 3 months after returned home, reduced sample of 635 once removed those not wishing to participate, cancelled deployments, dissolved relationships; 303 filled out at time 1 (response rate 35%), 183 at time 2 (response rate 29%); predominantly male, only 4% female; average age 35 years (SD 9.16); length of service average 15 years (SD 9.23); 55% married.

Measures
Mainly validated scales but also some self-constructed items.

Work-family conflict: Work-family conflict scale (Netemeyer et al., 1996), 5 items assess degree to which job demands interfere with family responsibilities e.g. the demands of my work interfere with my home and family life, the amount of time my job takes up makes it difficult to fulfill family responsibilities; Time 1 α .85 Time 2 α .90

Relationship satisfaction: ENRICH Marital satisfaction scale (Fowers & Olson, 1993) e.g. I am very happy about how we make decisions and resolve conflicts, I am very happy with how we manage our leisure activities and the time we spend together; Time 1 α .83, time 2 α .88

Turnover intentions: three items often used (I often think about quitting; I will probably look for a new job in the new year; I would like to stay in this organisation until I retire), time 1 α .80, time 2 α .86

Results
Levels of work-family conflict were not significantly different between time points; levels of relationship satisfaction decreased over time points; levels of turnover were significantly higher after the assignment compared to before; Higher levels of work-family conflict are associated with lower levels of relationship satisfaction and higher levels of turnover intentions before and after the assignments.

Work-family conflict experiences before also predict levels of relationship satisfaction and turnover intentions afterwards; relationship satisfaction and turnover intentions are not significantly related to one another; both relationship satisfaction and turnover intentions are associated with work-family conflict experiences before and after the assignment, and that turnover at
time 1 predict levels of work-family conflict at time 2; no evidence was found regarding moderating effects of the variables

Most interesting finding was reciprocal nature of the relationship between work-family conflict and turnover intentions; findings demonstrate this relation cannot solely be viewed as unidirectional as turnover intentions also seem to influence work-family conflict experiences – those thinking about leaving more likely to report work interfering with family life; thinking about quitting may result in detaching from work, resource loss, source of stress making more vulnerable to experiencing work-family conflict

Work-family conflict was significantly and equally strong associated with relationship satisfaction

| Implications for practice | Tensions between work and family life are neither beneficial for families not for organisations; work environments and interventions aimed at allowing individuals to adequately apply resources in the work and family domain minimising tensions between the work and family demands hence reducing strain in the family domain and thoughts about quitting the job are imperative. Providing good communications with the home front during participation in a project abroad, providing social support, creating supportive and family-friendly cultures and opportunities for employees to have more time for non-work activities; free time and time with loved ones at least prior to and after assignment abroad; family-friendly environments shown to benefit employee well-being and organisational outcomes including retention. Employees less satisfied with relationships and who already think about quitting before the project are likely to feel this way afterwards; nonetheless, relationship satisfaction decreased and turnover intentions increase significantly in the course of the assignment. | 758 |
| Future research | Understanding dynamics between work family conflict and turnover longitudinally; focus on gender differences; replicate study with non-military related separations | 758 |
| Limitations | Mostly men; military personnel only; issue of attrition related to longitudinal research | 758 |

<table>
<thead>
<tr>
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<td>Inclusion criteria</td>
<td>Primary research; spouses; work-family conflict; relationship satisfaction</td>
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<td>Country &amp; Service</td>
<td>Netherlands; no specific Service stated</td>
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<tr>
<td>Aim</td>
<td>To enhance understanding of how relationships develop over the course of job-induced separations and what factors best predict relationship satisfaction after being separated for several months</td>
<td>23</td>
</tr>
<tr>
<td>Background</td>
<td>Job-induced separations as inevitable part of military life; how these require family restructuring and adjustments from spouses and children; on return challenges include getting back into shared routine and redefining boundary from individual to couple; research indicates nonstandard work schedules particularly with children more likely to experience work-family conflict and marital instability; military induced separations negatively related to relationship outcomes although some found this not to be the case; interested in examining factors that influence satisfaction</td>
<td>22-23</td>
</tr>
<tr>
<td>Literature covered</td>
<td>Greedy institutions; role conflict theory; work-family conflict shown to be associated with work/non-work related outcomes; family stress and resilience theory</td>
<td>23</td>
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<tr>
<td>Hypotheses</td>
<td>H1: Higher levels of work-family conflict in the course of military-induced separations are related to lower levels of relationship satisfaction afterward</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>H2: Higher levels of stress produced by stressful life events in the course of military-induced separations are related to lower levels of relationship satisfaction afterward</td>
<td></td>
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<tr>
<td></td>
<td>H3: Higher levels of available social support in the course of military-induced separations are related to higher levels of</td>
<td></td>
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</tbody>
</table>
relationship satisfaction afterward

H4: Higher levels of psychological distress in the course of military-induced separations are related to higher levels of relationship satisfaction afterward

H5: The effects of work-family conflict, life stress, social support, and psychological distress on spouses’ relationship satisfaction are mediated by spousal interaction

Method
Data part of a more extensive longitudinal study among military families; panel research design comprehending preparation, separation and reconciliation phases associated with deployments (4-5 month time lag between each data wave); focussed on data collected among married/cohabiting spouses of deployed military personnel; 1 month before, midway, and 3 months after

Sample
153 spouses complete all questionnaires; all female; mean age = 34 (SD = 8.92); in long-term relationships average length 12 years (SD = 8.10); mean length of military spouses service 15.5 years (SD = 8.58); 64% married; 63% children; 82% employed

Measures
Most variables assessed at three time points except relationship satisfaction (Time 1 & 3) and spousal interactions (Time 2 & 3)

Relationship satisfaction before and after separation (Fowers & Olson, 1993): ENRICH Marital Satisfaction Scale, $\alpha > .80$; assesses satisfaction with different aspects of the relationship

Spousal interactions during and after assessed: self-constructed items - I share my experiences with my spouse; I ask how my spouse feels; I try to discuss things I feel sore about; $\alpha > .60$;

Social support: seven items adapted from Social Provisions Scale (Cutrona & Russell, 1987) e.g. there are people I can depend on to help me if I really need it; $\alpha .64-.77$

Psychological distress: Dutch version of 12 items General Health Questionnaire (Goldberg, 1992) $\alpha .84-85$; examines worry, stress, feelings of unhappiness or distress

Life stress: 16 items adapted from Holmes & Rahe (1967); assesses experiences with different life stressors such as personal
injury, death of a close family members, changes in living/working conditions; 16 items chosen from larger set of life stressors

Work-family conflict: Work-family conflict scale  (Netemeyer, Boles & McMurrian, 1996); 5 items measuring degree to which job demands intefere with family life; $\alpha .85$ & $.88$;

Results  
H 1, 3, 4, and 5 were supported but effects differed for each stage of separation; H2 was not supported by the data

Spouses who were less satisfied with their relationships before separation were likely to feel that way afterward

Higher levels of work-family conflict before the separation predicted lower levels of relationship satisfaction afterward;  
Higher levels of social support during the separation significantly predicted higher levels of relationship satisfaction afterward

Higher levels of psychological distress after the separation were significantly associated with lower levels of relationship satisfaction afterwards; spousal interaction after the separation partly mediates the effect of psychological distress on relationship satisfaction after military-induced separation

Levels of relationship satisfaction among spouses decreased over the course of 4-6 months separation – military induced separations more likely to adversely affect intimate relationships than to have a positive impact. Most important predictor of relationship satisfaction after separation was relationship satisfaction before

Implications for practice  
Services to focus on balancing work and family demands before separation; given adverse effects of work-family conflict before separation on spouses’ relationship satisfaction afterward, services might focus on fostering balance between work and family life including quality time before, managing plans and expectations; during the separation build appropriate and lasting support networks; close communication after being separated important for satisfying relationships

Future research  
Relationship satisfaction was an outcome variable in this study, however relationships between variables may be bidirectional e.g. individuals who experience relationship problems are more likely to feel distressed, this should be explored

Limitations  
Only female sample so couldn’t explore gender differences; relatively small sample (unsure of population size to determine whether the findings could be generalised)
Table Q5


<table>
<thead>
<tr>
<th>Study Characteristics</th>
<th>Data Extracted</th>
<th>Page</th>
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</thead>
<tbody>
<tr>
<td>Study design</td>
<td>Quantitative; Cross-sectional; Questionnaire</td>
<td>89</td>
</tr>
<tr>
<td>Inclusion criteria</td>
<td>Primary research; Military; work-home conflict; family satisfaction with military life; turnover</td>
<td>85</td>
</tr>
<tr>
<td>Country &amp; Service</td>
<td>United States Air Force</td>
<td>85</td>
</tr>
<tr>
<td>Aim</td>
<td>To examine work and family influences on military officers retention decisions due to an increase in voluntary turnover following a transformation process; replicate Greenhaus et al. (1997) study</td>
<td>85</td>
</tr>
<tr>
<td>Background</td>
<td>Little research suggested to be done on effects of family on turnover, particularly in military; conflict between family and work traditionally known as work-family conflict, but authors used work-home conflict definition (Greenhaus et al. 1997); high levels of work-home conflict leads to lower satisfaction with job, life, marriage, family (e.g. Hammer, Bauer, &amp; Grandey, 2003); acknowledge the mutually reinforcing role can also have, but focus on non-supporting relationship between work and home</td>
<td>86</td>
</tr>
<tr>
<td>Literature covered</td>
<td>Turnover; work-home conflict; military turnover; modified model of turnover; marital status; parental status</td>
<td>86-89</td>
</tr>
<tr>
<td>Hypotheses</td>
<td>1. WHC will account for variance in turnover intention beyond that accounted for by work overload, advancement expectations, and stress such that effects on turnover intention will be greater for participants who report higher levels of WHC</td>
<td>88-89</td>
</tr>
<tr>
<td></td>
<td>2. Work overload and family involvement will positively affect WHC, whereas family satisfaction with military life will negatively affect WHC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Controlling for work overload and advancement expectations, family satisfaction with military life will moderate the</td>
<td></td>
</tr>
</tbody>
</table>


relationship between WHC and turnover intention such that the interaction between family satisfaction with military life and WHC will decrease turnover intentions.

4. Parental status will positively affect WHC such that married divorced, legally separated, or widowed individuals with children living at home will report a higher level of WHC than married, divorced, legally separated, or widowed individuals with no children living at home.

**Method**

109 item questionnaire; internet survey sent via email; stated anonymity, voluntary nature, report at the group level.

**Sample**

Military; Company Grade Officers (2nd lieutenants, 1st lieutenants, Captains); 1-8 years’ service; three bases; total population $N = 251$; 84 attempted survey, $n = 75$ provided usable data resulting in 29.9% response rate from convenience sample; two questionnaires attempted were missing, seven completed by enlisted personnel; typical participant was married ($n = 45$), 30-year old ($n = 74$, $SD = 6.26$) man with length of service of approximately 7 years ($n = 75$, $SD = 5.58$); male & female (majority male, but $n$ not specified).

**Measures**

Work experiences:

- Work overload (Greenhaus et al. 1997) e.g. I am responsible for too many activities, there is not enough time to do my work, $\alpha .94$;
- Career development opportunities (Greenhaus et al. 1997) for example, frequency experience a form of career developmental support such as assistance on career planning, coaching etc., $\alpha .72$;
- Advancement aspirations modified, single item used by Greenhaus et al (1997); do you want to eventually be promoted to Lt Col or higher in the US Air Force $\alpha n/a$
- Advancement expectations (Greenhaus et al. 1997)

Family responsibilities:

- Family involvement (Greenhaus et al. 1997) e.g. I am very much personally involved in my family, $\alpha .78$;
- Perceived family satisfaction with military life (2 items written for study) – how happy their families are with military
life, how satisfied they would say their families are with military life α .92

Work-home conflict (Carlson et al., 2000) α .86; turnover intention (Greenhaus et al., 1997) α .84

Individual characteristics: Gender, marital status, parental status, ages of children living at home

Results

H1: Not supported

H2: Increase in work overload would correspond to increase in the level of WHC and an increase in family satisfaction with military life would correspond to a decrease in the level of WHC

H3: Not supported

H4: Not supported

No direct influence of WHC on turnover; family satisfaction significant predictor of WHC; interaction between WHC, family satisfaction significant predictor of turnover, even though WHC itself was not (perceived higher levels of family satisfaction with military life leads to lower WHC); higher perceived family satisfaction with military life linked to lower levels of turnover intention; work-related experiences did not influence turnover intentions; family satisfaction with military life affected retention decisions; as family satisfaction with military life improved, military person more positive and willing to remain in the service

Implications for practice

Military life satisfaction influences retention decisions; family satisfaction considered more than own work related attitudes

Future research

Sample from a larger population to include enlisted members; comparisons between officer and enlisted; include families of personnel including partners, spouses and children; longitudinal study to explore the turnover intention process; potential for family satisfaction to explain previously unaccounted for variance in turnover and WHC

Limitations

Small sample size; self-report measures

<table>
<thead>
<tr>
<th>Study Characteristics</th>
<th>Data Extracted</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study design</td>
<td>Quantitative; Cross-sectional; Questionnaire using secondary analysis</td>
<td></td>
</tr>
<tr>
<td>Inclusion criteria</td>
<td>Secondary research; Military &amp; spouse; work-family conflict; job and family stressors</td>
<td></td>
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<tr>
<td>Country &amp; Service</td>
<td>United States; Air Force</td>
<td></td>
</tr>
<tr>
<td>Aim</td>
<td>Examination of antecedents of WFC and FWC and the crossover of the experience of WFC and FWC from one spouse to the other</td>
<td>1942</td>
</tr>
<tr>
<td>Background</td>
<td>Studies of career families demonstrated women who are gainfully employed continue to carry a larger share of the burden of functions to maintain household; work-family conflict dominant phenomenon in current research in work and family domain; potential for conflict between demands of work and family higher in lives of women who have a demanding career such as serving in the Armed Forces; military jobs characterised by stressors such as being away, conflicts between responsibilities, or significant changes such as divorce, birth, illness; little research exploring impact of stress of military career on women and family; men also suffer from WFC and even more so if wife has demanding career too; impact of social support can reduce perceived WFC i.e. social support at work relates to lower WFC, higher family support related to lower FWC; extending unit of analysis from individual to couple provides more comprehensive understanding</td>
<td>1936-1942</td>
</tr>
<tr>
<td>Literature covered</td>
<td>Work-family and family-work conflict; job and family stressors; social support; systems approach regarding crossover effects</td>
<td></td>
</tr>
<tr>
<td>Hypotheses</td>
<td>H1: Job and family stressors will be positively related to WFC and FWC among women in US Army, as well as among their husbands</td>
<td>1938-1941</td>
</tr>
<tr>
<td></td>
<td>- H1a: Job stressors will be positively related to WFC</td>
<td></td>
</tr>
</tbody>
</table>
- H1b: Family stressors will be positively related to FWC

H2: Family support, supervisor support and co-worker support will have a moderating effect on the relationship of job and family stressors with WFC and FWC

H3: There will be a bidirectional direct crossover of WFC from one spouse to the other

Method
Secondary analysis of data collected by Vinokur et al (1999); stratified sample ($N = 638$ women) of which 525 were located, with a subset corresponding to marital status used to further define the sample

Sample
Subset of those located, $n = 220$ married women and their spouses; women’s length of service mean 9.3 years ($SD = 5.11$); 44% of the couples had children; mean age 34.3 years for women and 36.3 years for men

Measures
Demographics: age, education, marital status, number of children, occupation, and military status

Job stress: 20 item scale (Frone et al., 1992), items related to work overload, lack of autonomy, role ambiguity e.g. how often do you have too much work to do; $\alpha .82$ for women and men

Family stress: 4 items (Frone et al., 1992) relating to degree of tension or resentment in relationship e.g. how often do you feel that your spouse is making too many demands on you; $\alpha .70$ for women, $\alpha .75$ for men

Work-family conflict & Family-work conflict: Two scales developed by Frone et al. (1992);
- WFC two items assessing frequency with which respondents job interfered with family life e.g. how often does your job or career keep you from spending the amount of time you would like to spend with your family, $\alpha .84$ for men and women;
- FWC two items assessing frequency with which home life interfered with work life e.g. how often does your family keep you from spending the amount of time you would like to spend on the job $\alpha .76$ for women, $\alpha .70$ for men

Spouses social support: 10 items (House, 1981) assess the extent to which person feels spouse grants support e.g. listens,
provides direct help; α .95 for women and α .92 for men

Coworkers support: 5 items (House, 1981) assess extent to which person feels coworkers grant them support e.g. provide you with encouragement, give you useful information; α .89 women and men

Supervisors support: 5 items (House, 1981) assess extent to which a person feels supervisor grants them support e.g. provide you with encouragement, give you useful information; α .92 for women and α .89 for men

Results

Positive relationships between job stress and WFC, and family stress and FWC for both husbands and wives; relationship between WFC and FWC were positive for both husbands and wives; for wives, spouses support was related negatively to job and family stress and to FWC but not to WFC; for wives supervisors and co-workers support were negatively related to their job stress; for husbands, spouses support was related negatively to job and family stress, supervisors and co-workers support were related negatively to their job stress

H1: regarding WFC supported for women, partly for men, and regarding FWC partly supported for men and women; wives – job and family stressors predicted WFC; Husbands job stress but not family stress related to WFC; wives – family stress to FWC, no contribution of job stress; husbands – job stress to FWC but no contribution of family stress

H2: buffering effect of husbands social support on the relationship between wives job stress and WFC; interaction between job stress and husbands support was significant, thus the relationship between job stress and WFC was weaker for wives perceiving the social support they get from their husbands as high than for those perceiving their husbands as giving them a low amount of support; interactions between wives support and job and family stress buffered the relationship between job and family stress and FWC and added to the explained variance in husbands WFC; significant interactions indicate that spouses social support explained an additional unique portion of the variance in the WFC of husbands beyond that explained by main effects of stress and social support; wives social support buffered the relationship between family stress and WFC for the husbands, the higher they perceived their wives support, the lower was the relationship of husbands family stress and WFC; higher the spouses support, the stronger the relationship between husbands job stress and WFC; relationship of job stress and FWC changed according to the level of supervisors support i.e. the higher the support, the stronger the relationship between job stress and FWC; H2 was partly supported

H3: significant bidirectional crossover of WFC from wives to husbands and from husbands to wives; same bidirectional
crossover of FWC found from husbands to wives and wives to husbands; H3 supported

Job stressors positively related to WFC in both partners, whilst family stressors were related to WFC only among wives, highlighting link between gender and WFC perceptions; women able to benefit from husbands social support to buffer the effect of their job stress, but not family stress on their experience of WFC; for husbands, the support received from spouse concerning job issues increased the relationship between their job stress and WFC, so husbands reactions to wives support concerning job issues are negative; found both buffering and reverse buffering effects of social support, and in some cases non-significant interactions

<table>
<thead>
<tr>
<th>Implications for practice</th>
<th>None; do suggest understanding the processes will contribute to design of preventative interventions to counter their effects, but no real implications for practice noted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Future research</td>
<td>Future crossover studies should incorporate crossover processes of positive affect and related experiences; expand source domain to others in one work and family life who may impact in way respond to work-family issues e.g. supervisors, co-workers, family members</td>
</tr>
<tr>
<td>Limitations</td>
<td>Cross-sectional design; composition of sample limits generalisability of results</td>
</tr>
</tbody>
</table>

1952

1952-1953

1953
Table Q7


<table>
<thead>
<tr>
<th>Study Characteristics</th>
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<td>Study design</td>
<td>Quantitative; Cross-sectional; Questionnaire</td>
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<tr>
<td>Inclusion criteria</td>
<td>Primary research; military and spouses; work-family conflict; work and family related outcomes</td>
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<tr>
<td>Country &amp; Service</td>
<td>United States; Army (Guard &amp; Reserve units)</td>
</tr>
<tr>
<td>Aim</td>
<td>To develop and test a model including direct and indirect relations, through WFC, of Optempo on family and Army outcomes</td>
</tr>
<tr>
<td>Background</td>
<td>Increased optempo and demographic changes in military personnel, including increased married, dual-earner couples, and parents; effect of increasing potential for demands to conflict with family demands; working conditions surrounding increase optempo has direct negative relations with family/work related outcomes; working conditions related to family/work related outcomes; most posit that in addition to direct relations, working conditions also have indirect relations with outcomes through their effect on work-family conflict</td>
</tr>
<tr>
<td>Literature covered</td>
<td>Work family conflict; direct relations between working conditions and WFC; direct relations between WFC and outcomes; indirect effects of working conditions</td>
</tr>
<tr>
<td>Hypotheses</td>
<td>Optempo is hypothesised to have both direct and indirect relations (through WFC) on family and Army outcomes</td>
</tr>
<tr>
<td>Method</td>
<td>16 page questionnaire; same questionnaire across samples with minor word changes</td>
</tr>
<tr>
<td>Sample</td>
<td>Military; non-deployed soldiers; $N = 2486$; convenience sample during Umbrella week 1 (week to allow researchers access to soldiers); subsample identified as married taken $n = 1384$; age 18-63 ($M = 33.44, SD = 9.97$); 92% male; 74% had children living at home; 70% had working spouses</td>
</tr>
</tbody>
</table>
Spouses; based on soldier sample; $n = 709$; age 18-69 ($M = 35.10$, $SD = 9.79$); 91% women; 79% had children living at home; 66% employed

**Measures**

Demographics

Working conditions: four items developed for this study, used as individual indicators of working conditions associated with Op tempo; during the past 12 months how many months have you been away overnight from home due to training, field exercises or deployments; how predictable are you duty hours; how stressful are these military separations to you; I spend too much time away from my family home because of the Army

Work family conflict: five items developed by Netemeyer, Boles & McMurrian (1996), reflect time and strain-based WFC in terms of work interfering with family; e.g. things I want to do at home do not get done because of the demands of my job, my job produces strain that makes it difficult to fulfil my family duties; (military $\alpha = .90$; spouses $\alpha = .91$)

Family related outcomes: three measures developed at Walter Reed Army Institute for Research;

- Eight item measure of family functioning (to what extent experienced the following: job-related problem, emotional or nervous problem, drug or alcohol problem, marital problem, childcare problem, financial problem, family violence, parenting difficulty; composite score);
- Two single measures for family outcomes (frequency of conflict in marriage/relationship; satisfaction with marriage/relationship)

Work related outcomes: three items developed for this study to assess attitudes towards the Army (e.g. talk up Army as great place to live; no point staying with Army; rate quality of life); each item treated as an individual indicator of work outcomes

**Results**

Working conditions surrounding Op tempo had a significant negative relation with Army outcomes and significant positive relation to WFC (i.e. higher working conditions surrounding Op tempo were related to lower Army outcomes and higher WFC); contrary to expectations direct relation between working conditions surrounding Op tempo and family outcomes was non-significant; WFC had significant relation with family outcomes, but not Army outcomes; Relation of Op tempo to Army outcomes is direct, its relation to family outcomes is an indirect one through its relation with WFC
Across both samples working conditions associated with optempo had direct relation to Army outcomes (not family), and an indirect relation through WFC to family outcomes.

For family outcomes the relation of optempo was indirect and occurred through its relation with WFC; specifically time demands and affective reactions associated with optempo were related to both amount of WFC and attitudes about the Army reported by soldiers and spouses.

Non-significant path found between WFC and Army outcomes suggest WFC is not the primary mechanism linking optempo to attitudes towards the Army.

Conversely, the time demands and affective reactions associated with optempo had an indirect relation with family outcomes (such as marital satisfaction or conflict, family functioning) through WFC, suggests that WFC may indeed be the primary mechanism linking optempo to family outcomes.

<table>
<thead>
<tr>
<th>Implications for practice</th>
<th>Working conditions surround deployments and WFC should be primary target for interventions; continue programs, policies and services in place to help WFC, but also ensure soldiers and spouses use and benefit from them</th>
</tr>
</thead>
<tbody>
<tr>
<td>Future research</td>
<td>Use longitudinal designs before, during and after; use of behaviour measures not self-report measures; testing a more complete model of the work-family interface e.g. family conditions; potential moderators of relation between work and family domains once more complete theoretical understanding between military work and family domains</td>
</tr>
<tr>
<td>Limitations</td>
<td>Cross sectional; convenience sample; way Army outcomes were operationalised; measures consisted of attitudinal statement only</td>
</tr>
</tbody>
</table>

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Appendix R

Questionnaire Items

Ethos
1. I understand the values and standard of the RN/RM
2. The ethos of the RN/RM is an important part of life in the RN/RM
3. The RN/RM ethos is important to me

Identity
1. I see myself as a member of the RN/RM
2. I feel strong ties with members of the RN/RM
3. I am pleased to be a member of the RN/RM
4. I identify with other members of the RN/RM

Career Motivation
1. I have clear goals
2. I am able to adapt to changing circumstances
3. I define myself by my work
4. I have realistic career goals
5. I am loyal to the RN/RM
6. I am willing to take risk (actions with uncertain outcomes)
7. I work as hard as I can, even if it means frequently working long days and weekends
8. I know my strengths (the things you do well)
9. I am proud to work for the Rn/RM
10. I welcome job and organisational changes (e.g. new assignments)
11. I am involved in my job
12. I know my weaknesses (the things you are not good at)
13. I can handle any work problems that come my way
14. I see myself as a professional and/or technical expert
15. I recognise what I can do well and cannot do well
16. I look forward to working with new and different people
17. I believe that my success depends upon the success of the RN/RM

**Engagement**

1. At my work I feel bursting with energy
2. I am enthusiastic about my job
3. I feel happy when I am working intensely
4. At my job, I feel strong and vigorous
5. My job inspires me
6. I am immersed in my work
7. When I get up in the morning, I feel like going to work
8. I am proud of the work that I do
9. I get carried away when I am working

**Focus on Opportunities**

1. Many opportunities await me in my work-related future
2. I expect that I will set many new goals in my work-related future
3. My work-related future is filled with possibilities
4. I could do anything I want in my work-related future

**Intentions to Remain**

1. I intend to stay in the RN/RM as long as I can

**Career Anchors**

1. I aspire to be so good at what I do that my expert advice will be sought continuously
2. I am most fulfilled in my work when I have been able to integrate and manage the efforts of others

3. I aspire to have a career that will allow me the freedom to do a job my own way and according to my own schedule

4. Security and stability are more important to me than freedom and independence

5. I am always on the lookout for ideas that would permit me to start my own business

6. I will feel successful in my career only if I have a feeling of having made a real contribution to the welfare of society

7. I aspire to have a career in which I can solve problems or win out in situations that are extremely challenging

8. I would rather leave my organisation than be placed in a job that would compromise my ability to pursue personal and family concerns

9. I will feel successful in my career only if I can develop my technical or functional skills to a very high level of competence

10. I aspire to be in charge of a complex organisation and to make decisions that affect many people

11. I am most fulfilled in my work when I am completely free to define my own tasks, schedules and procedures

12. I would rather leave my organisation altogether than accept an assignment that would jeopardize my security in that organisation

13. Building my own business is more important to me than achieving a high-level managerial position in someone else’s organisation

14. I am most fulfilled in my career when I have been able to use my talents in the service of others

15. I will feel successful in my career only if I face and overcome very difficult challenges

16. I aspire to have a career that will permit me to integrate my personal, family and work needs

17. Becoming senior specialist management in my area of expertise is more attractive to me than being general management level
18. I will feel successful in my career only if I reach a general management level in some organisation
19. I will feel successful in my career only if I achieve complete independence and freedom
20. I seek jobs in organisations that will give me a sense of security and stability
21. I am most fulfilled in my career when I have been able to build something that is entirely the result of my own ideas and efforts
22. Using my skills to make the world a better place to live and work in, is more important to me than achieving a high-level managerial position
23. I have been most fulfilled in my career when I have solved seemingly unsolvable problems or won out over seemingly impossible odds
24. I feel successful in my life only if I have been able to balance my personal, family and career requirements
25. I would rather leave my organisation than accept a rotational assignment that would take me out of my area of expertise
26. Becoming general management is more attractive to me than becoming senior specialist management in my current area of expertise
27. The chance to do a job my own way, free of rules and constraints, is more important to me than security
28. I am most fulfilled in my work when I feel that I have complete financial and employment security
29. I will feel successful in my career only if I have succeeded in creating or building something that is entirely my own product or idea
30. I aspire to have a career that makes a real contribution to humanity and society
31. I seek out work opportunities that strongly challenge my problem-solving and/or competitive skills
32. Balancing the demands of personal and professional life is more important to me than achieving a high level managerial position
33. I am most fulfilled in my work when I have been able to use my specialist skills and talents
34. I would rather leave my organisation than accept a job that would take me away from a general management track

35. I would rather leave my organisation than accept a job that would reduce my independence and freedom

36. I aspire to have a career that will allow me to feel a sense of security and stability

37. I aspire to start up and build my own business

38. I would rather leave my organisation than accept an assignment that would undermine my ability to be of service to others

39. Working on problems that are almost unsolvable is more important to me than achieving a high level managerial position

40. I have always sought out work opportunities that would minimize interference with personal or family concerns
Appendix S

H1a Statistics

Table S1
Identity and Ethos Respectively Predicting Career Motivation

<table>
<thead>
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<th>Variable</th>
<th>Career Motivation</th>
</tr>
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<tr>
<td></td>
<td>Model B</td>
</tr>
<tr>
<td>Constant</td>
<td>2.476</td>
</tr>
<tr>
<td>Identity</td>
<td>.445**</td>
</tr>
<tr>
<td>R²</td>
<td>.422</td>
</tr>
<tr>
<td>F</td>
<td>471.278**</td>
</tr>
</tbody>
</table>

| Ethos | 2.479 | [2.281, 2.677] |
| R²    | .444** | [.405, .483] |
| F     | 499.220**|

Note. CI = confidence interval
** p<.01

Table S2
Ethos and Identity Combined Predicting Career Motivation

<table>
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</tr>
</thead>
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<tr>
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<tr>
<td>Ethos</td>
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<tr>
<td>R²</td>
<td>.462</td>
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<tr>
<td>F</td>
<td>499.220**</td>
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<td>ΔR²</td>
<td>.026</td>
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<tr>
<td>ΔF</td>
<td>31.189</td>
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</table>

Note. CI = confidence interval
** p<.01
### Table S3
Ethos and Identity Predicting Career Motivation Split by Arm Respectively

<table>
<thead>
<tr>
<th>Arm</th>
<th>Variable</th>
<th>Career Motivation Model</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td></td>
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<td>$B$</td>
<td>95% CI</td>
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<td>Constant</td>
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<td>[1.769, 2.653]</td>
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<td></td>
<td>Ethos</td>
<td>.287**</td>
<td>[.130, .443]</td>
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<td></td>
<td>Identity</td>
<td>.205*</td>
<td>[.038, .371]</td>
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<td></td>
<td>$R^2$</td>
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<td></td>
<td>$F$</td>
<td>60.485</td>
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<td>Submarines</td>
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<td>[2.048, 2.867]</td>
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<tr>
<td></td>
<td>Ethos</td>
<td>.202**</td>
<td>[.073, .331]</td>
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<tr>
<td></td>
<td>Identity</td>
<td>.248**</td>
<td>[.118, 3.78]</td>
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Note: CI = confidence interval  
* $p<.05$; ** $p<.01$
Table S4
Ethos and Identity Predicting Career Motivation Split by Tenure Respectively

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Note. CI = confidence interval
* $p<.05$; ** $p<.01$
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Ethos, Identity and Career Motivation Predicting Intentions to Remain in the RN

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Note. CI = confidence interval
** $p < .01$
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Note. CI = confidence interval
* p<.05; ** p<.01
Table S7
Ethos, Identity and Career Motivation Predicting Intentions to Remain in the RN Split by Tenure Respectively

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Note. CI = confidence interval
* $p<.05$; ** $p<.01$
## Appendix T

### $H_{1b}$ Statistics

### Table T1

Engagement Predicting Career Motivation

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Note. CI = confidence interval  
** $p<.01$

### Table T2

Ethos Predicting Career Motivation

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Note. CI = confidence interval  
** $p<.01$
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Ethos and Engagement Predicting Career Motivation

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Note. CI = confidence interval
** $p<.01$
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Note. CI = confidence interval
* $p<.05$; ** $p<.01$
## Table T5
Ethos and Engagement Predicting Career Motivation Split by Tenure Respectively

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Note. CI = confidence interval
* $p<.05$; ** $p<.01$
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### Appendix U

#### $H_{1c}$ Statistics

**Table U1**

**Identity Predicting Engagement**

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Note. CI = confidence interval  
** p<.01

**Table U2**

**Identity and Engagement Respectively Predicting Intentions to Remain in the RN**

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<tbody>
<tr>
<td>Constant</td>
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<tr>
<td>Identity</td>
<td>.907</td>
<td>[.800, 1.014]</td>
</tr>
<tr>
<td>$R^2$</td>
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</tr>
<tr>
<td>$F$</td>
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</tr>
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<td>Constant</td>
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<td>[.554, 1.378]</td>
</tr>
<tr>
<td>Engagement</td>
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<td>[.560, .719]</td>
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<td>$R^2$</td>
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<td>$F$</td>
<td>251.042</td>
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</table>

Note. CI = confidence interval  
** p<.01
Table U3
Identity, Ethos, Focus on Opportunities, Engagement, and Career Motivation Predicting Intentions to Remain in the RN

<table>
<thead>
<tr>
<th>Variable</th>
<th>Intentions to Remain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model</td>
</tr>
<tr>
<td></td>
<td>$B$</td>
</tr>
<tr>
<td>Constant</td>
<td>-.911</td>
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<tr>
<td>Identity</td>
<td>.675**</td>
</tr>
<tr>
<td>Ethos</td>
<td>-.151</td>
</tr>
<tr>
<td>Focus on Opportunities</td>
<td>.054</td>
</tr>
<tr>
<td>Engagement</td>
<td>.362**</td>
</tr>
<tr>
<td>Career Motivation</td>
<td>.094</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.366</td>
</tr>
<tr>
<td>$F$</td>
<td>73.411**</td>
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Note. CI = confidence interval
** $p<.01$

Table U4
Identity and Engagement Predicting Intentions to Remain in the RN

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</thead>
<tbody>
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<td></td>
<td>Model</td>
</tr>
<tr>
<td></td>
<td>$B$</td>
</tr>
<tr>
<td>Constant</td>
<td>-.664</td>
</tr>
<tr>
<td>Identity</td>
<td>.593</td>
</tr>
<tr>
<td>Engagement</td>
<td>.376</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.362</td>
</tr>
<tr>
<td>$F$</td>
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Note. CI = confidence interval
** $p<.01$
Table U5

Mediation Analyses for Identity, Engagement and Intentions to Remain in the RN

<table>
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<tr>
<th>Predictor</th>
<th>Outcome</th>
<th>$R^2$</th>
<th>$B$</th>
<th>SE</th>
<th>Beta</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>c</td>
<td>Identity</td>
<td>.301</td>
<td>.907</td>
<td>.055</td>
<td>.548</td>
<td>16.610</td>
<td>.000</td>
</tr>
<tr>
<td>a</td>
<td>Identity</td>
<td>.370</td>
<td>.835</td>
<td>.043</td>
<td>.608</td>
<td>19.428</td>
<td>.000</td>
</tr>
<tr>
<td>c^1</td>
<td>Identity</td>
<td>.362</td>
<td>.593</td>
<td>.066</td>
<td>.358</td>
<td>9.011</td>
<td>.000</td>
</tr>
<tr>
<td>b</td>
<td>Engagement</td>
<td>.376</td>
<td>.376</td>
<td>.048</td>
<td>.312</td>
<td>7.853</td>
<td>.000</td>
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### Appendix V

#### $H_{td}$ Statistics

**Table V1**

Focus on Opportunities Predicting Intentions to Remain in the RN

<table>
<thead>
<tr>
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</tr>
</thead>
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<tr>
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<td></td>
<td>$B$</td>
</tr>
<tr>
<td>Constant</td>
<td>2.275</td>
</tr>
<tr>
<td>Focus on Opportunities</td>
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</tr>
<tr>
<td>$R^2$</td>
<td>.086</td>
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<tr>
<td>$F$</td>
<td>60.094**</td>
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Note. CI = confidence interval  
** $p<.01$

**Table V2**

Focus on Opportunities Predicting Career Motivation

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<tr>
<th>Variable</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model</td>
</tr>
<tr>
<td></td>
<td>$B$</td>
</tr>
<tr>
<td>Constant</td>
<td>3.365</td>
</tr>
<tr>
<td>Focus on Opportunities</td>
<td>.313**</td>
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<td>.245</td>
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<td>$F$</td>
<td>208.916**</td>
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Note. CI = confidence interval  
** $p<.01$
<table>
<thead>
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<th>Arm</th>
<th>Variable</th>
<th>Career Motivation</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>( B )</td>
<td>95% CI</td>
</tr>
<tr>
<td>Surface Fleet</td>
<td>Constant</td>
<td>3.781</td>
<td>[3.325, 4.237]</td>
</tr>
<tr>
<td></td>
<td>Focus on Opportunities</td>
<td>.197**</td>
<td>[.088, .305]</td>
</tr>
<tr>
<td></td>
<td>( R^2 )</td>
<td>.106</td>
<td></td>
</tr>
<tr>
<td></td>
<td>( F )</td>
<td>12.860**</td>
<td></td>
</tr>
<tr>
<td>Submarines</td>
<td>Constant</td>
<td>3.046</td>
<td>[2.701, 3.390]</td>
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<td></td>
<td>Focus on Opportunities</td>
<td>.372**</td>
<td>[.293, .451]</td>
</tr>
<tr>
<td></td>
<td>( R^2 )</td>
<td>.413</td>
<td></td>
</tr>
<tr>
<td></td>
<td>( F )</td>
<td>87.142**</td>
<td></td>
</tr>
<tr>
<td>Royal Marines</td>
<td>Constant</td>
<td>2.948</td>
<td>[2.539, 3.357]</td>
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<td></td>
<td>Focus on Opportunities</td>
<td>.416**</td>
<td>[3.323, .509]</td>
</tr>
<tr>
<td></td>
<td>( R^2 )</td>
<td>.323</td>
<td></td>
</tr>
<tr>
<td></td>
<td>( F )</td>
<td>77.460**</td>
<td></td>
</tr>
<tr>
<td>Fleet Air Arm</td>
<td>Constant</td>
<td>3.863</td>
<td>[3.473, 4.252]</td>
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<td></td>
<td>Focus on Opportunities</td>
<td>.216**</td>
<td>[.125, .308]</td>
</tr>
<tr>
<td></td>
<td>( R^2 )</td>
<td>.157</td>
<td></td>
</tr>
<tr>
<td></td>
<td>( F )</td>
<td>22.132**</td>
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Note. CI = confidence interval

* \( p < .05 \); ** \( p < .01 \)
Table V4
Focus on Opportunities Predicting Career Motivation Split by Tenure Respectively

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<tr>
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<th>Career Motivation</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Model</td>
<td>$B$</td>
<td>95% CI</td>
</tr>
<tr>
<td>0-4 years</td>
<td>Constant</td>
<td></td>
<td>2.497</td>
<td>[2.098, 2.896]</td>
</tr>
<tr>
<td></td>
<td>Focus on Opportunities</td>
<td></td>
<td>.492**</td>
<td>[.405, .578]</td>
</tr>
<tr>
<td></td>
<td>$R^2$</td>
<td></td>
<td>.382</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$F$</td>
<td></td>
<td>125.239**</td>
<td></td>
</tr>
<tr>
<td>5-11 years</td>
<td>Constant</td>
<td></td>
<td>3.041</td>
<td>[2.702, 3.381]</td>
</tr>
<tr>
<td></td>
<td>Focus on Opportunities</td>
<td></td>
<td>.368**</td>
<td>[.290, .445]</td>
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<tr>
<td></td>
<td>$R^2$</td>
<td></td>
<td>.299</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$F$</td>
<td></td>
<td>87.356**</td>
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<td>12 + years</td>
<td>Constant</td>
<td></td>
<td>4.118</td>
<td>[3.883, 4.354]</td>
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<td></td>
<td>Focus on Opportunities</td>
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<td>.169**</td>
<td>[.112, .226]</td>
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<td></td>
<td>$R^2$</td>
<td></td>
<td>.139</td>
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<td></td>
<td>$F$</td>
<td></td>
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Note. CI = confidence interval
* $p<.05$; ** $p<.01$

Table V5
Focus on Opportunities Predicting Identity

<table>
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<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model</td>
<td>$B$</td>
<td>95% CI</td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td>3.538</td>
<td>[3.246, 3.829]</td>
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<td>Focus on Opportunities</td>
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<td>.338**</td>
<td>[.272, .405]</td>
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<td>$R^2$</td>
<td></td>
<td>.134</td>
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<td>$F$</td>
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<td>99.478**</td>
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Note. CI = confidence interval
** $p<.01$
Table V6
Focus on Opportunities Predicting Engagement

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<td>[.426, .606]</td>
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<td>.165</td>
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<td>$F$</td>
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Note. CI = confidence interval  
** $p<.01$

Table V7
Focus on Opportunities Predicting Ethos

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<td>[.280, .416]</td>
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<td>$R^2$</td>
<td>.136</td>
<td></td>
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<tr>
<td>$F$</td>
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Note. CI = confidence interval  
** $p<.01$
## Appendix W

### $H_{3a}$ Statistics

Table W1

Ethos Predicting Identity

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<td>Constant</td>
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<td>[0.582, 0.978]</td>
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<td>Ethos</td>
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<td>[0.803, 0.881]</td>
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<tr>
<td>$R^2$</td>
<td></td>
<td>0.737</td>
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<tr>
<td>$F$</td>
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<td>1805.422**</td>
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Note. CI = confidence interval
** $p<.01$

Table W2

Self-Concept Predicting Career Motivation

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<th>Model</th>
<th>95% CI</th>
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<tr>
<td>Constant</td>
<td>B</td>
<td>2.313</td>
<td>[2.110, 2.516]</td>
</tr>
<tr>
<td>Self-Concept</td>
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<td>[0.438, 0.518]</td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td></td>
<td>0.460</td>
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<td>$F$</td>
<td></td>
<td>549.567**</td>
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Note. CI = confidence interval
** $p<.01$
Table W3
Self-Concept Predicting Intentions to Remain in the RN

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</thead>
<tbody>
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<td>Model</td>
<td></td>
</tr>
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<td></td>
<td>$B$</td>
<td>95% CI</td>
</tr>
<tr>
<td>Constant</td>
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<td>[-.926, .201]</td>
</tr>
<tr>
<td>Self-Concept</td>
<td><strong>.912</strong></td>
<td>[.800, 1.023]</td>
</tr>
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<td>$R^2$</td>
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<td>259.235**</td>
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Note. CI = confidence interval
** $p<.01$
## Appendix X

### $H_{3b}$ Identity Predicting Engagement Statistics

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</tr>
<tr>
<td>Identity</td>
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<td>[.750, .919]</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.370</td>
<td></td>
</tr>
<tr>
<td>$F$</td>
<td>377.432**</td>
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</table>

*Note. CI = confidence interval  
** $p<.01$*
Appendix Y

Conference Posters

Division of Occupational Psychology Annual Conference 2012

INFORMING A NEW EMPLOYMENT FRAMEWORK: UNDERSTANDING THE CAREER ASPIRATIONS OF NAVAL PERSONNEL

E E Moon, Directorate of Naval Personnel Strategy

Background

Informing the Strategic Defence Review, a new employment framework was designed to understand the career aspirations of Naval Service personnel. This conceptual model involves processes of progression and development determined by individual characteristics and values. These values are encompassed in the concept of Career Anchors (see Information point), the self-identified abilities, resources, attitudes, and values, which form an individual’s self-concept. Adhering career paths are one option for achieving career success and the dominant influence of culture and career aspirations of the organisation is likely to lead to higher commitment, with the stronger of these present, due to individual and organisational values.

This study investigated the relationship between Career Anchors, organisational commitment, and turnover intentions. A quantitative case study approach was taken at the operational level, with participants consisting of 500 randomly selected personnel from each of the four arms (Surface Submarine, Submarine Service, Fleet Air Arm, Air Royal Marine).

1. What is the dominant career aspiration within the Naval Service?

The majority of personnel were oriented towards their career aspiration of achievement — the integration of individual, family, and career (Fig. 1). These individuals were significantly less emotionally attached to the organisation (p<0.05), felt less obligations towards the organisation (p<0.05), and had a greater intention to leave (p<0.05) in comparison to other career aspirations. These preferences demonstrated in the Naval Service were comparable to other populations (Fig. 2).

![Figure 1. Percentage of personnel oriented towards each Career Anchor](image1)

![Figure 2. Career Anchor preference across populations](image2)

2. Do career differences exist within careers?

Personnel early in their career demonstrated a significantly greater orientation towards autonomy, independence, entrepreneurial, and risk-seeking, and more important in comparison to their mid-life career (p<0.05). Similar patterns were found when looking at age group differences (Fig. 3).

![Figure 3. Career Anchor preference against age groups](image3)

3. Do career aspirations influence turnover intentions?

Career aspirations were able to predict nearly a quarter of what makes up a turnover intention, indicating a correlation towards Technical Functional, General Management, Security & Defence, and Policy change. These were significantly less likely to leave (p<0.05), whereas those aspiring towards Autonomy, Independence, Entrepreneurship, and Stability were significantly more likely to leave (p<0.05). (Fig. 4).

![Figure 4. Career Anchor preference against turnover intention](image4)

Conclusions

Understanding the underlying values and needs of personnel in the service ensures the success of the organisation (strategic and individual) can be aligned, leading to a better sense of ‘fit’ and congruence. A revised fit all career strategy is instigated. The Naval Service needs to move away from the traditional view of career development as advancement, and adopt a broader view that acknowledges supportive goals.

By ensuring personnel have a better understanding of their desires, they will be able to see whether ‘fit’ of the organization’s values or not. To clarify this, the Naval Service needs to understand the requirements and what it can offer its people. To ensure expectations are met and commitment towards the organisation is developed, it is critical that the employment offer is realistic from recruitment throughout career.

![Information Point: Career Anchors](image5)

![Recommendations](image6)

![References](image7)

**Conclusion:**
Understanding the underlying values and needs of personnel in the service ensures the success of the organisation (strategic and individual) can be aligned, leading to a better sense of ‘fit’ and congruence. A revised career strategy is instigated. The Naval Service needs to move away from the traditional view of career development as advancement, and adopt a broader view that acknowledges supportive goals.

**Recommendations:**
- **Pride and diversity are needed for Career Management**
- **Adequate opportunities should be provided for personnel at each stage of their career**
- **A realistic employment offer should be presented at recruitment and throughout career**

**References:**

**Information Point: Career Anchors**
- **Technical functional (PF):** Motivated by content of work, specialist knowledge.
- **General managerial (AM):** General knowledge, avoid specialisation.
- **Autonomy independence (AI):** Freedom from constraints, own pace & standards.
- **Security & defence (SD):** Job security & tenure, lower chance of predictable work.
- **Entrepreneurship & risk (ER):** Business ownership, production, risk taking important.
- **Stability & structure (SS):** Impose work, align work with personal values, regarding helping society.
- **Risk challenge (RC):** Overcoming impossible obstacles, developing new ways of working.
- **Utility (US):** Integrating needs of individual/family care, career, values, flexibilities.
Royal Navy Ethos: Understanding interactions between ethos, engagement and career motivation

E E Bewley, Royal Navy

BACKGROUND

Royal Navy (RN) personnel are expected to be operationally versatile in all environments. The prevailing spirit of the RN is considered essential in achieving this expectation, yet little is known about the actual impact of this spirit on career related behaviours and intentions to stay for the Service as a whole and its constituent parts.

Ethos, the underlying ‘spirit’ of the RN, is suggested to manifest in the attitudes, aspirations and values of the organisation (Caza, Barter, & Cameron, 2004). Part of the culture of an organisation (Kanter, 1996; Hoffer & Martin, 2010), these attitudes, aspirations and values are together to ensure individuals share and understand the principles that motivate and drive the organisation (Caza et al., 2008). Alignment between values is likely to lead to engagement, which is suggested to go beyond identifying with work, consisting of emotions, behaviour and cognition involved during work performance (Kanter, Galletly, Riem, Slater, & Travis, 2008). When the goals (i.e. motivation) and values (i.e. ethos) of the organisation are congruent with the individual, engagement is likely to be greater (Baron, 2004; Macer & Schneider, 2008).

Career motivation refers to how individual differences associated with career interact with behaviours and influence situational conditions (Luthans, 1997). These include how well the goals of the individual and organisation align (Noe, & Hirtle, 1993). Goals are the mechanism by which values, acquired through cognition and experience, lead to action (Luthans & Pinder, 2004).

AIMS

A study was conducted to understand the relationship, role and impact of ethos on how engaged personnel feel towards the RN and their perceptions towards their career related motivations and intentions to remain in the Service.

Predictions

Ethos will influence levels of engagement, career motivation and intentions to remain, with variance found across Fighting Arms.

METHOD

Participants

467 serving personnel from across the four Arms of the RN participated:

- Surface Fleet (n=141), Submarines (n=126), Fleet Air Arm (n=121), Royal Marines (n=4, Missing Arm Information = 122).
- Mean Age = 32.17 years; Mean length of service 10.11 years.

Measures

- Single self-administered questionnaire
- Career motivation (Luthans, 1997)
- Short form Utrecht Work Engagement Scale (Schuwerk, Barter, & Salanova, 2006)
- Ethos (Armed Forces Continuous Attitude Survey, 2012)
- Intentions to Remain (Single Item)

RESULTS

Ethos, engagement and intentions to remain were significantly greater for the Royal Marines and Fleet Air Arm (p≤0.01), with no differences found between Arms on levels of career motivation.

Ethos predicted greater career motivation, engagement and intentions to remain in the Service:

- Ethos was a significant, positive predictor of career motivation (BF = 44, p≤0.01), engagement (BF = 36, p≤0.01) and intentions to remain in the Service (BF = 33, p≤0.01) respectively.

Ethos, engagement and career motivation predicted greater intentions to remain:

- Ethos, engagement and career motivation were significant positive predictors of intentions to remain within the Service.

DISCUSSION/IMPLICATIONS

The results support the perceived importance of ethos for the RN, highlighting a continued need to define and encourage ethos from recruitment and throughout career. The RN and other organisations need to be cognisant of the salience of ethos and engagement on career related motivation.

For further information please contact the author:
Elizabeth.Bewley@rns Bộ UK

REFERENCES

Exploring the influence of ethos and identity on career motivation of Royal Navy personnel

E E Bewley, Royal Navy

BACKGROUND

The terms, identity and ethos, are used interchangeably within the Royal Navy (RN) but it is little known about how these actually interact with career related behaviours, tenure, and intentions to stay in the Service.

Organisational identity refers to a conviction between the self and the organisation (for example, Jones, 1995; Kettem, Gervasoni, & Anson, 2006). It reflects the extent to which individuals define themselves in terms of the collective sense and identity of the organisation (Mount, Hartman, & Conlon, 2008; Smith, Veiga da Cunha, Gangneux, Van de Walle, & Geurts, 2013). Shared beliefs result in individuals serving as part of a group (Mount & Bar-Tac, 2010), and represent what is termed ‘ethos’.

Ethos, the underlying ‘spirit’ or organisational values of the RN, is a crucial element of life within the RN. This ‘spirit’ is suggested to manifest in the attitudes, aspirations and internal values of the organisation (Kane, Baner, & Cameron, 2004). These attitudes, aspirations and values act together to ensure individuals share and understand the principles that motivate and drive an organisation (Gust et al., 2004). Ethos, as the attitudes and internal values one shares with an organisation, is considered as one of the sources of social identity (Mount & Bar-Tac, 2010). As self-concept, which in turn provides a route through which to identify and commit to ones work. Alignment between an individual’s values and attitudes, and those of the organisation, is likely to result in a more productive relationship (Baruch, 2004). Influenc career decisions (Baruch, 2004) or a ‘greater need’ (Kosinski, Law, & Haller, 2003) and postive career motivation (London, 1993)

AIMS

A study was conducted to explore the role of ethos and identity within the RN, and how these concepts interact with career motivation and intentions to remain in the Service.

Predictions
Ethos and identity will influence career motivations and intentions to remain, with variance found across different arms and rank.

METHOD

Participants
647 serving personnel from across the four Arms of the RN participated

Surface Fleet (n=111), Submarine (n=126), Fleet Air Arm (n=121)
Royal Marines (n=164), Naval Air Arm (n=125), Mean Age = 36.3 years, Mean length of service = 10.1 years

Measures

- Single self-administered questionnaire
- Ethics (Army Forces Continuous Attitude Survey, 2012)
- Identity (Bosley, Ettorre & Spear, 1995)
- Intentions to remain (Single item)

RESULTS

Ethos predicted identity

Ethos positively and significantly predicted levels of identity (r= .74, p<.01)

Ethos and identity predicted career motivation

Ethos and identity positively and significantly predicted levels of career motivation (r=.46, p<.01), with ethos the most influential factor.

Ethos and intentions to remain were significantly higher for the Royal Marines and Fleet Air Arm (p<.01), no differences were found for identity or career motivation.

Ethos and identity differentially predicted career motivation across the four Arms

Ethos and identity positively and significantly predicted levels of career motivation for both the Surface Fleet (r=.58, p<.05) and Submarines (r=.48, p<.01); ethos positively and significantly predicted levels of career motivation for the Royal Marines (r=.52, p<.01), and identity positively and significantly predicted career motivation for the Fleet Air Arm (r=.27, p<.01)

Ethos, identity and intentions to remain were significantly higher for those with longer tenure (p<.05)

Ethos and identity differentially predicted career motivation across tenure periods

Ethos positively and significantly predicted career motivation for those in early-career (4-8 years, r=.61, p<.01) and mid-career (8-11 years, r=.50, p<.01) and both ethos and identity positively and significantly predicted career motivation for those mid-career (3-11 years, r=.44, p<.01) and late-career (12 years, r=.39, p<.01)

DISCUSSION/IMPLICATIONS

This study demonstrates a link between ethos and identity, and their influence over career motivation and turnover within the RN. Building and retaining ethos throughout career was found to be important for identity and career motivations. This is particularly salient due to the influence of identity on turnover intentions. Identity was also relevant for career motivations, although, ethos was a more influential predictor of career motivations.

Understanding how personnel ‘buy-in’ to the ethos of the individual Arms and RN overall is important, in order to develop and maintain positive career related motivations. Ensuring appropriate goals are set and expectations are clarified effectively is likely to help reduce turnover intentions.

Understanding the differences within the organisation i.e. Arms and career stage will be important for people strategy.

REFERENCES

For further information please contact the author:
Elizabeth.Bewley22@mod.uk
Appendix Z

Manuscript Submission Confirmations