

**Situational Facilitators and Barriers of Bystander Intervention Intent in Image-Based
Sexual Abuse Contexts**

Chelsea Mainwaring^{a1}, Adrian J Scott^a, and Fiona Gabbert^a

^aDepartment of Psychology, Goldsmiths, University of London, SE14 6NW, United
Kingdom

Author Note

Competing interests: None

Acknowledgments: This work was supported by Goldsmiths, University of London

Correspondence concerning this article should be addressed to Chelsea Mainwaring

Email: c.mainwaring@londonmet.ac.uk

This is the accepted manuscript.

Article has been accepted for publication in *Journal of Interpersonal Violence*

¹ Present address: School of Social Sciences and Professions, 166-220 Holloway Road,
London Metropolitan University, N7 8DB, United Kingdom

Abstract

Image-based sexual abuse (IBSA) encompasses the taking, sharing, and/or making threats to share nude or sexual images of others without consent. Research shows that a large percentage of individuals have been a bystander to IBSA, but most do not intervene. Currently, there is little understanding of why this is the case. The research presented in this article begins to address this gap in the literature by identifying situational factors which facilitate or inhibit behavioural intentions to intervene through three experimental studies. In each study, situational factors were manipulated using vignettes which depicted the taking of images without consent (Study 1; $n = 126$), sharing images without consent (Study 2; $n = 125$), and threatening to share images (Study 3; $n = 125$). The dependent variable across studies was how likely they would be to intervene if they witnessed the scenario described. Study 1 investigated the effect of the presence of other bystanders (no other bystanders present, other bystanders present who were friends with each other, or other bystanders present who were strangers to each other) and no significant effect was found. Study 2 investigated the role of initial consent to take the image (self-taken or stealth-taken) and bystander relationship with the victim (friend or stranger). Likelihood to intervene was less likely when the image was self-taken and the victim was a stranger. Finally, Study 3 investigated the role of initial consent to take the image and bystander relationship with the perpetrator (friend or stranger). Perpetrator-focused intervention was more likely, but justice-focused intervention was less likely, when the perpetrator was a friend. These findings have implications for the development of educational materials, campaigns, and agendas aimed at encouraging bystander intervention.

Keywords: bystander intervention; image-based sexual abuse; image-based abuse; revenge pornography; upskirting; social justice ally

Situational Facilitators and Barriers of Bystander Intervention Intent in Image-Based Sexual Abuse Contexts

Image-based sexual abuse (IBSA) encompasses the taking or creating, sharing, or making threats to share nude or sexual images of others without their consent (McGlynn et al., 2019; Powell et al., 2018). Evidence from research in the UK, Australia, and New Zealand suggests that approximately 1 in 3 of the residents surveyed (aged between 16 and 64) have been a victim of at least one form of IBSA, with the most common form being images taken without consent (1 in 3), followed by images shared without consent (1 in 5), and receiving threats to share images (1 in 5) (Henry et al., 2020).

Research has demonstrated that IBSA can detrimentally impact victims' physical and mental health (Bates, 2017; Powell et al., 2018). For example, victims report experiencing high levels of stress, depression, anxiety, and suicidal ideation, as well as losses to self-esteem, confidence, and a sense of control (Bates, 2017; Champion et al., 2022; McGlynn et al., 2019). Victims also report fears about going out in public, making new relationships, and applying for jobs due to concerns over who might have seen their images (Campbell et al., 2020). Importantly, these harms can be constant and enduring due to the nature of the abuse whereby images can be shared, uploaded online, or viewed repeatedly (McGlynn et al., 2019, 2020). Not to mention that victims often report experiencing secondary victimisation in the form of being blamed, or held partially responsible, for the incident (Campbell et al., 2020; Gassó et al., 2021).

Given the prevalence and impacts of IBSA upon victims, identifying how best to intervene, with a view to preventing this behaviour and minimising the associated harms, is an important endeavour. One way in which that can be facilitated is by encouraging bystander intervention (Banyard, 2015; Banyard et al., 2007). Bystander intervention refers to actions taken by bystanders to address or prevent escalation of problematic behaviour they

have witnessed, or support the individuals who have been wronged. In the context of IBSA, bystanders are individuals who witness or become aware of the perpetration of IBSA, and could intervene before, during, or after an incident. For example, a bystander may witness an incident of upskirting on a train and intervene by reporting it to the transport police. Equally, a bystander may be forwarded a nude or sexual image of an individual who did not consent for them to see that image, and the bystander could intervene by condemning the behaviour. Finally, a bystander may be told by a friend that their partner is threatening to share nude or sexual images of themselves and could intervene by supporting the victim and helping them access relevant support services or reporting it to the police.

There is great potential for bystander intervention to be a successful preventative measure in the case of IBSA. First, the non-consensual sharing of images involves a third party who has been shown, sent, or views the images (i.e., a bystander). Further, recent research has shown that 64% of the Australian residents surveyed had witnessed, or become aware of, someone perpetrating IBSA (Flynn et al., 2022a). Research investigating the role of bystanders in these contexts has evidenced the importance of social support for victims (Bates, 2017; Office of eSafety Commissioner, 2017), and the perceived helpfulness of bystander intervention in these cases (Flynn et al., 2022b). However, the research by Flynn and colleagues (2022a) found that less than half (46%) of bystanders reported saying or doing something in response to witnessing or becoming aware of the behaviour. Common actions reported by those who did intervene included confronting the perpetrator; telling a friend, family member, or colleague; distancing themselves from the perpetrator; and supporting the victim (Flynn et al., 2022a).

With the potential for bystander intervention to help prevent and minimise the harms associated with IBSA, and evidence suggesting a high level of bystander apathy in these cases (Flynn et al., 2022a), it is important to understand what facilitates or inhibits

behavioural intentions to intervene in these cases. Such insights have important practical implications for the development of agendas, educational materials, or programmes which aim to encourage bystander intervention.

Theoretical models and empirical evidence shed some light on what may facilitate or inhibit bystander intervention in IBSA contexts. One of the most influential models is the Bystander Intervention Model, also referred to as the Situational Model (Latané & Darley, 1970). This model specifies that bystanders must move through five steps before they will engage in intervention: 1) notice the incident, 2) interpret the incident or behaviour as a problem or as a potential risk, 3) feel responsible to do something, 4) assess whether they have the confidence or appropriate skill set to address the behaviour, and 5) form an intention to intervene. Overall, this model has received empirical support in other sexual violence (SV) contexts (e.g., Burn, 2009; Kania & Cale, 2021; Zelin et al., 2019) and there is preliminary evidence to suggest its validity in IBSA contexts (Mainwaring et al., 2024). Latané and Darley further identified potential barriers to intervention. In particular, the presence of other bystanders is theorised to reduce the likelihood of intervention due to a diffusion of responsibility, audience inhibition, and pluralistic ignorance (Darley & Latané, 1968; Latané & Darley, 1968, 1970), although research has not always provided support for this barrier in SV contexts (see Mainwaring et al., 2022 for a review).

Another bystander intervention model developed to explain bystander behaviour in SV contexts is the Bystander Action Coils Model (Banyard, 2015; Banyard et al., 2021). In contrast to the previous model, this one takes a more holistic view in explaining bystander behaviour, by focusing on the importance of the situation, the wider context, cognitive and decision-making processes, and a feedback loop whereby past experiences impact future intentions to intervene. There is support for the validity of the Bystander Action Coils Model

in SV contexts (Banyard et al., 2021), and preliminary support in IBSA contexts (Mainwaring et al., 2024).

Both the Bystander Intervention Model and the Bystander Action Coils Model highlight the importance of situational factors in determining whether a bystander will intervene. In IBSA contexts, there are a range of situational factors which may impact behavioural intentions to intervene. A recent focus group study identified a series of potential situational barriers to bystander intervention in these contexts (Mainwaring et al., 2024). Specifically, the presence of other bystanders acted as a barrier in IBSA contexts due to a reduced sense of responsibility and feelings of audience inhibition. However, this study identified that the presence of other bystanders can also facilitate intervention, where other bystanders act as a source of support for any potential retaliations on behalf of the perpetrator. Further evidence has demonstrated that participants would only intervene if they knew the other bystanders who were present, suggesting the characteristics of the other bystanders is also important (Flynn et al., 2022b).

In looking more closely at individuals directly involved in the incident, the relationship between the bystander and the victim and perpetrator may impact behavioural intentions to intervene. Empirical evidence from the SV literature, focusing mainly on contact SV such as sexual assault, consistently shows that being friends with the victim increases the likelihood of intervention (Mainwaring et al., 2022). In IBSA contexts, this has been identified as a facilitator due to greater empathy, a sense of needing to defend one's friend, and the removal of ambiguity (Flynn et al., 2022b; Mainwaring et al., 2024), although there is evidence of behavioural intentions to intervene irrespective of the bystander's relationship with the victim (Mainwaring et al., 2024).

Regarding the impact of bystander relationship with the perpetrator, in the SV literature, there are inconsistencies regarding whether this acts as a facilitator or barrier of

bystander intervention (Mainwaring et al., 2022). Such inconsistencies may be due to the lack of methodological consideration of the variety of actions that a bystander may take when intervening, and how the facilitative or inhibitive nature of the relationship may change depending on the type of behaviour being considered (Mainwaring et al., 2022). Similarly, the role of the bystander's relationship with the perpetrator in IBSA contexts is unclear. Some research has shown that intervention directed towards the perpetrator (e.g., confronting them) is more likely when they are a friend because the perceived risk of a negative response is reduced (Flynn et al., 2022b; Mainwaring et al., 2024). However, Flynn and colleagues (2022b) found that intervention may be less likely in some cases, for fear that actions may cause a breakdown in the relationship.

Regarding characteristics of the images themselves, it is important to consider whether victims of non-consensual sharing or threats to share consented to the image being taken in the first instance. This could include instances where the image was self-taken (i.e., a selfie) or taken by someone else with their consent, versus if it was stealth-taken (i.e., without their knowledge or consent). The impact of consent has not been considered in regard to bystander intervention, however, research consistently shows that victims of non-consensual sharing who took the image of themselves, or consented for the image to be taken, experience greater victim blaming (e.g., Attrill-Smith et al., 2021; Gavin & Scott, 2019; Zvi & Shechory-Bitton, 2020a, 2020b). Findings such as these are concerning given most victims of non-consensual sharing create the images with consent in the context of an intimate relationship (Short et al., 2017). Equally, research has found that nearly half (49%) of images on revenge pornography websites were taken by the victims themselves (Uhl et al., 2018). Together, these findings suggest that self-taken images may present a barrier for bystander intervention and that consent is worthy of further investigation.

The Current Research

The prevalence of IBSA and its impact upon victims strongly supports the need for successful preventative measures to reduce the prevalence of this behaviour and minimise the harms experienced by victims. Encouraging bystander intervention is one way this could be achieved. Theoretical models and empirical evidence looking at bystander intervention in SV contexts has identified a range of facilitators and barriers. However, in IBSA contexts, little research has been conducted. Research which has been conducted has either used qualitative methodologies or surveys, whereby the causal effect of these variables cannot be determined. Equally, no empirical research has considered the possible underlying explanations for these effects, nor how facilitators and barriers may have differential effects depending on the type of intervention behaviour.

To address this gap in the literature, this article reports upon three separate experimental studies which used similar but different vignette methodologies to investigate the effect of a range of situational variables on behavioural intentions to intervene in three different IBSA contexts: Study 1: Non-consensual taking; Study 2: Non-consensual sharing; and Study 3: Making threats to share. Where significant effects were found, exploratory cross-sectional mediation analyses were performed to better understand possible underlying explanations for these effects. The reason for this is twofold: 1) to develop a better understanding of the inconsistencies in the literature regarding the role of these situational variables which could add to the theoretical knowledge base and understanding of this phenomenon; and 2) to increase the practical applications of the findings, in the hope of identifying potential cognitive mechanisms by which situational factors impact behavioural intentions to intervene, which can then be targeted through education.

In line with best practices for mediation analyses, as outlined by Kratz (2024), there is a theoretically clear model of temporal precedence, as theory and research guided the

selection of these mediating variables, as explained below. Equally, cross-sectional designs for mediation analyses have been advised in cases whereby: 1) the relationship between the independent variable (IV) and dependent variable (DV) is unknown; and 2) the research is exploratory (Spector, 2019). However, there are limitations in performing mediation analyses with cross-sectional data. The key limitation concerns the determination of causality, as no time has elapsed between the measurement of the variables, meaning the true causal nature of the variables cannot be determined (Kratz, 2024; O’Laughlin et al., 2018). There are also concerns of common method variance for cross-sectional designs, whereby transient factors impact the assessment of the variables in the mediation model, potentially inflating correlations between variables (Spector, 2019). Therefore, caution is advised in interpreting the findings, which will be discussed further where relevant.

Study 1: Non-Consensual Taking

Study 1 examined the impact of the presence of other bystanders, both friends and strangers, in a case of upskirting (i.e., taking images without consent), with the following research question being addressed: are there differences in behavioural intentions to intervene depending on whether there are other bystanders present, and whether these bystanders are friends or strangers?

As theorised in the Bystander Intervention Model (Darley & Latané, 1968; Latané & Darley, 1968, 1970), the presence of other bystanders may act as a barrier to intervention. However, there is a lack of consistency in the literature concerning whether this variable facilitates or inhibits intervention, which may be due to the role of other variables (Mainwaring et al., 2022, 2024). Namely, whether the bystanders are friends or strangers (e.g., Flynn et al., 2022b), and the presence of underlying processes which may explain these effects, such as feelings of responsibility, safety, or audience inhibition (Mainwaring et al., 2022, 2024). This lack of consistency in the literature, coupled with a vast range of potential

underlying processes which may explain any effects, and potential practical applications from this determination, led to the consideration of these variables within mediation analyses for Study 1. Specifically, a second research question was proposed: can any differences in behavioural intentions to intervene across the three experimental conditions be explained by changes in the following three variables: feelings of responsibility, feelings of safety, or audience inhibition?

Method

Participants

Participants were recruited from the general population using Prolific (2022) (final sample $n = 126$). To be eligible to take part in the study, participants had to reside in the UK, be between 18 and 39 years of age, and have not participated in the other studies. This sample size met predetermined requirements for suitable power of .8¹, with suitable sample sizes per cell ($n = 42$, $n = 42$, $n = 42$). Most of the sample was White (87%), heterosexual (83%), and female (58%), and the mean age was 28 years ($SD = 5.8$). Full demographic details can be found in Table A1 in Appendix A.

Design

This study used a between-participants design and vignette methodology. One IV, presence of other bystanders, was manipulated with three levels: no other bystanders present, other bystanders present who were friends with each other (friends), or other bystanders present who were strangers to each other (strangers). Participants were randomly assigned to one of the three conditions.

Measures and Materials

Participants were provided with participant and data privacy information, an informed consent section, a demographic questionnaire, the study, and debrief information. The study presented one of three versions of the vignette and required participants to rate how likely

they would be to intervene if they witnessed the scenario described. They also completed a series of measures regarding perceptions of 1) feelings of responsibility, 2) feelings of safety, and 3) audience inhibition.

Vignettes. The vignettes depicted the participant (a bystander) witnessing an individual (perpetrator) trying to take an intimate image of another person (victim) on a train, and the number of other bystanders present in the carriage was manipulated (see Appendix B).

Likelihood of Bystander Intervention. Participants rated how likely they would be to engage in 16 different behaviours using a 7-point scale (1 ‘extremely unlikely’ to 7 ‘extremely likely’). These items were developed based on previous research (e.g., Flynn et al., 2022a, 2022b; Mainwaring et al., 2023). Principal component analysis (PCA) with an oblique rotation identified two factors for use as DVs within the main analyses, which were labelled: perpetrator-focused intervention (6 items, e.g., ‘Tell the person taking the photo to stop what they are doing’) and justice-focused intervention (4 items, e.g., ‘Inform the police’). These factors had good/acceptable reliability ($\alpha = .88$ and $\alpha = .76$, respectively). Average scores were created for use in the main analyses, with higher scores representing a greater likelihood of perpetrator- and justice-focused intervention. All DV items for Study 1 are provided in Appendix C.

Feelings of Responsibility. Participants rated how responsible they would feel to help in the situation using eight items developed for this research, for example, ‘I would not feel responsible to say or do something in this situation’. Participants rated their agreement with these statements using a 7-point Likert scale (1 ‘strongly disagree’ to 7 ‘strongly agree’). PCA identified a single factor structure for these items with good reliability ($\alpha = .88$). An average score measuring feelings of responsibility was created with higher scores representing greater feelings of responsibility.

Feelings of Safety. Participants rated their feelings of safety if they intervened using one item, 'I would be concerned for my own safety if I said or did something'. Participants rated their agreement with this statement on a 7-point Likert scale (1 'strongly disagree' to 7 'strongly agree'). This score was used as a measure of feelings of safety with higher scores representing greater fears for safety.

Audience Inhibition. Participants rated their feelings of audience inhibition with three items developed for this research, for example, 'I would be concerned that I would look stupid if I said or did something'. Participants rated their agreement with these statements on a 7-point Likert scale (1 'strongly disagree' to 7 'strongly agree'). PCA identified a single factor structure for these items with questionable reliability ($\alpha = .63$), and the removal of any items did not greatly improve the reliability. However, with shorter scales it is more common for low Cronbach's alpha levels (Pallant, 2016). In this case, inter-item correlations can be more appropriate, where mean values in the range of .2 to .4 suggest optimal homogeneity (Briggs & Cheek, 1986). In this case, the mean was .37, suggesting suitable item homogeneity in this case despite the alpha values. Therefore, all three items were retained. An average score measuring audience inhibition was created with higher scores representing greater audience inhibition.

Procedure

Participants completed the research online via Qualtrics XM (2022) which was hosted via Prolific (2022). First, participants were presented with participant and data privacy information and provided informed consent. They were then asked to provide demographic information before being randomly allocated to one of the three studies (Study 1: Non-consensual taking; Study 2: Non-consensual sharing; and Study 3: Making threats to share). Once allocated to Study 1, Study 2, or Study 3, participants were randomly allocated to one of the experimental conditions within that study. Participants read the vignette and then

completed the measures. In Study 1, participants were asked a manipulation check question, and those who did not answer correctly ($n = 5$) were excluded from the final sample. After completing the study, participants were asked if they had ever taken part in a bystander intervention training programme before being provided with debrief information and thanked for their participation.

All studies received ethical approval from the University's Research Ethics Committee and were pre-registered on AsPredicted (preregistration can be viewed at: <https://aspredicted.org/6bwk-7vy3.pdf>; Wharton Credibility Lab, 2015).

Analysis

Data was analysed using a one-way MANOVA with the following IV: the presence of other bystanders (only bystander, other bystanders [friends], or other bystanders [strangers]). There were two DVs: perpetrator-focused intervention and justice-focused intervention. For any significant main or interaction effects, ANOVAs were used to explore these effects further. P values were not Bonferroni corrected to control for family-wise errors given the infancy of this area of research and the desire to identify any effects worthy of further study (Armstrong, 2014). Interpretation of effect sizes are based on Cohen (1988).

Where significant effects were identified using ANOVAs, exploratory parallel multiple mediation analyses were conducted to determine whether feelings of responsibility, feelings of safety, or audience inhibition could explain these effects. Steps outlined in Hayes (2017) using PROCESS were followed. Non-parametric confidence interval bootstrapping procedures ($n = 5000$, as recommended in Hayes, 2009) were used to make inferences about specific indirect effects.

Results

Assumptions of linearity, homogeneity of variance-covariance matrices, and multicollinearity were met. Normality tests showed that the assumption of normality had

been violated, however, robustness was ensured given the large sample sizes per cell (Tabachnick & Fidell, 2014). Equally, MANOVAs are robust to modest violations of normality (Pallant, 2016). Several outliers and multivariate outliers were identified. To protect against Type 1 errors, non-parametric tests were performed where significant effects were found to determine whether the outliers were having an undue influence on the findings.

The analysis examined the influence of presence of other bystanders on the perceived likelihood of perpetrator- and justice-focused intervention and showed that there were no significant differences across the three conditions of the IV on the combined DV, $F(4, 244) = 1.53, p = .196$, Wilks' Lambda = .95, partial $\eta^2 = .02$. See Table 1 for descriptive statistics. As there was no significant effect of the presence of other bystanders, no mediation analyses were performed.

[Table 1 here]

Discussion

Study 1 found that the presence of other bystanders, whether they were friends or strangers, had no effect on the likelihood of perpetrator- or justice-focused intervention in a case of non-consensual taking of images. These findings are inconsistent with the bystander effect put forward by Darley and Latané (1968), as well as evidence which suggests a facilitative role for the presence of other bystanders, particularly the presence of peers (e.g., Fischer et al., 2011; Kaya et al., 2019; Mainwaring et al., 2022, 2024). However, research in SV contexts has not always found support for the bystander effect (Mainwaring et al., 2022).

To better understand this null finding, exploratory ANOVAs revealed no significant differences in feelings of responsibility, feelings of safety, or audience inhibition across the three conditions, despite past evidence showing that the presence of bystanders impacts these three variables in IBSA contexts (Mainwaring et al., 2024). This may explain why there was no overall impact of the presence of other bystanders on behavioural intentions to intervene.

Further, there may be extraneous variables which masked or moderated the effect of the presence of other bystanders. One such variable is pluralistic ignorance, which in the context of bystander intervention, describes a reliance on the reactions of others in determining whether the situation requires intervention (Latané & Darley, 1970; Latané & Nida, 1981). Vignettes in the current study did not describe how the other bystanders responded or reacted to the incident. Given that this visual information would be available to bystanders in real-life situations, the omission of this detail may have introduced inconsistencies and noise within the data, and thereby reduced the effect of bystander presence. This lack of detail may also explain the null effects on the mediating variables, as assessments of audience inhibition and safety may be more likely if this visual information is available. Future research is needed to consider the behaviour and responses of other bystanders when investigating the effect of this situational factor upon bystander intervention.

Study 2: Non-Consensual Sharing

The second form of IBSA considered in this series of experimental studies was the non-consensual sharing of images. Specifically, Study 2 examined the impact of the victim's initial consent for the image to be taken and the bystander's relationship with the victim upon behavioural intentions to intervene, in a case of sharing an image without consent. The following research question was addressed: are there differences in behavioural intentions to intervene depending on the victim's initial consent to take the image and the bystander's relationship with the victim?

Research is yet to consider the role of initial consent upon bystander intervention, but there is evidence of greater victim blaming and assignment of responsibility to the victim when there was initial consent for the image to be taken (e.g., Gavin & Scott, 2019), which could cause a barrier to bystander intervention. Equally, perceived perpetrator motivations

can impact perceptions of IBSA (Flynn et al., 2022b), which could explain any inhibiting effects of initial consent if motivations are perceived to be more malicious in cases where there was no initial consent to take the image.

Concerning bystander relationship with the victim, evidence suggests that being friends with the victim acts as a facilitator of intervention, which has been explained by greater feelings of empathy and responsibility (Flynn et al., 2022b; Mainwaring et al., 2024). However, behavioural intentions to intervene irrespective of a relationship with the victim have been demonstrated in IBSA contexts (Mainwaring et al., 2024).

Overall, the lack of consistency in the literature, coupled with preliminary evidence concerning the underlying processes which may explain the effects of both whether there was initial consent for the image to be taken and the bystander's relationship with the victim, alongside potential practical applications from these determinations, led to the consideration of a series of mediating variables for Study 2. Specifically, a second research question was proposed: can any differences in behavioural intentions to intervene across the four experimental conditions be explained by changes in the following five variables: feelings of responsibility, victim empathy, victim blame, perceived perpetrator motivations, or victim-perpetrator responsibility?

Method

Participants

Participants were recruited from the general population using Prolific (2022) and the same inclusion criteria applied as in Study 1 (final sample $n = 125$). This sample size met predetermined requirements for suitable power of $.8^2$, with suitable sample sizes per cell ($n = 32, n = 32, n = 31, n = 30$). As in Study 1, most of the sample were White (78%), heterosexual (83%), and female (51%), and the mean age was 28 years ($SD = 6.0$). Full demographic information can be found in Table A1 in Appendix A.

Design

This study used a 2×2 between-participants design and vignette methodology. The first IV comprised the victim's initial consent to take the image (self-taken or stealth-taken); and the second IV comprised the bystander's relationship with the victim (friend or stranger). Participants were randomly assigned to one of the four conditions.

Measures and Materials

Participants were provided with equivalent ethical documentation and demographic questionnaire as in Study 1. The study presented one of four versions of the vignette and required participants to rate how likely they would be to intervene if they witnessed the scenario described. They also completed a series of measures regarding perceptions of 1) feelings of responsibility, 2) victim empathy, 3) victim blame, 4) perpetrator motivations, and 5) victim-perpetrator responsibility.

Vignettes. The vignettes depicted a friend (perpetrator) sending a nude image of their partner (victim) to the participant (bystander). Whether there was initial consent for the image to be taken, and the relationship between the bystander and the victim, were manipulated across the four conditions (see Appendix D).

Likelihood of Bystander Intervention. Participants rated how likely they would be to engage in 16 different behaviours. These were similar to the items used in Study 1. PCA with an oblique rotation identified three factors (DVs) which were labelled: victim-focused intervention (4 items, e.g., 'Offer emotional support to your friend's partner'), perpetrator-focused intervention (4 items, e.g., 'Tell your friend that it is wrong to send nude photos of their partner'), and bystander perpetration (2 items, e.g., 'Forward the photo on to another friend of yours'). All three factors had good/acceptable reliability ($\alpha = .84$, $\alpha = .79$, and $r = .38$, $p < .001$, respectively). Average scores were created for use in the main analyses, with higher scores representing a greater likelihood of victim- and perpetrator-focused

intervention, and bystander perpetration. All DV items for Study 2 are provided in Appendix E.

Feelings of Responsibility. The same eight items from Study 1 were used. PCA identified a single factor structure for these items with good reliability ($\alpha = .87$). An average score measuring feelings of responsibility was created with higher scores representing greater feelings of responsibility.

Victim Empathy. Participants rated their level of empathy towards the victim using two items which were adapted from past research (Katz et al., 2015), for example, ‘I would feel sorry for the target of the photo’. Participants rated their agreement with these statements using a 7-point Likert scale (1 ‘strongly disagree’ to 7 ‘strongly agree’). PCA identified a single factor structure for these items with good reliability ($r = .88, p < .001$). An average score measuring victim empathy was created with higher scores representing greater victim empathy.

Victim Blame. Participants rated how much blame they attributed to the victim using three items which were adapted from past research (Katz et al., 2017), for example, ‘I would think that the target of the photo is at least partly to blame for the situation’. Participants rated their agreement with these statements using a 7-point Likert scale (1 ‘strongly disagree’ to 7 ‘strongly agree’). PCA identified a single factor structure for these items with good reliability ($\alpha = .82$). An average score measuring victim blame was created with higher scores representing greater victim blame.

Perpetrator Motivations. Participants rated their perceptions of the perpetrator’s motivations using six items which were developed and adapted from past research (Henry et al., 2020), for example, ‘I would think the person sharing the photo is trying to humiliate the target of the photo’. Participants rated their agreement with these statements using a 7-point Likert scale (1 ‘strongly disagree’ to 7 ‘strongly agree’). PCA identified a single factor

structure for these items, with four items remaining in the factor. These four items had good reliability ($\alpha = .85$) and represented perceived perpetrator malicious motivations. An average score measuring perceived perpetrator motivations was created with higher scores representing greater perceptions of malicious motivations.

Victim-Perpetrator Responsibility. Participants were provided with a sliding scale question which asked them to assign a percentage score to represent the level of responsibility they attributed to the victim and the perpetrator in the vignette. The total percentage score for responsibility had to equal 100%. The score for victim responsibility was used in the exploratory analyses with higher scores representing greater victim responsibility.

Procedure

The procedure was the same as that described in Study 1. In Study 2, participants were asked two manipulation check questions, and those who did not answer both questions correctly ($n = 8$) were excluded from the final sample.

Analysis

Data were analysed using a 2×2 MANOVA with the following two IVs: initial consent (self-taken or stealth-taken); and bystander relationship with the victim (friend or stranger). There were three DVs: victim-focused intervention, perpetrator-focused intervention, and bystander perpetration. As with Study 1, for any significant main or interaction effects, ANOVAs were used to explore these effects further. *P* values were not Bonferroni corrected to control for the family-wise errors given the infancy of this area of research and the desire to identify any effects worthy of further study (Armstrong, 2014). Where significant effects were identified, exploratory parallel multiple mediation analyses were conducted to determine whether feelings of responsibility, victim empathy, victim

blame, perpetrator motivations, or victim-perpetrator responsibility could explain these effects, using the method described in Study 1.

Results

Assumptions of linearity, homogeneity of variance-covariance matrices, and multicollinearity were met. Normality tests showed that the assumption of normality had been violated and several outliers and multivariate outliers were identified. However, analyses were protected against the violation of these assumptions as described in Study 1.

The analysis examined the influence of initial consent and bystander relationship with the victim on the perceived likelihood of victim-focused intervention, perpetrator-focused intervention, and bystander perpetration. There were statistically significant effects of initial consent and bystander relationship with the victim on the combined DV, $F(3, 119) = 3.61, p = .015$, Wilks' Lambda = .92, partial $\eta^2 = .08$, and $F(3, 119) = 2.77, p = .045$, Wilks' Lambda = .94, partial $\eta^2 = .07$, respectively. There was no statistically significant interaction of initial consent and bystander relationship with the victim on the combined DV, $F(3, 119) = .62, p = .607$, Wilks' Lambda = .99, partial $\eta^2 = .02$.

When investigating the overall effect for initial consent, a statistically significant difference was found for victim-focused intervention, $F(1, 121) = 6.80, p = .010$, partial $\eta^2 = .05$. Mean scores indicated that the likelihood of victim-focused intervention was *less* when the image was self-taken ($M = 2.77, SD = 1.54$) compared to if it was stealth-taken ($M = 3.53, SD = 1.71$). There was also a statistically significant difference for perpetrator-focused intervention, $F(1, 121) = 7.31, p = .008$, partial $\eta^2 = .06$. Mean scores indicated that the likelihood of perpetrator-focused intervention was *less* when the image was self-taken ($M = 5.79, SD = 1.22$) compared to if it was stealth-taken ($M = 6.32, SD = 0.93$).

When investigating the overall effect of bystander relationship with the victim, a statistically significant difference was found for victim-focused intervention, $F(1, 121) =$

4.30, $p = .040$, partial $\eta^2 = .03$. Mean scores indicated that likelihood of victim-focused intervention was *greater* when the victim was a friend ($M = 3.44$, $SD = 1.62$) compared to if the victim was a stranger ($M = 2.84$, $SD = 1.66$). See descriptive statistics in Table 2.

[Table 2 here]

As there were significant main effects of initial consent for victim- and perpetrator-focused intervention, exploratory parallel multiple mediation analyses were performed. The mediators included in the model were: feelings of responsibility, victim empathy, victim blame, perpetrator motivations, and victim-perpetrator responsibility.

First, a parallel multiple mediation model was created for victim-focused intervention (see Table 3). Over a third of the variance (34.0%) in intent to engage in victim-focused intervention was explained by all five mediators and initial consent. The total effect (sum of direct and indirect effects) was significant ($c = .76$, $p = .011$, $CI = .18, 1.33$), and when all mediators were statistically controlled, the likelihood of victim-focused intervention did not differ as a function of initial consent ($c^I = .44$, $p = .154$, 95% $CI = -.17, 1.04$).

[Table 3 here]

Bootstrapping procedures identified a single significant indirect effect for feelings of responsibility (M_1) ($a_1b_1 = .31$, bootstrap $SE = .15$, 95% bootstrap $CI = .03, .64$). In interpreting this finding, when the image was self-taken, bystanders reported a reduced sense of responsibility to intervene, which correlated with a reduced likelihood of engaging in victim-focused intervention. See Figure 1 for a visual representation.

[Figure 1 here]

Second, a parallel multiple mediation model was created for perpetrator-focused intervention (see Table 4). Over half of the variance (53.3%) in intent to engage in perpetrator-focused intervention is explained by all five mediators and initial consent. The total effect (sum of direct and indirect effects) was significant ($c = .53$, $p = .007$, 95% $CI =$

.15, .92), and when all mediators were statistically controlled, the likelihood of perpetrator-focused intervention did not differ as a function of initial consent ($c^l = .27, p = .123, 95\% \text{ CI} = -.07, .61$).

[Table 4 here]

Bootstrapping procedures identified a single significant indirect effect for feelings of responsibility (M_1) ($a_1b_1 = .24, \text{ bootstrap } SE = .12, 95\% \text{ bootstrap CI} = .02, .50$). In interpreting this finding, when the image was self-taken, bystanders reported a reduced sense of responsibility to intervene, which correlated with a reduced likelihood of engaging in perpetrator-focused intervention. See Figure 2 for a visual representation of this indirect effect.

[Figure 2 here]

As there was also a significant main effect of bystander relationship with the victim for victim-focused intervention, a similar parallel multiple mediation analysis was performed. Just over a third of the variance (36.3%) in intent to engage in victim-focused intervention was explained by all five mediators and bystander relationship with the victim. The total effect (sum of direct and indirect effects) was significant ($c = -.59, p = .045, 95\% \text{ CI} = -1.18, -.01$). However, the significant effect of bystander relationship with the victim remained when all the mediators were statistically controlled ($c^l = -.63, p = .011, 95\% \text{ CI} = -1.12, -.14$). Bootstrapping procedures identified no significant indirect effects, which is likely due to the non-significant effects of bystander relationship with the victim on the mediators.

Discussion

Study 2 demonstrated that victim-focused intervention was more likely when the victim was a friend. The facilitative nature of being friends with the victim upon bystander intervention is consistent with previous research in SV contexts (Mainwaring et al., 2022) and IBSA contexts (Mainwaring et al., 2024), whilst also demonstrating further nuance which

has not previously been identified. Specifically, the bystander's relationship with the victim only impacted the likelihood of victim-focused intervention but did not impact perpetrator-focused intervention or bystander perpetration. In other words, the behaviours that were impacted were those directed towards the individual with whom the bystander has, or does not have, the relationship with.

Further, both victim- and perpetrator-focused intervention was less likely when the image was self-taken by the victim. Mediation analyses showed that this effect could be explained by a reduction in feelings of responsibility when the image was self-taken, rather than reduced victim empathy or greater blame as might be expected based on the evidence available (e.g., Attrill-Smith et al., 2021; Gavin & Scott, 2019). However, caution is advised when interpreting the finding from this mediation analysis, as the cross-sectional design of this study limits our determination of causality, in other words, whether feelings of responsibility causes a change in intentions to intervene, or whether intentions to intervene causes a change in feelings of responsibility. In line with existing theoretical models, such as the Bystander Intervention Model (Latané & Darley, 1968, 1970), and existing empirical evidence which has demonstrated the causal relationship (e.g., Jouriles et al., 2016), it is more likely that greater feelings of responsibility to intervene leads to an increase in bystander intervention intent, rather than vice versa. Irrespective, future research should give due consideration to the use of longitudinal designs to confirm the causal nature between these variables and bystander intervention, and to develop a better understanding of these mediating effects. For example, why do people feel less responsible in the context of self-taking rather than other taking of images? It may be that victim blame plays a role and this is important to educate people about.

The lack of a significant interaction between the two IVs suggests that the inhibiting nature of initial consent to take the image remains, irrespective of the bystander's relationship

with the victim. In other words, this barrier to intervention exists even when bystanders are friends with the victim, further exemplifying the inhibiting nature that self-taken images can have on behavioural intentions to intervene and support victims in IBSA contexts.

Study 3: Making Threats to Share

The third form of IBSA considered in this series of experimental studies was making threats to share an image. Specifically, Study 3 examined the impact of the victim's initial consent for the image to be taken and the bystander's relationship with the perpetrator upon behavioural intentions to intervene, in a case of making threats to share an image. The following research question was addressed: are there differences in behavioural intentions to intervene depending on the victim's initial consent to take the image and the bystander's relationship with the perpetrator?

As already considered in Study 2, research is yet to consider the role of initial consent upon bystander intervention, but there is some evidence to suggest that initial consent for the image to be taken may inhibit intervention, and that victim blaming or responsibility assigned to the victim, could be the underlying cause (e.g., Gavin & Scott, 2019).

Concerning bystander relationship with the perpetrator, evidence is mixed as to whether this is a facilitator or barrier of intervention (Flynn et al., 2022b; Mainwaring et al., 2024), hence the need for further investigation. Inconsistencies in the literature could be explained by the type of intervention behaviour (Mainwaring et al., 2022), and uncovering the underlying cognitive processes which may explain any effects, such as feelings of responsibility or perpetrator motivations. Specifically, bystanders may feel a greater sense of responsibility to intervene when the perpetrator is a friend and may not perceive the motivations of their friends to be as malicious, given the personal relationship.

Overall, the lack of consistency in the literature, coupled with preliminary evidence concerning the underlying processes which may explain the effects of both whether there was

initial consent for the image to be taken and the bystander's relationship with the perpetrator, alongside potential practical applications from these determinations, led to the consideration of a series of mediating variables for Study 3. Specifically, a second research question was proposed: can any differences in behavioural intentions to intervene across the four experimental conditions be explained by the following five variables: feelings of responsibility, victim empathy, victim blame, perpetrator motivations, or victim-perpetrator responsibility?

Method

Participants

Participants were recruited from the general population using Prolific (2022) and the same inclusion criteria applied as in Studies 1 and 2 (final sample $n = 125$). This sample size met predetermined requirements for suitable power of .8³, with suitable sample sizes per cell ($n = 32, n = 31, n = 31, n = 31$). Most of the sample were White (79%), heterosexual (88%), and male (51%), and the mean age was 27 years ($SD = 6.4$). Full demographic information can be found in Table A1 in Appendix A.

Design

This study used a 2×2 between-participants design and vignette methodology. The first IV comprised the victim's initial consent to take the image (self-taken or stealth-taken); and the second IV comprised the bystander's relationship with the perpetrator (friend or stranger). Participants were randomly assigned to one of the four conditions.

Measures and Materials

Participants were provided with the same ethical documentation and demographic questionnaire as in Studies 1 and 2. The study presented one of four versions of the vignette and required participants to rate how likely they would be to intervene if they witnessed the scenario described. They also completed a series of measures regarding perceptions of 1)

feelings of responsibility, 2) victim empathy, 3) victim blame, 4) perpetrator motivations, and 5) victim-perpetrator responsibility.

Vignettes. The vignettes depicted a friend (victim) telling the participant (bystander) that their partner (perpetrator) is threatening to upload a nude image of them on social media. Whether there was consent for the image to be taken, and the relationship between the bystander and the perpetrator were manipulated across the four conditions (see Appendix F).

Likelihood of Bystander Intervention. Participants rated how likely they would be to engage in 13 different behaviours. These were similar to the items used in Studies 1 and 2. PCA with an oblique rotation identified three factors (DVs) which were labelled: perpetrator-focused intervention (3 items, e.g., ‘Tell your friend’s partner who is threatening to upload the photo that it is wrong to make these threats’), victim-focused intervention (4 items, e.g., ‘Offer your friend who is being threatened advice on how to deal with the situation’), and justice-focused intervention (3 items, e.g., ‘Advise your friend who is being threatened to inform the police of the situation’). Reliability for perpetrator-focused intervention was excellent ($\alpha = .92$), however, reliability was poor ($\alpha = .51$) and questionable ($\alpha = .68$) for victim- and justice-focused intervention respectively. Reliability could not be improved by the removal of any items. For victim-focused intervention, the mean inter-item correlation was .24 and for justice-focused intervention, the mean value was .44, suggesting suitable item homogeneity in these cases despite the alpha values (Briggs & Cheek, 1986). Average scores were created for use in main analyses, with higher scores representing a greater likelihood of perpetrator-, victim-, and justice-focused intervention. All DV items for Study 3 are provided in Appendix G.

Feelings of Responsibility. Participants rated how responsible they would feel to help in this situation using seven items⁴. PCA identified a single factor structure for these

items with good reliability ($\alpha = .80$). An average score measuring feelings of responsibility was created with higher scores representing greater feelings of responsibility.

Victim Empathy. The same two items as described in Study 2 were used. PCA identified a single factor structure for these items with good reliability ($r = .67, p < .001$). An average score measuring victim empathy was created with higher scores representing greater victim empathy.

Victim Blame. The same three items as described in Study 2 were used. PCA identified a single factor structure for these items with acceptable reliability ($\alpha = .72$). An average score measuring victim blame was created for use in the exploratory analyses with higher scores representing greater victim blame.

Perpetrator Motivations. The same six items as described in Study 2 were used. PCA identified two factors, one measuring perceived perpetrator malicious motivations, with three items retained and acceptable reliability ($\alpha = .79$), and the other measuring perpetrator mitigation, with two items retained and acceptable reliability ($r = .30, p = .001$). Average scores measuring perceived perpetrator motivations and perpetrator mitigation were created with higher scores representing greater perceptions of malicious motivations and perpetrator mitigation respectively.

Victim-Perpetrator Responsibility. As in Study 2, participants assigned a percentage score to represent the level of responsibility they attributed to victim and the perpetrator in the vignette. The total percentage score for responsibility had to equal 100%.

Procedure

The procedure was the same as that described in Studies 1 and 2. In Study 3, participants were asked two manipulation check questions, and those who did not answer both questions correctly ($n = 22$) were excluded from the final sample.

Analysis

Data were analysed using a 2×2 MANOVA with the following two IVs: initial consent (self-taken or stealth-taken), and bystander relationship with the perpetrator (friend or stranger). There were three DVs: perpetrator-focused intervention, victim-focused intervention, and justice-focused intervention. As with Studies 1 and 2, for any significant main or interaction effects, ANOVAs were used to explore these effects further. *P* values were not Bonferroni corrected to control for the family-wise errors given the infancy of this area of research and the desire to identify any effects worthy of further study (Armstrong, 2014). Where significant effects were identified, exploratory parallel multiple mediation analyses were conducted, to determine whether feelings of responsibility, victim empathy, victim blame, perceived perpetrator motivations, or victim-perpetrator responsibility could explain these effects, using the method described in Study 1.

Results

Assumptions of linearity, homogeneity of variance-covariance matrices, and multicollinearity were met. Normality tests showed that the assumption of normality had been violated and several outliers and multivariate outliers were identified. However, analyses were protected against the violation of these assumptions as described in Study 1.

The analysis examined the influence of initial consent and bystander relationship with the perpetrator on the perceived likelihood of perpetrator-, victim-, and justice-focused intervention. There was a statistically significant effect of bystander relationship with the perpetrator on the combined DV, $F(3, 119) = 15.83, p < .001$, Wilks' Lambda = .72, partial $\eta^2 = .29$. There was no statistically significant effect of initial consent, and no statistically significant interaction between initial consent and bystander relationship with the perpetrator on the combined DV, $F(3, 119) = 1.15, p = .331$, Wilks' Lambda = .97, partial $\eta^2 = .03$, and $F(3, 119) = .61, p = .610$, Wilks' Lambda = .99, partial $\eta^2 = .02$, respectively.

When investigating the overall effect for bystander relationship with the perpetrator, a statistically significant difference was found for perpetrator-focused intervention, $F(1, 121) = 36.15, p < .001$, partial $\eta^2 = .23$. Mean scores indicated that the likelihood of perpetrator-focused intervention was *greater* when the perpetrator was a friend ($M = 5.63, SD = 1.54$) compared to if they were a stranger ($M = 3.75, SD = 1.93$). There was also a statistically significant difference found for justice-focused intervention, $F(1, 121) = 4.44, p = .037$, partial $\eta^2 = .04$. In contrast to the previous finding, mean scores indicated that the likelihood of justice-focused intervention was *less* when the perpetrator was a friend ($M = 5.06, SD = 1.25$) compared to if they were a stranger ($M = 5.50, SD = 1.09$). See Table 5 for descriptive statistics.

[Table 5 here]

As there were significant main effects of bystander relationship with the perpetrator for perpetrator- and justice-focused intervention, exploratory parallel multiple mediation analyses with bootstrapping procedures were conducted. The mediators were: feelings of responsibility, victim empathy, victim blame, perpetrator motivations, perpetrator mitigation, and victim-perpetrator responsibility.

First, a parallel multiple mediation model was created for perpetrator-focused intervention. Nearly half of the variance (46.6%) in intent to engage in perpetrator-focused intervention is explained by all six mediators and bystander relationship with the perpetrator. The total effect (sum of direct and indirect effects) was significant ($c = -1.88, p < .001$, 95% CI = -2.49, -1.26). However, the significant effect of bystander relationship with the perpetrator remained when all the mediators were statistically controlled ($c^I = -1.69, p < .001$, 95% CI = -2.24, -1.15). Bootstrapping procedures identified no significant indirect effects, which is likely due to the non-significant effects of bystander relationship with the perpetrator upon the mediators.

Second, a parallel multiple mediation model was created for justice-focused intervention. Just over a quarter of the variance (26.5%) in intent to engage in justice-focused intervention is explained by all six mediators and bystander relationship with the perpetrator. The total effect (sum of direct and indirect effects) was significant ($c = .44, p = .037, 95\% \text{ CI} = .03, .86$), however, the significant effect of relationship with perpetrator remained when all the mediators were statistically controlled ($c^l = .54, p = .007, 95\% \text{ CI} = .15, .92$). Bootstrapping procedures identified no significant indirect effects, which is likely due to the non-significant effects of bystander relationship with the perpetrator upon the mediators.

Discussion

Study 3 demonstrated that perpetrator-focused intervention was more likely, and justice-focused intervention less likely, when the perpetrator was a friend. Regarding the effect on perpetrator-focused intervention, these findings align with those identified in past research (Flynn et al., 2022b; Mainwaring et al., 2024). Although not having been specifically considered in past research, a reduced likelihood of justice-focused intervention aligns somewhat with the work by Flynn and colleagues (2022b). Specifically, they identified that intervention is less likely when bystanders fear a relationship breakdown with a perpetrator who is a friend. Participants in the current study may have been less likely to engage in justice-focused intervention because such actions may result in harsher and more severe outcomes for the perpetrator, and thereby lead to a breakdown in the relationship between the bystander and perpetrator.

In SV contexts, there have been inconsistencies across the literature regarding how the bystander's relationship with the perpetrator impacts bystander intervention (see Mainwaring et al., 2022). Here, one can see that the effect of the bystander's relationship with the perpetrator differentially impacts bystander intervention behaviour depending on the

type of intervention behaviour being considered, which demonstrates the importance of distinguishing different types of bystander intervention behaviour in future research.

When considered in conjunction with the findings in Study 2, the role of bystander relationships with the victim and perpetrator appear to only impact bystander behaviours directed towards those individuals. In other words, being friends with the perpetrator influences behaviours directed toward the perpetrator and being friends with the victim influences behaviours directed toward the victim.

In contrast with the findings of Study 2, there was no significant effect of the victim's initial consent to take the image on behavioural intentions to intervene. It is possible that such effects were not found in Study 3 because the vignettes implied a greater sense of severity compared to the vignettes in Study 2, thereby reducing the focus on this situational characteristic, and minimising the impact on the likelihood of intervention. First, the vignettes in Study 2 described a single isolated incident whereby the bystander receives an image from their friend via text. Comparatively, the vignettes in Study 3 described the disclosure of an ongoing incident in which their friend is being threatened via a phone call. This element of isolated versus ongoing incidents may have resulted in perceptions of greater severity in Study 3. Finally, perceptions of severity may have been greater in Study 3 due to presenting the victim's perspective (i.e., victim discloses incident to bystander), compared to the perpetrator's perspective in Study 2 (i.e., perpetrator sends image to bystander). Consideration of the interaction between initial consent to take the image and severity would be a worthy endeavour for future research, to test this theory.

General Discussion

The three experimental studies presented in this article aimed to understand the role of situational facilitators and barriers of bystander intervention in the context of taking, sharing, and making threats to share nude or sexual images without consent. These studies also aimed

to give due attention to the nuanced and differential effects that these variables may have upon different types of intervention behaviour, and to explain any facilitating or inhibiting effects through exploratory mediation analyses.

In the context of upskirting (Study 1), the presence of other bystanders had no effect on the likelihood of victim- and perpetrator-focused intervention. For the non-consensual sharing of images (Study 2), the likelihood of victim- and perpetrator-focused intervention was reduced when the victim took the image of themselves, which could be related to a reduction in feelings of responsibility to intervene. Further, the likelihood of victim-focused intervention was greater when the victim was a friend. Finally, in the context of making threats to share images (Study 3), being friends with the perpetrator increased the likelihood of perpetrator-focused intervention and reduced the likelihood of justice-focused intervention.

Implications

There are some important theoretical and practical implications of this work. First, these studies have demonstrated the importance of acknowledging and distinguishing between different types of intervention behaviour, not only for theory development, but also for future empirical research and practical applications. For example, in Study 3, being friends with the perpetrator facilitated perpetrator-focused intervention but inhibited justice-focused intervention. Equally, Study 2 demonstrated the facilitative nature of being friends with the victim upon victim-focused intervention, but no such effects upon other forms of bystander intervention behaviour. These findings suggest that bystander relationships with the victim and perpetrator only impact behaviours directed towards these individuals. Therefore, these nuances in intervention would have been lost if the items had been grouped together. Equally, nuances were demonstrated across Study 2 and 3 concerning the inhibitive nature of self-taken images upon bystander intervention in the former study, but not the latter.

Karasavva and Mikami (2024) previously commented on how the impact of barriers to intervention may vary across online and in-person contexts. For example, in looking at the Bystander Intervention Model, which was originally developed for offline contexts, they identified a greater number of barriers to identifying online behaviours as problematic in the context of cyber aggression. Furthermore, the actions that bystanders take may differ when considering in-person contexts where intervention is required in the moment, versus online where the bystander arguably has more time to consider what action to take. Altogether, it is not appropriate to conceptualise intervention as a singular construct, instead, it varies in type and this conceptualisation may well differ according to the context of IBSA.

Second, the findings support the utility of holistic models which incorporate a wide range of factors and processes to explain bystander behaviour in IBSA contexts, such as that described by the Bystander Action Coils Model (Banyard, 2015; Banyard et al., 2021). For example, the findings from Study 2 highlight the importance of internal cognitive processes (i.e., feelings of responsibility) to understanding the facilitative or inhibitive role of situational variables (i.e., victim's initial consent to take the image). By targeting a range of factors and processes, campaigns and programmes can challenge people's beliefs and raise awareness of the potential of these beliefs to hinder intervention. As O'Brien et al. (2021) demonstrated through an evaluation of their online *STOP Dating Violence* intervention, students who completed this intervention were better able to identify potential psychological barriers to bystander intervention compared to control groups. They further argued that this recognition may allow them to overcome these barriers and facilitate intervention in the future.

Importantly, research has shown that online and in-person bystander intervention programmes, which aim to reduce SV by increasing bystander intervention, have had some success in achieving these aims (e.g., Kettrey & Marx, 2020; Kleinsasser et al., 2015; Mujal

et al., 2021; O'Brien et al., 2021). Consistent with existing programmes, the findings of Study 2 support the need to increase feelings of responsibility to intervene among bystanders. These findings also demonstrates the need to consider additional facilitators and barriers that should be addressed in these programmes. For example, the findings from Study 2 suggest that programmes should address the bias that bystanders experience when faced with an incident of non-consensual sharing in which the image was self-taken.

Equally, consideration should be given to instances where the bystander has existing relationships with the victim and/or the perpetrator. Acknowledging the role that relationships with the victim and perpetrator may have upon bystander intervention allows for a more nuanced set of educational materials to be developed, such as ways to overcome barriers to victim-focused intervention when the victim is a stranger. Equally, in situations where the perpetrator is a friend, programmes should acknowledge and address the likely reluctance bystanders may experience in engaging in justice-focused intervention, as well as the reluctance to engage in perpetrator-focused intervention when the perpetrator is a stranger. Finally, it is important to acknowledge that the victim's needs, and safety of all parties involved, should be at the heart of any programme which aims to encourage bystander intervention. Therefore, it is imperative that any materials or programmes take safety concerns into consideration and are evaluated appropriately.

Limitations and Future Directions

Despite the importance of this work, it is important to acknowledge key limitations of the studies. First, in using vignettes, each study focused on a specific IBSA incident. For example, in Study 2, the vignettes described an incident whereby the bystander was sent a digital copy of the image, however, sharing may occur more privately, through showing physical copies of images and more publicly through sharing via social media platforms. When showing physical copies, this may be a more normalised or accepted behaviour and

therefore could be considered less serious. Consequently, it is important to acknowledge that the role of situational variables may not apply to all incidents of non-consensual sharing. Therefore, it is important to develop a broader range of scenarios to better reflect the range of IBSA behaviours to allow for a better understanding of facilitators and barriers in these different contexts. Equally, many theoretical models and most empirical work to date has not distinguished between different forms of intervention behaviour. Future theory development and research must give due attention to this distinction. Research which pays attention to these differential impacts will lead to more nuanced research endeavours, in uncovering the differential impact of these variables, thereby leading to a better understanding of these behaviours, and greater practical implications and applications to real life bystander experiences. This will also lead to a reduction in inconsistencies concerning facilitators and barriers of bystander intervention, which has often been demonstrated in the literature (as identified in Mainwaring et al., 2022).

Further, although the current research incorporated three types of IBSA, it was unable to fully explore the intricacies of facilitators and barriers of bystander intervention across various online and in-person contexts. As outlined above, evidence suggests that there are important differences, for example, barriers to intervention as specified within the Bystander Intervention Model for offline compared to online contexts (Karasavva & Mikami, 2024). Therefore, future research should acknowledge the different facilitators and barriers that may be present across different IBSA contexts, particularly those occurring online versus offline.

Relatedly, future research, would benefit from investigating a wider range of variables, including those related to the individual and the wider context, in line with the Bystander Action Coils Model (Banyard, 2015; Banyard et al., 2021). For example, exploring how past experiences as a bystander in IBSA contexts, including positive and negative outcomes and consequences, can impact future intervention (Banyard, 2015; see Banyard et

al., 2021 for a consideration of this in sexual assault contexts). This would help to develop a more holistic understanding of the facilitators and barriers that may exist for bystanders in IBSA contexts, which would help to achieve the aim of encouraging bystander intervention.

Second, most participants in these experimental studies were individuals of White ethnicity identifying as heterosexual, limiting the diversity and generalisations that can be made. Some research has found that behavioural intentions to intervene differ across ethnic groups (Brown et al., 2014; Kania & Cale, 2021) and sexual identities (Flynn et al., 2022b). In addition, behaviour that constitutes IBSA may differ by ethnicity or religious grounds. For example, non-nude image sharing in certain cultures would still be considered deeply troubling (see Rackley et al., 2021), so it is important to make people aware of the cultural sensitivities in IBSA contexts, and how these sensitivities should be factored into bystander intervention (Mainwaring et al., 2024).

Third, all three studies focused on behavioural intentions rather than actual bystander behaviour. Research in SV contexts has consistently shown that there is a positive relationship between intentions and actual bystander behaviour (e.g., Franklin et al., 2017; Kania & Cale, 2021; Waterman et al., 2021), which suggests that intentions can provide a valid indication of how bystanders behave in real-life situations. However, to ensure validity of this assertion, future research should aim to test whether the facilitators and barriers identified here apply in real-life situations.

Conclusion

This article presented three experimental studies that examined how situational factors can facilitate or inhibit behavioural intentions to intervene in IBSA contexts. Overall, this body of work demonstrated the inhibitive effects of self-taken images upon bystander intervention in cases of non-consensual sharing, that could be explained by a reduction in bystander feelings of responsibility. Further, insights into the role of relationships were

identified, such as the facilitative effects of being friends with the victim and perpetrator upon victim- and perpetrator-focused intervention, respectively, and the inhibitive effect of being friends with the perpetrator upon justice-focused intervention. These findings have practical implications for the development of educational materials and programmes which aim to encourage bystander intervention. For example, it is important to minimise the inhibiting effect of self-taken images on bystander intervention, and to encourage potential bystanders to feel responsible irrespective of the victim's initial consent to take the image. Equally, it is important to acknowledge the role that relationships with the victim and perpetrator may have upon bystander intervention, thereby allowing for the development of a more nuanced set of educational materials.

References

- Armstrong, R. A. (2014). When to use the Bonferroni correction. *Ophthalmic and Physiological Optics*, *34*(5), 502–508. <https://doi.org/10.1111/opo.12131>
- Attrill-Smith, A., Wesson, C. J., Chater, M. L., & Weekes, L. (2021). Gender differences in videoed accounts of victim blaming for revenge porn for self-taken and stealth-taken sexually explicit images and videos. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, *15*(4). <https://doi.org/10.5817/CP2021-4-3>
- Banyard, V. L. (2015). *Toward the next generation of bystander prevention of sexual and relationship violence: Action coils to engage communities*. Springer. <https://doi.org/10.1007/978-3-319-23171-6>
- Banyard, V. L., Moschella, E., Jouriles, E., & Grych, J. (2021). Exploring action coils for bystander intervention: Modeling bystander consequences. *Journal of American College Health*, *69*(3). <https://doi.org/10.1080/07448481.2019.1665052>
- Banyard, V. L., Moynihan, M. M., & Plante, E. G. (2007). Sexual violence prevention through bystander education: An experimental evaluation. *Journal of Community Psychology*, *35*(4), 463–481. <https://doi.org/10.1002/jcop.20159>
- Bates, S. (2017). Revenge porn and mental health: A qualitative analysis of the mental health effects of revenge porn on female survivors. *Feminist Criminology*, *12*(1), 22–42. <https://doi.org/10.1177/1557085116654565>
- Briggs, S. R., & Cheek, J. M. (1986). The role of factor analysis in the development and evaluation of personality scales. *Journal of Personality*, *54*(1), 106–148. <https://doi.org/10.1111/j.1467-6494.1986.tb00391.x>
- Brown, A. L., Banyard, V. L., & Moynihan, M. M. (2014). College students as helpful bystanders against sexual violence: Gender, race, and year in college moderate the

impact of perceived peer norms. *Psychology of Women Quarterly*, 38(3), 350–362.

<https://doi.org/10.1177/0361684314526855>

Burn, S. (2009). A situational model of sexual assault prevention through bystander intervention. *Sex Roles*, 60(11–12), 779–792.

Campbell, J. K., Poage, S. M., Godley, S., & Rothman, E. F. (2020). Social anxiety as a consequence of non-consensually disseminated sexually explicit media victimization.

Journal of Interpersonal Violence, 1–21. <https://doi.org/10.1177/0886260520967150>

Champion, A. R., Oswald, F., Khera, D., & Pedersen, C. L. (2022). Examining the gendered impacts of technology-facilitated sexual violence: A mixed methods approach.

Archives of Sexual Behavior, 51(3), 1607–1624. <https://doi.org/10.1007/s10508-021-02226-y>

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed). L. Erlbaum Associates.

Darley, J. M., & Latané, B. (1968). Bystander intervention in emergencies: Diffusion of responsibility. *Journal of Personality and Social Psychology*, 8(4), 377–383.

<https://doi.org/10.1037/h0025589>

Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39(2), 175–191.

<https://doi.org/10.3758/BF03193146>

Fischer, P., Krueger, J. I., Greitemeyer, T., Vogrincic, C., Kastenmüller, A., Frey, D., Heene, M., Wicher, M., & Kainbacher, M. (2011). The bystander-effect: A meta-analytic review on bystander intervention in dangerous and non-dangerous emergencies.

Psychological Bulletin, 137(4), 517–537. <https://doi.org/10.1037/a0023304>

- Flynn, A., Cama, E., & Scott, A. J. (2022a). *Image-based abuse: Bystander experiences and responses* (Trends & Issues in Crime and Criminal Justice). Australian Institute of Criminology.
- Flynn, A., Cama, E., & Scott, A. J. (2022b). *Preventing image-based abuse in Australia: The role of bystanders*. Australian Institute of Criminology.
- Franklin, C. A., Brady, P. Q., & Jurek, A. L. (2017). Responding to gendered violence among college students: The impact of participant characteristics on direct bystander intervention behavior. *Journal of School Violence, 16*(2), 189–206.
<https://doi.org/10.1080/15388220.2017.1284450>
- Gassó, A. M., Mueller-Johnson, K., Agustina, J. R., & Gómez-Durán, E. L. (2021). Exploring Sexting and Online Sexual Victimization during the COVID-19 Pandemic Lockdown. *International Journal of Environmental Research and Public Health, 18*(12), Article 12. <https://doi.org/10.3390/ijerph18126662>
- Gavin, J., & Scott, A. J. (2019). Attributions of victim responsibility in revenge pornography. *Journal of Aggression, Conflict and Peace Research, 11*(4), 263–272.
<http://dx.doi.org.gold.idm.oclc.org/10.1108/JACPR-03-2019-0408>
- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs, 76*(4), 408–420.
<https://doi.org/10.1080/03637750903310360>
- Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Publications.
<http://ebookcentral.proquest.com/lib/goldsmiths/detail.action?docID=5109647>
- Henry, N., McGlynn, C., Flynn, A., Johnson, K., Powell, A., & Scott, A. J. (2020). *Image-based sexual abuse: A study on the causes and consequences of non-consensual nude or sexual imagery*. Routledge. <https://doi.org/10.4324/9781351135153>

- Jouriles, E. N., Kleinsasser, A., Rosenfield, D., & McDonald, R. (2016). Measuring Bystander Behavior to Prevent Sexual Violence: Moving Beyond Self Reports. *Psychology of Violence, 6*(1), 73–81. <https://doi.org/10.1037/a0038230>
- Kania, R., & Cale, J. (2021). Preventing sexual violence through bystander intervention: Attitudes, behaviors, missed Opportunities, and barriers to intervention among Australian university students. *Journal of Interpersonal Violence, 36*(5–6), 2816–2840. <https://doi.org/10.1177/0886260518764395>
- Karasavva, V., & Mikami, A. Y. (2024). I'll be there for you? The bystander intervention model and cyber aggression. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace, 18*(2). <https://doi.org/10.5817/CP2024-2-1>
- Katz, J., Merrilees, C., Hoxmeier, J. C., & Motisi, M. (2017). White female bystanders' responses to a black woman at risk for incapacitated sexual assault. *Psychology of Women Quarterly, 41*(2), 273–285.
- Katz, J., Paziienza, R., Olin, R., & Rich, H. (2015). That's what friends are for: Bystander responses to friends or strangers at risk for party rape victimization. *Journal of Interpersonal Violence, 30*(16), 2775–2792. <https://doi.org/10.1177/0886260514554290>
- Kaya, A., Le, T. P., Brady, J., & Iwamoto, D. (2019). Men who intervene to prevent sexual assault: A grounded theory study on the role of masculinity in bystander intervention. *Psychology of Men & Masculinities, 21*(3), 463–478. <https://doi.org/10.1037/men0000249>
- Kettrey, H. H., & Marx, R. A. (2020). Effects of bystander sexual assault prevention programs on promoting intervention skills and combatting the bystander effect: A systematic review and meta-analysis. *Journal of Experimental Criminology*. <https://doi.org/10.1007/s11292-020-09417-y>

- Kleinsasser, A., Jouriles, E. N., McDonald, R., & Rosenfield, D. (2015). An Online Bystander Intervention Program for the Prevention of Sexual Violence. *Psychology of Violence, 5*(3), 227–235. <https://doi.org/10.1037/a0037393>
- Kratz, A. L. (2024). Dos and don'ts for conducting mediation analysis: A commentary with practical tips to avoid common problems. *Rehabilitation Psychology, 69*(4), 357–363. <https://doi.org/10.1037/rep0000572>
- Latané, B., & Darley, J. (1968). Group inhibition of bystander intervention in emergencies. *Journal of Personality and Social Psychology, 10*(3), 215–221. <https://doi.org/10.1037/H0026570>
- Latané, B., & Darley, J. M. (1970). *The unresponsive bystander: Why doesn't he help?* Appleton-Century Crofts.
- Latané, B., & Nida, S. (1981). Ten years of research on group size and helping. *Psychological Bulletin, 89*, 308–324. <https://doi.org/10.1037/0033-2909.89.2.308>
- Mainwaring, C., Gabbert, F., & Scott, A. J. (2022). A systematic review exploring variables related to bystander intervention in sexual violence contexts. *Trauma, Violence, & Abuse, 23*(1), 1–15. <https://doi.org/10.1177/15248380221079660>
- Mainwaring, C., Scott, A. J., & Gabbert, F. (2023). Behavioral intentions of bystanders to image-based sexual abuse: A preliminary focus group study with a university student sample. *Journal of Child Sexual Abuse, 32*(3), 318–339. <https://doi.org/10.1080/10538712.2023.2190734>
- Mainwaring, C., Scott, A. J., & Gabbert, F. (2024). Facilitators and barriers of bystander intervention intent in image-based sexual abuse contexts: A focus group study with a university sample. *Journal of Interpersonal Violence, 39*(11–12), 2655–2686. <https://doi.org/10.1177/08862605231222452>

- McGlynn, C., Johnson, K., Rackley, E., Henry, N., Gavey, N., Flynn, A., & Powell, A. (2020). 'It's torture for the soul': The harms of image-based sexual abuse. *Social & Legal Studies*, 1–22. <https://doi.org/10.1177/0964663920947791>
- McGlynn, C., Rackley, E., Johnson, K., Henry, N., Flynn, A., Powell, A., Gavey, N., & Scott, A. J. (2019). *Shattering lives and myths: A report on image-based sexual abuse*. Australian Research Council. <https://dro.dur.ac.uk/28683/>
- Mujal, G. N., Taylor, M. E., Fry, J. L., Gochez-Kerr, T. H., & Weaver, N. L. (2021). A systematic review of bystander interventions for the prevention of sexual violence. *Trauma, Violence, & Abuse*, 22(2), 381–396. <https://doi.org/10.1177/1524838019849587>
- O'Brien, K. M., Sauber, E. W., Kearney, M. S., Venaglia, R. B., & Lemay, E. P. (2021). Evaluating the effectiveness of an online intervention to educate college students about dating violence and bystander responses. *Journal of Interpersonal Violence*, 36(13–14), NP7516–NP7546. <https://doi.org/10.1177/0886260519829769>
- Office of eSafety Commissioner. (2017). *Image-based abuse: Qualitative research summary*. Office of the eSafety Commissioner. <https://www.esafety.gov.au/about-us/research/image-based-abuse>
- O'Laughlin, K. D., Martin, M. J., & Emilio Ferrer. (2018). Cross-sectional analysis of longitudinal mediation processes. *Multivariate Behavioral Research*, 53(3), 375–402. <https://doi.org/10.1080/00273171.2018.1454822>
- Pallant, J. (2016). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS* (6th ed.). Open University Press.
- Powell, A., Henry, N., & Flynn, A. (2018). Image based sexual abuse. In W. S. DeKeseredy & M. Dragiewicz (Eds.), *Routledge handbook of critical criminology* (2nd ed., pp. 305–315). Routledge.

- Prolific. (2022). *Prolific* (Version 2021) [Computer software]. <https://www.prolific.co/>
- Qualtrics. (2022). *Qualtrics* (Version 2021) [Computer software]. <https://www.qualtrics.com/>
- Rackley, E., McGlynn, C., Johnson, K., Henry, N., Gavey, N., Flynn, A., & Powell, A. (2021). Seeking justice and redress for victim-survivors of image-based sexual abuse. *Feminist Legal Studies*. <https://doi.org/10.1007/s10691-021-09460-8>
- Short, E., Brown, A., Pitchford, M., & Barnes, J. (2017). Revenge porn: Findings from the Harassment and Revenge Porn (HARP) survey - preliminary results. *Annual Review of Cybertherapy and Telemedicine*, 15, 161–166.
- Spector, P. E. (2019). Do not cross me: Optimizing the use of cross-sectional designs. *Journal of Business and Psychology*, 34(2), 125–137.
- Tabachnick, B. G., & Fidell, L. S. (2014). *Using multivariate statistics* (6th ed.). Pearson Education Limited.
- Uhl, C. A., Rhyner, K. J., Terrance, C. A., & Lugo, N. R. (2018). An examination of nonconsensual pornography websites. *Feminism & Psychology*, 28(1), 50–68. <https://doi.org/10.1177/0959353517720225>
- Waterman, E. A., Dworkin, E. R., Dardis, C. M., Ullman, S. E., Edwards, K. M., & Rodriguez, L. M. (2021). Exploring the association between anticipated and actual responses to disclosures of intimate partner violence and sexual assault. *Journal of Social and Personal Relationships*, 38(4), 1131–1151. <https://doi.org/10.1177/0265407520983930>
- Wharton Credibility Lab. (2015). *AsPredicted*. <https://aspredicted.org/>
- Zelin, A. I., Walker, R. V., & Johnson, D. M. (2019). Cornered at a bar: How victim clothing, alcohol intake, and relationship with bystander impact intention to help. *Violence Against Women*, 25(10), 1163–1190. <https://doi.org/10.1177/1077801218809948>

Zvi, L., & Shechory-Bitton, M. (2020a). Perceptions of victim and offender culpability in non-consensual distribution of intimate images. *Psychology, Crime & Law*.

<https://doi.org/10.1080/1068316X.2020.1818236>

Zvi, L., & Shechory-Bitton, M. (2020b). Police officer perceptions of non-consensual dissemination of intimate images. *Frontiers in Psychology, 11*.

<https://doi.org/10.3389/fpsyg.2020.02148>

Tables and Figures

Table 1

Means and Standard Deviations for Likelihood of Bystander Intervention as a Function of Presence of Other Bystanders

Variable		Perpetrator-focused	Justice-focused
		intervention	intervention
		<i>M (SD)</i>	<i>M (SD)</i>
Presence of other bystanders	Only bystander	4.58 (1.65)	4.90 (1.56)
	Other bystanders (friends)	5.13 (1.40)	4.76 (1.09)
	Other bystanders (strangers)	4.67 (1.61)	4.84 (1.37)

Table 2

Means and Standard Deviations for Likelihood of Bystander Intervention as a Function of Initial Consent and Bystander Relationship with the Victim

Variable		Victim-focused	Perpetrator-	Bystander
		intervention	focused	perpetration
		<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>
Initial consent	Self-taken	2.77 (1.54)**	5.79 (1.22)**	1.30 (0.82)
	Stealth-taken	3.53 (1.71)**	6.32 (0.93)**	1.12 (0.53)
Bystander relationship with the victim	Victim friend	3.44 (1.62)*	6.06 (1.02)	1.13 (0.47)
	Victim stranger	2.84 (1.66)*	6.04 (1.22)	1.29 (0.87)

Note. * $p < .05$, ** $p < .01$.

Table 3

Regression Coefficients, Standard Errors, and Model Summary Information for Parallel Multiple Mediator Model for Victim-Focused Intervention (Y) and Initial Consent (X)

Antecedent	Consequent			
	Y (victim-focused intervention)			
		<i>C</i>	<i>SE</i>	<i>p</i>
X (initial consent)	c'	.44	.30	.154
M ₁ (feelings of responsibility)	b_1	.71	.13	< .001
M ₂ (victim empathy)	b_2	.02	.12	.844
M ₃ (victim blame)	b_3	.08	.13	.532
M ₄ (perpetrator motivations)	b_4	.18	.11	.085
M ₅ (victim-perpetrator responsibility)	b_5	.00	.01	.904
Model summary		$R^2 = .340$		
		$F(6, 118) = 10.12,$		
		$p < .001$		

Note. *C* = coefficient.

Table 4

Regression Coefficients, Standard Errors, and Model Summary Information for Parallel Multiple Mediator Model for Perpetrator-Focused Intervention (Y) and Initial Consent (X)

Antecedent	Consequent			
	Y (perpetrator-focused intervention)			
	<i>C</i>	<i>SE</i>	<i>p</i>	
X (initial consent)	<i>c'</i>	.27	.17	.123
M ₁ (feelings of responsibility)	<i>b</i> ₁	.57	.07	< .001
M ₂ (victim empathy)	<i>b</i> ₂	.14	.07	.039
M ₃ (victim blame)	<i>b</i> ₃	.11	.08	.156
M ₄ (perpetrator motivations)	<i>b</i> ₄	.10	.06	.089
M ₅ (victim-perpetrator responsibility)	<i>b</i> ₅	-.00	.00	.550
Model summary	<i>R</i> ² = .533			
	<i>F</i> (6, 118) = 22.46,			
	<i>p</i> < .001			

Note. *C* = coefficient.

Table 5

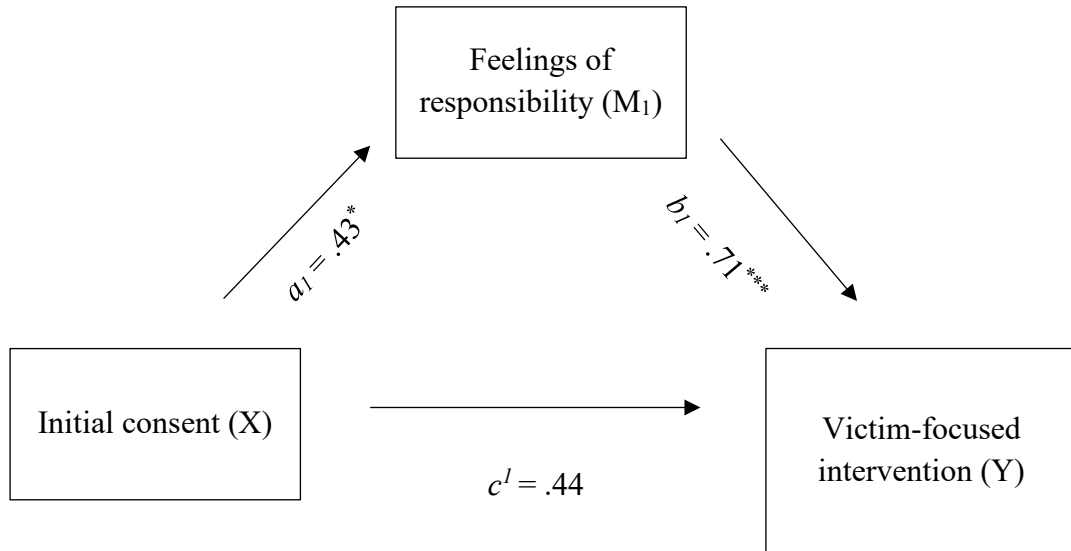
Means and Standard Deviations for Likelihood of Bystander Intervention as a Function of Initial Consent and Bystander Relationship with the Perpetrator

Variable		Perpetrator-	Victim-	Justice-
		focused intervention	focused intervention	focused intervention
		<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>
Initial consent	Self-taken	4.47 (2.13)	6.55 (0.56)	5.32 (1.12)
	Stealth-taken	4.93 (1.80)	6.43 (0.64)	5.24 (1.26)
Bystander relationship with the perpetrator	Perpetrator friend	5.63 (1.54) ^{***}	6.49 (0.67)	5.06 (1.25) [*]
	Perpetrator stranger	3.75 (1.93) ^{***}	6.50 (0.53)	5.50 (1.09) [*]

Note. ^{*} $p < .05$, ^{***} $p < .001$.

Figure 1

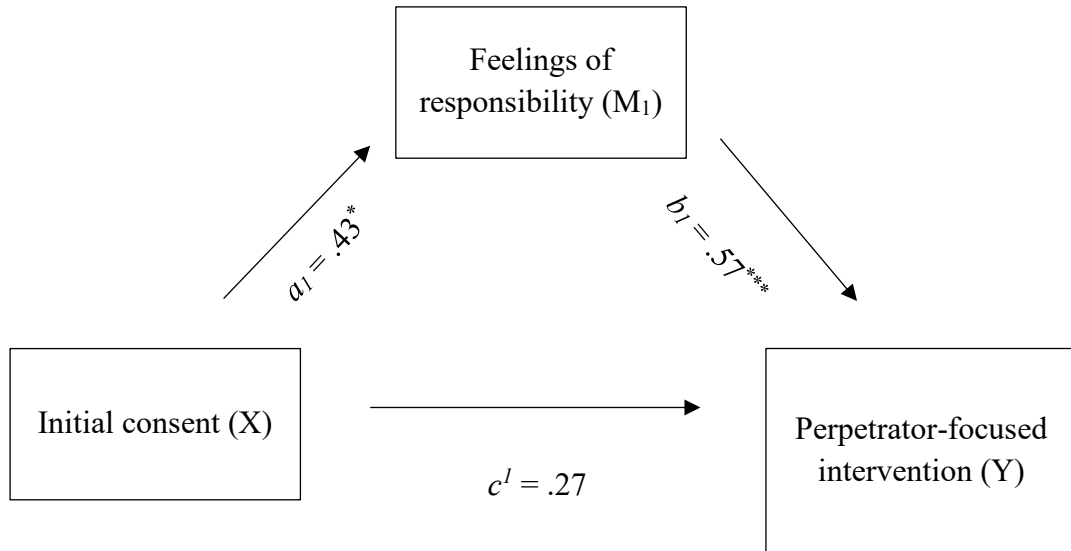
Mediation of Feelings of Responsibility Between Initial Consent and Victim-Focused Intervention for Study 2



Note. Figures represent regression coefficients. a_1 = effect of initial consent on feelings of responsibility, b_1 = effect of feelings of responsibility on victim-focused intervention controlling for initial consent and other mediator variables, c^1 = direct effect of initial consent on victim-focused intervention controlling for feelings of responsibility and other mediator variables. * $p < .05$, *** $p < .001$.

Figure 2

Mediation of Feelings of Responsibility Between Initial Consent and Perpetrator-Focused Intervention for Study 2



Note. Figures represent regression coefficients. a_1 = effect of initial consent on feelings of responsibility, b_1 = effect of feelings of responsibility on perpetrator-focused intervention controlling for initial consent and other mediator variables, c^1 = direct effect of initial consent on perpetrator-focused intervention controlling for feelings of responsibility and other mediator variables. * $p < .05$, *** $p < .001$

Footnotes

¹ 126 participants were required for suitable power. All priori power calculations were determined using G*Power (Faul et al., 2007). Given that the determination of the number of DVs was identified after data collection, a liberal estimation of four DVs was used for the purposes of determining an appropriate sample size.

² 125 participants were required for suitable power.

³ 125 participants were required for suitable power.

⁴ Seven items were used instead of eight (as in Studies 1 and 2), given that one item was not applicable in this vignette.