

# Can Practising Sport Activities Improve Body Image in People with Physical Disabilities?

## Abstract

Body image is defined as a multi-dimensional concept which includes body perception, attitude and feelings towards one's own body. Research has shown that people with physical disability suffer greatly from a poor body image. The present paper underlines the positive impact of exercising on body image for people with physical impairment.

**Keywords:** Body image; Physical disability; Sport

## Mini Review

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## Introduction

Body image is a multi-dimensional notion which includes body perception (evaluation of physical characteristics of the body and its functions) attitude and feelings towards one's own body (body valuation and body-esteem) [1-3]. To date, it is well-known that body image can be perceived negatively in healthy people (see [4] for review).

Several studies have showed that people with physical impairment perceive their body image as similar as people without physical disability [5-10]. More dramatically, research has underlined that physical disability can be related with negative feelings towards the body [7,8,11-15]. In particular, several studies have highlighted that body image in people with physical impairment can be even worse than in healthy people [8,12-21].

Anecdotal reports have underlined negative body image in leg amputated patients [16-18]. Testing 112 participants with leg amputation, a study [19] has confirmed these anecdotal reports, underlining that concerns about one's own body image is one predictor of depression in these patients. Moreover, negative body image has been highlighted in male patients with spinal cord injury (testing 47 men<sup>13</sup>), in female patients with spinal cord injury (testing 27 women<sup>12</sup>), in women suffering from spinal cord injury and injury resulting from polio (testing 64 female patients<sup>20</sup>) and in patients with lower-limb amputation (testing 298 participants<sup>21</sup>). Taleporos & McCabe [8,15] went further into these outcomes by testing 748 participants with physical disability (367 males and 381 females, most commonly reported disabilities of this sample being spinal cord injury, cerebral palsy, and acquired brain injury). These authors showed that:

- i. Body-esteem is a strong predictor of self-esteem and depression in people with physical impairment, in particular in women.
- ii. Physically disabled people with greater need for daily assistance show a lower body esteem.
- iii. This low body esteem is in relation with their body function, their upper and lower body, but not with their face.

In particular Taleporos & McCabe [15] underlined that male participants with physical impairment devalue the lower parts of their body more than female participants with physical disability and highlighted that age is a predictor of body esteem in physically disabled females (i.e. suggesting that women with physical impairment are more likely to experience lower body esteem as they get older).

Research have revealed that exercise is associated with a more positive body image in people without physical disability (see [22,23] for review). This body image improvement has been found across ages and for both men and women [23]. Physical activity has also been shown to be associated with a well-being increase [24].

Interestingly Tylka [25] identified characteristics to develop and sustain a positive body image. Listening to and taking care of your body by engaging in positive behaviours and activities have been listed as such characteristics. Moreover, social stigma [19] and social support [26] appear to be key issues in body acceptance and body image in physically disabled people. Listening to and taking care of your body, engaging in positive behaviours and activities avoiding social stigma and having social support are notions that can be linked with practising sport activities. It can be suggested that practising physical activity would improve body image in people with physical impairment.

To our knowledge, only a few studies have investigated this idea. Testing four men with cervical spinal cord injury, Wise [27] have highlighted an improvement of participants' body image after a year of weight training. These participants also underlined that weight training provided them with opportunities to socialize. Moreover, Wetterhahn & Hanson [28] & Tatar [29] have showed benefits of exercise on body image for people with lower limb amputation (LLA). Wetterhahn & Hanson [28] asked 56 LLA participants to engage in at least two hours of aerobic activity per week (in sessions of a minimum of 20 min each). These authors

showed a positive relationship between regular participation in physical activity and body image among these participants. Tatar [29] also showed an improvement of body image in 17 lower-limb amputees (LLA) who participated in sport activities compared to a group of 20 LLA who didn't participate in any sport exercise. Finally, testing a group of 30 participants with acquired mobility disability (AMD) Yueng & Hanson [9] have showed that AMD participants who were active evaluated their physical appearance and health as being better, were more concerned with fitness, and were more satisfied with different body parts than AMD participants who haven't been active.

The current research states promising results about body image improvement by practising sport in people with physical impairment. Further work would be necessary, in particular to assess the more appropriate sport type intensity and frequency of such activity in people with physical disability.

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