



Doing Gender and Reshaping the Self: The Rehabilitation Narratives of TBI Survivors

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Abstract

This article provides a review of selected studies conducted in recent years on the relationship between gender identity and recovery following traumatic brain injury (TBI) with the goal of determining whether gender constructions play a role in the lived experience of TBI survivors. The studies reviewed show that psychosocial issues resulting from perceived difficulties in doing gender can be a burden to successful recovery and that addressing these constructions can have a positive influence on long-term results. Consequently, the author argues that gender should be considered a critical element in the aetiology and management of psychosocial issues following the injury and that a combination of factors should be addressed when looking at gendered aspects of post-TBI recovery, including attitudes toward care, motivation and satisfaction with rehabilitation outcomes. In particular, stronger collaboration between the medical field and social sciences is encouraged, with the aim of exploring individual perspectives and experiences especially on a larger scale than what has currently been achieved.

Keywords: *care, gender roles, posttraumatic brain injury, self, rehabilitation*

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Traumatic Brain Injury: An Overview

Traumatic brain injury (TBI) is a major global public health issue with around 60 million cases occurring annually (Quaglio et al., 2017), resulting in widespread death and disability across the globe (Alves & Bullock, 2001). The most common causes of TBI are car accidents and physical aggression (Rutland-Brown et al., 2006), with men two times more likely to be affected than women (Rao & Lyketsos, 2000). TBI is “an alteration in brain function, or other evidence of brain pathology, caused by an external force” (Menon et al., 2010, p. 1638) that can alter cognitive, physical, emotional, behavioral, and communicative abilities (MacQueen & Fisher, 2019).

In the same way that healthy brain functions present individualized differences, so too can the consequences of brain injury differ from one person to another, even when identical areas of the brain are affected (Chantsoulis et al., 2015). Despite this variance, however, generalizations can often be made regarding the likely effects and long-term outcomes of an injury. For example, if the cerebellum is affected, a person will

usually experience issues with balance and muscle coordination, a condition called ataxia. Ataxia can interfere with a person's ability to perform daily tasks, such as eating, walking, and talking. Alternatively, an impact to the prefrontal cortex (the anterior portion of the frontal lobe) often affects higher cognitive functions and personality. Overall, people with TBI are likely to experience physical issues, such as headaches, fatigue, visual and auditory sensitivity; cognitive issues, such as deficits in memory, attention, concentration and executive function; and emotional issues, such as depression and anxiety.

Psychological and Social Components of TBI Recovery

Mild cases of TBI are generally resolved within a few weeks, with over 90% of people able to live independently, or with limited forms of assistance in areas such as physical ability and financial management (Crooks et al., 2007). However, the psychological issues following TBI can be very serious in nature, with an estimated 33–59% of survivors suffering depression (Jorge et al., 2004; Glenn et al., 2001) and with approximately one percent of these cases ending in suicide (Fleminger et al., 2003). It is often observed that satisfaction with life can decrease dramatically for individuals suffering TBI (Fuhrer, 2000), and that social roles, age, and interpersonal relations can both positively and negatively influence life satisfaction as time passes (Juengst et al., 2015). The adjustments in lifestyle, social relations, and work-related activities following TBI, in concomitance with physical and cognitive impairments, can have a deep impact on survivors' sense of self (Cantor et al., 2005; Conneeley, 2003). This issue has been addressed in terms of changes in "self-concept" (Vickery et al., 2005; Beadle et al., 2016) and "loss of self" (Nochi, 1998), where grief is observed to be associated with the presence of depression (Carroll & Coetzer, 2011).

Neurobehavioral and self-awareness modifications post-TBI have been observed to have a negative impact on treatment and impede social reintegration (Arnould et al., 2015), making it harder to achieve successful outcomes (Morton & Wehman, 2009) and worsening pre-existing psychiatric conditions (Ahmed et al., 2017). This can have far reaching implications for the individual, their household, and the wider community. Therefore, the rehabilitation of TBI survivors has become a global concern that is gaining increasing attention from the social and medical research field (Langlois et al., 2006). It is crucial that TBI survivors receive professional psychological support to deal with these aspects of recovery and that rehabilitation be built around a goal-planning approach in which the patient, their family, and professional staff work together to define and reach selected outcomes (Levack et al., 2014). Similarly, therapies based on pharmacotherapy, psychotherapy, and cognitive rehabilitation should take care not to overlook the presence of psychological, social, and emotional issues that impact patients with TBI.

Biological Aspects of TBI and Gender

Biological and medical studies addressing post-TBI recovery usually investigate the role of gender in the manifestation and healing of TBI-related issues. However, they do so without taking the social components of gender construction into account. Many of these analyses are biologically based and focus on the protective role of hormones through animal research. For example, drawing on older studies by Roof et al. (1994) and Roof et al. (1993), Wagner (2004) suggested that endogenous hormones can work as neuroprotectors in female rats after TBI, reducing cerebral oedema when compared to their male counterparts. This theory has been supported by follow-up studies demonstrating that treatment with progesterone can inhibit the inflammatory agents that follow TBI (Pettus et al., 2005). Consequently, a growing number of studies now suggest that progesterone can play an important role in enhancing TBI recovery in both mice (Gibson & Murphy, 2004; Jones et al., 2005) and humans (Wright et al., 2007).

On another hand, there are mixed findings regarding rehabilitation outcomes in relation to gender in human subjects. Studies conducted by Kimura (1983) and Basso et al. (1982) on the recovery of patients after stroke observed that female patients generally had better outcomes than male patients, thus suggesting that gender

could also have a significant impact on post-TBI experiences and outcomes (Stein et al., 1999). In a more recent study, Goranson et al. (2003) found that women tended to achieve better outcomes after multidisciplinary rehabilitation. However, there are mixed findings about women outperforming men when it comes to cognition tasks. Basso et al. (2000), observed that women perform better on tests of spatial orientation post-TBI, while Lewin et al. (2001) found that men performed better in visuospatial memory involving black and white pictures. Differently, Covassin et al. (2006) noted that men performed better in tests related to visual memory, while women excelled in word-memory tasks. The inconsistency of these results suggests that further studies are needed that investigate the variables connecting gender constructions and cognitive outcomes with social and psychosocial perspectives of investigation (Moore et al., 2010; Mansour & Lajiness-O'Neill, 2015).

Gendered Selves and Rehabilitation

While post-TBI experiences vary between individuals, as indeed does the nature of the self itself (Kleinman, 1995; Mattingly, 1998), Thomas et al. (2014, p. 1042) suggest that the common element between these diverse subjective experiences is a process of “self-reflective meaning making,” within which the seeking of a life purpose provides the TBI survivor with motivation toward reaching satisfactory rehabilitation outcomes. In the present review article, I suggest that this process of self-reflection is largely shaped by gendered aspects.

This paper is theoretically grounded in the social constructivist idea of gender, according to which gender is a social construct with historical, cultural, and individualized connotations, which may or may not be linked to biological attributes (Burr, 2003). As West and Zimmerman (1987, p. 140) postulated, a “person’s gender is not simply an aspect of what one is, but, more fundamentally, it is something that one does, and does recurrently, in interaction with others.” According to this approach, doing gender is a crucial factor in the construction of individual identity and the self is built through self-categorization and comparison with others (Jetten et al., 2012).

Research suggests that gendered perceptions of the post-TBI self often influence survivors’ wellbeing and that a distorted perception of gender identity can lead to a crisis of self-categorization due to perceived discrepancies between the past and the present self, where the new self is seen negatively (Carroll & Coetzer, 2011). Studies on the topic of grieving and coping in non-TBI related contexts suggest that men generally do better than women in coping with difficult situations. This has been explained by some scholars with the fact that men adopt a problem-focused rather than emotion-focused approach, whereas women more often adopt the latter (Hovanitz & Kozora, 1990). De Ridder (2000) and Folkman & Lazarus (1980) argued that an approach that stresses emotional aspects is more effective in the case of uncontrollable crises. As suggested by Baker et al. (2005), TBI could be one of these cases in which emotion-based approaches are more effective in providing the survivor with the possibility of recovering from a perceived loss of self, fostering adaptability, resilience, and positive growth. Focusing on the explanation of the preference for different coping strategies between men and women, Gutman and Napier-Klemic (1996) suggested that the crisis of the self is strictly linked to gender strain, which can be particularly strong in men. In the context of spinal cord injury, Hutchinson and Kleiber (2000) argued that gender strain is the very cause for men’s avoidance of their own emotional issues, where suffocation of emotions associated with femininity, such as sadness, becomes a coping strategy against a perceived loss of masculinity. According to them, aggressivity is often used by men to hide sadness, in a cycle in which emotional self-control worsens pre-existing psychological issues.

Psychologically oriented studies addressing gender and TBI have the advantage of reporting the gendered aspects of outcomes under the social observation umbrella. By taking an approach that addresses gender, researchers gain a deeper understanding of the issues faced by TBI survivors that do not always fall into neat categories and can be difficult to identify and express, lying outside of traditionally scientific medical fields of

enquiry. As such, these issues and their consequences can easily be overlooked or considered relatively unimportant.

In this article, I discuss the results of a review of recent studies selected from the fields of neuropsychological rehabilitation, psychology, occupational therapy, and rehabilitation medicine that address the gendered aspects of self in post-TBI rehabilitation and recovery. For the purposes of this review, I focused on attitudes toward care, motivation, and overall satisfaction post-recovery.

Hypothesis and Objectives

My hypothesis was that gender constructions play a role in shaping the experience of recovery of TBI survivors and that the interaction between gender-related social constructions and rehabilitation procedures can affect long-term outcomes. The primary objective of my review was to assess the role played by gendered self-awareness in post-TBI rehabilitation outcomes. In the following sections, I will discuss the methodology and the results, and I will provide an analysis of the results.

Research Methodology

To address the primary objective, I examined selected literature related to three secondary objectives:

- To assess whether attitudes toward care have a gendered component
- To evaluate whether conceptions of gender affect motivation levels
- To determine if these factors influence post-rehabilitation outcomes

In order to find articles and studies directly related to the objectives listed above, I used PubMed, Google Scholar, and ScienceDirect databases. I only included original research articles and conducted searches among both titles and abstracts, with the exception of Google Scholar, wherein I only searched for titles. I only included studies addressing gender from a social constructionist perspective written in English. I excluded pediatric studies and studies on the experience of veterans, unless specifically focused on gendered outcomes. I focused on authorities in the field and highly ranked journals. I excluded unpublished dissertations and studies focusing on the causes of TBI. I selected the period 2000–2020 due to the rapid expansion of knowledge in this field of study over the last 20 years. During preliminary research, I found that 75–90% of the total articles on each topic were published after 2000. However, two articles written before 2000 were added to the list as they were considered useful for the purposes of this review. They provided good early examples that focused on gender roles and on the possibility of alleviating gender strain through experimental support groups, a practical proposal that is not common among more recent articles. The selected studies are all based on research conducted directly with TBI survivors and discussion is around their perceptions of their gendered self post-injury and how it has affected their lives and recovery. This includes aspects on care, rehabilitation, motivation, and outcomes. With the exception of a study conducted in South Africa, all the studies were conducted in Western countries. While this was not a search criteria, all of the studies available on the topic and written in the English language were conducted in Western countries.

I found significant overlap in the articles when searching between key words and across search engines. The use of multiple keywords in each search was essential in filtering results due to the large number of existing studies on biological factors of gender and TBI that are outside of the scope of this review. For example, searching for traumatic brain injury AND gender on PubMed returned 3,568 results. The majority of these results did not address the social and gendered-identity factors that I was investigating. Consequently, to find the relevant material, I conducted multiple searches across the three databases using various keyword combinations. The keywords that I used were “rehabilitation,” “outcomes,” “experience,” “self,” “selves,” “identity,” “integration,” “depression,” “return to work,” “gender,” “masculine,” “feminine,” “men,” “women,” and “brain injury.” The combination of TBI AND masculine, and TBI AND gender AND experience gave the

largest proportion of results that would meet the selection criteria (eight and nine respectively). This overall selection process resulted in a total of $n = 23$ articles. The selected studies provided a comprehensive sample of both male and female dimensions of post-TBI recovery. I included studies focusing on both mixed and single genders; the proportion was $n = 7$ articles focusing on women's experiences, $n = 8$ on men's experiences and $n = 8$ on mixed studies.

Table 1. Selected Articles With Specification on the Gender Studied (M = Men, W = Women, MW = Men and Women)

Author/Title (APA)	Gender	Year
1. Gutman, S. A., & Napier-Klemic, J. (1996). The experience of head injury on the impairment of gender identity and gender role. <i>American Journal of Occupational Therapy</i> , 50(7), 535–544.	MW	1996
2. Gutman, S. A. (1999). Alleviating gender role strain in adult men with traumatic brain injury: An evaluation of a set of guidelines for occupational therapy. <i>The American Journal of Occupational Therapy</i> , 53(1), 101–110.	M	1999
3. Bounds, T. A., Schopp, L., Johnstone, B., Unger, C., & Goldman, H. (2003). Gender differences in a sample of vocational rehabilitation clients with TBI. <i>NeuroRehabilitation</i> , 18(3), 189–196.	MW	2003
4. Mukherjee, D. J., Reis, P., & Heller, W. (2003). Women living with traumatic brain injury: Social isolation, emotional functioning and implications for psychotherapy. <i>Women and Therapy</i> , 26, 3–26.	W	2003
5. Colantonio, A., Ratcliff, G., Chase, S., Kelsey, S., Escobar, M., & Vernich, L. (2004). Long term outcomes after moderate to severe traumatic brain injury. <i>Disability and Rehabilitation</i> , 26(5), 253–261.	MW	2004
6. Howes, H. F. R., Edwards, S., & Benton, D. (2005). Female body image following acquired brain injury. <i>Brain Injury</i> , 19(6), 403–415.	W	2005
7. Baker, F., Kennelly, J., & Tamplin, J. (2005). Adjusting to change through song: Themes in songs written by clients with traumatic brain injury. <i>Brain Impairment</i> , 6(3), 205–211	MW	2005
8. Schopp, L. H., Good, G. E., Barker, K. B., Mazurek, M. O., & Hathaway, S. L. (2006). Masculine role adherence and outcomes among men with traumatic brain injury. <i>Brain Injury</i> , 20(11), 1155–1162.	M	2006
9. Corrigan, J. D., Lineberry, L. A., Komaroff, E., Langlois, J. A., Selassie, A. W., & Wood, K. D. (2007). Employment after traumatic brain injury: Differences between men and women. <i>Archives of Physical Medicine and Rehabilitation</i> , 88(11), 1400–1409.	MW	2007
10. Jones, J. A., & Curtin, M. (2011). Reforming masculinity: Traumatic brain injury and the gendered nature of care and domestic roles. <i>Disability and Rehabilitation</i> , 33(17–18), 1568–1578.	M	2011
11. Alston, M., Jones, J., & Curtin, M. (2012). Women and traumatic brain injury: “It’s not visible damage.” <i>Australian Social Work</i> , 65(1), 39–53.	W	2012
12. Sullivan, C. T., Gray, M. A., Williams, G. P., Green, D. J., & Hession C. A. (2014). The use of real life activities in rehabilitation: The experience of young men with traumatic brain injuries from regional, rural and remote areas in Australia. <i>Journal of Rehabilitation Medicine</i> , 46(5), 424–429.	M	2014
13. Meyers, N. M., Chapman, J. C., Gunthert, K. C., & Weissbrod, C. S. (2015). The effect of masculinity on community reintegration following TBI in military veterans. <i>Military Psychology</i> , 28(1), 14–24.	M	2015

14.	Freeman, A., Adams, M., & Ashworth, F. (2015) An exploration of the experience of self in the social world for men following traumatic brain injury. <i>Neuropsychological Rehabilitation</i> , 25(2), 189–215.	M	2015
15.	Stergiou-Kita, M., Mansfield, E., Sokoloff, S., & Colantonio, A. (2016). Gender influences on return to work after mild traumatic brain injury. <i>Archives of Physical Medicine and Rehabilitation</i> , 97(2), 540–545.	MW	2016
16.	Haag, H. L., Caringal, M., Sokoloff, S., Kontos, P., Yoshida, K., & Colantonio, A. (2016). Being a woman with acquired brain injury: Challenges and implications for practice. <i>Archives of Physical Medicine and Rehabilitation</i> , 97(2), S64–S70.	W	2016
17.	Sveen, U., Soberg, H. L., & Ostensjo, S. (2016). Biographical disruption, adjustment and reconstruction of everyday occupations and work participation after mild traumatic brain injury. A focus group study. <i>Disability and Rehabilitation</i> , 38(23), 2296–2304.	MW	2016
18.	Soeker, M. S., & Darries, Z. (2019). The experiences of women with traumatic brain injury about the barriers and facilitators experienced after vocational rehabilitation in the Western Cape Metropole, South Africa. <i>Work</i> , 64(3), 477–486.	W	2019
19.	Gelech, J., Bayly, M., & Desjardins, M. (2019). Constructing robust selves after brain injury: Positive identity work among members of a female self-help group. <i>Neuropsychological Rehabilitation</i> , 29(3), 456–476.	W	2019
20.	Mollayeva, T., Bordignon, C., Ishtiaq, M., Colquhoun, H., D'Souza, A., Archambault, P., Lewko, J., Quilico, E., & Colantonio, A. (2019). Knowledge of sex and gender and related information needs in patients with traumatic brain injury: In-depth interview study. <i>Disability and Rehabilitation</i> , 1–11.	MW	2019
21.	D'Souza, A., Fabricius, A., Amodio, V., Colquhoun, H., Lewko, J., Haag, H. L., Quilico, E., Archambault, P., Colantonio, A., & Mollayeva, T. (2020). Men's gendered experiences of rehabilitation and recovery following traumatic brain injury: A reflexive thematic analysis. <i>Neuropsychological Rehabilitation</i> , 1–22.	M	2020
22.	MacQueen, R., Fisher, P., & Williams, D. (2020). A qualitative investigation of masculine identity after traumatic brain injury. <i>Neuropsychological Rehabilitation</i> , 30(2), 298–314.	M	2020
23.	Fabricius A. M., D'Souza, A., Amodio, V., Colantonio, A., & Mollayeva T. (2020). Women's gendered experiences of traumatic brain injury. <i>Qualitative Health Research</i> , 30(7), 1033–1044.	W	2020

Results

Attitudes Toward Care

One aspect that has been systematically addressed by the selected studies regarding gender and post-TBI rehabilitation is that of survivors' attitudes toward care. For example, the 10 men interviewed by MacQueen et al. (2020) all expressed a sense of sufferance stemming from their need to receive care from others. Often feeling stuck in a childlike position, they lamented no longer being able to take on certain responsibilities and perform activities that they considered masculine. This included cutting the lawn, putting the bins out, lifting weights, having control over their finances, and being good fathers. On top of the fact that they had less energy to spend time with their children, they pointed out that they often experienced mood swings after the injury, angering easily, which would upset their children. They also expressed a sense of sufferance due to their wives having to take care of them and performing the masculine activities that they could no longer perform. They revealed fears about their spouses finding them less attractive and less of a man (MacQueen et al., 2020, p. 306).

As the men interviewed admitted, their embarrassment at not fulfilling their gendered roles sometimes brought them to hide their problems. However, for some men this experience had a somewhat revelatory effect, with survivors becoming more cautious in their daily activities in which they actively avoided risky situations and confrontations. In some cases, they consciously reevaluated their life values, for example stressing the importance of family over everything else, or embracing new activities such as growing flowers rather than mowing the lawn. The researchers also noted that the problems these men faced were intensified by the fact that people could not physically see their deficiencies and, as such, others generally overlooked their issues and needs. Nevertheless, none of these participants actively sought help, as according to them, it was not considered masculine behavior.

Refusing care and hiding problems have often been pointed out as two commonly occurring aspects in male experiences of post-TBI rehabilitation. In particular, the fear of being judged was observed in the study conducted by Freeman et al. (2015). They also concluded that men are often resistant to receiving care due to the embodied social constructions of masculinity. In their study, they interviewed nine men in the United Kingdom, all of whom described feeling "a sense of abnormality" (Freeman et al., 2015, p.199), which in turn led them to hide from society for fear of being judged and not meeting others' expectations. Similarly, in the study of 11 women in rural areas of Australia, Alston, et al. (2012) postulated that feminine gender constructions could also be a limitation to care and rehabilitation. They observed similar issues in female survivors to those outlined in studies of men, where the consequences are either social isolation or an attempt to disguise the injury.

Constructions of femininity can lead women to take less care of themselves due to the embodied social expectations of giving instead of taking. For example, in the recent qualitative study with 19 Canadian women, Fabricius et al. (2020) collected evidence on the sufferance of women who were receiving post-TBI care. Some of them admitted that pleasing others and being agreeable, both in the domestic and work environment, was an important aspect of their feminine identity. In the same study, the impossibility of taking care of the domestic nucleus, such as helping children do their homework, was reported as the most painful aspect of the post-rehabilitation phase, and that seeking support from romantic partners was purposely limited in an attempt to allow them to continue their lives in the same manner as they did before the accident. This feature was seen not only as a reason for psychological distress during rehabilitation, but also as a cause of diversion from the prescribed post-injury rest and related self-care activities.

Motivation

Besides the issue of care, a growing body of literature is addressing the role of gender in motivation levels, suggesting that it can be a strong driving force in men due to the perceived need to acquire independency and the desire to challenge oneself. For example, Baker et al. (2005) analyzed 82 songs written by TBI patients (consisting of 11 women and 21 men), showing that men and women equally tended to write lyrics dedicated to their significant others. However, they also found that in terms of the contents of the lyrics, men focused more on their concern for the future, while women reflected more on their current needs and relations with others. Studies by Colantonio et al. (2004) and Mukherjee et al. (2003) observed that women often experience psychological issues in relation to their inability to perform domestic duties, resulting in a sense of incompetence and inadequacy, thus feeling degendered and alienated from the feminine identity they once had, and this lessened their motivation to recover. This has also been linked with difficulties in sexual and romantic relationships (Haag et al., 2016).

Some scholars have noticed a greater dissatisfaction with body image and overall health in women compared to men when survivors compared themselves with their image pre-TBI (Howes et al., 2005). However, male survivors have also been observed in the study by MacQueen et al. (2020) to be negatively affected in their self-perceptions by the changes in their physical appearance due to being less active. Negative feelings toward being less active were also found in women in a study by Sveen et al. (2016). Different observations were made by Howes et al. (2005), who interviewed 13 women on the topic of self-esteem and body image in comparison with 13 matched controls composed of noninjured women. The researchers observed that prior to TBI, women had concerns regarding their physical appearance, while after the injury they become more preoccupied with their overall health. This suggests that for these women, dissatisfaction with their overall physical health, rather than their appearance, was the greatest preoccupation, working in some cases as a motivating factor.

In the study by Sveen et al. (2016) with 12 women and eight men, survivors pointed out that a lack of information about the effects of TBI was causing them stress. For example, a patient claimed that he was not told what to expect when he left the hospital, and he was left feeling guilty for a long time about not being able to go back to work, wishing that these consequences were made clear from the start. The need for more knowledge about TBI and the issues that misinformation can cause among close relatives and workplaces of TBI sufferers was also observed by Mollayeva et al. (2019) in a study of 40 adult men and women. They noticed that the less the survivors knew about their injury, the less they were motivated to recover. This was also linked to the presence of family support, where people who were more isolated were less informed and less motivated.

Some researchers have argued that motivation can be fostered through vocational and group activities. Sullivan et al. (2014) conducted research with eight male participants in Australia to explore the outcomes of using real-life activities such as shopping, cooking, woodwork, sports, and fishing as a part of their rehabilitation. Participants had to take part in an intervention program, in which they conducted daily and recreational activities. When participants were interviewed, the majority agreed that the experience had been very positive and expressed desire for more rehabilitation plans to include vocational activities. The researchers concluded that incorporating activities that were meaningful for the participants in a nonhospital environment increased the engagement of patients who were previously unmotivated. Furthermore, research suggests that motivation can be fostered when activities are directed to alleviate gender strain through the performance of tasks that are perceived as gender-appropriate.

For example, in 1999, Gutman put into practice a set of guidelines that she had published a year earlier (Gutman, 1997), with the goal of reducing gender role strain in men. Activities were proposed to four male participants and the results were positive, judging by participants' comments about their achievements post-participation, where they stressed the importance of being able to perform activities that are perceived as

manly (Gutman, 1999). Similarly, in a study with five women conducted in Canada, Gelech et al. (2019) noted the effectiveness of positive identity work among female TBI survivors when practiced in a group. This was done by stressing female identity and shared womanhood ideas, constructing competent selves marked by a strong gendered self-conception.

Interactive and real-life rehabilitation strategies were found to be positive for both men and women in alleviating the sense of grief of self (Gutman, 1999; Sullivan et al., 2014). These activities were observed to make men “feel themselves again” (Gutman, 1999, p. 106) allowing some of them to learn more about themselves. In these cases, narratives of disruption were substituted by narratives of continuity and betterment. Similarly, Gelech, et al. (2019) point out that for the women included in their study, group activities allowed for the transition from a sense of loss to a perception of continuity, adaptation, resilience, and self-growth.

Post-Rehabilitation Outcomes

Following the process of rehabilitation, survivors face the new challenge of adjusting to a different lifestyle and a revised social identity. In this phase, perceived discrepancies with the previous self are exacerbated, for example when survivors return to work and realize that they can no longer perform tasks like they could before. As noted by D’Souza et al. (2020), this in turn can have repercussions on intimate and family relations. MacQueen et al. (2020), noted that a sense of discrepancy between past, present, and future was detected in men’s narratives in relation to changes in autonomy and physical appearance. Similarly, Freeman et al. (2014) found that the theme of the “old me” versus the “new me” was recurrent in men’s accounts of rehabilitation.

Gutman and Napier-Klemic (1996) investigated the impact of gender on post-TBI recovery and outcomes through qualitative research with four TBI survivors (two men and two women). They concluded that men were psychologically more affected than women by the changes in their social and domestic role. However, the study was carried out with too limited a sample size to provide conclusive results. Follow up studies have included larger samples, such as the study by Jones and Curtin (2011). They conducted research among 21 men that had suffered TBI in varying severities while living in rural Australia. Their study showed that, for some men, their changed social role was not perceived negatively. Instead, narratives of masculinity were reframed to construct a new valuable self.

On another hand, Meyers et al. (2015) looked at how masculinity negatively affected the social reintegration of 60 veterans who had suffered TBI. They found that cognitive flexibility had a positive impact on gender strain and that men reporting themselves as being more masculine in their self-identity had the greatest challenges with social reintegration and living skills. This is in line with the findings made by Schopp et al. (2006) in a study comprising interviews with 33 men at least 1 year after a TBI incident. They examined how masculine gender constructions affected overall satisfaction and rehabilitation outcomes, concluding that the way in which men constructed masculine identities had a significant impact for men with less cognitive flexibility. For example, men who more strongly related with playboy roles and desired power over women tended to report lower life satisfaction and self-worth as they came to terms with the physical and psychological limitations of the injury. However, men who were more aligned with masculine roles that sought winning and pursuit of status often had more positive outcomes in terms of employment, physical recovery, and social engagement.

Further exploring the impact of gendered identity on post-TBI men, D’Souza et al. (2020) interviewed 22 male participants in order to understand how they construct and understand their role in society after injury. Broadly speaking, they found three male identities that each participant could be categorized by: those who undermined their treatment as it did not fit with their idea of tough guy masculinity, those who similarly identified with strength-based ideas of masculinity but instead used this as motivation to engage with rehabilitation and recovery to give them the best chance of fulfilling this role in the future, and those who

lamented the inevitable changes in their life and actively searched for ways in which to redefine their identity in line with their new potential (D'Souza et al., 2020, pp. 8–13). Similarly, in the aforementioned study by Jones and Curtin (2011), they determined that perceptions of masculinity played a significant role in post-injury outcomes. Specifically, they noted that some men held on to hegemonic ideals of masculine identity despite facing hardships such as reduced working capacity, the adoption of caring and domestic roles, or the breakdown of spousal relationships. The incompatibility between these idealized constructions of what men should be and their own capacity to achieve them often led to dissatisfaction, unease, and doubt. Alternatively, some men were able to adopt new and achievable personal narratives that were more flexible and allowed them to feel satisfied with their circumstances, despite in many cases having lost the ability to be the household breadwinner.

For both men and women, employment and income status are important factors in the definition of personal identity in Western societies and, as such, an interruption in working activities has the potential to produce a sense of social inadequacy. In a study conducted by Stergiou-Kita et al. (2016), 12 participants (six men and six women) who had suffered a mild TBI in the workplace were interviewed after having returned to work. All participants agreed on the importance of employment in their self-identity; however, this was to be expected, as being employed was one of the selection criteria of the study. Instead, gendered differences appeared in the way in which participants would seek help in the workplace. Women were more likely to engage in self-advocacy and to follow up with health and insurance providers as required. Conversely, in male-dominated industries such as construction, security, and transportation, men were less likely to discuss their injuries and were also less likely to receive help from their workplace (Stergiou-Kita et al., 2016, pp. 543–544).

In a quantitative research conducted by Bounds et al. (2003, p. 194) in Missouri, they found that a higher percentage of men were successful in finding employment through vocational programs when compared to women. They also determined that 73% of women chose to refuse the service, but the reason for this was unclear. They might have found employment through their own means or they may have preferred to remain in the household, following gendered stereotypes that favor male employment. In a more recent study by Soeker and Darries (2019), 10 women were interviewed in South Africa and they were all found to be experiencing barriers in their efforts to return to work. However, it is not clear if gender played a role in the situation or whether discrimination was instead based on reduced workplace performance.

Finally, by using a dataset of 3,444 adults (2,487 men and 957 women), Corrigan et al. (2007) investigated the differences between men and women in employment 1 year after their injury. They found that women were more likely to decrease their working hours post-injury compared to men. To explain this, the researchers suggested that gendered expectations pressured men to return to work earlier and push themselves harder to meet economic demands. Alternatively, female survivors could be encouraged to work less or stop working altogether if their partners were able to support the family on their own.

Domestic pressures and social constructions can act as a concomitant limit to TBI survivors' rehabilitation. For example, Alston et al. (2012) describe a negative scenario based on interviews with 11 women in Australia, among whom it was common (five out of the 11) to receive abuse from partners, relatives, or in-laws, or to have accident-support stolen. This study suggests that women could be at a higher risk of becoming victims of psychosocial violence following an injury and, as such, more assistance should be provided to them post-TBI, including support groups to address their needs and social vulnerabilities. This is in line with the findings of Mukherje et al. (2003), who claimed that women with TBI are more likely than men to be unemployed and to be left alone by relatives and friends. Furthermore, the social position of women receiving care can be noticeably affected in cases in which they already perceive themselves as subordinated, further reducing agency, and leading to inadequate care and reduced socialization (Fabricius et al., 2020).

Discussion

The literature I examined suggests that besides neurobiological and environmental factors, gender plays a distinct role in the way people define their selves before TBI and is a critical aspect in the aetiology and management of psychosocial issues following the injury. More specifically, these studies showed that gendered constructions and expectations play a strong role in access to care and in self-satisfaction and functional outcomes after TBI. These constructions can have either positive or negative effects, depending on the individual and the context within which the recovery takes place. These findings suggest that a gender-sensitive clinical approach can be crucial in alleviating gender strain and supporting people's redefinitions of their selves and gendered identities. Further in-depth social research and analysis could build knowledge on this issue as clinical frameworks are not commonly inclusive of these processes (Mollayeva et al., 2019).

Gendered Experiences of Recovery

The experiences of recovery outlined in the reviewed studies demonstrate that gendered attitudes towards motivation and care can be crucial in defining the trajectories of recovery. Lack of motivation was often seen as a significant factor in women, while men tended to have mixed experiences. Masculinity emerged as a very important factor in how men construct their identity after injury. A perceived sense of weakness, failure, and loss of self-dependence (Good et al., 2006) can in turn cause men to lose motivation, to refuse care, and to limit requests for help (Courtenay, 2000; Galdas et al., 2005), as masculine constructions often glorified in the Western world are associated with a macho mentality of self-sufficiency, power, and emotional toughness (Addis & Mahalik, 2003; Connell & Messerschmidt, 2005). Alternatively, when women faced similar issues, these were shrouded in notions of femininity. Priority was generally given by these women to providing care and putting others first, and motivation to get better was often sacrificed as a result.

These gendered attitudes toward care and motivation have been shown to have a significant impact on post-injury outcomes in terms of job retention, personal relationships, and self-satisfaction. Stress was seen to occur when there was a discrepancy between the social roles that are accessible to a post-TBI survivor and those dictated by society and the domestic sphere. When rehabilitation strategies did not address the need to redefine gendered roles in the post-injury space, detrimental outcomes and dissatisfaction were the norm. Alternatively, programs that looked to reform gendered identities through activities and support groups tended to have more positive results. That is not to say that these issues have a simple solution but rather that gender constructions and stereotypes play a crucial role in determining the long-term trajectory of recovery and social reintegration. In the next section I will discuss how gendered attitudes toward care and motivation can be addressed and enhanced to encourage positive growth in rehabilitation.

Positive Growth

Due to the physical limitations caused by their injury, TBI survivors might find it impossible to do gender in the same manner that they could before the injury, and social roles might have to be redefined in domestic, work-related, and other social contexts. For example, men might have to take more care of domestic duties and may no longer be entirely self-sufficient, and women might have to reduce their household tasks or focus more on their own needs. As gendered stereotypes are a reality in many families, particularly in the Western world, these disruptions have the potential to affect an individual's wellbeing and cause distress to the family group. The challenge lies in overcoming these forced changes and reframing them in a more positive light.

TBI is also a very personal experience that is lived differently from person to person. Nevertheless, a common element in TBI rehabilitation is the need for redefining the self in line with the new post-injury potentiality and for maintaining high motivation levels to achieve personalized goals. In psychological literature, motivation is framed by the drive and desire to act in order to achieve a specific end (Chervinsky et al., 1998).

According to Thomas et al. (2014) redefining the self can be possible through occupations and narratives that are meaningful to each individual. This reinforces the importance for survivors to redefine their selves and their goals and to reintegrate these positively within their gendered identities. This process should be carefully assessed in conjunction with the overall rehabilitation potential, which should consider the patient's physical and psychological state and their socioeconomic status (Mosqueda, 1993).

The majority of these studies also suggest that drawing on certain aspects of gender can have a positive effect in reshaping oneself. This was more often stressed in terms of masculinity, where willpower and resilience were seen to be beneficial in fostering motivation and positive outcomes. The study by Jones and Curtin (2011) illustrated this clearly by demonstrating the importance of self-narratives in the redefinition of individual identity by constructing new forms of masculinity. A focus on redefining the gendered self, based on positive growth and compassionate therapy that limits self-criticism, was observed to foster motivation and mental wellbeing (Freeman et al., 2015). Cullen et al. (2018) specifically explored the potential of using positive identity concepts such as wisdom, resilience, and responsibility to facilitate rehabilitation after TBI in men. However, the men that aligned more closely with masculine roles that sought winning and pursuit of status had relatively better outcomes in terms of employment, physical recovery, and social engagement through this process. Alternatively, Schopp et al. (2006) observed that some aspects of traditional male gender roles were directly linked with increased psychosocial stressors and dissatisfaction with their post-injury outcomes. Finally, Gelech et al. (2019), found that building on a sense of collective female identity was effective in supporting positive growth among women.

The redefinition of personal narratives and identity, which is heavily influenced by notions of gendered identity and social expectation, plays a crucial role in setting the trajectory for recovery. It is clear from these studies that without positive gendered growth in terms of a redefinition of identity and the setting of realistic and desirable expectations, the willingness to receive care, maintain motivation for recovery, and consequently achieve desired outcomes after TBI can be severely limited, with reduced mental and physical long-term health issues a likely possibility.

Conclusion

Through an analysis of recent studies, I confirmed the hypothesis that gendered identity plays a significant role in TBI survivors' lived experiences, demonstrating that ideas about masculine and feminine identity can consistently affect the ways in which recovery is managed and rehabilitation is carried out. While several trends can be observed that align with gendered stereotypes, the wide variety of views and experiences expressed by participants in these studies indicates that gendered constructions and what they mean for a patients' motivation, attitude toward care, and other social outcomes are complex and varied.

The studies reviewed outlined the advantages of gender-sensitive positive psychotherapy, with a focus on individual growth and self-narratives. Group therapy was also found to be a useful tool in addressing gendered issues, in doing gender, and in promoting healthier identities. However, research along these lines is quite limited and will require a much stronger multidisciplinary approach.

Limitations

While assessing the outcomes of people who have experienced TBI, I found that the samples are often inadequate to draw meaningful conclusions. While qualitative in nature, most of these studies were based on small samples, often of not more than 10 people, reducing understanding on the shades of human experience. Additionally, these studies only consider research conducted in Western contexts. While this allows for comparisons to be made within a relatively homogenous sample group as in the case of this review, it should

also be noted that the sociocultural background of the patients was not discussed in the original articles, making it difficult to assess whether the data are representative of a uniform or diverse social group. Cross-cultural investigation among different societies both within and external to Western countries would be beneficial due to the sociocultural nature of gender constructions.

It is also important to acknowledge that the way in which TBI is acquired can lead to different psychological outcomes. For example, when TBI is a consequence of assault rather than a car accident, there could be other complex psychological issues involved. Finally, many of the studies reviewed point out that most of the research available regarding the impact of gender on rehabilitation focuses primarily on male survivors. This can be somewhat explained by the fact that men are twice as likely to be affected by TBI than women (MacQueen et al., 2020), due to increased risks resulting from alcohol consumption, drunk driving, participation in fights, and a greater overall tendency toward risk-taking behaviors in comparison with women (Alston et al., 2012; Colantonio et al., 2004).

Nevertheless, research on the role of gender in the recovery process for women is gradually increasing. These studies often focus on the everyday experiences of women and stress the problems of vulnerability and social abuse. Additional issues for female survivors can be detected in the clinical setting, where women who do not have pre-existing comorbidities are commonly granted limited patient credibility in non-TBI-related contexts (Werner & Malterud, 2003), thus diminishing their potential for being treated appropriately. The limitations discussed here demonstrate an urgent need for psychological studies to be put in closer collaboration not only with medical disciplines, but also with other fields of the social sciences, such as social and medical anthropology. Only from a more systematic and collaborative approach will it be possible to gather valid results that can make an impact on clinical decision-making.

Recommendations

It would be beneficial if during rehabilitation clinicians could focus on patients' priorities and personality when treating or planning long-term recovery. In this way, they could better understand the motivations and wider context of each individual under their care (Hanafy et al., 2020). For example, men who are at risk of undermining their treatment plans due to fear of accepting or demonstrating weakness, might be persuaded through education to realize that their personalized or gendered goals could better be achieved by sticking to a prescribed program. On the other hand, men who find themselves undergoing a redefinition of their gendered identity might be encouraged to realize the arbitrary nature of these constructions and focus on shaping more positive narratives instead. They may now have the freedom, as opposed to the self-imposed limitations that people often place upon themselves, to become whoever they want to be and to embrace that identity. Experts following up on the injury and the rehabilitation process should provide support to both individuals and families in readjusting social roles and responsibilities within relationships, thus fostering the wellbeing of all involved. This can be achieved through real-life activities that encourage patient motivation and are supported by a multidisciplinary team with the goal of fostering individual growth and limiting self-shame and guilt by exploring new and meaningful ways of building healthier and happier selves.

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