

SOCIAL RELATIONSHIP QUALITY AMONG WOMEN WITH SPINAL CORD INJURY – THE ROLE OF DISABILITY ACCEPTANCE

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Abstract: *Interpersonal relationships among women with spinal cord injury are limited due to numerous barriers. The aim of this study was to investigate the role of disability acceptance in terms of the quality of social relationships among women with spinal cord injury. Social relationship quality was conceptualised as a construct that included two indicators, namely strength of relationship and social support. Ninety (N=90) women with spinal cord injury completed the Strength of Interpersonal Relationships Questionnaire (Zbieg and Słowińska, 2015), Social Support Scale (Kmieciak-Baran, 1995), and Multidimensional Acceptance of Loss Scale (Byra, 2017). Such methodological tools as descriptive statistics, correlation analysis (Pearson's correlation coefficients) and progressive stepwise regression analysis were used. The study showed that the most important value for the surveyed women was the time devoted to relationships. The most frequent kinds of received support were informational and emotional. In addition, the most common change in the perception of disability acceptance was the containment of its effects and a transformation from comparative value to asset value. A significant correlation between the included variables was observed. It is also well mentioning that the two subscales of disability acceptance entailed a predictive function in explaining social relationship quality; however, the two subscales explained a surprisingly low percentage of observed variance. It is reasonable to suggest other ways of explaining this phenomenon.*

Key words: *disability acceptance, social relationship quality, women with spinal cord injury*

INTRODUCTION

The present study focused on women with a spinal cord injury (SCI) since it has recently been highlighted that there is a lack of academic studies concerning this group (Smeltzer et al., 2017). Probably, it stems from the fact that men are more often affected by SCI (Pentland et al., 2002; Beigi and Cheng, 2010). Therefore, the sex differences have not been considered, which may have led to a gap in this subject. Such a negligence may have important consequences, e.g. a rehabilitation adapted to men may cause considerable difficulties for women (Samuel et al., 2007). Nevertheless, an increasing change in this area is becoming apparent (Craven and Musselman, 2019). Despite being discriminated in their disability, women suffering from SCI usually undertake such social roles as a mother

or a wife (e.g. Lappeteläinen et al., 2017). Current research concerning the subject is most commonly focused on their sexuality, including sexual health (Amjadi et al., 2017), sexual counselling (Rezaei-Fard et al., 2019), sexual reconstruction and identity (Beckwith and Kwaing-sang You, 2013); pregnancy and motherhood, including pregnancy outcomes (Crane et al., 2019), postpartum depression (Lee et al., 2019), and breastfeeding (Krassioukov et al., 2019); as well as women's health, including breast cancer (De Padua et al., 2018) or urological problems (Elmelund et al., 2019). Nonetheless, it is still necessary to conduct studies on functioning of the women with SCI, especially research into their interpersonal relationships.

In the present study, social relationship quality was conceptualised as a construct that included two indicators, namely strength of interpersonal rela-

tionship and social support. The strength of interpersonal relationship is a concept that integrates several psychological and sociological constructs that refer to the relationship closeness and the strength of social ties. It consists of three components: similarity, time spent together, and intimacy of partners (Zbieg et al., 2015).

Interpersonal relationships of people with SCI are not frequently analysed in research (Amsters et al., 2016). The available studies point out only specific communities such as family (Jeyayhevan et al., 2019) or partnership (Chan, 2000; Engblom-Deglmann and Hamilton, 2020). Siegrist and Fekete (2017) indicate that social relationships play a significant role in the well-being and mental health of people with physical disabilities. What is more, positive interpersonal relationships and interactions are relevant to process resilience and adaptation (Amster et al., 2016). After SCI, women find it difficult to establish new relationships. They encounter both external barriers (social and family attitudes, stereotypes, visible disability, lack of mobility, social canon of beauty) and internal barriers (low level of self-esteem, attitudes towards their own disability, lack of social skills related to the establishment of relationships) (Gabryś, 2018). Although such women have the usual needs, most of their existing relationships break down, change, or are weakened (Byra and Parchomiuk, 2017; Gabryś, 2018). However, sometimes their relationships improve, as they feel that they have become more responsible for their relationships than their partners (Isaksson et al., 2005). Interestingly, women suffering from SCI are increasingly able to establish new relations with other disabled people.

Social support was understood in the present study as receiving help in a specific form from significant people or institutions (Kmieciak-Baran, 1995). For a significant period of time, social support has been a very important variable and the key topic in many areas involving the functioning of people with SCI (Müller et al., 2012; Tough et al., 2017). The emotional and psychosocial challenges after SCI diagnosis are substantial, and affected individuals require social support most of the time. Research indicates that social support correlates positively with life satisfaction, adjustment, coping, physical and mental health (Tough et al.,

2017) as well as relationship quality (Tramonti et al., 2015), whereas it correlates negatively with, for instance, depression (Agtarap et al., 2017).

Despite the extensive knowledge and important role of social support in SCI, there is still not sufficient research concerning women and their relationships.

Wright (1983) describes disability acceptance as the process by which the disabled incorporates the disability into his or her self-concept, but in such a way that it does not reduce self-esteem. According to Wright (1983), disability acceptance is possible if the disabled make changes in their values. First of all, the disabled extend the scope of values in a way that entails the recognition of new qualities. Secondly, the containment of disability effects is also significant. Thirdly, the subordination of the physique relative to other values should also be considered. Fourthly, a person should transform comparative values to asset values (Dunn, 2015; Gabryś, 2020).

According to Attawong and Kovindha (2005), people suffering from SCI desire to be accepted in a society. The stronger disability acceptance, the better quality of life (Dijkstra et al., 2008). It has also been proved that there is a connection between disability acceptance and e.g. self-efficacy, emotional status (Attawong and Kovindha, 2005), self-esteem (Li and Moore, 1998), depression (Kraft and Dorstyn, 2015), coping (Kim et al., 2018) and alcohol abuse (Elliott et al., 2002). For this reason, the importance of social support (Jiao et al., 2012) and emotional support (Attawong and Kovindha, 2005) towards disability acceptance should be emphasised in each society. Byra (2017a) showed a correlation between disability acceptance and posttraumatic development among women with SCI and limb amputation. Disability acceptance should be discussed in connection with the selected disability variables such as the type and duration of injury or the level of functional impairment (Li and Moore, 1998; Martz and Livneh, 2003; Carl, 2013). Furthermore, there are numerous ambiguities in studies that are associated with disability acceptance and sex (Li and Moore, 1998; Jiao et al., 2012; Nicholls et al., 2012); therefore, the usage of this variable is justified within the present study concerning women with SCI.

OBJECTIVE

The aim of the current study was to analyse the relationship between disability acceptance and social relationship quality (strength of interpersonal relationship and social support) among women with SCI. Taking these cases into consideration may provide further insight into identification of important factors for their interpersonal functioning.

RESEARCH PROBLEMS AND HYPOTHESES

The implementation of research may provide answers to the following questions:

1. 1. What is the disability acceptance of the surveyed women with SCI?
2. 2. What is the social relationship quality (strength of interpersonal relationship and social support) of the surveyed women with SCI?
3. 3. What significance does disability acceptance have for social relationship quality of the surveyed women with SCI, if any?

Being a disabled person entails a whole range of disadvantages in everyday functioning, e.g. it has a strong impact on relationships (Gabryś, 2018). Wright (1983) formulates the hypothesis that the acceptance of loss may be beneficial when it comes to interpersonal relationship quality among women with SCI. This is based on the fact that disability acceptance is associated with a good adaptation and life satisfaction, which can be useful and helpful in establishing or maintaining relationships. For this reason, personal changes in values may help to overcome negative feelings that result from personal misfortune. Changes in values proposed by Wright (1983) allow a person to look at his or her life and relationships in a new way. Only the ones who accept themselves are ready to perform social tasks without the fear of being negatively perceived by others. Dunn (2015) underlines that both rehabilitation and positive psychology justify changes in worldviews.

METHODS

Participants

The research was a cross-sectional study including women with SCI. They were invited to the study

group after the authors contacted numerous associations and foundations providing support. With the consent of the facilities, the authors were able to enter and contact potential participants directly. After obtaining the women's consent to participate in the research, they received a questionnaire to be completed. The participants were informed about the purpose of the research and a verbal consent was obtained. Encoded data were stored in accordance with personal data protection regulations.

In total, 114 women with paraplegia were selected for the study. Seventeen of them refused to participate, and seven sets of questionnaires were rejected due to incomplete data. Finally, 90 adult (≥ 18 years) women with paraplegia participated in the study. Women diagnosed with communication disorders or cognitive-related conditions were excluded from the study.

Participant characteristics are presented below in Table 1.

DATA COLLECTION

The data for the current study were collected during a research project focused on the analysis of disability acceptance and its relationship with social support and the strength of interpersonal relationship. Three scales were used in this study.

The Strength of Interpersonal Relationships Questionnaire presented by Zbieg and Słowińska contains 27 statements which are consistent with time, intimacy, and similarity. Respondents are asked to determine the extent to which each statement characterizes a given relationship using a seven-point scale, where 1 stands for "does not completely describe our relationship", and 7 for "fully describes our relationship". The psychometric properties of the instrument are satisfactory, with Cronbach's alpha ranging from 0.80 to 0.91 (Zbieg et al., 2015).

The Social Support Scale by Kmieciak-Baran is used to determine the type and strength of support that a person receives from others, including the source of this support. Four types of support are distinguished: emotional, instrumental, informational, and evaluative. Each of them consists of three positive statements and a negative one. The respondents assess the support received in 16 categories respectively from: parents, siblings, other relatives,

Table 1. *Participant characteristics*

Characteristic		N (%)
Place of residence	City	58 (64.40)
	Rural areas	32 (35.60)
Marital status	Married	55 (61.11)
	Single	31 (34.45)
	Divorced	3 (3.33)
	Widowed	1 (1.11)
Being a mother	Yes	27 (30.00)
	No	63 (70.00)
Education	Primary	9 (10.00)
	Vocational	10 (11.11)
	Secondary	48 (53.33)
	Higher	23 (25.56)
Employment	Yes	43 (47.78)
	No	47 (52.22)
Additional diseases	Yes	9 (10.00)
	No	81 (90.00)
Health assessment	Bad	7 (7.78)
	Average	55 (61.11)
	Good	27 (30.00)
	Very good	1 (1.11)
Assessing the level of self-reliance in life	Complete self-reliance	16 (17.78)
	Partial self-reliance	61 (67.78)
	Assistance required from others	11 (12.22)
	Full reliance on others	4 (2.22)
Assessing the level of autonomy in making decisions about everyday life	Complete self-reliance	66 (73.34)
	Partial self-reliance	21 (23.33)
	Assistance required from others	3 (3.33)
		M (SD)
Current age		33.48 (9.11)
Years since injury		12.66 (7.82)
		N (%)
Years since injury, range	0-15	65 (72.22)
	16-30	22 (24.45)
	31-45	3 (3.33)
Age at injury, range	0-15	20 (22.22)
	16-30	60 (66.67)
	31-45	9 (10.00)
	46-60	1 (1.11)

colleagues from university/work, colleagues from the estate, neighbours, teachers/employees, and strangers. It also entails satisfactory psychometric properties, as the Cronbach's alpha for individual subscales varied from 0.79 to 0.89 (Kmieciak-Baran, 1995).

The Multidimensional Acceptance of Loss Scale, in the Polish adaptation by Byra, is a 42-item measure. It consists of four subscales: the enlargement of scope of values, subordination of physique, containment of disability effects and transformation from comparative to asset values.

The respondents assess items using a four-point scale, where 1 stands for "I definitely disagree" and 4 for "I definitely agree". The Polish version of the Scale has shown good validity and reliability, as the Cronbach's alpha results were as follows: subscale I, 0.89; subscale II, 0.88; subscale III, 0.86; and subscale IV, 0.79 (Byra, 2017b).

DATA ANALYSES

The analysis was conducted in three stages. First, descriptive statistics were prepared for the

analysed variables, namely the strength of interpersonal relationships, social support, and disability acceptance. Secondly, correlation coefficients were prepared. Thirdly, a regression analysis was used to test the hypothesis whether disability acceptance plays a significant role in quality of interpersonal relationships.

RESULTS

Table 2 presents descriptive statistics for the strength of interpersonal relationships, social support and disability acceptance. The most important factor for the surveyed women with SCI was the time spent with their partners ($M=54.67$). Informational ($M=44.83$) and emotional ($M=43.21$) support was the most frequent kind of support received by them. In order to accept disability, women with SCI frequently made an attempt to diminish disability effects (AKC-III) and transformed comparative to asset values (AKC-IV).

Table 3 presents relationships among the included variables. The conducted correlation analysis showed a statistically significant, but relatively weak, relationship between disability acceptance and social relationship quality (strength of interpersonal relationship and social support). Noticeably, more correlations were established between disability acceptance and social support.

The enlargement of scope of values (AKC-I) was found to be negatively correlated with emotional support. Perhaps a person can better recognise different values when lower levels of emotional support are received. What is more, subordination of physique (AKC-II) was found to be related to similarity (subscale of strength of interpersonal relationships), emotional and informational support as well as total score of support. Possibly, physicality is not considered an excessive value as long as a low level of emotional and information support is received. The containment of disability effects (AKC-III) was negatively correlated with evaluative and informational support as well as with total score of support. Disability effects probably diminish when a lower level of evaluative and informational support is received.

To verify the formulated hypothesis, a stepwise regression analysis was conducted in line with the theoretical assumptions of this research. In the first stage, according to the hypothesis, all dimensions of disability acceptance (AKC-I – Enlargement of scope of values; AKC-II – Subordination of physique; AKC-III – Containment of disability effects; AKC-IV – Transformation from comparative to asset values) were introduced as predictors, and AKC-II was the only significant one. As a result, a statistically significant regression model was created. The regression model created for similarities

Table 2. Descriptive statistics for the analysed variables

Measure	M	SD	Score range (min-max)	Scale range (min-max)
Interpersonal strength				
Time	54.67	6.34	29-63	1-63
Intimacy	48.77	5.22	33-56	1-63
Similarity	47.40	9.00	22-59	1-63
Support				
Emotional	43.21	11.33	18-67	0-96
Instrumental	35.28	10.30	13-60	0-96
Evaluative	42.86	12.77	18-78	0-96
Informational	44.83	12.39	15-69	0-96
Support-TS	166.18	42.33	75-266	0-384
Acceptance of disability				
AKC-I	29.56	3.20	21-36	10-40
AKC-II	29.34	5.71	21-45	10-40
AKC-III	39.02	6.20	26-51	10-44
AKC-IV	33.81	3.77	22-43	10-44

AKC-I – Enlargement of scope of values; Support-TS – Support Total Score; AKC-II – Subordination of physique; AKC-III – Containment of disability effects; AKC-IV – Transformation from comparative to asset values

Table 3. Correlations (Pearson's *r*) among the analysed variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12
Interpersonal strength	1. Time	-										
	2. Intimacy	0.40**	-									
	3. Similarity	0.22*	0.19	-								
Support	4. Emotional	-0.12	-0.12	0.24*	-							
	5. Instrumental	-0.01	-0.12	0.26*	0.63**	-						
	6. Evaluative	-0.00	-0.08	0.25*	0.76**	0.77**	-					
	7. Informational	-0.16	-0.19	0.20	0.78**	0.77**	0.81**	-				
8. Support-TS	-0.08	-0.14	0.26*	0.88**	0.87**	0.93**	0.93**	-				
Acceptance of disability	9. AKC-I	0.11	-0.01	-0.10	-0.22*	-0.07	-0.15	-0.18	-0.17	-		
	10. AKC-II	-0.04	-0.10	-0.30**	-0.24*	-0.14	-0.21	-0.22*	-0.23*	0.56**	-	
	11. AKC-III	0.09	0.07	-0.17	-0.17	-0.13	-0.21*	-0.25*	-0.21*	0.56**	0.76**	-
	12. AKC-IV	0.22	-0.02	-0.13	-0.04	0.40	0.01	0.13	0.01	0.69**	0.52**	0.52*

Support-TS – Support Total Score; AKC-I – Enlargement of scope of values; AKC-II – Subordination of physique; AKC-III – Containment of disability effects; AKC-IV – Transformation from comparative to asset values

p*<0.05; *p*<0.01

included subordination of physique (AKC-II) and predicted only 9% of the variability of the strength of interpersonal relationships among the surveyed women. A higher level of similarity in the personal relationship was correlated with less frequent changes in values, consisting of subordinating physique concern in comparison to other values. The containment of disability effects explained only 4% of the variability of evaluative social support. Higher level of received evaluative support corresponded to a less frequent containment of disability effects.

DISCUSSION

The results of this study show the important, however weak, role of acceptance disability for social relationship quality (strength of interpersonal relationship and social support) among women with SCI. The proposed hypothesis that disability acceptance is significant for social rela-

tionship quality of the surveyed women with SCI was only partially confirmed. The dimension of disability acceptance as the subordination of physique to other values explains, albeit to a small extent, the similarity within a relationship (one of the dimensions of interpersonal strength). Perhaps women who make less frequent changes in values that subordinate physique to other values perceive less similarity to their partners. In making these changes, women shape their assessment of themselves on the basis of their attributes and abilities, and not their physical appearance. In consequence, they start to consider their skills, personal interest and competencies, which, perhaps, may weaken partners' similarity in relationship. The similarity in the relationship refers to similarity in the partners' values and attitudes. When one of the partners changes values and/or attitudes, it results in the appearance of differences between the two partners. Additionally, the greater concentration of women on their abilities and skills leads them

Table 4. Results of the stepwise regression analysis

Similarity in the personal relationship					
R = 0.33; R2 = 0.09; Adjusted R2 = 0.08; F = 8.90; <i>p</i> < 0,001					
Predictor	B	SEB	B	t	p
AKC-II	-0.66	0.26	-0.42	-2.56	0.001**
Evaluative Support					
R = 0.21; R2 = 0.04; Adjusted R2 = 0.03; F = 4.07; <i>p</i> < 0,05					
AKC-III	-0.43	0.21	-0,21	-2.02	0.047*

AKC-II – Subordination of physique; AKC-III – Containment of disability effects

not to perceive themselves through the prism of a third person so much. In this aspect as well, the similarity diminishes.

In line with the theoretical assumptions of this research, acceptance of loss may be beneficial for interpersonal relationship quality among women with SCI. Due to the fact that women and their partners have similar attitudes and values, it is possible for them not to be focused only on physical attractiveness. Changes in values proposed by Wright (1983) allow individuals to look at their lives and relationships in a new way. It seems that less subordination of physique to other values allows women to see a greater similarity between them and their partners. On the other hand, making changes in the values may also modify similarity in the previous stage.

It is worth mentioning that evaluative support may be explained by the containment of disability effects (AKC-III). Perhaps, women who make less frequent changes in values consisting in the containment of disability effects may receive greater evaluative support. Women who make less frequent changes in this scope of values more often treat their disability as a feature, not as a part of existence. Therefore, the disability is treated as their key personality trait. Nevertheless, it may have an impact on his/her perception in a given society, as they receive greater evaluative support in that case. Women may be more appreciated, and their ability to function as an individual may be highlighted.

The most important factor for the surveyed women with SCI was the time spent with their partners (strength of interpersonal relationship). The study showed that the women most frequently received informational support. They emphasised the duration of the relationship, the frequency of contacts and relation actuality. Therefore, it is important to empower these women in terms of the ability to establish and maintain relationships, perhaps through informational support in this area (Isaksson and Hellman, 2012).

In order to accept their own disability, the surveyed women with SCI most frequently made changes in values concerning the containment of disability effects, and they transformed comparative values to asset values. To accept their limita-

tions in movement, they treated their disability not as a feature but as a part of their existence. Despite the fact that social comparison may be perceived as an inevitable human activity, the surveyed women avoided comparing themselves to other people, as it might lower their self-esteem.

A good adaptation to disability relates to positive interpersonal relationships of people with SCI (H. Though et al., 2017). Some aspects of SCI are permanent or prone only to small changes (e.g. the paralysis), but a range of other aspects, such as relationships, depend on the diagnosed person (Lude et al., 2014). Because of both external and internal barriers, women with SCI encounter difficulties in establishing and creating new relationships (Gabryś, 2018). Perhaps, the change of value in disability acceptance may help them to maintain these relationships (Wright, 1983) and finally gain a better quality of life. Finally, relationship is one of the factors that may facilitate the retrieval of a good quality of life (cf. Lude et al., 2014).

This study has several limitations that are worth noting. Firstly, the group of respondents included only women with SCI, which leaves a significant reference for future research: a comparative group of men should be included. Some studies (Nicholls et al. 2012) show that sex is related to disability acceptance. Secondly, due to the lack of other explorations into the discussed issue, a relatively simple model of correlation analysis was adopted, limiting explanatory possibilities. Thirdly, future research should include women with different physical conditions and not be limited to SCI. Other studies (e.g. Li and Moore, 1998; Carl, 2013) suggest that acceptance disability may be associated with the type of physical disability.

Although the current study displays some limitations, it also brings scientific benefit. Firstly, the study expands the current knowledge of the physical functioning of women with spinal cord injury. Secondly, the results can be used to design an appropriate support, including strengthening and maintaining interpersonal relations. Currently, as shown by the Amsters' research (2016), interpersonal interactions tend to be a side effect of a disability rather than the main focus of the intervention. Thirdly, when designing activities, clinicians should consider the importance of disability

acceptance for social relationship quality of women with SCI. Taking this factor into consideration, a basis for proactive relationship support for people with SCI may be formed (cf. Amsters et al., 2016). Finally, the subjective perception of interpersonal relationships and social support among women with SCI identified in the study may be significant for broadening the scope of possibilities of intervention.

CONCLUSIONS

The aim of the present study was to analyse the relationship between disability acceptance and

social relationship quality among women with SCI. Firstly, the acceptance of disability has a predictive role of social relationship quality (strength of interpersonal relationship and social support). Secondly, only two disability acceptance subscales raise the subject of social relationship quality. It cannot be omitted that the subordination of physique explains similarity (subscale of strength of interpersonal relationship) and the containment of disability (evaluative support). However, the model explains a relatively low percentage of variance. To sum up, future research should focus on other variables that can better explain relationship maintenance by women with SCI.

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