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Magda Lejzerowicz[*]
Dariusz Tomczyk[*]

Acquired disability: self-esteem and identity integration

Abstract: *The aim of the study is to compare the development of self-esteem and identity integration over time among people with disability and without it (data from norm groups), including people with a spinal cord injury as well as with disabilities caused by other reasons. The research examined self-esteem and identity integration of individuals with disability with regard to disability duration, gender, age, correlation analysis of self-esteem and identity integration.*

The sample consisted of 133 individuals with acquired disabilities. The study used the Polish adaptations of Rosenberg Self-Esteem Scale and Multidimensional Self-Assessment Inventory. Additionally, the respondents with disability completed a form with questions about their age, gender, disability duration and its cause. The outcomes of SES and MSEI modules were checked against the norm groups.

The results demonstrated that self-esteem and identity integration do not vary with regard to gender, age or acquired disability conditions. The differences between subjects with disability and the normalized group have proven to be negligible. However, the factor that turned out to be highly significant was the disability duration. Differences have been observed among groups with disability lasting up to 4 months, from 4 months to 2 years, from 2 to 6 years and over 6 years. To sum up, self-esteem and identity integration correlation proved to be high and positive.

These findings suggested that the higher the self-esteem, the more integrated the identity, regardless of either the disability type or its degree. The level of self-esteem is subject to differentiation primarily due to disability duration.

Keywords: *disability, self-esteem, autonomy, subjectivity, identity integration, concept of self*

Introduction

Disability often leads to exclusion and social marginalization, which concern not only individuals affected by disability but also their families. It is still not uncommon to perceive a person with disability as different or a stranger (Goffman, 1986). In the current social reality, persons with disability are expected to surrender to the interpretation of the majority and various institutions aim to create their needs.

It is generally acknowledged that people with acquired disabilities find it hard to accept their new state, often considering their future life as meaningless, regarding themselves as a burden for the closest ones or struggling to face numerous challenges of day-to-day functioning. Additionally, social environment and significant others tend to reinforce the belief that individuals with disability seem worse, dependent or unable to function normally. The autonomy and independence of people with disabilities is oftentimes highly limited and any isolation from daily life and its problems makes it virtually impossible for any person to remain a self-sufficient and independent individual (Shah & Giannasi, 2015).

With respect to the Self, disability disturbs the sense of identity, autonomy and continuity. Separate Selves from before and after the accident are created. Numerous researchers underline the impact of an acquired disability on identity. Qualitative research of this phenomenon was carried out by e.g. Gendreau and de la Sablonnière (2014), whose study has shown that as a result of identity integration process, various identity components are recognized as part of the Self. The authors particularly emphasize the importance of a sense of continuity following the disability onset. The entire process of identity reconstruction or finding new life goals proves to be difficult, complex and long-lasting. Therefore, it seems important to obtain knowledge how and when identity is reconstructed and integrated and if a connection could be established between identity and the level of self-esteem.

[*] **Katedra Fizjoterapii, Wyższa Szkoła Rehabilitacji w Warszawie**

Corresponding author: Magda Lejzerowicz, e-mail: mlejzer@gmail.com

Accidents or diseases which result in disability bring a completely new dimension to the existing conditions of life. The person affected suddenly becomes heavily dependent on others, often unable to live independently thus experiencing lack of autonomy and integrity (Brzezińska, 2006). Situations of this kind test individual's resources, social environment to which they belong, institutions, and above all – the significant others. Other factors determining the process of adaptation to the new conditions include: type of disability, age at which disability occurs, impact on daily functioning or childhood experiences. Additionally, one cannot dismiss such aspects as: conditions of adaptation to chronic illnesses, levels of stress, anxiety or depression, support for the chronically ill or the quality of patient's life. A study conducted by Sakakibara, Hitzig, Miller, Eng & the SCIRE Research Team (2012) shows that the quality of life over time has a potential to improve in patients with spinal cord injuries.

Studies conducted so far indicate that the acquisition of disability radically changes the affected person, often becoming the central category of the individual's life (Barnes & Mercer, 2008; Byra, 2014; Piotrowski, 2010). It may lead, among others, to an identity crisis and therefore it seems essential to obtain relevant knowledge when the crisis may be overcome with psychological, educational or rehabilitation interventions (Brzezińska, 2006; Byra 2014; Kazanowski & Osik-Chudowolska, 2003; Kowalik, 2007a; Kowalik, 2007b). One of the factors that seems crucial in coping with disability crisis is the time that has elapsed since the acquisition of disability (Bishop, 2005; Byra, 2014). Analysis of acquired disability demonstrates a relationship between adoptive reactions and health behaviours, focusing, in particular, on a response to disability in the context of specific health actions (Krause, McArdle, Pickelsimer, & Reed, 2009). Recognition of functional constraints by a person with disability can lead to increased competence in their management, minimization, limitation of their impact on daily life, performed social roles or the general quality of life. Low levels of psychosocial distress coincide with the perception of a higher level of health control for people with disabilities (Livneh, Lott, & Antonak, 2004).

There is also a significant body of literature emphasizing that self-esteem of some groups of people with disability engaged in undertaking unusual activities is comparable or even higher than the level of self-esteem exhibited by non-disabled people. The studies included people with disability practising sport, particularly extreme sports (Niedbalski, 2016; Czaja, 2001; Tasiemski & Koper, 2013) as well as participating in Miss Wheelchair competitions (Osińska, Koper, & Tasiemski, 2014). The findings show that for people with disability sport has a significant impact on self-esteem and self-realization (Żukowska, 2006).

The aim of the present study was to examine the relationship of acquired disability with self-esteem and identity integration, taking into consideration several potentially differentiating factors: gender, age of persons with acquired disability and time elapsed since the disability acquisition. In the current work, the authors have attempted to test whether self-esteem and identity integration differ between persons with disability and norm group, whether self-esteem of indviduals with disability depends on identity integration and whether self-esteem and identity integration depend on the duration of disability. The authors hypothesize that self-esteem and identity integration differ between persons with disability and norm group and between persons with a spinal cord injury and other persons with acquired disability.

Methods

Participants

The interviews included 133 people with disabilities acquired as a result of accident, disease or amputation, 66 of whom were patients after spinal cord injuries, and 67 – patients with other problems leading to disability. There were 84 men and 49 women, aged between 15 and 81 ($M = 42.2$, $SD = 16.3$). They were all patients of Mazovian Rehabilitation Center STOCER in Konstancin-Jeziorna near Warsaw[1]. The fieldwork lasted from 2014 to 2016. All those who took part in the study provided their informed consent. Formal ethical approval for this research was obtained from the Bioethics Committee of College of Rehabilitation in Warsaw.

Measure

The study included Rosenberg Self-Esteem Scale (SES) in Polish adaptation by Irena Dzwonkowska, Kinga Lachowicz-Tabaczek and Mariola Łaguna; the Multidimensional Self-Esteem Inventory (MSEI) in Polish adaptation by Diana Fecenec as well as a short demographic form with questions about the age and gender of the subjects, the time elapsed since the acquisition of disability or the cause of disability. The measures have well-proven theoretical relevance in the Polish adaptation research and no time limitation in completing, which offers a possibility for them to be used by people with disabilities. While SES testing general/explicit self-esteem is a very short form, MSEI constitutes a very detailed measure for the assessment of global self-esteem and its eight components regarding detailed aspects of human's functioning. MSEI is a measure which gives a possibility to examine global self-esteem with a possibility to know the level of Defensive Self-Enhancement and to examine the scale of Identity Integration as well. Two measures: SES and MSEI were chosen to compare general self-esteem in order to verify the results.

Self-Esteem Scale, created by Morris Rosenberg, is the world's most widely used tool for measuring self-esteem (Dzwonkowska, Lachowicz-Tabaczek, & Łaguna, 2008). It consists of 10 statements, which can be responded to by choosing one of the four answers. Each answer is rated from 1 to 4 points, hence, in total, from 10 to 40 points can

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be scored for the entire test. In Polish adaptation of the test the results are checked against 6 norm groups, distinguished by age and gender: 14–18 years of age, 19–24 years of age and 25–75 years of age, separately for men and women.

The Multidimensional Self-Esteem Inventory (MSEI) by Edward J. O'Brien and Seymour Epstein consists of 116 test items divided into 11 scales (Fecenec, 2008). These start with Global Self-Esteem, followed by 8 specific components of self-esteem: Competence, Lovability, Likability, Personal Power, Self-Control, Moral Self-Approval, Body Appearance, and Body Functioning. In addition, there are 2 additional scales: Identity Integration and Defensive Self-Enhancement. Each scale consists of 10 items, with the exception of Defensive Self-Enhancement, which consists of 16 items. Each of the 61 statements and 55 questions is to be responded by choosing one of the five answers. Each answer is rated from 1 to 5 points, hence from 10 to 50 points can be obtained for a given scale, with the exception of Defensive Self-Enhancement where the score varies from 16 to 80. In Polish adaptation of the test results are checked against 6 norm groups distinguished by age and gender: 16–19 years of age, 20–64 years of age and 65–79 years of age, separately for men and women.

Procedure

The participants completed Rosenberg Self-Esteem Scale (SES), the Multidimensional Self-Esteem Inventory (MSEI) and a short demographic form attached to the main questionnaires. The results were compared to the norm groups.

182 individuals were asked to take part in the tests, 49 of whom refused. 110 participants filled in both SES and MSEI questionnaires, whereas 23 people completed only SES questionnaire. Due to degree of difficulty, duration, sensitive questions MSEI questionnaire was not filled out mainly by the elderly (see Tables 4, 5, 6 in Appendix). There was no difference in sex between participants who completed MSEI and participants who did not. The demographic form was completed by all 133 respondents. Participants filled in the questionnaire with a researcher present in the room and some by dictating the results to the researcher. Psychological treatment which could have increased the scores on self-esteem scales was not reported by respondents.

Statistical Analysis

The acquired data was analysed with the statistical package IBM SPSS Statistics 20 for Windows. The normality of results distribution for each group was tested with Kolmogorov-Smirnov test. Because all variables met the criteria of normality, parametric tests were applied for further analyses. For pairwise mean comparison Student's t-test were used, while for independent variables with greater group numbers the analysis of variance (ANOVA) was executed. Eta^2 coefficient was used to determine the effect-size of ANOVA tests. The strength and direction of relationships between scale variables was examined with r-Pearson correlations.

Results

Student's t-test has shown that among persons with disability, the results for 5 variables differed significantly ($p < 0.05$) from the norms. Differences occurred in 7 sub-groups (based on the gender criterion and age group of the respondents, in accordance with the norms from both tests), and 4 results were significantly higher than the norms, while 3 were significantly lower than the norms. Table 1 includes the list of scales and sub-groups which obtained results significantly different from the norms, with the direction of the difference indicated by arrows (Table 1).

Pearson Correlations have demonstrated that the age of respondents correlated only with Defensive Self-Enhancement. The correlation was very poor and positive, equal to 0.19 ($p < 0.05$).

Student's t-test have revealed that statistically men differ significantly from women with regard to 4 variables. Men had higher scores in Body Functioning ($p < 0.05$) as well as in Personal Power ($p < 0.001$). In turn, women had higher scores in Moral Self-Approval ($p < 0.05$) (see Table 2). Across the other 8 variables there were no statistically significant differences between men and women.

The disability duration did not correlate significantly with any of the variables in terms of Pearson coefficients, since as it turned out, its relationships were non-linear in nature, and for 10 out of 12 variables it had a U-shaped form. ANOVA has revealed statistically significant ($p < 0.05$) differences for 10 variables across the groups

Table 1. Scores of respondents with disability significantly differing from the norms

Scale	Subgroup	Group N	Group mean	Group stdev	Norm mean	Test p	Difference vs norm
Competence	women 20–64 yrs	32	35.19	6.22	32.44	.018	↑
Competence	men 20–64 yrs	61	36.70	4.43	34.34	< .001	↑
Personal Power	men 20–64 yrs	61	34.80	5.44	32.11	< .001	↑
Moral Self-Approval	women 20–64 yrs	32	40.56	6.25	37.13	.004	↑
Body Appearance	women 20–64 yrs	32	28.13	7.13	30.79	.043	↓
Body Functioning	women 20–64 yrs	32	27.22	9.05	32.35	.003	↓
Body Functioning	men 20–64 yrs	61	31.72	7.75	34.51	.007	↓

Table 2. Difference in scores between men and women with disability

Scale	Age	Women			Men			Test statistics		
		N	Mean	Stdec	N	Mean	Stdev	T	df	p
Personal Power	20–64	32	29,72	6,660	61	34,80	5,44	-3,959	91	< 0.001
Moral Self-Approval	20–64	32	40,56	6,250	61	37,00	6,68	2,531	91	0,013
Body Appearance	20–64	32	28,13	7,129	61	31,54	6,23	-2,390	91	0,019
Body Functioning	20–64	32	27,22	9,050	61	31,72	7,75	-2,510	91	0,014

Figure 1. The relation of Rosenberg SES scores with disability duration

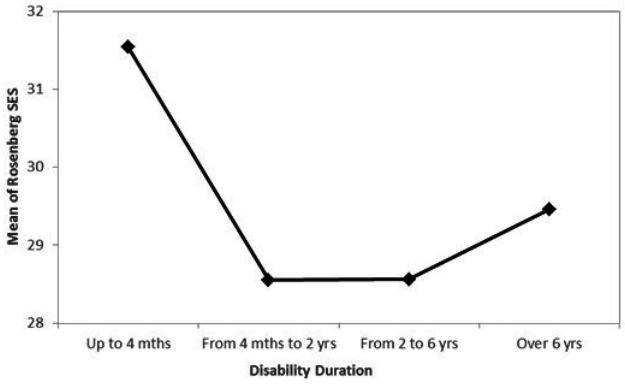


Figure 2. The relation of Global Self-Esteem scores with disability duration

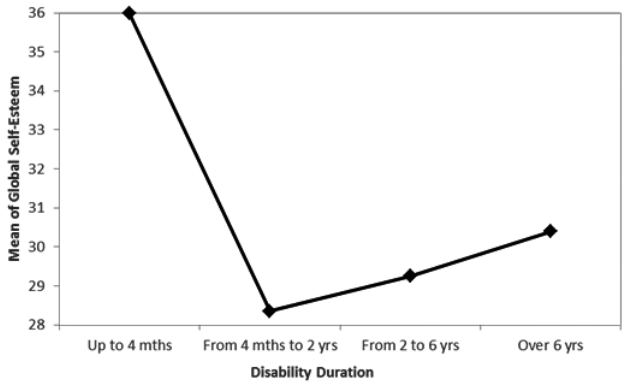
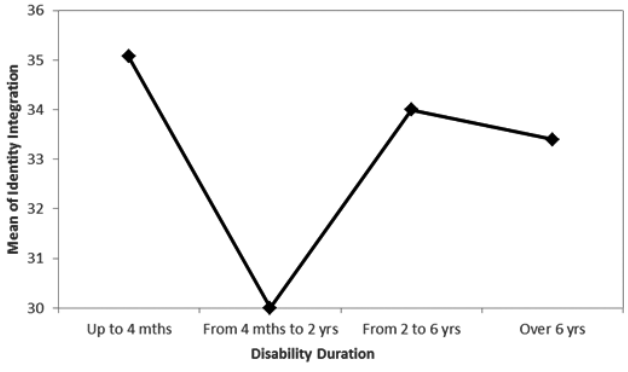


Figure 3. The relation of Identity Integration scores with disability duration



of people with disabilities lasting up to 4 months, from 4 months to 2 years, from 2 to 6 years and over 6 years (Figs. 1, 2 and 3). Only for Lovability and Defensive Self-Enhancement the relationship was not U-shaped, and the differences between groups of different disability duration were not statistically significant.

Pearson Correlation between self-esteem (as measured by SES and MSEI) and the Identity Integration proved to be positive and high. Thus, accordingly, the results of SES correlate with Identity Integration at the level of 0.60 ($p < 0.001$), and the results of Global Self-Esteem correlate with the results of Identity Integration at 0.77 ($p < 0.001$) (Fig. 4 and 5).

Figure 4. The correlation between Integration Identity and Rosenberg SES

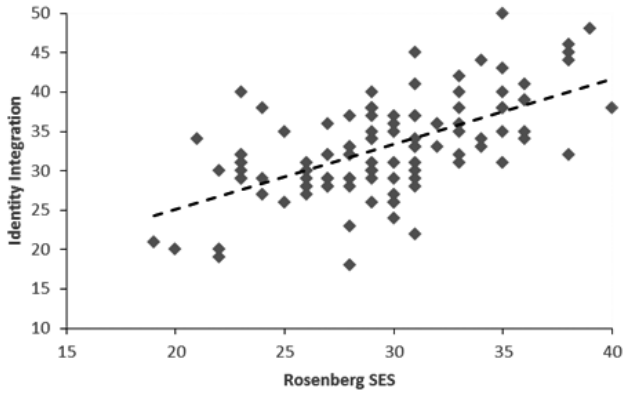
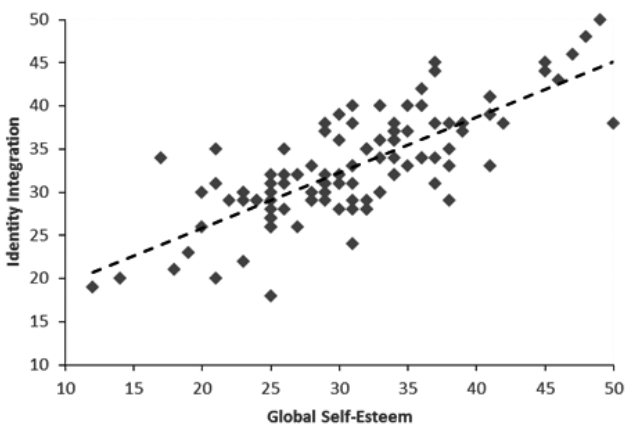


Figure 5. The correlation between Integration Identity and Global Self-Esteem



The analysis of variance has shown that 66 people with spinal cord injuries had higher results in 11 scales, and lower only in the Defensive Self-Enhancement as compared to other 67 people with acquired disabilities. However, statistically significant differences included only 3 variables: Global Self-Esteem and Lovability (both $p < 0.01$) and Likability ($p < 0.05$). In addition, eta² indicator calculated for the 3 variables was not high and amounted to 0.07 for the Global Self-Esteem and Lovability, and 0.05 for Likability.

Discussion

The literature review provides a number of studies presenting the outcomes of research on the quality of life of people with a spinal cord injury (Duggan & Dijkers 2001; Sakakibara, Hitzig, Miller, Eng, & the SCIRE Research Team, 2012) as well as demonstrating the importance of timing in coping with the disability (Bishop, 2005; Byra, 2014; Chaney, Mullins, Wagner, Hommel, Page, & Doppler, 2004). However, there appears to be a lack of available data in the field of self-esteem and identity integration of persons with a spinal cord injury and its relation with time elapsed since the injury and with coping with the disability. The main purpose of the present study was to examine the relationship between acquired disability and both self-esteem and identity integration, considering several potentially differentiating factors: gender, age or time elapsed since the disability acquisition. In the current work, the authors have tested whether self-esteem and identity integration differ between persons with disability and norm group, whether self-esteem of persons with disability depends on identity integration and whether self-esteem and identity integration depend on the duration of disability.

It was hypothesized that self-esteem and identity integration differ between persons with disability and norm group results and between persons with a spinal cord injury and other persons with acquired disability. Among the respondents with disability the results for certain subgroups were higher than the norms (7 subgroups of people with disabilities). For 3 subgroups the results were lower than the norm group. More importantly, in the areas most important from the point of view of the study, namely in Rosenberg SES and Global Self-Esteem and Identity Integration, no differences against norms were observed in the group of individuals with disabilities.

The existence of differences in the level of self-esteem and identity integration between people with spinal cord injuries and other persons with acquired disabilities has not been confirmed. For 3 variables statistically significant differences were observed in favour of disabled persons with a spinal cord injury (in the Global Self-Assessment and 2 detailed components of self-esteem – Lovability and Likability). However, the low value of eta² indexes for these 3 variables indicated that the differences – although statistically significant – did not explain much of the variance and other (yet unknown) factors are probably more important in terms of differentiation of the results between people with spinal cord injuries and the other respondents with disability.

Taking into account the relationship between gender, self-esteem and identity integration of people with disabilities, the differences that occurred between men and women applied only to 4 specific components of self-esteem yet did not occur for the key variables: Identity Integration, and self-esteem measured with Rosenberg SES and Global Self-Esteem. During the normalization of MSEI questionnaire, scores of several components of self-esteem were reported to be significantly different between men and women (in favour of men) (Fecenec, 2008). This has also been noticed in the results of the study. On the other hand, higher results obtained by men from the normalization group in the area of Identity Integration (Fecenec, 2008) have not been confirmed in the case of persons with disability participating in the study.

The existence of the relationship between age and self-esteem and identity integration of people with disabilities has not been confirmed. Defensive Self-Enhancement increased with age, but this correlation was very low (0.19). The values of the other variables, somewhat differently than in the normalization group (Fecenec, 2008), did not decrease or grow with age in a statistically significant manner. The increase in DSE (the measure of the need for social approval) in fact correlates with age not only among people with disabilities. This is explained by the effect of long-term socialization (due to lifespan) (Fecenec, 2008).

The relationship between disability duration and self-esteem and identity integration has been fully confirmed for 10 out of 12 variables, including all the indicators most important for our study (Rosenberg SES, Global Self-Esteem and Identity Integration – Figs. 1, 2 and 3). Self-esteem is affected by the process of adaptation to disability hence at the time when a person is still in hospital after an injury or surgery (up to 4 months with a disability), self-esteem and identity integration levels were even higher than the norms. The lowest level of self-esteem and identity integration was recorded for the group between 4 months and 2 years of disability duration. This is the period of hospital rehabilitation as well as release from hospital back home. During this time, many problematic questions arise such as: *How will I manage at home? Will I ever be self-sufficient again? Am I a valuable person?* Anxiety associated with a sense of lack of control over one's own body can be generalized to all activities undertaken by a disabled person and can affect the development of a sense of overall lack of control or inability of self-determination. Uncertainty and anxiety are a major problem in the process of coping with disabilities over time (Chaney, Mullins, Wagner, Hommel, Page, & Doppler, 2004). After 2–6 years from disability acquisition, identity integration rose to a level comparable with norms, whereas self-esteem recovered more slowly and only after 6 years did it reach levels comparable with the norms. After that time, the person has already gone through the clash with the family and social environments as well as with the environmental barriers and has adapted to disability

(Duggan & Dijkers, 2001; Miller, Chan, Ferrin, Lin, & Chan, 2008; Stepleman, Floyd, Valvano-Kelley, Penwell-Waines, Wonn, Crethers, Rahn, & Smith, 2017).

The results show some convergence with the results of research conducted by several other authors (Geyh, Nick, Stirnimann, Ehrat, Müller, & Michel, 2012; Niedbalski, 2016; Osińska, Koper, & Tasiemski, 2014; Tasiemski & Koper, 2013). In a study conducted by Osińska, Koper & Tasiemski (2014) the control group consisted of able-bodied women. The time since the occurance of the injury was not reported. The analysis of the data showed that the level of self-esteem of contestants in the Miss Poland in a Wheelchair contest was significantly higher than that of able-bodied women. However, the results of this study clearly suggest that high levels of self-esteem do not apply solely to groups distinguished by an unusual activity, e.g. participating in miss wheelchair competitions or practising sports, especially extreme ones. The study included a random group of people with acquired disability and with different disability duration, which enabled the analysis of this variable in relation to self-esteem (Bishop, 2005; Duggan & Dijkers 2001; Livneh & Martz, 2003).

The relationship between self-esteem and identity integration of people with acquired disabilities has been fully confirmed. Self-esteem, as measured by both Rosenberg SES, and Global Self-Esteem in MSEI questionnaire, positively correlated with a sense of consistency of Self, measured by Identity Integration. Highly integrated identity means constant search for and assimilation of new experiences, leading to the development and expansion of Self (Luyckx, Seiffge-Krenke, Schwartz, Goossens, Weets, Hendrieckx, & Groven, 2008; Syed & McLean, 2015). Extreme stress originating from, for example, acquisition of disability can lead to a collapse of the schemes related to Self, particularly among individuals with problems in coping with experiences beyond the ability to assimilate. The dimension of identity integration is similar to self-esteem, both related to the general functioning and to adequacy of self-knowledge (O'Brien & Epstein, 2009).

The problem of changes in identities and self-esteem in individuals who experience a severe injury remains insufficiently explored. This study appears to be unique as it has assessed the relationship between self-esteem and identity integration in relation to the time of disability acquisition. Understanding the implications of one's reconstructed identity and the growth of the level of self-esteem can direct interventions to an appropriate moment for the purpose of adjustment and adaptation (Syed & McLean, 2015). Examination of these constructs with qualitative and quantitative measures within a larger sample and in groups of people with other disabilities can provide an opportunity to confirm the validity of the obtained evidence.

Despite this being a quantitative study to measure self-esteem and identity integration as important concepts concerning a severe injury and its timing, there are several limitations that should be noted. In the youngest (under 20) and the oldest (over 65) age groups the collected samples were below the threshold of 30 respondents. On the one hand, theoretically, such a sample size is insufficient for most statistical tests, including t-test. On the other hand, the pioneer nature of this study prompts to share as wide a picture as possible, including all the results collected (Table 3 is attached in appendix).

It would be interesting to carry out research which would compare explicit self-esteem, which is defined as an introspectively accessible attitude towards oneself, and implicit self-esteem, understood as subconscious, introspectively inaccessible attitude towards oneself (Pilch & Hyla, 2017). Conducting research with a group of people with disabilities is a limitation in itself. In such groups it is challenging to study hidden self-esteem, yet such data could undoubtedly enrich the research. Implicit self-evaluation tests are based on tasks that need to be performed as quickly as possible, which poses difficulties for people with a spinal cord injury (Greenwald, McGhee, & Schwartz, 1998).

The study is cross-sectional and the findings provide a good foundation for further longitudinal research as well as research with a recruitment control group of people with inborn disability. Future qualitative research is required to probe further the concepts and connections described in the present study, and to identify how rehabilitation and educational intervention services may best address these issues. It would help to understand the psychological mechanism underlying the process of overcoming a trauma and finding possible determinants of adaptation to an acquired disability. Our research adds to the growing literature of the complex relationship between disability, self-esteem and identity integration, but further investigations are necessary.

Conclusions

1. It can be concluded that self-esteem and identity integration levels of both people with a disability and the normalization group are comparable and are subjected to differentiation primarily with regard to disability duration.
2. Self-esteem is affected by the process of adaptation to disability. It is worth pointing out that self-esteem has a U-shaped form – it drops 4 months after the injury, but then increases again.
3. Self-esteem and identity integration are closely related, the higher the self-esteem, the more integrated the identity (and vice-versa).

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Appendix

Table 3. Scores of respondents with disabilities of SES and MSEI tests

Scale	Subgroup		Group N	Group mean	Group stdev	Norm mean	Test p[1]	Difference vs norm
Rosenberg SES	14–18	women	1	28.00	0.00	27.83	–	–
Rosenberg SES	14–18	men	3	34.00	5.20	29.07	–	–
Rosenberg SES	19–24	women	3	30.33	1.15	29.74	–	–
Rosenberg SES	19–24	men	8	31.38	3.34	30.54	–	–
Rosenberg SES	25–75	women	43	29.16	4.28	29.17	0.991	
Rosenberg SES	25–75	men	72	29.33	4.48	29.09	0.646	
Global Self-Esteem	16–19	women	2	32.00	9.90	32.48	–	–
Global Self-Esteem	16–19	men	3	37.67	10.97	33.86	–	–
Global Self-Esteem	20–64	women	32	29.09	7.80	30.25	0.408	
Global Self-Esteem	20–64	men	61	31.51	7.33	31.03	0.612	
Global Self-Esteem	65–79	women	4	30.00	2.71	30.69	–	–
Global Self-Esteem	65–79	men	7	32.71	3.50	30.67	–	–
Competence	16–19	women	2	33.50	7.78	34.38	–	–
Competence	16–19	men	3	39.67	8.96	35.81	–	–
Competence	20–64	women	32	35.19	6.22	32.44	0.018	>
Competence	20–64	men	61	36.70	4.43	34.34	0.000	>
Competence	65–79	women	4	35.00	4.08	32.00	–	–
Competence	65–79	men	7	37.14	3.18	32.52	–	>
Lovability	16–19	women	2	40.50	6.36	35.29	–	–
Lovability	16–19	men	3	40.67	8.08	37.21	–	–
Lovability	20–64	women	32	37.06	7.76	35.59	0.291	
Lovability	20–64	men	61	35.69	7.87	35.23	0.651	
Lovability	65–79	women	4	36.00	2.94	35.06	–	–
Lovability	65–79	men	7	35.43	7.32	35.65	–	–
Likability	16–19	women	2	39.50	4.95	35.69	–	–
Likability	16–19	men	3	39.00	9.54	35.51	–	–
Likability	20–64	women	32	33.44	7.75	34.39	0.492	
Likability	20–64	men	61	34.69	6.09	33.91	0.322	
Likability	65–79	women	4	34.00	4.69	34.13	–	–
Likability	65–79	men	7	34.71	4.75	33.54	–	–
Personal Power	16–19	women	2	34.00	8.49	33.69	–	–
Personal Power	16–19	men	3	36.67	1.15	35.00	–	–
Personal Power	20–64	women	32	29.72	6.66	30.26	0.649	
Personal Power	20–64	men	61	34.80	5.44	32.11	0.000	>
Personal Power	65–79	women	4	31.00	5.60	30.36	–	–
Personal Power	65–79	men	7	35.00	5.42	31.02	–	–
Self-Control	16–19	women	2	32.50	12.02	32.79	–	–
Self-Control	16–19	men	3	36.33	8.50	33.55	–	–
Self-Control	20–64	women	32	32.47	6.18	32.04	0.697	
Self-Control	20–64	men	61	34.44	5.95	33.35	0.157	
Self-Control	65–79	women	4	32.75	6.18	33.65	–	–
Self-Control	65–79	men	7	34.86	6.72	34.65	–	–

[1] Due to the limited size of the participants in the youngest (under 20) and the oldest (over 65) age groups (below the threshold of 30 respondents) t-test was not calculated in these groups.

Table 3 cont.

Scale	Subgroup		Group N	Group mean	Group stdev	Norm mean	Test p	Difference vs norm
Moral Self-Approval	16–19	women	2	38.50	2.12	35.60	–	–
Moral Self- Approval	16–19	men	3	37.67	10.69	35.20	–	–
Moral Self- Approval	20–64	women	32	40.56	6.25	37.13	0.004	>
Moral Self- Approval	20–64	men	61	36.95	6.68	36.66	0.735	
Moral Self- Approval	65–79	women	4	38.50	7.00	38.49	–	–
Moral Self- Approval	65–79	men	7	37.86	5.43	36.96	–	–
Body Appearance	16–19	women	2	37.00	5.66	33.06	–	–
Body Appearance	16–19	men	3	40.67	8.33	34.70	–	–
Body Appearance	20–64	women	32	28.13	7.13	30.79	0.043	<
Body Appearance	20–64	men	61	31.54	6.23	32.47	0.248	
Body Appearance	65–79	women	4	31.75	4.27	29.99	–	–
Body Appearance	65–79	men	7	32.57	2.70	29.44	–	–
Body Functioning	16–19	women	2	35.00	12.73	34.63	–	–
Body Functioning	16–19	men	3	42.00	7.21	37.10	–	–
Body Functioning	20–64	women	32	27.22	9.05	32.35	0.003	<
Body Functioning	20–64	men	61	31.72	7.75	34.51	0.007	<
Body Functioning	65–79	women	4	34.00	2.31	28.39	–	–
Body Functioning	65–79	men	7	32.86	9.37	30.50	–	–
Identity Integration	16–19	women	2	28.00	14.14	30.83	–	–
Identity Integration	16–19	men	3	33.33	4.16	33.06	–	–
Identity Integration	20–64	women	32	32.16	6.68	31.09	0.374	
Identity Integration	20–64	men	61	33.20	5.92	32.89	0.687	
Identity Integration	65–79	women	4	33.00	5.60	33.09	–	–
Identity Integration	65–79	men	7	36.29	4.96	34.13	–	–
DS-E	16–19	women	2	50.00	0.00	47.92	–	–
DS-E	16–19	men	3	54.00	19.16	48.55	–	–
DS-E	20–64	women	32	54.88	8.98	51.98	0.078	
DS-E	20–64	men	61	51.36	8.12	52.22	0.412	
DS-E	65–79	women	4	52.75	9.60	56.77	–	–
DS-E	65–79	men	7	57.00	5.51	55.31	–	–

Table 4. Differences in number of respondents completed MSEI and SES

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Only SES completed	23	17.3	17.3	17.3
	SES and MSEI completed	110	82.7	82.7	100.0
	Total	133	100.0	100.0	

Table 5. Sex of participants – no statistically significant difference in groups, Sex * MSEI Crosstabulation (in %)

% within MSEI

		Scales		Total
		Only SES completed	SES and MSEI completed	
Sex	w	47.8_a	34.5_a	36.8
	m	52.2_a	65.5_a	63.2
Total		100.0	100.0	100.0

Each subscript letter denotes a subset of MSEI categories whose column proportions do not differ significantly from each other at the .05 level.

Table 6. Deference in age between groups of respondents in MSEI and SES scales

Scales		Age	SES Results
Only SES completed	Mean	56.70	29.78
	N	23	23
	Std. Deviation	15.824	3.490
SES and MSEI completed	Mean	43.98	29.50
	N	110	110
	Std. Deviation	15.635	4.465
Total	Mean	46.18	29.55
	N	133	133
	Std. Deviation	16.337	4.302