Association between social support of family and friends and meaning of life with Depression among spinal cord injuries disabilities and non-disabilities

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Abstract

Objectives: A number of researchers indicate that depression in people with physical disability is higher than people without physical disability; that depression is 4 times higher than in other people. Also research indicates that people with physical disability may lose their meaning of life because of inadequate adjustment and low social support.

Method: 80 people with spinal cord injury disability were chosen with available sampling and were matched with 80 person with non-disabilities for gender, state of marriage and level of education. Data of research was analyzed with t test and step by step regression and variance analysis.

Result: Findings of this research show that between social support of family and friend and meaning of life with depression among spinal cord injuries disabilities and non-disabilities there is a significant relationship (p<0.01).

Discussion: These results show that counselors should pay attention to meaning of life and social support in the process of treatment in relation to disabled and non-disabled individuals.

Keywords: social support, meaning of life, depression, spinal cord injuries disabilities.

Introduction

A spinal cord injury entails a sudden and dramatic alteration of the body, including paralysis, lack of balance, bowel and bladder problems (1). Spinal cord injury (SCI) is a devastating condition causing profound life changes for millions of people around the world (2). Worldwide prevalence of SCI is between 15 to 40 people per one million people; in Iran and the USA, this ratio approximately is 40 (3). Approximately 1,275,000 individuals in the United States suffer from paralysis due to spinal cord injuries (SCI), with 11,000 cases occurring each year (4) and the most frequent causes of injuries include motor vehicle accidents, violence, falls, and recreational accidents (2).

Depending on the level of the injury, people with SCI may experience permanent paralysis and altered bowel, bladder, and sexual functioning. (5) Because of the nature of the disability, they will have to make changes in employment (e.g., change or leave their job), social life (e.g., marriage and friendship patterns), and functional activities (e.g., limiting activities on the basis of accessibility) that may alter individual identity (6). Many survivors also experience serious psychological, psychosocial, and neurobehavioral issues and are at increased risk of developing anxiety disorders, substance abuse problems, feelings of helplessness, poor coping skills, low self-esteem, and depression (2). Depression is the most common psychological issue associated with SCI (7), reportedly affecting approximately 30% of patients, and is generally characterized by depressed mood and diminished pleasure over a two-week span accompanied by issues including energy loss, concentration difficulties, and sleep.
or appetite disturbances (2); however, rates of depressive symptoms across other studies have been found to range from 10-60% (8). It was once believed that virtually all SCI patients experience some level of depression as part of the adjustment process (2). Negative outcomes associated with depression among persons with SCI include diminished quality of life, poor social integration, and increased secondary medical complications. Depression levels may change over time since injury, and depression has also been correlated with prolonged rehabilitation and fewer functional gains (2).

Literature suggests that social support might be helpful in coping with the consequences of chronic conditions. Social ties and social support seem to have particular significance for people living with a disabling physical condition (9). Within the traumatic spinal cord injury (SCI) population, social support has been identified as a powerful influence on post injury achievements, explaining additional rehabilitation outcome variance beyond that explained by injury, demographic and psychological factors (10). When disabled people, due to depression, low social support, and poor psychological adjustment are marginalized, in most conditions they have lost their meaning of life (11). Depression in people with spinal cord injury can be the result of a lack of meaning in life (12). Lack of support could explain the high incidence of depression, but also support the proposition that depression is not inevitable as suggested by Dorsett and Geraghty (13). Thus, it may be too difficult to regain meaning with life without the necessary support (13). Many people who are forced into the struggle to deal with trauma ultimately find meaning in their suffering, and experience both growth and enhanced life satisfaction. Finding benefits in the encounter with their illness was positively correlated with finding meaning in life in one study. (14) According to previous studies and since SCI have high prevalence in Iran, where the most frequent causes of injuries include road accidents, falls and other factors. On the other hand, due to much research in the field of SCI factors are physiological, and social support, depression and creating meaning in life are essential components of mental health promotion, especially in people with SCI. Therefore, this research evaluates the association between social support of family and friends and meaning of life with depression among spinal cord injuries disabilities.

**Methodology**

This study was conducted in 2011 in Tehran and Karaj; the present study is a causal-comparative study. The sample consisted of two groups: 80 people with spinal cord injuries disability and a control group. The sample of this group was chosen with available sampling

The control group consisted of 80 persons with non-disabilities who were matched for gender, state of marriage and level of education. Age ranged from 20 to 40 years. The inclusion criteria were as follows:

1. The minimum age is 18 years.
2. Without any addiction.
3. Without any severe mental and physical illnesses.
4. Less than 12 months have passed since the spinal cord injury.

All participants completed 4 questionnaires, including a sociodemographic data sheet, social support of family and friend (Vaux), the meaning of life (Frankel) and depression (Beck). Then data was collected and analyzed with SPSS-16 software. Data was analyzed between the two groups by utilizing independent t-test for two groups and step by step regression and variance analysis.

**Results**

In Table 1 (next page), the results of socio-demographic characteristics of all of participants are indicated. As shown in Table 1, the high category of age in group SCI belonged to 31 - 40 and in group non-disabilities belonged to 20-30. A total of 160 individuals were involved in this study; 80 (50%) of whom were SCI and 80 (50%) non-disabilities. 80 (50%) were male and 80 (50%) were female. A total of 73.8% of the individuals were single and 26.2% were married.

"Is there a significant association between social support and meaning in life with depression in spinal cord injuries disabilities and non-disabilities?" For responding to this research question, a coefficient of multiple correlation was conducted on the data; the results are displayed in Table 2, which shows that correlation coefficient between social support and depression is a significant negative relationship (r = -0.81, P <0.05 in group SCI, r = -0.45, P <0.05 in group non-disabilities) and correlation coefficient between meaning in life and depression is a significant negative relationship (r = -0.87, P <0.05 in group SCI, r = -0.41, P <0.05 in group non-disabilities).

The second research question was “Is there a significant difference between social support and meaning in life with depression in spinal cord injuries disabilities and non-disabilities?” Regarding the results of Table 3, the t-test results indicated that there was a significant difference between the items of social support, meaning life and depression. Comparison of the average of scores between the two groups indicated that the non-disabilities group had a higher score in social support (t = -2.39, P<0.05), also comparison of the average of scores between the two groups indicated that the SCI group had a higher score in meaning in life (t = 2.50 P <0/01), depression (t = 4.13, P <0.01). Table 3 provides the t-test results.

The third research question was “Does the social support, meaning in life, sex and group predict depression in the SCI group?” Stepwise regression was applied to the response data to predict the social support, meaning in life, sex and group predicts depression in SCI group. As shown in Table 4, in the first step (F = 142.81, R = 0.69, P < 0.001) it showed that this model accounted for 0.48% of the variance in depression, in the second step; (F =106.20, R =0.76, P < 0.001) this model accounted for 0.58% of the
### Table 1: Socio-Demographic Characteristic of all Participants in Percent

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group spinal cord injuries disabilities</th>
<th>Group non-disabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age group, y</td>
<td>f</td>
<td>f</td>
</tr>
<tr>
<td>20-30</td>
<td>34</td>
<td>52</td>
</tr>
<tr>
<td>31-40</td>
<td>46</td>
<td>28</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>Single</td>
<td>59</td>
<td>59</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Female</td>
<td>40</td>
<td>40</td>
</tr>
</tbody>
</table>

### Table 2: The correlation matrix between social support, meaning in life and depression

<table>
<thead>
<tr>
<th>Abbreviations: SD, Standard Deviation; DF, Degree of freedom; t, Student's t-test.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>P&lt;0.05</strong></td>
</tr>
<tr>
<td>Table 2: The correlation matrix between social support, meaning in life and depression</td>
</tr>
</tbody>
</table>

### Table 3: Mean, SD and t-value of social support, meaning life and depression for spinal cord injuries disabilities (Group 1, n=80) and non-disabilities (Group 2, n=80) groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Mean±SD</th>
<th>Df</th>
<th>P value</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social support</td>
<td>1</td>
<td>16.39±4.67</td>
<td>158</td>
<td>0.05</td>
<td>-2.39</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>17.95±4.14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean in life</td>
<td>1</td>
<td>173.25±33.81</td>
<td>197.22</td>
<td>0.01</td>
<td>2.50</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>159.86±33.77</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>1</td>
<td>16.40±9.08</td>
<td>138.57</td>
<td>0.01</td>
<td>4.13</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>11.34±6.13</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
variance in depression and in the third step; (F =2110.72, R =0.78, P < 0.001) this model accounted for 0.60% of the variance in depression. A comparison of data in SCI and non-disabilities groups, on the basis of gender, showed sex variable has not the ability to predict variance in depression and there is no significant difference between men and women with depression.

Discussion
The results of this study, indicate that depression in SCI individuals, compared to the non-disabled, was reduced with increased social support and also with decreased meaning in life, depression was significantly increased. The finding of the present study is similar to previous findings which have been performed in this field such as; Burns & Hough (2011) found that greater social support is associated with lower depression scores and depression was significantly decreased with less of meaning in life (16).

Wilson and Alabama (2008) found that among the social support subscales, positive social interaction was found to be the only moderator of pain intensity, with this interaction effect strengthening or weakening pain intensity to influence the severity of depression among persons with chronic SCI pain (17). In another study, Beedie and Kennedy (2002) revealed that high quality of social support was associated with low hopelessness and depression scores in the SCI population (18). Cassini et Marquette (2009) examined the influence of meaning making on distress and well-being following spinal cord injury and results showed that Resource loss was positively associated with depression and PTSD and negatively associated with psychological well-being (19). Kennedy et al (2006) examined a psychosocial activity course for people with spinal cord injuries. That Results found that participants’ satisfaction with leisure, generalized self-efficacy and motivation to engage in activities was significantly increased between the start and end of the courses and anxiety significantly reduced. At both the start and end of the course, higher perceived manageability scores and self-efficacy were correlated with lower depression and anxiety (20). Several researches have shown that in people who deal well with stressful events, it is more possible that others are attracted to them and there is little likelihood that others avoid them. In contrast, people who have problems in coping with stress, do not have such situations. It is a very unfortunate implication, the people who required social support more than others, have less chance (likelihood) to acquire that(21).

Findings of the present study showed that meaning in life, social support and group accounted for 0.60% of the variance in depression. Angel and Kirkevold (2011) found that social support is a predictor of adjustment and decreased depression in people with SCI (22). Steger et al (2009) found that depression was the strongest predictor of perceived general health. However, the interaction of people’s experience of meaning in life and their propensity to seek deeper meaning in their lives predicted variance in perceived health above and beyond depression (23).
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References


