Original Article

Social Support and Depression in Iranian Cancer Patients: the Role of Demographic Variables

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ABSTRACT

Introduction: Depression is the most frequent mental disorder in cancer patients, which is, unfortunately, less noticeable. Despite extensive researches, we only have scant knowledge about the influence of social support on depression in cancer patients. The aim of this study is to examine the relationship between perceived social support and depression and demographic variables on cancer patients.
Methods: This is a descriptive correlational study on two hundred cancer patients in Isfahan, Iran. The study subjects were selected through convenient sampling method and data were collected using questionnaires (demographic questionnaire, Multidimensional Scale of Perceived Social Support (MSPSS) and Beck Depression Scale (BDS). Data were analyzed by SPSS software (Frequency distribution, Chi-Square and Spearman correlation).
Results: The findings showed that social support and depression in cancer patients are significantly correlated with each other (r = - 0.785, P <0.001). Furthermore, the findings indicated that there are statistically significant correlations between degrees of education with depression and also between the numbers of children with social support and depression in cancer patients. For all analyses, was considered significant.
Conclusion: In conclusion, we suggest that interventions to alleviate depression in cancer patients may be designed with consideration of demographic characteristics especially the level of education and the number of supporters of the patient to increase the quality of life in cancer patients and minimize the negative consequences of cancer diagnosis.

Introduction

Cancer is considered as a crisis in every person's life. Cancer patients encounter many stressful situations during their illness,[1] which has significant consequences for them and family members.[2] In the meantime, the most important psychiatric problem that eventually emerges in most patients is depression.[3]

Depression is a prevalent psychiatric disorder with high personal and public health consequences, specially due to a high risk of recurrence,[4] which is quite common among cancer patients, with prevalence rates up to four-times higher than those of the general population.[5] The recent research shows that the symptoms of depression associated with the disease affect the quality of life and social function of the individual, resulting in a negative effect on the acceptance of treatment and ultimately the increased use of health care services.[2,5]

However, physicians and nursing staffs often recognize depression in oncology patients. A common mistake is to assume that depression represents nothing more than a natural and understandable reaction to an incurable illness.[6] In this context, social support and relations affect as important factors for adaptability with disease and achieving mental health in cancer patients.[7]

Social support is defined in the literature as the received assistance and support from others, especially from certain individuals. It has been suggested that social support has a mediating role in consequence of coping style. As social support can reduce the effects of difficulties of life stress and incidence of mood disorder, cancer patients certainly need such supportive mechanisms.[8-10]

In this regard, Meyerowitz et al., found that received social support from family members is associated with flexibility and emotional vitality in women with cervical cancer.[11] Furthermore, Ashing Giwa et al., also found that American women relied on their faith in God and their families in order to increase their recovery from illness.[12]

The results of another study about experiences of patients after prostatectomy showed that men consider their spouses as an important supportive resource to control their anxiety.[13] Also, the results of studies on the relationship between depression and social support in chronic diseases such as COPD and the elderly seem to confirm this point.[14,15]

Also, the researchers have set out to investigate other psychological distress such as hopelessness and anxiety with social support in cancer patients and their findings seem to point to the importance of greater social support in cancer patients[10] while the negative interactions of family members and lack of social support have a significant impact on the patient's psychological distress.[16]

Determining the perceived levels of social support from the family and the levels of depression of cancer patients is important in planning the care for these patients to prove the contribution of families, and to increase life quality which increases the quality of care.[17]

Although some studies in Iran have been conducted on the incidence of depression in cancer patients, less attention has been paid to discussing the relationship between depression and social support. Also, in these

studies, little attention has been paid to the relationship between demographic variables and levels of social support and depression. Providing care and support from the health care provider is easier if we learn more about the causes associated with psychological responses in cancer patients. Therefore this study was conducted to determine the relationship between perceived social support and depression and different demographic variables in cancer patients.

Materials and methods

This study was a descriptive correlational survey conducted during May 2014 to May 2015 in Seyyed Al-Shohada hospital in Isfahan, Iran. Two hundred cancer patients having inclusion criteria were selected through convenient sampling method. The patients were considered to be 18 years of age or older, with no known psychiatric or neurological disorders which could have interfered with the completion of measures, who had at least one month since their diagnosis and were not at the final stages of the disease and had the ability to read and write or speak.

The questionnaires included a demographic questionnaire, the Multidimensional Scale of Perceived Social Support (MSPSS) and the Beck Depression Scale (BDS). Demographic questionnaire: This questionnaire was used to assess patient's basic information such as age, gender, marital status and level of education, number of children and place of living.

The Multidimensional Scale of Perceived Social Support (MSPSS): This is a 22-item measure of perceived adequacy of social support from three sources: family, friends, & significant others; using a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). For each item, the lowest score is 1 and the highest score is 7. Therefore, the scores of the questionnaire can vary from 22 to 154. A score of 22 shows the minimum score (indicating lack of social support), score 23 to 66 indicates a relative social support, and score 67 to 183 indicate high social support and 184 indicate the maximum social support.[18,19] The content validity of MSPSS was established through comments of ten experts (oncologists, psychiatrists, psychiatric Nurses) by some modifications and its reliability was confirmed by test-retest method with correlation coefficient over 0.85.

The Beck Depression Scale (BDS): This questionnaire assesses depressive symptoms and is a 21-item, 4-point scale ranging from 0 (rarely or none of the time) to 3 (most or all of the time). The highest score is 63; 1-10 is considered normal, 11-16 indicates a mild mood disturbance, 17-20 indicates borderline clinical depression, 21-30 indicates moderate depression, 31-40 indicates severe depression, and over 40 indicates extreme depression. The BDS has had high internal consistency with alpha coefficients of 0.81 for non-psychiatric populations. The reported alpha coefficient for the BDI was 0.78 for the Iranian population.[20,21] In this study, the alpha coefficients for patients were found as 0.85 by test-retest method.

Isfahan University of Medical Sciences Ethics Committee approved the study protocol with the number 185022, then directors of the Seyyed Al-Shohada hospital were informed and agreed for starting study. The purpose of the study was determining relationship between social support and depression in cancer patients. Patients were free to participate in the study and withdraw at any time. They assured that their information would be confidentiality.

All materials received through questionnaires were confidential. The obtained information has been analyzed impartially.

The researchers contacted each patient and gave a verbal explanation of the study. Patients were given a questionnaire which they were asked to fill out independently. The patients completed the questionnaires on their own. The questionnaires took approximately 45 min for the participants to complete.

After the questionnaires were completed, the obtained data were analyzed through descriptive statistics (frequency distribution) and inferential statistics (Spearman and Chi square).

Spearman correlation was used to analyze the relationship between the MSPSS and BDS scores and Chi square test was used to analyze the relationship between demographic variables with social support and depression. For all analyses, $P < 0.05$ was considered significant.

Results

The patients was 40, the majority of the patients were females (63.5%) and married (72.5%), living in city (81.5%) (Table1).

The distribution of perceived social support in cancer patients are summarized in Table 2. The findings showed that the majority of cancer patients (94.5%) received high social support from family, friends and relatives.

Also, the scores related to the distribution of depression in cancer patients are summarized in Table 2. The depression scores of the majority of the units showed the mild to moderate depression in patients (66%).

With regard to the relationship of social support to depressive symptoms, the results indicated that there is a significant relationship between social support and depression. So, as social support increases in cancer patients, the level of depression decreases ($r = -0.785$, $P<0.001$). Also with regard to the relationship between demographic characteristics and social support and depression, the results of the Chi square test indicated that there is a significant relationship between the degrees of education with depression in cancer patients ($P = 0.04$). There is also a significant relationship between the number of children with social support ($P = 0.039$) and depression ($P = 0.04$) in cancer patients, but there is no significant relationship between other demographic variables with depression or social support. The relationship between demographic variables with perceived social support and depression is summarized in Table 3.

Discussion

The findings showed that the majority of cancer patients

Table 1. Demographic characteristics of the sample (n= 200)

Demographic characteristics of the sample	N (%)
Gender	
Female	127(63.5)
Male	73(36.5)
Age (40±14)	
< 20 years	28(14)
21-40 years	71(35.5)
41-60 years	76(38)
> 61 years	25(12.5)
Marital status	
Single	41(20.5)
Married	145(72.5)
Widowed	10(5)
Divorced	4(2)
Education	
Illiterate	23(11.5)
Primary school	47(23.5)
High school	98(49)
University	32(16)
Number of children	
1-3	92(60.9)
4-6	44(29.2)
7 and more	15(9.9)
Place of living	
City	163(81.5)
Village	37(18.5)

Table 2. Descriptive findings of MSPSS and BDS in cancer patients

Scale items	N (%)
MSPSS	
22 (Lack of social support)	1(0.5)
23-66 (Moderate social support)	10(5)
67-183 (High social support)	188(94)
184 (Maximum social support)	1(0.5)
BDS	
1-10 (Normal)	40(20)
11-16 (Mild mood disturbance)	22(11)
17-20 (Borderline clinical depression)	56(28)
21-30 (Moderate depression)	55(27.5)
31-40 (Severe depression)	14(7)
more than 40 (Extreme depression)	13(6.5)

Table 3. The relationship between demographic variables with depression and social support

Demographic variables	Depression (P-value)	Social support (P-value)
Sex	0.5	0.14
Age	0.7	0.07
Marital status	0.1	0.2
Education	0.04*	0.16
Number of children	0.04*	0.03*
Place of residence	0.07	0.26

*Analyzed with Chi square test, For all analyses, P<0.05 was considered significant

received maximum social support from their family, friends and relatives. In this regard, the results of previous studies also indicated receiving the maximum acceptable social support from family; because social support received from parents, spouse, children and other health care givers is the most important source of social support for adolescents and adults with cancer.[10,22]

The findings also suggested a low level of depression in cancer patients, contrary to the popular belief which says that "all cancer patients are depressed".[23] The results of previous studies support this finding.[24,25] A study by Han and colleagues found that approximately 25% of cancer patients had clinical depression.[26]

The findings also highlighted the fact that social support and depression are strongly linked in cancer patients. The higher levels of social support are associated with low levels of depression. Also findings suggested that support for family members plays an important role in controlling and eliminating the symptoms of depression in cancer patients. These findings are consistent with other reports on the need for more support for cancer patients and their families.[26,27]

The inverse relationship between social support and depression is similar to the results of Nausheen and Kamal which was reported in women with cancer.[28] Other research has also been conducted on the relationship between social support and depression in cancer patients. For example, researchers found that social support in breast cancer patients was helpful in reducing the discomfort and depression of these patients[29,30] or the study by Hann et al., on the effect of social support and depression in cancer patients showed that social support, both in men and women, was associated with less depression.[26]

Other studies have also been examined the relationship between social support and depression in other chronic diseases such as AIDS and diabetes, which results in a complex relationship between social support and psychological consequences of patients such as depression.[31,32] Overall, we can say that the results of this study and other similar studies show the positive and beneficial effects of social support in chronic diseases such as cancer.

In order to determine the relationship between demographic variables with depression and social support in cancer patients, the results of the study indicate that there is a significant relationship between education level and depression (P= 0.04) and there is no significant relationship with social support (P= 0.16). The results of previous studies are slightly different from the findings of this study; for instance, Tan and Karabulutlu[10] and Sahin et al.,[17] found that there is no relationship between the levels of education of cancer patients and depression. Of course, the results of the study in Iran show that Iranian women with a higher education have a lower degree of depression.[33] In view of the contradiction in these findings, wider reviews should be made to clarify this issue.

The results also showed that there is a significant relationship between the number of children and the social support and depression in cancer patients. In this regard, the study of Nausheen and Kamal also confirmed the existence of this relationship.[28] Han and colleagues also found that increasing social support through a larger network is associated with less depression in cancer patients. The findings also suggested that support from family members, especially children, plays an important role in relieving the symptoms of depression in cancer patients. These cases are consistent with other reports on the need for social support.[34,35]

The results showed that there was no statistically significant correlation between age and social support and depression which was not in concordance with the results

of the previous study in this regard; The results of a study in Pakistan showed that age of patients with breast cancer significantly correlated with social support and depression.[28] Also, the results of Hann et al. showed that younger cancer patients are significantly more likely to have depression symptoms than older patients.[26] On the other hand, other findings from other studies suggest that older patients reported fewer emotional disturbances following cancer diagnosis and show better compliance.[17,36]

It is supposed that the reason is due to difference in the limited number of study subjects and/or due to cultural differences between Iran and other countries; because in Iran, young and old people receive almost similar levels of high social support from others. Besides, the majority of the study subjects were males and also in Iranian culture, women are given high attention as mothers and/or wives. However, conducting further extensive studies for more clarification is recommended.

Also, the results of this study showed that there is no statistically significant difference between sex and social support and depression, so there are no significant differences between women and men in relation to social support and depression. The results of Hann et al. also confirmed this.[26] However, women experience more depression and anxiety than men. Also, women tend to be more likely to report distress and have a weaker adaptation to many areas, especially chronic diseases.[10] However, it is still unclear whether the results of this study reflect actual differences in the extent of the distress experienced or other differences in the reporting style between men and women.

Besides, there was no significant difference between scores of social support and depression in single and married patients which was not consistent with the results of previous studies.[10] The reason is perhaps due to cultural differences in different communities. In Iran, usually single individuals live with their parents before marriage and receive their supports similar to supports of children and spouse for married patients. However, it seems that not only the number of people around patient, but also the quality of interaction is important.

In addition, this study evaluated the association of place of living with social support and depression which showed no significant difference in mean score of social support among urban and rural patients.

Conclusion

The results of this study showed that the received social support from friends, family and relatives was to an acceptable extent. The findings also suggested that support for family members plays an important role in controlling and eliminating the symptoms of depression in cancer patients.; however, it seems that in order to ensure higher social support for cancer patients, some continuous care interventions in clinical environments should be done for patients with new cancer diagnosis in Iran, including reviewing the presence of supportive individuals in the family network and relatives, as well as providing adequate information for more support from others by clinical nurses and psychiatric nurses.

Nurses can briefly assess the cancer patients to identify probable depression symptoms and psychosocial support deficit, as well as referrals to support services.

Furthermore, it is recommended that effective factors on social support and depression in cancer patients be investigated through more extensive studies with more sample size and using systematic sampling method to access generalization and more evidence.

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Ethical issues

None to be declared.

Conflict of interest

The authors declare no conflict of interest in this study.

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