RESEARCH ARTICLE

Social Support and its Predictors Among Iranian Cancer Survivors

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Abstract

  <u>Background</u>: Social support is an important factor in psycho-social well-being of cancer survivors. There is little information about level of social support and its predictors among cancer survivors in Iran or other Middle Eastern countries. The aims of present study were to determine the social support and its prediction factors among Iranian cancer survivors. <u>Materials and Methods</u>: In this descriptive-correlational study 187 cancer patients in one educational center and one private oncology office in northwest of Iran participated using a convenient sampling method. The data collection tool consisted of a researcher-prepared checklist and the Multidimensional Scale of Perceived Social Support Assessment (MSPSS). Data analysis was performed using SPSS statistical software with descriptive statistics and multiple linear regression analysis. <u>Results</u>: The total score of MSPSS was 68 from a possible score between 7 and 84. Participants believed that they received a high level of support from their family members and significant others. Multiple linear regression analysis showed that single and depressed cancer survivors and participants with lower levels of physical activity believed that they received lower levels of social support. <u>Conclusions</u>: Iranian cancer survivors receive high levels of social support and family members are the most important source of this support. In planning any supportive care program for Iranian cancer survivors this strength should be considered. Especially, single and depressed and patients with lower levels of physical activity need more attention.

Keywords: Cancer survivors - social support - predictors - Iran

Introduction

Scientific advancement raised in recent years, led to significant progress in survival of many cancer patients (Khan et al., 2008; Bray et al., 2013). The American Cancer Society considers cancer survivors as individuals who diagnosed with cancer and have reached to balance in their life after primary cancer treatments. But, cancer survivors often refer to individuals who do not have any symptoms of active cancer after primary treatments (Siegel et al., 2012). Cancer survivors estimated to be 28.8 million in 2008 (Bray et al., 2013). Similarly, the survival rate in Iranian cancer patients has risen noticeably in recent years (Rezaianzadeh et al., 2009). Based on the wide literature review, there is no published evidence about the prevalence of Iranian cancer survivors.

After initial treatments of cancer, survivors are at risk for many short-term and long-term complications such as physical problems, inappropriate quality of life (Foster et al., 2009; Knobf et al., 2012), problem in activities of daily living (Ness et al., 2006), fatigue (Stone and Minton., 2008), social and marital difficulties (Kirchhoff et al., 2012), and financial distress (Foster et al., 2009). There are no any studies investigated the problems faced by Iranian cancer survivors distinctively. Although, some other studies showed that Iranian cancer patients have experienced many complications such as marital problems (Azizi et al., 2010), anxiety and depression (Malekian et al., 2007), social isolation (Rahemi, 2006), physical problems (Abdollahzadehet al., 2014) and financial distress (Moradian et al., 2012).

One factor that may help cancer survivors cope with their challenges is social networks and the availability of human resources (Coughlin, 2008). The main social resources for cancer patients are including family members, relatives, friends, neighbors, and other community members who are available to help survivors in time of need (Heaney and Israel, 2002). The results of some studies showed that availability of social support may lead to improve the survival rate (Bloom, 2008;

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Usta, 2012), decrease of depression, psychosis, and post-traumatic stress symptoms, improving quality of life and general health (Tanrıverd et al., 2012; Cheng et al., 2013), inspiring hope (Khodapanahi et al., 2010; Ztun et al., 2013), and enhance problem solving abilities among cancer survivors (Schroevers et al., 2010).

The results of some studies showed that cancer survivors in Western and Eastern countries reported that the level of social support available for them is high (Carpenter, 2006; Petersen, 2008; Cheng et al., 2013). Although there is no any studies investigated the level of social support for Iranian cancer survivors, but the results of some studies showed that Iranian cancer patients in all stages perceive high levels of social support (Heydari et al., 2009; Naseri and Taleghani., 2012). So, there is a need for studies specifically investigate the social support and its predictive factors among Iranian cancer patients or cancer patients in other Middle Eastern countries. The results of such studies are essential for planning any supportive care programs for cancer survivors and determining the survivors who are at risk of receiving inadequate social support.

Materials and Methods

This descriptive-correlational study was conducted in in-patient wards and out-patient clinics in Ghazi Tabatabay hospitals affiliated to Tabriz University of Medical Sciences. This hospital is a main center for oncology care in East Azerbaijan Province, a northwest province of Iran. In order to cover patients with different demographic characteristics a private office of an oncologist was selected as other setting for the study.

One hundred eighty seven cancer survivors who referred to study settings for their routine checkup were selected as a sample of the study. The inclusion criteria were included: being at least 18 years old, definitive diagnosis of cancer, exact awareness of survivors about cancer diagnosis for at least 3 months, no history of other chronic disease, and physical and mental ability for participating in the study. The selected criteria for survivor were "extended survivorship" that defined as a time of ending active treatment which followed by watchful waiting and uncertainty about the future (Miller et al., 2008).

The sample size for the study was calculated as 190 survivors based on the results of a pilot study on 30 cancer survivors. During sampling 220 survivors who met inclusion criteria were invited to participate with convenience sampling method and 204 survivors agreed to participate. In addition, 17 questionnaires were excluded from the analysis because they were not filled out correctly (Response rate=85%).

The data collection tool consisted of two parts: the first part was a researcher-prepared checklist investigated some demographic and disease-related characteristics of survivors. The second part was a Multidimensional Scale of Perceived Social Support Assessment (MSPSS) that was designed by Zimet et al. in 1988 (Zimet et al., 1988). This self-report tool includes 12 items that measures perception from receiving support from family members

(4 items), friends (4 items) and significant others (4 items). Each item is based on a 7-item Likert scale from "totally disagree" to "totally agree" that scores 1 to 7 assigned to them respectively. So, the total score of the tool ranges from 7 to 84. Scores between 69 and 84 considered as a high social support, scores between 49 and 68 considered as a moderate social support, and scores between 12 and 48 considered as a low social support. This tool showed good internal consistency in studies on cancer patients (Cicero et al., 2009; Bozo et al., 2013; Han et al., 2013). Similarly, this tool showed good reliability in some studies in Iran (Azimi et al., 2009; Naseri and Taleghani., 2012). To use MSPSS the English version of the questionnaire was translated-back translated by two independent translators. Then, the face and content validity of the questionnaire was confirmed by 15 academic staffs of Tabriz University of Medical Sciences. Afterwards, the reliability of the questionnaire was determined after a pilot study on 30 survivors by using Cronbach's alpha (α=0.87)

Before data collection, the research project was approved by the Regional Research Ethics Committee at Tabriz University of Medical Sciences. Then, two of researchers attended research settings to identify survivors who met the inclusion criteria. In the following the necessary information about the aims and methods of the study were given to all participants orally and informed consent was obtained from all of them according to the guideline of Ethic Committee. Then, the data of all participants, educated or illiterate, were collected via individualized interviews in private places.

Data analysis was performed using SPSS statistical software (version 13. SPSS, Inc., Chicago, IL). To describe the demographic and disease related characteristics of participants and their perception of social support and its dimensions descriptive statistics including frequency, percentage, mean, standard deviation, and confidence intervals were used. To explore whether any demographic or disease-related variables predicted social support multiple linear regression analyses were conducted. For identifying the predictors of social support firstly the relationships between social support and independent variables were determined by using bivariate statistical tests such as independent samples t-test, person correlation test, and one- way ANOVA. Then, meaningful or important variables were entered into the model. P value <0.05 was considered statistically significant in this study.

Results

Some demographic and diseases-related characteristics of participants are reported in Table 1. As evident in this table, most of the participants were female, housekeeper, married, educated at under diploma level, their income was equal for their expenses, living in cities, their spouse were educated in under diploma level, living with their spouse and children, and have breast cancer. Also, 44.4 % of participants and 28.9 % of them have a slight and clinical level of anxiety and depression respectively.

The total score of and the score of each dimension is reported in Table 2. As evident in this table, participants believed that they receive a high level of support from

Table 1. Participant Characteristics (n=187)

	N (%)
Gender	
Female	133 (71.1)
Mail	54 (28.9)
Level of education	
Illiterate	46 (24.6)
Under diploma	91 (48.7)
Diploma	34 (18.2)
University degree	16 (8.6)
Employment status	
Housewife	119 (63.6)
Employee	22 (11.8)
Worker	36 (19.3)
Unemployed	10 (5.3)
Marital status	
Single	13 (7.0)
Married	174 (93.0)
Economic	
Earn equal pay	103 (55.1)
Earn more money	3 (1.6)
Earn less money	81 (43.3)
Spouse education	
Illiterate	41 (21.9)
Under diploma	69 (36.9)
Diploma	35 (18.7)
University degree	17 (9.1)
Lodging	
City	131 (70.1)
Village	54 (28.9)
House hold composition	
Alone	4 (2.1)
Parent	16 (8.6)
Husband	27 (14.4)
Husband and children	123 (65.8)
Children	17 (9.1)
Disease	
Blood	31 (16.6)
Lung	13 (7.0)
Digestive	31 (16.6)
Breast	80 (42.8)
Head and Neck	6 (3.2)
Prostate	4 (2.1)
Genital	14 (7.5)
Other	8 (4.3)
Anxiety	
Asymptomatic	104 (55.6)
Slight	52 (27.8)
Clinical	31 (16.6)
Depression	
Asymptomatic	133 (71.1)
Slight	31 (16.6)
Clinical	23 (12.3)
Age (years)	
Mean (SD)	46.84 (12.59)
Number of children	
Mean (SD)	2.80 (2.02)
Since awareness of the disease	
Mean (SD)	3.37 (2.36)
Since the end of treatment	
Mean (SD)	20.78 (20.63)

Table 2. The score Of Social Support and its Dimension from the Viewpoint of Cancer Survivors

CI 95%	Mean (SD)	Domain
(25.37 - 26.24)	25.81 (3.01)	Support from family
(15.78 - 18.18)	16.98 (8.32)	Support from friends
(24.25 - 25.36)	24.80 (3.83)	Support from significant others
(65.93 - 69.27)	67.60 (11.58)	Total score of social support

their family members and significant others around them. On the other hand, participants reported that they receive a moderate level of support from their friends.

Table 3. Predictors of Perception of Social Support Among Participants

P - value	β CI 95%	β	Variable
>0.001	48.915 - 74.343	61.624	Constant
0.004	-5.866 - 1.136	-3.501	Depression
0.015	1.543 - 13.979	7.761	Marital status
0.017	-4.495 - -0.450	-2.473	The ability of physical activity

To perform multiple linear regression analysis, the total score of social support was considered as a dependent variable and other variables, including anxiety, depression, age, sex, education, job, marital status, number of children, economic status, residence location, education of spouse, and the ability to physical activity was entered as independent variables in the entire mode of the model. In the following, the variables that their relationship was meaningful at the level of 0.20 were entered into the stepwise model of the multiple linear regression. The results of this step of the analysis showed that depression, marital status and the ability to physical activity were the predictors of social support in the participants. In other words, the perception of social support was lower in single or depressed participants or in the participants with the lower level of physical activity (Table 3).

Discussion

The aims of this study were to investigate the social support and its predictive factors among Iranian cancer patients. Based on wide review of relevant literature this is a first study investigated the level of social support available for Iranian cancer survivors and its predictive factors among Iranian cancer survivors or cancer survivors in other Middle Eastern countries.

The results indicated that Iranian cancer patients believed that they receive high levels of social support, especially from their family members or significant others. These results are consistent with the results of other studies in Western countries, such as USA (Sammarco., 2001; Carpenter., 2006; Zhou et al., 2010; Forsythe et al., 2014), Scotland (Petersen., 2008) and non-western countries, such as China (Cheng et al., 2013). Also, there are no studies investigated the level of social support available for Iranian cancer survivors or cancer survivors in other Middle Eastern countries, but the results of some studies showed that Iranian cancer patients (Heydari et al., 2009; Taghavi et al., 2011; Naseri and Taleghani, 2012; Nikmanesh et al., 2013) or cancer patients in other Middle Eastern countries (Ogce et al., 2007) reported high level of social support. It should be noted that in these studies all cancer patients, with any stages of cancer, participated. So, the results of this study confirmed that Iranian cancer survivors reported that they access to a high level of social support.

The results showed that participants of the study reported that they receive most support from their family members and significant others and they receive less support from their friends. Previous studies in southeast of Asia showed that family members are the main source of support for survivors (Cheng et al., 2013; You and Lu., 2014). Whereas, the results of Western studies showed that

both family members and friends are the main resources for support for cancer survivors (Zebrack et al., 2007; Corey et al., 2008; Forsythe et al., 2014). Interestingly, unlike these studies, participants of the present study reported that they receive low levels of support from their friends. This finding is supported by previous Iranian studies (Fouladi et al., 2013; Najmabadi et al., 2014).

Another interesting point in this study is that from the viewpoint of most of the participants, significant others and family members were equivalent to each other. This is consistent with the findings of previous studies that show that the family is a major source of support for cancer patients in Iranian culture (Abdullah-Zadeh et al., 2011; Heydari., 2012).

The study also showed that depressed and married patients and patients with lower levels of physical activity reported lower levels of social support. In this regard, previous studies have shown that married people are receiving more support (Heydari et al., 2009; Forsythe et al., 2014). It seems that married persons have a wider social network and receive high levels of support, especially from their spouse and children. In other studies, Iranian cancer patients consider their spouse and children as a main source for adaptation with cancer (Taleghani et al., 2006).

Regarding depression, the results of previous studies have also shown that social support has positive effects on the prevention or recovery of depressive symptoms in cancer patients (Imran et al., 2009; Huang and Hsu., 2013; Chen et al., 2013). In addition, we found no any studies that examined the potential relationship between depression and receiving social support among cancer survivors. About physical activity, previous studies examined the relation between social support and physical activity in high school girls (Dishman et al., 2009), adolescence (Duncan et al., 2005), elderly people (Orsega-Smith et al., 2007), and young adults with treated cancer. The results of this study showed that social support, directly or indirectly mediated by some factors such as self-efficacy, positively affect physical activity. So, it seems that the results of this study are inconsistent with these findings. In addition, the experiences of researchers from providing oncology care in the Iranian context show that more problematic cancer patient, including depressed patients or patients with limited physical activity, receives more support from their family members. So, it seems that depressed patients or patients with physical limitations may have more expect more support from their family member. On the other hand, by not meeting of these expectations their satisfaction about the support of his family members will decrease. But, approving these assumptions need more investigations.

The results of the present study may have implication for care of cancer survivors in Iran or other Middle Eastern countries. The results of the present study showed that Iranian cancer patients believed that they receive a high level of social support especially from their family members. So, health care providers should consider this strength in planning or establishing care plans for cancer survivors. Also, it seems that cancer survivors who are single, depressed, and with lower levels of physical

activity may receive lower levels of social support. So, it is necessary that the level of social support should be assessed in these patients in any follow up sessions and their need for intervention should be determined.

This study has some limitations. Although this study was conducted in a referral hospital for oncology care and private oncology offices in northwest of Iran, but these settings did not cover the diversities in Iran. In addition, in this study the perception of cancer survivors about availability of social support was investigated and it is not clear that this report of receiving support to what extent is consistent with the reality. Therefore, it is recommended that additional studies be conducted in other parts of Iran or other countries in the Middle East. Moreover, the viewpoint of the family members of cancer survivors on the amount of support provided by them can be investigated in further studies.

In conclusion, the results of the present study showed that Iranian cancer survivors believed that they receive high levels of social support, especially from their family members and significant others. Also, single and depressed patients and patients with a lower level of physical activity need more attention about their level of social support. Confirming these findings need further investigation in Iran and other Middle Eastern countries.

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