

## **Perceived Social Support in relation to Anxious Preoccupation among Cancer Patients**

**Muzafar Hussain Kawa\***

*\* Research Scholar, Department of Psychology, Aligarh Muslim University, Aligarh.*

### **ABSTRACT**

**Objectives:** The aim of the present study was to explore the relationship of Perceived Social Support (support from family, support from friends and support from significant others) with anxious preoccupation among cancer patients.

**Method:** The sample of the study consisted of 200 cancer patients who were selected on purposive basis from Shri Maharaja Hari Singh Hospital, Srinagar, J&K and Jawahar Lal Nehru Medical College, Aligarh, Uttar Pradesh. The tools used for the present study were Meaning in Life Scale, Multidimensional Scale of Perceived Social Support scale (MSPSS) developed by Zimet (1988), and The Mental Adjustment to Cancer Scale developed by (Watson et al., 1988). The data collected was analyzed by using appropriate statistical techniques like Pearson's product moment correlation and linear regression analysis.

**Results:** The results showed significant negative correlation between support from family and anxious preoccupation ( $r=-.122$ ,  $p<.001$ ); support from friends and anxious preoccupation ( $r=-.299$ ,  $p<.001$ ); support from significant others and anxious preoccupation ( $r=-.237$ ,  $p<.001$ ); and between overall Perceived Social Support and anxious preoccupation ( $r=-.293$ ,  $p<.001$ ). Hierarchical regression analyses indicated that support from friends and support from significant others explained 10.9% variance in anxious preoccupation of cancer patients. However, support from friends alone explained 8.9% variance and support from significant others explained 2.0% variance in anxious preoccupation.

**Conclusion:** The findings of the study revealed that Perceived Social Support and its dimensions have a significant negative correlation with anxious preoccupation. Support from friends and support from significant others acted as significant predictors of anxious preoccupation.

**Key Words:** *Perceived Social Support, support from family, support from friends, support from significant others, Anxious Preoccupation, Cancer Patients.*

## **1. Introduction**

### **a. Perceived Social Support**

Perceived Social Support has actually been explained and operationalized in different ways (Monat & Lazarus, 1991) and is repeatedly recommended to be essential in maintaining mental health and is said to play a significant role in the adjustment to cancer (Holland & Holahan, 2003; Helgeson et al., 2004). According to Holland and Hohan (2003) “Perceived Social Support includes interpersonal interactions aimed at helping an individual to achieve positive outcomes”.

Hobfoll and Stokes (1988) described Perceived Social Support as social interactions or relationships that provide individuals with the actual assistance or with a feeling of attachment to a person or a group that is perceived as loving or caring. Dumont and Provost (1999) refers Perceived Social Support to the support received (e.g. informative, emotional, or instrumental) or the sources of support (e.g. family or friends) that enhance recipient’s self-esteem or provide stress-related interpersonal aid.

It is certainly a multidimensional concept that is often conceptualized typically from a quantitative-structural viewpoint of social networks, for instance, quantities of people and recognized connections with them, and from a qualitative–functional viewpoint of Perceived Social Support, for example, the perceived content and accessibility of associations with

significant others (Helgeson, 2003, Nausheen, Gidron, Peveler, & Moss-Morris, 2009). The qualitative-functional viewpoint of Perceived Social Support implies the availability of emotional, instrumental and informational support and is the outcome of service offered by the structural support components (Helgeson 2003; Finfgeld-Connett, 2005). Perceived Social Support is generally considered as a resource offered by other people with a purpose to help individuals in challenging circumstances (Şek & Cieslak, 2004). It plays an essential part in managing the chronic diseases. It facilitates the expression of pessimistic thoughts, improves thoughts of intimacy, preserves relations, boosts psychological well-being, as well as supports the selection of proficient coping techniques. Overall, the function of Perceived Social Support is essentially serving the troubled personnel to organize all resources in order to manage their circumstances in a competent way (Şek & Cieslak, 2004).

Perceived Social Support is considered as a stress buffer as it protects an individual against the possibly demanding happenings. Cohen and Willis (1985) recommended that Perceived Social Support might mediate between demanding incident and the stress response by the prevention of a stress appraisal reaction.

#### **b. Anxious Preoccupation**

There is always an uncertainty over the management of the disease. The illness is viewed as a serious threat. Searching compulsively for self-esteem and confidence is regarded as behavioral coping responses. The patient responds towards the diagnosis of cancer with anxiety and depression. He/she searches for important information but can certainly interpret that pessimistically. Any kind of pain or aches are interpreted as outbreaks of cancer. He/she attempts to search for different 'cures' such as alternative treatments. The Examples are: "I keep worrying about it coming back; I get this pain in the shoulder here, what do you think it is doctor?; I know

it's cancer, I can't stop thinking about it; I've gone to this man who does acupuncture and someone told me about meditation, do you think it helps?

## **2. Review of Literature**

Earlier researchers illustrated that Perceived Social Support consists of both structural as well as functional components. The structural component of Perceived Social Support includes formal as well as informal support (for example, the strength of a particular person's social network, the regularity of communication with network personnel, the availability and quality of reciprocal support). On the other hand, the functional component comprises of the perceived degree of support attained (e.g., tangible and psychological support) (Goebert, 2009). Both of these components can precisely be identified as “received Perceived Social Support” (i.e., objective) and “Perceived Social Support” (i.e., subjective) support, and certainly they are both necessary for the individual's well-being (Aranda, Castaneda, Lee, & Sobel, 2001). Perceived Social Support is known for having a persistent beneficial effect on health (Uchino, 2004; Wills & Shinar, 2000) while as the consequences of received support are significantly more uneven and sometimes involved with negative effects on health outcomes (Forster & Stoller, 1992).

Zimet, Dahlem, and Farley (1988) described Perceived Social Support as an individual's perception of how resources can work as a buffer in between the demanding incidents and symptoms. As stated by Zimet, Dahlem, Zimet, and Farley (1988) Perceived Social Support is comprised of three dimensions, namely, friends, family and significant others. Friends and family are self-explanatory, whereas significant others might be a leader, co-worker, peer or some other individual, not normally described, but with whom the person has to get in touch with on daily basis.

A majority of people clinically recognized as having cancer encounter some degree of distress during the course of their illness (Hulbert-Williams, Neal, Morrison, Hood, & Wilkinson, 2012). Prior research suggests that diagnosis of cancer associated with feelings of threat and hesitations and anxiety might be a consequence of fear of suffering and death (Gil, Costa, Hilker, & Benito, 2012). Adjustment responses say for example fighting spirit is likely to be beneficial; conversely, the consequences of hopelessness/helplessness on quality of life are negative (Ferrero, Barreto, & Toledo, 1994). There is a seemingly endless discussion on the practical consequences of responses that include avoidance, fatalism and anxious-preoccupation on quality of life and mental health (Nordin & Glimelius, 1998).

**3. Research Objectives:** The present research aimed at:

1. To examine the relationship of Perceived Social Support with anxious preoccupation among cancer patients.
2. To examine the relationship of dimensions of Perceived Social Support (support from family, support from friends and support from significant others) with anxious-preoccupation among cancer patients.
3. To examine the dimensions of Perceived Social Support (support from family, support from friends and support from significant others) as predictors of anxious-preoccupation among cancer patients.

**4. Hypotheses:**

On the basis of the understanding gained through the review of relevant research, the following hypotheses have been framed for the current study:

**HA1:** There will be positive relationship of Perceived Social Support with Anxious Preoccupation among cancer patients.

**HA2:** There will be positive relationship of dimensions of Perceived Social Support (support from family, support from friends and support from significant others) with and anxious-preoccupation among cancer patients.

**HA3:** Dimensions of Perceived Social Support (support from family, support from friends and support from significant others) will predict anxious-preoccupation among cancer patients.

### **3. Research Methodology**

#### **a. Research Design**

Research design is a set of advance decisions that make up the master plan specifying the methods and procedures for collecting and analyzing the needed information. According to De Vaus and De Vaus (2001), “The research design refers to the overall strategy that you choose to integrate the different components of the study in a coherent and logical way, thereby, ensuring you will effectively address the research problem; it constitutes the blueprint for the collection, measurement, and analysis of data.” The quantitative approach was used in present study for the investigation of research hypotheses. The present study is correlational in nature, because this method allows assessment of relationships of Perceived Social Support with Anxious Preoccupation.

#### **b. Participants**

Two hundred cancer patients served as participants in the present study. The sample of the present study was recruited from Dept. of Radiotherapy, Jawahar Lal Nehru Medical College & Hospital, Aligarh Muslim University, Aligarh, Uttar Pradesh and Dept. of Radiation Oncology, Shri Maharaja Hari Singh Hospital, Srinagar, Jammu & Kashmir (India). Purposive sampling technique was employed for the selection of the participants.

### **3.3 The Inclusion criteria were:**

- (a) Patients were both male and female.
- (b) Patients were from rural and urban areas.
- (c) Patients were from nuclear and joint families.
- (d) Patients were of stage I, stage II, stage III and stage IV.

### **3.4 The Exclusion criteria were:**

- (a) Patients suffering from any psychiatric disorder such as severe depression and Schizophrenia.
- (b) Patients suffering from any other chronic physiological disease like Hepatitis B, diabetes etc.
- (c) Patients who did not cooperate.
- (d) Patients who were transgender were not considered.
- (e) Patients whose stage was not yet ascertained.

### **3.5 Tools Used**

#### **3.5.1 Multidimensional Scale of Perceived Social Support**

The Multidimensional Scale of Perceived Social Support (MSPSS) was developed by Zimet, Dahme, Zimet, and Farley (1988). It consists of 12 items and each item of the scale is rated on a 7 point likert scale (1, very strongly disagree to 7, very strongly agree). The scale evaluates the adequacy of Perceived Social Support from three different sources namely family, friends and significant others. The items numbers 3, 4, 8, & 11 measure support from family; 6, 7, 9, & 12 measure support from friends and 1, 2, 5, & 10 measure support from significant

others. The sum of 4 items under each sub-scale gives the sub-scale score, while the sum of all sub-scale scores gives the overall scale score. Total scores range from 12 to 84. High scores indicate high Perceived Social Support. The internal consistencies of the total scale and the sub-scales are high, ranging from 0.79 to 0.98 in various samples (Zimet et al., 1988).

### **3.5.2 The Mini-Mental Adjustment to Cancer Scale (Mini-Mac)**

The Mini-Mental Adjustment to Cancer Scale (Mini-MAC) was extracted from the MAC and it also measures five types of adjustment and is now often used in preference to MAC in clinical settings due to conciseness. The Mini-MAC is a 29-item self-rating questionnaire developed in response to the limitation of the original MAC Scale (Watson et al., 1994). This questionnaire included the same five sub-scales of adjustment but fewer items for 'fatalism' (5 questions), 'fighting spirit' (4 questions), 'cognitive avoidance' (4 questions), 'hopelessness/helplessness' (8 questions), and 'anxious-preoccupation' (8 questions). The Mini-MAC items are rated on a four-point Likert scale ranging from "Definitely does not apply to me" (1) to "Definitely applies to me" (4) and measures patients experiences at present. It takes less time to complete and is more suitable for distressed cancer patients (Kang et al., 2007). The Mini-MAC has been translated into several other languages. Previous studies report that the Cronbach's alphas for the subscales range from .58 to .86. (Hulbert-Williams et al., 2012).

## **4. Analysis**

The responses collected from the respondents were subjected to various statistical measures by using Statistical Product and Service Solutions version (SPSS 20.0). The main statistical techniques used for analyzing data were: Descriptive statistics (mean and standard deviation) and inferential statistics (correlation and regression analysis). Descriptive were calculated for describing Perceived Social Support, and Anxious Preoccupation. Correlation was used to study relationship of perceived Social Support with Anxious Preoccupation. Regression

analysis was used to study dimensions of Perceived Social Support as predictors of Anxious Preoccupation.

### 5. Results & Interpretation

**Table 5.1: Descriptive Statistics of the Perceived Social Support and Anxious Preoccupation among cancer patients (N=200).**

Variable	N	Mean	SD	Minimum	Maximum
Perceived Social Support	200	42.18	6.87	18.00	78.00
Support from Family	200	15.95	6.51	5.00	28.00
Support from Friends	200	14.24	5.56	4.00	27.00
Support from Significant Other	200	11.98	5.57	4.00	28.00
Anxious preoccupation	200	24.66	4.97	12.00	32.00

From the table 5.1 it can be observed that the mean score for the multidimensional scale of Perceived Social Support is 42.18 with a standard deviation of 6.87. For the dimension of support from family mean score is 15.95 and standard deviation is 6.51, for support from friends the mean score is 14.29 and standard deviation is 5.56 and for the support from significant others mean score is 11.98 and standard deviation is 5.57.

Furthermore, table 5.1 reveals that the mean scores and standard deviations for the anxious-preoccupation (M=24.66 and S.D=4.97).

**Table 5.2: Showing the correlation matrix of the predictor variables, namely, Perceived Social Support (support from significant others, support from friends and support from family) with the criterion variable namely anxious-preoccupation among cancer patients (N=200).**

Variables	Y <sub>5</sub>	Y <sub>6</sub>	X <sub>1</sub>	X <sub>2</sub>	X <sub>3</sub>	X <sub>4</sub>
Y <sub>5</sub>	1					
X <sub>1</sub>	-.237**	.085	1			
X <sub>2</sub>	-.122	.131	.441**	1		
X <sub>3</sub>	-.299**	.055	.345**	.104	1	
X <sub>4</sub>	-.293**	-.127	.806**	.743**	.635**	1

Y<sub>1</sub>=Anxious-preoccupation, X<sub>1</sub>= Support from Significant Others, X<sub>2</sub>= Support from Family, X<sub>3</sub>= Support from Friends, X<sub>4</sub>=Total Perceived Social Support

The results of table 5.2 revealed there exists a significant negative correlation between *support from significant others* (X<sub>1</sub>) (dimension of Perceived Social Support) and anxious-preoccupation (Y<sub>5</sub>) ( $r = -.237, p < .01$ ) among cancer patients.

However, *support from family* (X<sub>2</sub>) (dimension of Perceived Social Support) showed insignificant correlation with anxious-preoccupation (Y<sub>5</sub>) ( $r = -.122, p > .01$ ) among cancer patients.

The *support from friends* (X<sub>3</sub>) (dimension of Perceived Social Support) has significant negative correlations with anxious-preoccupation (Y<sub>5</sub>) ( $r = -.299, p < .01$ ) among cancer patients.

Table 5.2 further shows significant negative relationship between Perceived Social Support (X<sub>4</sub>) and Anxious Preoccupation (Y<sub>5</sub>) ( $r = -.293^{**}, p < .01$ ), among cancer patients.

There are few studies which are in support of our findings. For example, Cicero et al. (2009) examined the role of attachment dimensions and Perceived Social Support in predicting adjustment to cancer. The sample of the study consisted of 96 cancer patients who were administered a demographic questionnaire, the Relationship Scale Questionnaire (RSQ), the Multidimensional Scale of Perceived Social Support (MSPSS), and the Mental Adjustment to

Cancer (MAC). The results of the present study revealed that anxious attachment predicted psychological adjustment, i.e., patients with high levels of anxious attachment showed high levels of helplessness/hopelessness and anxious preoccupation. The patient's perception of Perceived Social Support from friends was predictive of both fighting spirit and stoic acceptance. Conversely, the patient's perception of support from family members was not predictive of adjustment to cancer. Moreover, the patients in the advanced stages of the illness showed higher levels of helplessness/hopelessness.

Similarly, Ozpolat, Ayaz, Konag, and Ozkan (2014) examined the role of attachment dimensions on social and psychological adjustment to cancer and to explore the social and psychological adjustments, and medical adherence, among 68 cancer patients, between 18 and 74 years of age. The measures taken were the Demographic Information Form, Multidimensional Scale of Perceived Social Support (MSPSS), Experiences in Close Relationships-Revised (ECR-R), and Psychosocial Adjustment to Illness Scale (PAIS-SR). The researchers found that avoidant attachment style was related to difficulties in social relationships and an increase in psychological distress following cancer diagnosis. People who perceive more Perceived Social Support orient to health care more easily than people who perceive less social availability. Moreover, they also found a higher level of Perceived Social Support has a positive impact in adjustment to family relationships and leads to experiencing less psychological distress than in people who perceived less Perceived Social Support.

**Table 5.3: Showing the results of stepwise multiple linear regression analysis by considering dimensions of Perceived Social Support (support from significant others, support from family and support from friends) as predictors of 'anxious-preoccupation' among cancer patients.**

---

Predictor	Standardized	Multiple	$R^2$	$R^2$	$f^2$	F	P
-----------	--------------	----------	-------	-------	-------	---	---

---

Variables	Beta coefficient	R	Change				
Model $Y_1 = \beta_0 + \beta_3 X_3 + \beta_1 X_1$							
X3	-.246	.299	.089	.089	0.097	19.371**	.001
X3, X1	-.152	.331	.109	.020	0.122	12.100*	.035
<i>Constant 29.424</i>							

Predictor Variables:  $X_3$ = Support from friends,  $X_1$ = Support from Significant Others

Criterion Variable:  $Y_1$ = Anxious-preoccupation

\*\* $p < 0.01$  (1-tailed); \* $p < 0.05$  (1-tailed)

From table 5.3 it can be seen that among three dimensions of Perceived Social Support, support from friends ( $X_3$ ) emerged as the most potential predictor of anxious-preoccupation ( $Y_1$ ) (sub-scale of mental adjustment) among cancer patients. The square of multiple correlations ( $R^2$ ) shows that 8.9% of the variance in anxious-preoccupation ( $Y_1$ ) was explained by support from friends ( $X_3$ ) and support from significant others ( $X_1$ ) emerged as the second potential predictor of anxious-preoccupation ( $Y_1$ ) ( $R^2$ change= 2.0% variance). Support from friends ( $X_3$ ) and support from significant others ( $X_1$ ) jointly explained 10.9% of variance in anxious-preoccupation ( $Y_1$ ).

By considering F value of support from friends ( $X_3$ ) ( $F = 19.371$ ,  $p < 0.01$ ), and support from significant others ( $X_1$ ) ( $F = 12.100$ ,  $p < 0.05$ ), it can be concluded that support from friends ( $X_3$ ) and support from significant others ( $X_1$ ) contributed significantly in predicting anxious-preoccupation ( $Y_1$ ). Further, Cohen's effect size value ( $f^2 = 0.122$ ) suggested a medium strength of association of support from friends and support from significant others with anxious-preoccupation.

The beta values of support from friends ( $X_3$ ) ( $\beta = -.246$ ), and support from significant others ( $X_1$ ) ( $\beta = -.152$ ) suggest that both these predictors have significant impact on anxious-preoccupation. Further, it can be seen that support from friends ( $X_3$ ) has the strongest coefficient ( $\beta = -.246$ ) followed by support significant others ( $X_1$ ) ( $\beta = -.152$ ). The negative beta values of support from friends and support from significant others indicate that high presence of support from significant others and friends will result in low levels of anxious-preoccupation among cancer patients.

After the proper interpretation of tables 5.3, it can be concluded that **HA2** stating that the dimensions of Perceived Social Support (support from family, support from friends and support from significant others) will predict anxious-preoccupation among cancer patients is partially supported.

There are few studies which are in agreement with our findings. For example, Yagmur and Duman (2016) examined the relationship between the level of the Perceived Social Support perceived by patients with gynecologic cancer and their mental adjustment to cancer. The sample of the study consisted of 190 women with gynecologic cancer who were receiving care in the Diyarbakir province of Turkey between November 2013 and October 2014. Multidimensional Scale of Perceived Social Support questionnaire and the scale of Mental Adjustment to Cancer were used as tools for data collection. The results revealed that all subscales of Perceived Social Support, i.e., support from family, support from friends and support from friends had significant positive correlation with the subscales fighting spirit and a negative correlation with the subscales of helplessness/hopelessness and fatalism in the Mental Adjustment to Cancer scale.

Similarly, Somasundaram and Devamani (2016) investigated the association between resilience, Perceived Social Support, and hopelessness among cancer patients treated with

curative and palliative care. The sample of the study consisted of 60 cancer patients who were divided into two groups that is to say, curative care ( $n = 30$ ) and palliative care ( $n = 30$ ). Bharathiar University Resilience Scale, Multidimensional Scale of Perceived Social Support and Beck Hopelessness Scale were taken as tools for the collection of data for this research work. They found significant positive correlation between resilience and Perceived Social Support while as resilience and Perceived Social Support was found significantly negatively correlated with hopelessness.

## **6. Limitations**

Research is a continuous process and is never completely perfect due to certain unavoidable circumstances researchers face during the process and especially when we talk about social science research. Limitations outline the parameters of the study and include some potential areas where the thesis may fall short. The major limitation of the study is that the target population was sensitive that had effect on objectivity of study.

- a) The selected sample group was heterogeneous with respect to their educational status which may have resulted in variation of responses.
- b) Minimal demographic data were collected for the sample in this study. Information regarding the financial status, marital status, stage of disease, duration of disease, age of the patients, type of cancer, and educational qualification would also have been important variables to include in the analysis. For instance, not knowing whether cancer patient was a married or unmarried concealed any possible influence marriage would have on patient's life.
- c) Keeping in view the nature of the target population, combination of qualitative and quantitative research would have been more appropriate and much informative as compared to quantitative study alone.

## **7. Suggestions for Future Research**

Research is an unending process because every study leaves behind its shortcomings and makes room for future researchers to dwell in diverse ways and contexts. Thus taking the limitations of this study into consideration, there are several recommendations for future research which are given below:

- a) There is much scope to conduct further research on perceived social support and anxious preoccupation among cancer patients in order to recognize the pathways in which these variables are related in this population. This study provides the groundwork for further exploration. Further research should include a qualitative component, which would provide the opportunity to learn more about the lived experience of cancer patients.
- b) Future studies should involve a larger and more diverse group of cancer patients, including a more ethnically and racially diverse sample. This would allow further study of the ways that culture and ethnicity play a role in perceived social support, meaning in life and mental adjustment among cancer patients.
- c) Alternative research techniques should be used by future researchers to authenticate the results. Moreover, Short versions of scales and questionnaires and adequate sample size should be preferred by future researchers.
- d) More research is needed to explore the role of positive intervention variables such as perceived social support, meaning in life, hope, resilience, psychological capital, hardiness in adjusting with the disease like cancer. These positive variables should be taken into consideration while dealing with the problems of mental adjustment of cancer patients.

- e) The impact of certain socio-demographic and clinical variables such as financial status, marital status, stage of cancer, type of cancer, duration of illness, age of the subjects, and educational qualification should be given due weightage in future research endeavors.

### REFERENCES

- Aranda, M. P., Castaneda, I., Lee, P. J., & Sobel, E. (2001). Stress, social support, and coping as predictors of depressive symptoms: Gender differences among Mexican Americans. *Social Work Research, 25*(1), 37-48.
- Cicero, V., Lo Coco, G., Gullo, S., & Lo Verso, G. (2009). The role of attachment dimensions and perceived social support in predicting adjustment to cancer. *Psycho-Oncology, 18*(10), 1045-1052.
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin, 98*(2), 310-357.
- De Vaus, D. A., & De Vaus, D. (2001). *Research design in social research*. London: Sage Publications.
- Dumont, M., & Provost, M. A. (1999). Resilience in adolescents: Protective role of social support, coping strategies, self-esteem, and social activities on experience of stress and depression. *Journal of Youth and Adolescence, 28*(3), 343-363.
- Ferrero, J., Barreto, M. P., & Toledo, M. (1994). Mental adjustment to cancer and quality of life in breast cancer patients: An exploratory study. *Psycho-Oncology, 3*(3), 223-232.
- Finfgeld-Connett, D. (2005). Clarification of social support. *Journal of Nursing Scholarship, 37*(1), 4-9.
- Forster, L. E., & Stoller, E. P. (1992). The impact of social support on mortality: A seven-year follow-up of older men and women. *Journal of Applied Gerontology, 11*(2), 173-186.

- Gil, F., Costa, G., Hilker, I., & Benito, L. (2012). First anxiety, afterwards depression: psychological distress in cancer patients at diagnosis and after medical treatment. *Stress and Health, 28*(5), 362-367.
- Goebert, D. (2009). Social support, mental health, minorities, and acculturative stress. In S. Loue, M. Sajatovic (Eds.), *Determinants of minority mental health and wellness* (pp.125-148). Cleveland, OH: Springer.
- Helgeson, V. S. (2003). Social support and quality of life. *Quality of Life Research, 12*(1), 25-31.
- Helgeson, V. S., Snyder, P., & Seltman, H. (2004). Psychological and physical adjustment to breast cancer over 4 years: identifying distinct trajectories of change. *Health Psychology, 23*(1), 3-15.
- Hobfoll, S. E., & Stokes, J. P. (1988). The process and mechanism of social support. In S. W. Duck (Ed.), *The handbook of research in personal relationships* (pp. 497–517). London: Wiley.
- Holland, D. K., & Holahan, C. K. (2003). The relation of social support and coping to positive adaptation to breast cancer. *Psychology and Health, 18*(1), 15-29.
- Monat, A., & Lazarus, R. S. (Eds.). (1991). *Stress and coping: An anthology*. New York: Columbia University Press.
- Nausheen, B., Gidron, Y., Peveler, R., & Moss-Morris, R. (2009). Social support and cancer progression: a systematic review. *Journal of Psychosomatic Research, 67*(5), 403-415.
- Nordin, K., & Glimelius, B. (1998). Reactions to gastrointestinal cancer-variation in mental adjustment and emotional well-being over time in patients with different prognoses. *Psycho-Oncology, 7*(5), 413-423.

- Ozpolat, A. G. Y., Ayaz, T., Konag, O., & Ozkan, A. (2014). Attachment style and perceived social support as predictors of biopsychosocial adjustment to cancer. *Turkish Journal of Medical Sciences, 44*(1), 24-30.
- Sek, H., & Cieslak, R. (2006). Social support - ways to define, types and sources support, selected theoretical concepts. In H. Sek, R. Cieslak (eds.), *Social support, stress and health* (pp. 11-28). Warsaw: PWN Scientific Publisher.
- Somasundaram, R. O., & Devamani, K. A. (2016). A comparative study on resilience, perceived social support and hopelessness among cancer patients treated with curative and palliative care. *Indian Journal of Palliative Care, 22*(2), 135-140.
- Uchino, B. N. (2004). *Social support and physical health: Understanding the health consequences of our relationships*. New Haven, CT: Yale University Press.
- Watson, M., Law, M. G., Santos, M. d., Greer, S., Baruch, J., & Bliss, J. (1994). The Mini-MAC: further development of the mental adjustment to cancer scale. *Journal of Psychosocial Oncology, 12*(3), 33-46.
- Williams, N., Neal, R., Morrison, V., Hood, K., & Wilkinson, C. (2012). Anxiety, depression and quality of life after cancer diagnosis: what psychosocial variables best predict how patients adjust?. *Psycho-Oncology, 21*(8), 857-867.
- Williams, N., Neal, R., Morrison, V., Hood, K., & Wilkinson, C. (2012). Anxiety, depression and quality of life after cancer diagnosis: what psychosocial variables best predict how patients adjust?. *Psycho-Oncology, 21*(8), 857-867.
- Wills, T. A., Shinar, O. (2000). Measuring perceived and received social support. In: Cohen S, Gordon L, Gottlieb B, editors. *Social support measurement and intervention: A guide for health and social scientists*. New York: Oxford University Press.