# Psychosocial adjustment and affecting factors in Turkish patients with cancer

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#### **Abstract**

**Aim:** this study aimed to determine the psychosocial adjustment and affecting factors in cancer patients. The results of this study can be used in planning psychosocial support programs to increase the psychosocial adjustment levels of the cancer patients.

Methods This study included 105 patients with cancer who presented to the outpatient unit of a medical oncology clinic to receive outpatient chemotherapy between December 2005 and February 2006. A two part survey was used to collect the data. The questionnaires included a demographic questionnaire and the Turkish version of the Psychosocial Adjustment to Illness Scale-Self-Report-PAIS-SR

**Results:** The findings obtained from the study were analysed, the PAIS-SR total point average was found to be 57.1±14.8. When the points that patients receive from PAIS-SR were evaluated in terms of psychosocial adjustment, it was determined that the psychosocial adjustment levels of 64.8% of the patients were "poor", 28.6% were "medium", and 5.7% were "good". This study is the knowledge level of the cancer patients regarding their diseases is the most important variable that affects psychosocial adjustment.

**Conclusion:** The research results showed that the psychosocial adjustments of the cancer patients were poor, and the psychological adjustments, especially regarding the professional and social life dimensions, were affected more.

**Key word:** cancer, psychosocial adjusment, nursing

#### Introduction

Cancer is a life threatening illness that can challenge the experience of life. A diagnosis of cancer is a stressful events and may result in a wide range of physical, psychological, and social effects that may influence a patient's needs (Landmark et al., 2001; Farrell et al., 2005; Cam et al., 2009). The physical and mental problems, problems about family and business life, uncertainties about the future, and social and moral problems that arise with cancer and its treatments negatively affect the moral state of the patients with cancer and their psychosocial adjustment to the disease. The affecting factors in psychosocial adjustment to the disease are determined as personality structure, sociocultural characteristics, psychosocial stressors, tendencies of the disease, negative feelings about the disease (like seeing the disease's negative aspects such as a loss or a threat), coping methods, past experiences, lifestyle, and hereditary characteristics (Spiegel, 1997; Brennan, 2001; Kocaman et al., 2007; Çam & Babacan Gümüş, 2009).

Psychological and social adjustment (psychosocial adjustment) is an important factor in evaluating a patient's psychosocial status. For cancer patients, psychosocial adjustment involves making life adjustments to adapt to these altered roles and mental changes resulting from the experience of cancer. Poor adjustment has negative effects on the patient's physiological and social status (Northouse et al. 1995; Brennan, 2001; Kocaman et al. 2007; Adaylar, 1995; Amstrong, 1996; Tan & Karabulutlu, 2005; Erci & Karabulut, 2007 Çam & Babacan Gümüş, 2009). Previous studies have

indicated that patients with poor psychosocial adjustment are at a high risk of developing depression or anxiety (Atesci et al., 2003; Bahar, 2007). When other studies about the subject in Turkey were analysed, it was found that the psychosocial adjustment of 33% of the patients with breast cancer was at the "poor" level of acceptance, 40.7% were at the "medium" level, and 26.3% at the "good" level (Babacan Gümüş, 2007). And in another study conducted to analyse emotion support oriented nursing initiatives and their effect on psychosocial adjustment in patients whose disease was diagnosed as breast cancer, it was determined that the psychosocial adjustment of all the patients before emotional support oriented nursing initiatives was "poor", and after these types of initiatives their psychosocial adjustment levels rose (Cam et al., 2009).

The term "Adjustment Deficiency" is present in the nursing diagnosis of the North American Diagnosis Association (NANDA) and is described as the situation in which the patient is unable to change his lifestyle and his behaviors to suit his present medical condition (Carpenito, 1997). Understanding adjustment is also a central concern of nurses working with people with cancer. Because of this, understanding the patients, evaluating how the patients adapt to the disease psychosocially, and facilitating their adjustment to the present situation are of great importance (Northouse et al., 1995; Northouse et al., 2001; Kocaman et al., 2007). The fact that cancer creates a wide range of problems in patients, treatment and care should be handled with versatile approaches. Because of this, all health professionals, and especially the nurses who are in more close contact with patients, should approach cancer patients with a holistic approach, evaluate their psychosocial adjustments inclusively, and plan and apply support initiatives within the scope of this information (Çam et al., 2009).

In Turkey, researches that analyse psychosocial adjustment in general cancer patients do not appear to have been conducted. So, this study will be a guide in evaluating the psychosocial adjustment and affecting factors in general cancer patients.

#### Materials and methods

This study included 105 patients with cancer who presented to the outpatient unit of a medical oncology clinic to receive outpatient chemotherapy between December 2005 and February 2006. The study was conducted in a large hospital in Eastern Turkey and almost all the patients with cancer in this region, particularly those living in the vicinity of Erzurum, received cancer treatment in that hospital.

# Sample

The study design involved cross-sectional and descriptive analyses. The inclusion criteria were:

- 1. Awareness of the illness.
- 2. No known psychiatric or neurological disorders that would interfere with the completion of the measurements.
- 3. Stages I–III (i.e. a prediction of at least 6 months to live and not in the terminal phase of the disease).
- 4. Receiving curative chemotherapy.
- 5. Able to read the Turkish language.

Of the 137 patients who met the inclusion criteria, 13 patients refused to participate and 19 patients did not complete all the questionnaires. Thus, only 105 cases (75% participation rate) were used for the final data analysis.

## Procedure and data collection

A two part survey was used to collect the data. The questionnaires included a demographic questionnaire and the Turkish version of the Psychosocial Adjustment to Illness Scale-Self-Report-PAIS-SR (Adaylar, 1995).

#### **Ouestionnaire Form**

The demographic questionnaire obtained information on the age, education, sex, marital status, employment, and income of the patients. Medical information on the duration of treatment, frequency of treatment, stage of cancer, and type of cancer was obtained from the patients' medical records.

# Psychosocial Adjustment to Illness Scale-Self-Report (PAIS-SR)

This is a multi-dimensional scale that was developed by Derogatis and Lopez in 1983 to evaluate psychosocial adjustment to the disease (27). PAIS-SR measures the interaction of individuals with other individuals and institutions that compose the sociocultural environment. Scale is composed of 46 articles. The questions in the scale are divided into 7 fields of psychological adjustment to the disease. These 7 fields compose the sub-scales of the scale. The sub-scales are as follows.

- 1. Adjustment to Health Care (8 articles)
- 2. Professional Environment (6 articles)
- 3. Family Environment (8 articles)
- 4. Sexual Relations (6 articles)
- 5. Large Family Relations (5 articles)
- 6. Social Environment (6 articles)
- 7. Psychological Pressure (7 articles) (23, 27)

For each question in the scale, four descriptive expressions that determine the changing levels of adjustment are used. The subject can select the answer that best, and most closely, describes his/ her personal experience. By giving points ranging between 0 and 3 to the articles in the scale, the answers are converted into numerical values. For each article in the scale, the large negative changes since the disease occurred are valued with 3 points and no change or positive changes are valued with 0 points. In the PAIS-SR scale, the low points indicate "good psychological adjustment" to the disease and high points indicate "poor psychological adjustment". In PAIS-SR, points lower than 35 mean a "good psychological adjustment", points between 35 and 41 mean a "medium psychological adjustment", and points over 51 mean a "poor psychological adjustment" (Adaylar, 1995; Derogatis, 1986). PAIS-SR was adapted for use in Turkey, and its validity and reliability were tested by Adaylar (1995). In this study, the internal consistency of the scale in patient samples with acute and chronic physical diseases is introduced as 0.94. In this study, the general psychosocial adjustment internal consistency coefficient of the scale was found as 0.87.

# **Procedure**

Each patient was contacted by a research assistant and provided with a detailed explanation of the aim and conduct of the study. The questionnaire was given to the patients in a separate quiet room of the oncology clinic. The patients were provided with questionnaires before a chemotherapy session that they filled out by themselves. If the patients were unable to complete the questionnaire on their own, the researcher read the questionnaire items to the patient and recorded the answers. The questionnaires took 20-30 mins to complete.

#### **Ethics**

The researchers obtained an approval from the medical oncology department of Yakutiye Hospital, Atatürk University, and informed consent was obtained from each patient. The aim of the research was explained to the patients and they were informed that if they preferred not to continue, they could withdraw from the study any time they wished. After these explanations, 105 patients consented to participate in the study voluntarily.

# Data analysis

Statistical analyses were performed using the Statistical Package Version 11.5. In the evaluation of the data, percentages, T tests, the Kruskall-Wallis test, posthoc advanced analysis and the internal coherence test were used. A *P* value of less than .05 was adopted as the significance level in all of the statistical analyses.

## **Results**

The socio-demographic and medical characteristics of the patients are summarized in Table 1. It is observered that 48.6% of the subjects are female, 78.1% are married, 30.6% are primary school graduates, 50.5% perceived his/her economical status as an average amount, and 44.8% had partially sufficient information on their illne-

ss. The average age of the patients was  $48.5\pm14.3$ , the average duration of the illness was  $17.0\pm15.2$  (months). Patients had been diagnosed with various types of cancer. Frequently reported diagnoses included gastrointestinal cancer (34.3%), respiratory cancer (23.8 %), breast cancer (21 %), and other cancers (21%).

Table 1. Characteristics of Patients

Sex         Female         51         48.6           Male         54         51.4           Marital Status         Married         82         78.1           Single         23         21.9           Age (average)         48.5±14.3           Education         50         47.6           Secondary school education         50         47.6           Secondary school         43         41.0           High school         12         11.4           Economic Status         High         22         21.0           Average         53         50.5           Low         30         44.4           Duration of treatment         6-12 months         47         44.7           12-24 months         27         25.7           ≥24 months         31         29.6           Type of cancer           Respiratory         25         23.8           Breast         22         21.0           Stage of cancer         25         23.8           II         25         23.8           II         54         51.4           III         26         24.7 <td colspa<="" th=""><th>Characteristics</th><th>N</th><th>%</th></td>	<th>Characteristics</th> <th>N</th> <th>%</th>	Characteristics	N	%
Male       54       51.4         Marital Status       82       78.1         Single       23       21.9         Age (average)       48.5±14.3         Education       50       47.6         Secondary school education       50       47.6         Secondary school       43       41.0         High school       12       11.4         Economic Status       22       21.0         Average       53       50.5         Low       30       44.4         Duration of treatment       47       44.7         6-12 months       27       25.7         ≥24 months       27       25.7         ≥24 months       31       29.6         Type of cancer         Respiratory       25       23.8         Breast       22       21.0         Gastrointestinal       36       34.3         Other       22       21.0         Stage of cancer       1       25       23.8         II       54       51.4       51.4         III       26       24.7         Information on the Illness       26       24.8 <td>Sex</td> <td></td> <td></td>	Sex			
Marital Status       82       78.1         Single       23       21.9         Age (average)       48.5±14.3         Education       50       47.6         Elementary school education       50       47.6         Secondary school       43       41.0         High school       12       11.4         Economic Status       22       21.0         High       22       21.0         Average       53       50.5         Low       30       44.4         Duration of treatment       47       44.7         6-12 months       27       25.7         ≥24 months       31       29.6         Type of cancer       Respiratory       25       23.8         Breast       22       21.0         Gastrointestinal       36       34.3         Other       22       21.0         Stage of cancer       1       25       23.8         II       54       51.4       51.4         III       54       51.4       51.4         III       26       24.7         Information on the Illness       26       24.8	Female	_	48.6	
Married Single       82 23 21.9         Age (average)       48.5±14.3         Education Elementary school education Secondary school High school       50 47.6 43 41.0 12 11.4         Economic Status High Average Low       22 21.0 Average 53 50.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5	Male	54	51.4	
Single       23       21.9         Age (average)       48.5±14.3         Education       50       47.6         Elementary school education       50       47.6         Secondary school       43       41.0         High school       12       11.4         Economic Status       22       21.0         High Average       53       50.5         Low       30       44.4         Duration of treatment       47       44.7         6-12 months       27       25.7         ≥24 months       31       29.6         Type of cancer       25       23.8         Breast       22       21.0         Gastrointestinal       36       34.3         Other       22       21.0         Stage of cancer       1       25       23.8         II       54       51.4       51.4         III       26       24.7         Information on the Illness       Sufficient       26       24.8	Marital Status			
Age (average)       48.5±14.3         Education       50       47.6         Secondary school       43       41.0         High school       12       11.4         Economic Status       High       22       21.0         Average       53       50.5         Low       30       44.4         Duration of treatment       47       44.7         6-12 months       27       25.7         ≥24 months       27       25.7         ≥24 months       31       29.6         Type of cancer         Respiratory       25       23.8         Breast       22       21.0         Gastrointestinal       36       34.3         Other       22       21.0         Stage of cancer       I       25       23.8         II       54       51.4         III       26       24.7         Information on the Illness       Sufficient       26       24.8				
Education       50       47.6         Secondary school       43       41.0         High school       12       11.4         Economic Status       32       21.0         High       22       21.0         Average       53       50.5         Low       30       44.4         Duration of treatment       47       44.7         6-12 months       27       25.7         ≥24 months       27       25.7         ≥24 months       31       29.6         Type of cancer         Respiratory       25       23.8         Breast       22       21.0         Gastrointestinal       36       34.3         Other       22       21.0         Stage of cancer       25       23.8         II       25       23.8         III       54       51.4         III       26       24.7         Information on the Illness         Sufficient       26       24.8	Single		21.9	
Elementary school education       50       47.6         Secondary school       43       41.0         High school       12       11.4         Economic Status       High       22       21.0         Average       53       50.5         Low       30       44.4         Duration of treatment       47       44.7         6-12 months       27       25.7         ≥24 months       27       25.7         ≥24 months       31       29.6         Type of cancer         Respiratory       25       23.8         Breast       22       21.0         Stage of cancer         I       25       23.8         II       54       51.4         III       26       24.7         Information on the Illness         Sufficient       26       24.8	Age (average)	48.5±14.3		
Secondary school       43       41.0         High school       12       11.4         Economic Status       Itigh       22       21.0         Average       53       50.5         Low       30       44.4         Duration of treatment       47       44.7         6-12 months       27       25.7         ≥24 months       27       25.7         ≥24 months       31       29.6         Type of cancer         Respiratory       25       23.8         Breast       22       21.0         Gastrointestinal       36       34.3         Other       22       21.0         Stage of cancer       1       25       23.8         II       54       51.4         III       26       24.7         Information on the Illness       Sufficient       26       24.8	Education			
High school       12       11.4         Economic Status       11.4         High       22       21.0         Average       53       50.5         Low       30       44.4         Duration of treatment       47       44.7         6–12 months       27       25.7         ≥24 months       27       25.7         ≥24 months       31       29.6         Type of cancer         Respiratory       25       23.8         Breast       22       21.0         Gastrointestinal       36       34.3         Other       22       21.0         Stage of cancer       25       23.8         II       25       23.8         III       54       51.4         III       26       24.7         Information on the Illness         Sufficient       26       24.8				
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Duration of treatment         6-12 months       47       44.7         12-24 months       27       25.7         ≥24 months       31       29.6         Type of cancer         Respiratory       25       23.8         Breast       22       21.0         Gastrointestinal       36       34.3         Other       22       21.0         Stage of cancer         I       25       23.8         II       54       51.4         III       26       24.7         Information on the Illness         Sufficient       26       24.8	Average	53	50.5	
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12–24 months       27       25.7         ≥24 months       31       29.6         Type of cancer         Respiratory       25       23.8         Breast       22       21.0         Gastrointestinal       36       34.3         Other       22       21.0         Stage of cancer         II       25       23.8         III       54       51.4         III       26       24.7         Information on the Illness         Sufficient       26       24.8	<b>Duration of treatment</b>			
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Type of cancer         25         23.8           Breast         22         21.0           Gastrointestinal         36         34.3           Other         22         21.0           Stage of cancer           I         25         23.8           II         54         51.4           III         26         24.7           Information on the Illness           Sufficient         26         24.8	12–24 months	27	25.7	
Respiratory       25       23.8         Breast       22       21.0         Gastrointestinal       36       34.3         Other       22       21.0         Stage of cancer         I       25       23.8         II       54       51.4         III       26       24.7         Information on the Illness         Sufficient       26       24.8	≥24 months	31	29.6	
Respiratory       25       23.8         Breast       22       21.0         Gastrointestinal       36       34.3         Other       22       21.0         Stage of cancer         I       25       23.8         II       54       51.4         III       26       24.7         Information on the Illness         Sufficient       26       24.8	Type of cancer			
Breast       22       21.0         Gastrointestinal       36       34.3         Other       22       21.0         Stage of cancer         I       25       23.8         II       54       51.4         III       26       24.7         Information on the Illness         Sufficient       26       24.8		25	23.8	
Gastrointestinal Other       36 34.3 22 21.0         Stage of cancer       22 23.8 23.8 24.7         II 54 51.4 26 24.7         Information on the Illness Sufficient       26 24.8				
Stage of cancer         25         23.8           II         54         51.4           III         26         24.7           Information on the Illness         26         24.8	Gastrointestinal	36		
I       25       23.8         II       54       51.4         III       26       24.7         Information on the Illness       26       24.8	Other	22	21.0	
I       25       23.8         II       54       51.4         III       26       24.7         Information on the Illness       26       24.8	Stage of cancer			
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Information on the Illness Sufficient 26 24.8		_		
Sufficient 26 24.8		-		
		26	24.8	
	Partially Insufficient	47	44.8	
Insufficient 32 30.5		32	30.5	

When the PAIS-SR sub-scale point averages of the patients that participated were analysed, the social care adjustment point average was determined as 9.1±3.7, the professional environment point average as 12.6±3.0, family environment point average as 7.1±3.9, sexual relation point average as 7.2±4.8, large family relations point average as 6.8±4.8, social environment point average as 10.8±4.2, and the psychological pressure point average was determined as 7.3±4.1. And the ge-

neral psychosocial adjustment average of the patients was found to be 57.1±14.8. When the points that the patients receive from PAIS-SR were evaluated in terms of psychosocial adjustment, it was determined that the psychosocial adjustments of 64.8% of the patients were "poor", 28.6% were "medium", and 5.7% were "good".

Table 3. Psychosocial Adjustment scores regarding in relation to demographic and medical characteristics

Characteristics	N	Total Psychosocial Adjustment Mean ± SD
Sex Female Male	51 54	57.7±13.1 56.5±16.4 t = 0.670; P = 0.388
Marital Status Married Single	82 23	57.5±15.7 55.5±11.1 t = 0.566; P = 0.105
Education level Elementary school Secondary school High school	50 43 12	56.9±15.0 55.5±12.7 63.4±20.2 F = 0.960; P = 0.415
Economic Status High Average Low	22 53 30	61.1±16.2 57.1±11.9 52.8±18.6 F = 1.549; P = 0.217
Duration of treatment 6–12 months 12–24 months ≥24 months	47 27 31	52.3±15.0 49.5±12.7 51.8±20.2 F = 1.214; P = 0.348
Information on the Illness Sufficient Partially Insufficient Insufficient	26 47 32	48.1±13.1 58.1±11.7 62.8±17.1 <b>F = 8.164; P = 0.001</b>
Type of Cancer Respiratory Breast Gastrointestinal Others	25 22 36 22	62.0±11.0 52.6±15.1 57.8±12.4 54.9±20.3 F =0.947; P = 0.421
Stage of cancer I II III	25 54 26	54.1± 16.2 57.3 ± 11.9 56.8± 18.6 F = 1.129; P = 0.326

The level of information patients had on their illness created statistically significant differences on their psychosocial adjustment. The patients with insufficient knowledge on their illness had a psychosocial adjustment mean of 62.8±17.1 and it was observed that the adjustment level among these patients was poor (p<0.01). In the conducted advanced analyses, it was determined that the statistical difference resulted from groups that receive adequate information and those that did not.

It was determined that variables about demographics and disease did not create a significant difference on the sub-scale point averages in terms of statistics (data not shown).

#### Discussion

When the findings obtained from the study were analysed, the PAIS-SR total point average was found to be 57.1±14.8. When the points that patients receive from PAIS-SR were evaluated in terms of psychosocial adjustment, it was determined that the psychosocial adjustment levels of 64.8% of the patients were "poor", 28.6% were "medium", and 5.7% were "good". In the studies conducted with breast cancer patients in Turkey, the psychological adjustments of the patients were generally stated as "poor" (Cam et al., 2009; Babacan Gümüş, 2007). The results of the conducted studies were similar to the results of this study. When these results were considered, it was seen that the psychosocial adjustment levels of the Turkish cancer patients were poor, and there is a need to take some action regarding this issue.

It was also clear that the sub-dimensions of the psychosocial adjustments of the patients who participated to the study which were most affected were professional environment and social environment, and it was also found that the psychological adjustments in these fields are worse than in other sub-dimensions. This result shows that the cancer causes negative results, especially in the professional and social lives of the patients. Similar to the results of the study, the other conducted studies also indicated that cancer negatively affects professional and social lives (Çam et al., 2009; Babacan Gümüş 2007) The intense and long-term treatments for cancer and the severe

side effects of these treatments cause a decrease in the working skills of patients and a decrease in their performance. Also, a long treatment period can mostly prevent the patients finding the energy required to continue their social relations. For this reason, it has been considered that that the psychosocial adjustment levels of patients in terms of their professional and social fields are worse.

In conclusion, it was seen that the psychosocial adjustment dimension that was least affected in cancer patients was large family relations. The researches conducted on cancer patients in Turkey revealed the fact that the highest level of support comes from family and close relatives (Özyurt, 2007; Tan & Karabulutlu 2005; Özbek et al., 2003). A general characteristic of Turkish family structures is the increased closeness of family relations during hard conditions such as illnesses or loss, especially in the Eastern Anatolia region where this study was conducted, where this characteristic is more widely seen. It can be stated from the results that the least affected field is large family relations, which may be a result of cultural characteristics. In the studies conducted in other cultures, psychosocial adjustment was valued as poorer in terms of large family relations (Herranz & Gavillan, 1999; Ramirez et al., 2003). In line with these results, it can be stated that cultural characteristics are affective in psychosocial adjustment.

The demographical variables of patients did not create a significant difference on the total psychosocial adjustment and its sub-dimensions in terms of statistics. In other studies, psychosocial adjustment was not affected to any great degree by age, sex, marital status and economical status (Courts & Beyonce, 1998; Adaylar, 1995; Butler et al., 2006; Kocaman et al., 2007).

The knowledge level variables do affect total psychosocial adjustment. It can be seen that the psychosocial adjustments of patients who stated that they did not have sufficient knowledge about their diseases and treatment periods were worse. And in different studies conducted in Turkey, it was determined that the information provided to the patients about their diseases and treatment processes is not adequate. Informing the patients and their families about the disease, treatment processes and side effects of the treatment will facilitate adjusting to the disease and coping with the problems (Atıcı et al., 2009; Kocaman et al., 2007;

Wolf, 2004). This result shows the importance of informing patients adequately about the disease. In this respect, health personnel have important roles, especially the nurses who have closer relations with patients and should be aware of the importance of informing patients.

# Conclusion

The research results showed that the psychosocial adjustments of the cancer patients were poor, and the psychological adjustments, especially regarding the professional and social life dimensions, were affected more. A result that attracts attention in this study is the fact that the knowledge level of the cancer patients regarding their diseases is the most important variable that affects psychosocial adjustment. Our findings may have important implications regarding the care of Turkish cancer patients. The results of this study can be used in planning psychosocial support programs to increase the psychosocial adjustment levels of the cancer patients. It will be very helpful to integrate these programs into routine practices and for nurses to play a role in such applications.

#### Limitations

This study was conducted in only one city in Turkey, and only the individuals who lived in the city centre were included in the study. The results of this study may be generalized to the sample group in this study. The sample in this study reflects only one area of Turkey. The findings therefore cannot be generalized to all patients with cancer in Turkey. Thus, further studies with larger Turkish sample sizes are needed. However, we believe that because our study is the first to investigate the associations of psychosocial adjustment in patients with cancer in Turkey, it will provide a foundation for future studies.

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