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Determing Reactions and Anger Expressions of Family Members Giving Care for Receiving Chemotherapy

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Abstract

Background: This study to evaluate relationship between determing reactions and anger expressions of family members giving care for receiving chemotherapy. A descriptive study was carried out descriptive and designs to examine determing reactions and anger expressions of family members giving care for receiving chemotherapy. The subjects were caregivers of 135 caregivers who recruited from the Cur Clinic of Chemotherapy of Atatuk University Research Hospital.

Materials and Methods: Data were collected by using descriptive features of the caregivers, features of the patients, your reactions to help family members scale, trait anger and anger expression scale.

Results: Consistent anger, anger-out, anger-in scores of those who caregivers are higher and anger management score is middle. It was found out that your reactions to help family members scale with anger-out and anger management scores are negatively, consistent anger and anger-in scores are positively related.

Conclusions: It was found out; there was statistically effective significant scale scores identifying features of the caregivers of your reactions to help family members and consistent anger, anger management, anger-out, anger-in. The results of the research revealed that the caregivers educated with experienced of anger. So, while caring is given, too should be supported, and the care should be given to the caregivers in this direction.

Keywords: Anger; Caregivers; Chemotherapy

Introduction

Cancer diagnosis and treatment affect both the patient and his/her family members in various ways, and impose physical, social, emotional and economic burden on the caregiver. According to researches, the increase in the responsibilities of caregivers brings a considerable cost to families both financially and psychologically [1,2]. In studies that focus on the psychological health effects on caregivers, an increase is reported in the psychological symptoms such as depression, anxiety, anger and psychological distress [3].

Anger is evaluated as a message indicating that the individual is hurt, his/her rights are violated, his/her needs or demands are not adequately met, or that things are just not going well [4]. As a result of the action performed upon physiological stimulation in order to discharge anger, the individual restores his/her former emotional and biochemical state. Thus, it is important that the action discharging the energy induced by anger is desired by the individual. Nevertheless, anger is sometimes pushed down or suppressed rather than expressed directly and explicitly. In that case, hypertension and muscle pain are experienced if the reactions in the body last a long time [5]. Individuals are predisposed to psychosomatic diseases accompanied by fatigue and anxiety if anger is experienced intensively for a long duration and cannot be expressed appropriately. Consequently, individuals may develop diseases especially like cardiovascular diseases, hypertension, migraine, ulcer and headache [6-8].

Depression, loneliness, fear, anger, confusion, anxiety and sadness are commonly-seen responses among the reactions given by caregivers during patient care. It has also been determined that family members experience emotions like sadness, anxiety, fear, loneliness, distress and misery [9]. The feeling of hopelessness lies at the basis of these emotions experienced by family members. Complaint, conflicting feelings, refusing the seriousness of the disease, thinking and talking about nothing but the disease, isolating oneself from social activities are also among the reactions observed in family members. This situation is associated with the deterioration in the quality of life of caregivers [1,9].

This study was carried out descriptive and designs to examine determing reactions and anger expressions of family members giving care for receiving chemotherapy.

Materials and Methods

Design and sample

Caregivers of patients with cancer in University Hospital in Erzurum, Turkey were approached to participate in the study. A cross-sectional and descriptive correlational design was used in this study. During the study period a total of 141 ceregivers met the criteria. After

6 caregiver incomplete responses. Each primary caregiver was contacted while waiting for the family member's chemotherapy treatment by the researcher who provided information about the study, explained that participation is voluntary and determined the caregiver's interest. Analyses were conducted on data provided by the 135 family caregivers who completed questionnaires. Self-report questionnaires were completed by the caregivers themselves. The questionnaires took approximately 20 min for each participant to complete.

Caregivers were at least 18 years of age or older, all caregivers speak Turkish, have had no known psychiatric or neurological disorders that would interfere with the completion of the measures, and all caregivers were at least primary school. Caregivers were interviewed in the daily chemotherapy unit during their at last chemotherapy treatment.

Ethical considerations

This study was approved by the Instıtute of Health Sciences Ethical Committee of Ataturk University. The patients were informed about the purpose of the research and were assured of their right to refuse the participation into the study or to withdraw from the study at any stage. Study instruments were self-rated scales. After the participants completed the study questionnaired, the investigator collected the forms. The anonymity and confidentiality of participants was guaranteed.

Data collection and tools

Data were collected using a three-part survey composed of (a) a patient's demographic questionnaire, (b) a caregiver's demographic questionnaire (c) anger expression scales and (d) family care inventory.

Patient's demographic questionnaire

The demographic questionnaire, designed by the authors, was used to assess patients' sex, age, education, income level, marital status, disease duration, disease stage (the disease stage was categorized as metastatic or local/locoregional) [10-12].

Caregiver's demographic questionnaire

The demographic questionnaire, designed by the authors, was used to assess caregivers' sex, age, education, marital status, employment status, income level, number of children, caregiving duration ranged [10,13,14].

Measurement of anger expression

Anger expression scale was measured at baseline with the Finnish adaptation of the Spielberger (Spielberger, 1998). Anger expression scale, which is a 24-item questionnaire developed to measure characteristic styles of coping with anger arousal. Respondents are asked to rate the frequency that they are engaged in the items when feeling angry across a four-point like rt-type scale ranging from 1 to 4. The eight-item anger inhibition subscale assesses anger-in. Sample items for anger-in includes "I am irritated a great deal more than people are aware of" and "I boil inside but don't show it." The second subscale, which assesses anger expression, or anger-out, consists of eight items. Sample items are "I do things like slam doors" and "I say nasty things." The anger control scale determines the extent to which an individual is able to restrain him-self or herself from expressing anger (e.g., "I control my temper"). Cronbach's a coefficients were 0.80, 0.76, and 0.90 for anger-out, anger-in, and anger-control, respectively. Correlations between the modified and original scales were>0.90. The validity and reliability of the Turkish version of the Anger expression scale was established by Özer [15]. Cronbachs' for anger-in 0.76, anger-out 0.69, anger-control 0.80. In this study, the Cronbach's α values for anger-in 0.72, anger-out 0.80, anger-control 0.73.

Family care inventory

Family Care Inventory which was developed by Archbold and Steward [16]. "family care inventory" 15 is a 15-item scale with subscales. Responses were made using likert-type scale ranging from 1 to 5 for each question. The participants responded to the items in the scale as 0 – none, 1 – very little, 2 –a little, 3 – a lot, 4 – quite a lot. Total score to be obtained from the scale ranges from 0 to 60. The validity and reliability study of the "family care inventory" scale in Turkey was carried out by Uğur [17-20] and Cronbach's alpha value was found as 0.70. In this study, Cronbach's alpha value was found as 0.84.

Statistical analysis

Descriptive statistics (means, standard deviations, percentages) were used to describe the socio demographic characteristics of the sample caregiving duration ranged, anger expression and family care inventory. Independent-samples t Test, Kruskal-Wallis and one-way analysis of variance (ANOVA), Pearson correlation analysis were used to compare the differences between anger expression, family care inventory scores and socio demographics variables. P-values of less than 0.05 were accepted as statistically significant. All data management and statistical analyses were carried out using the pocket program of the Statistical Program for Social Sciences (SPSS) version 10.0 for Windows.

Results

The socio demographic and medical characteristics of the caregivers are summarized in Table 1. The mean age of the sample was 48.76 ± 5.46 and 48.1% 36-52 years, 74.1% female 79.3% married, 40.0% primary school, %66.9 and more children, 48.2% low income, caregiving duration (ranged from 6 to 56 months 18.56 ± 6.14) 60.0% 14 and more and all of them and living together with their patients.

Characteristics	N	%
Age groups	30	22.2
19-35	65	48.1
36-52	40	29.7
53 and old		
Sex	100	74.1
Male	35	25.9
Female		
Education level	98	66.9
Primary School	26	19.3
Higy School	11	13.8
University		
Income level	65	48.2
Low	40	29.6
Moderate	30	22.2

High		
Marital status Married Unmarried	105 30	79.3 20.7
Number of children No children 1-2 children 3 and more children	43 34 58	31.9 25.1 43.0
Caregiving duration (month) 6 month 7-13 month 14 and more	20 34 81	14.8 25.2 60.0

Table 1: Characteristics of caregivers (N:135)

Discussion

It was determined in this study that score mean of the family care inventory scale was high in the age group of 19-35 years, men, primary school graduates, low level of income, married, and has been giving care for 14 months and longer (Table 2).

Characteristics	X±SS	Test ve p
Age groups 19-35 36-52 53 and old	27.42 ± 6.20 23.53 ± 8.26 22.48 ± 8.22	F:1.943 df:2 p<0.05
Sex Male Female	24.20 ± 10.15 27.24 ± 12.94	t:3.933 p>0.05
Education level Primary School Higy School University	24.35 ± 12.21 26.37 ± 9.63 23.84 ± 14.98	KW:2.505 df:3 p>0.05
Income level Low Moderate High	27.17 ± 12.39 22.52 ± 13.10 25.11 ± 9.92	F:1.943 df:2 p<0.05
Marital status Married Unmarried	25.71 ± 12.29 22.28 ± 12.23	t:1.317 p>0.05
Number of children No children 1-2 children 3 and more children	23.12 ± 12.29 26.73 ± 13.69 27.48 ± 11.47	F:0.948 df:2 p<0.05
Caregiving duration (month) 6 month 7-13 month 14 and more	23.80 ± 14.67 24.97 ± 11.22 26.82 ± 12.28	KW:0.970 df:2 p<0.05

Table 2: The relationship between the score mean of family care inventory and the score mean of constant anger and anger expression style of caregivers (N:135)

Literature also reported a high score mean among young caregivers in their studies. This result may be associated with the fact that young caregivers are negatively affected from the process of care giving and therefore reflect their reactions to a greater extent Gordon and Perona [21,22].

As women behave more compassionate and sensitive by nature, it is thought that they are able to cope better with the difficulties of care giving compared to men, and thus, women traditionally assume the role of caregiver in the family [23,24].

The studies reported by also revealed a high score mean among primary school graduates. It is concluded that individuals fail to use their mechanism of coping with stress effectively as their education level decreases [25,26].

In this study determined that unemployed caregivers can spare more time for patient care when they are unemployed. Women assume various roles simultaneously, such as mother, money provider for subsistence, and emotional supporter [23,27-33]. Kristjanson and Ashcroft reported that because of giving the care, housewives experienced physical problems such as difficulty in domestic organization, headache, stomach complaints, and psychological problems such as short temper and distress at home [31]. Housewives as caregivers may experience weakness due to having difficulties in maintaining control over their own lives, and also guilt due to failure in meeting expectations [33,34]. It is thought that housewives experience failure in fulfilling their assumed roles in society, as well as estranging from social life, isolation from social life, frustration, and being responsible from another person.

In our study conducted caregivers who live with the patient and who has been giving care for 14 months and longer determined that the health of both the patient and caregiver is negatively affected by the tension caused by providing care for a long period of time and sharing the same space with the patient continuously. It is reported in literature that the negative effects on caregiver's health is correlated with the increase in the time spent for providing care. It is considered that caregivers give more intense reactions due to the burden of responsibility they constantly assume for patient care both before and after chemotherapy. In our study similarly with literature (25,35-38).

In the research it is found that constant anger and anger-out score means were high in the age group of 19-35 years, while anger-in and anger control score means were high in the age group of 53 years and older (Table 3). Studies also established a high score mean in constant anger and anger-out scores obtained from young caregivers. As old caregivers are able to adapt more easily to changes in their lives and to the care giving process, they are likely to control their anger and rather experience anger-in [39- 41].

Characteristics	Anger Expression

	Anger-ın		Anger-out		Anger-control	
	X ± SS	Test and p	X ± SS	Test and p	X ± SS	Test and p
Age groups 19-35 36-52 53 and old	12.10 ± 4.8 14.52 ± 6.92 18.42 ± 688	F:4.091 df:2 p<0.05	18.36 ± .16 16.53 ± 8.71 12.32 ± 7.50	F:0.556 df:2 p>0.05	18.27 ± 8.16 20.62 ± 8.71 22.32 ± 7.50	F:3.974 df:2 p<0.05
Sex Male Female	20.94 ± 493 16.60 ± 3.95	t:2.744 p<0.05	15.90 ± 5.07 16.25 ± 4.70	t:0.952 p>0.05	20.45 ± 4.94 20.02 ± 4.88	t:0.088 p>0.05
Education level Primary school High school University	16.15 ± 3.90 15.84 ± 4.24 19.45 ± 5.33	KW:5.116 df:3 p<0.05	16.18 ± 4.31 15.76 ± 4.23 15.63 ± 6.69	KW:2.970 df:3 p<0.05	19.60 ± 5.68 20.00 ± 4.22 21.54 ± 3.77	KW:3.591 df:3 p>0.05
Income level Low Moderate High	16.15 ± 5.48 16.25 ± 4.44 17.38 ± 4.01	F:5.116 df:2 p<0.05	18.33 ± 4.42 16.56 ± 5.51 16.29 ± 4.98	F:2.970 df:2 p>0.05	20.00 ± 5.15 21.48 ± 5.35 22.10 ± 4.37	F:3.591 df:2 p>0.05
Marital status Married Unmarried	16.68 ± 4.86 17.50 ± 3.92	t:1.974 p>0.05	17.01 ± 4.69 15.70 ± 5.01	t:0.035 p>0.05	19.32 ± 4.95 20.60 ± 4.98	t:0.603 p>0.05
Number of children No children 1-2 children 3 and more children	15.88 ± 4.40 16.76 ± 4.14 17.87 ± 5.22	F:0.008 df:2 p>0.05	17.03 ± 5.37 16.60 ± 4.59 16.85 ± 4.57	F:1.942 df:2 p>0.05	21.55 ± 5.38 19.55 ± 4.34 19.26 ± 4.71	F:3.218 df:2 p<0.05
Caregiving duration (month) 6 month 7-13 month 14 and more	16.00 ± 6.04 15.58 ± 4.38 17.34 ± 4.38	KW:4.358 df:2 p>0.05	17.35 ± 4.94 16.30 ± 6.55 14.35 ± 3.46	KW:4.199 df:2 p>0.05	21.55 ± 4.98 20.40 ± 5.16 19.79 ± 4.70	KW:0.539 df:2 p>0.05

Table 3: Impact of sociodemographic, disease-related and psychological parameters on anger expression

We analyzed by gender constant anger, anger-in and anger control score means were high in women, while anger-out score mean was high in men (Table 3). Caserta et al. Lerner and Grater emphasized that women mostly experience anger-in and tend to control their behaviors in order to protect their social and familial relationships from negative effects [42-44]. It is considered that women exhibit more controlled behaviours compared to men and suppress their anger due to the responsibilities imposed upon them by the various roles they assume in society.

When evaluated according educational level constant anger and anger-out score means were found to be high in literate individuals, while anger-in and anger control score means were high in university graduates (Table 3). This result complies with the study results obtained by Bisanz, Lerner and Keltner, Haug et al. Accordingly, it is considered that individuals develop skills of expressing their anger through healthy channels as their education level increases [40,44,45].

It is determined that constant anger and anger-out score means were high among individuals with low income level, while anger-in and anger control score means were high among those with high income level (Table 3). These results are also supported by the studies of Juhani et al. [46] As caregivers have to cope with additional burden due to expenses that are not covered by patients' health insurance (e.g. transportation, some medicines, shelter, etc.), they are likely to have higher score means of constant anger and anger-out.

When assessed by marital status constant anger and anger-in score means were high in married individuals, while anger-out and anger control score means were high in single individuals (Table 3). These results are similar to the results obtained by Juhani et al. and Scherbring. It is considered that married caregivers do not express their anger although they experience constant anger since they try to avoid the negative effects it may have on their family relationships [46,47].

When evaluated according to the number of children constant anger and anger-in score means were high in individuals with 3 or more children, while anger-out and anger control score means were high in individuals without children (Table 3). This result complies with the

results of studies conducted by Juhani et al. Since caregivers with three or more children cannot spare sufficient time and attention for children care, they are likely to experience constant anger and anger-in [46].

It is found that constant anger and anger-in score means were high also in individuals who had been providing patient care for a period of 14 months and longer, while anger-out and anger control point averages were high among those who had been providing patient care for 6 months (Table 3). These results show similarities to ones obtained also by Juhani et al. and Şahin et al. [46,48]. Thus, individuals who undertake the responsibility of patient care for longer periods are considered to be able to control their anger so as to provide the patients with psychological support.

A moderately negative relationship was found between the score means of family care inventory scale and the score means of anger-out and anger control; whereas a highly positive relationship was observed between the score means of family care inventory scale and the score means of constant anger and anger-in (Table 4).

Scales	Constant anger		Anger Style Scale					
	r	p	Anger-in		Anger-out		Anger-control	
			r	p	r	p	r	p
Reactions shown by caregivers	0.813	p<0.001	0.240	p>0.05	-0.610	p<0.001	-0.119	p>0.05

Table 4: The relationship between the score mean of family care inventory scale and the score mean of constant anger and anger expression style of caregivers

Conclusion

It was determined in this study that score mean of the family care inventory scale was high in the age group of 19-35 years, men, primary school graduates, low level of income, married, and has been giving care for 14 months and longer. It was also determined that reactions towards helping the family member decreased with the increase in anger-out and anger control score means, while reactions towards helping the family member increased with the increase in constant anger and anger-in score means. The following suggestions are introduced in line with the research results and observations

Caregivers should be given education on how to express their anger, caregivers should be provided with cooperation and support for anger control, caregivers, who are responsible from patient care for long periods of time, should be provided with physical, psychological and social support.

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