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The Effects of Training Pediatric Cancers' Parents in Communication Skills on their Marital Instability, Marital Adjustment, and Quality of Life

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Abstract

Background: When a child is diagnosed with cancer, parents face many logistical and emotional difficulties that can impact their relationship significantly. We aimed to investigate the effectiveness of the couple's communication skills on marital instability, marital adjustment, and the quality of couples with pediatric cancer.

Methods: The population of this quasi-experimental included all the parents of children with cancer in Ahvaz, Iran, from 2019- 2020. Samples of the study were selected using purposive sampling and randomly divided into two groups; one experimental (communication skills) (n=15), and one control (n=15). Both groups underwent 10 sessions of treatment for one-hour while the control group was not provided with any therapy from the second half of October until the second half of December 2020. The subjects were assessed before and after the treatment using the marital instability index (MII), the Dyadic Adjustment Scale (DAS), and the WHOQOL – BREF Questionnaire. Data were analyzed using SPSS software version 23.0.

Results: The total sample included 30 couples, of which 35% were in the age group of 38-34 years, 35% were in the age group of 43-39 years, and 30% were in the age group of 44-48 years. The results of an analysis of covariance showed that training couples in communication skills had significant effects on reducing the parents' Marital instability (f=88.14; P=0.001), increasing their Marital adjustment (f=13.88; P=0.001), and increasing their quality of life (f=12.93; P=0.001).

Conclusion: It seems that training couples in effective communication skills can reduce their marital instability, along with increasing their marital adjustment and quality of life.

Key Words: Communication skills, Couple's training, Marital adjustment, Marital instability, Pediatric Cancer, Quality of life.

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1- INTRODUCTION

There is little information on the effects of pediatric cancer on family relationships. Cancer causes more stress to a marriage at a time when a spouse's support is more important than ever before. When a child is diagnosed with cancer, marital relationships will suffer. Demands from caregivers make it impossible for parents to have time to commit each other. When they are sad or concerned, parents can become withdrawn. There is, however, no evidence, that a diagnosis of pediatric cancer increases the risk of divorce. While some couples see their relationships suffer after a child is diagnosed, through sharing experiences together, many marriages gain strength. Despite, there are still problems having impacted marriage before cancer that may even get worse (1).

Even with rising survival rates, cancer care involves lengthy, complex, and costly protocols of treatment that can have a substantial effect on the quality of life of both children and their families. In addition to the treatment-related stressors and toxicities, many parents caring for a child with cancer encounter transient and persistent stressors that can potentially impact the parental relationship and partnership communication (2). From the time a child is suspected of having cancer, family relationships can be influenced by many variables. Depression, anxiety, and a child's peer relationships are associated with family relationships in both oncology and non-oncology; and can also influence children's well-being and their relationships (3).

This condition causes parents to frequently face everyday activities and family life disturbances, including shifting caregiver or spousal roles, jobs, financial stress threats, and emotional challenges that contribute significantly to the cancer experience (4). Despite various problems shown in the literature about relationship challenges that can develop as a result of a diagnosis of childhood cancer, there are limits to the research so far. To date, many studies fail to explore the perspectives of both mothers and fathers who are parents of a child with cancer (2). When a child is diagnosed with cancer, problems may arise in family relationships and negatively affect child adjustment (5). Fladeboe et al. (2018) found that lower marital adjustment soon after diagnosis was associated with an increase in parent–child conflict 6 months later, though this pattern was not repeated in the latter 6 months of treatment (5). Among children with cancer, family functioning has also been linked to children’s psychological adjustment (6).

It is therefore plausible to conclude that the stress factors that surround and treat pediatric cancer require both physical and emotional resources (e.g., time, emotional availability) from the parents of the child, which cannot thus be expended in sustaining their interpersonal relationships. In addition, the stressors within the couple can also give rise to conflicts. Previous studies show both decreased and improved levels of relationship consistency after pediatric cancer (7). For some parents, the cancer experience causes marital instability. Among the studies Related to marital instability, few have directly examined conflict and instability in parent relationship (8).

Some studies show that many parents with cancerous children suffer from poor life qualities (9-12). The results of some studies on the QOL of caregivers of children with chronic and developmental diseases have shown poor QOL of the caregivers (13). To our knowledge, no study to date has directly assessed the effectiveness of the couple's communication skills on marital instability, marital adjustment, and the quality of couples with pediatric cancer. In most studies on the protective and risk factors for individuals and relationships

between the parents being confronted with pediatric cancer, individual characteristics (e.g., catastrophic thoughts in parents) and family characteristics (e.g., family support) have been the topic of investigation. In contrast, the so-called couple factors – characteristics of the intimate relationship of the child's parents– have gained less research attention (14). The current study aimed to address this gap by focusing on a couple-level variable that can be expected to moderate the impact of pediatric cancer on parents and their relationships, namely, the extent to which they deal with the stress of pediatric cancer. Caring for a child with cancer can cause immense psychological distress and impairment for the parents, which can in turn affect their child. To assist counselors working with the parents of children receiving treatment for cancer, the author aimed to evaluate the effectiveness of the couple's communication skills training on their marital instability, marital adjustment, and quality of life. In addition, this article offers therapeutic strategies designed to assist this unique population.

2- METHODS

2-1. Study design and population

This research was a quasi-experimental study with a case and control group in a pre- and post-test research design. The experimental group received 10 one-hour sessions of treatment from the second half of October until the second half of December 2020, while the control group was not provided with any therapy.

2-2. Methods

Based on proportions comparison formula, the sample size for each group was determined to be 30, with a statistical power of 80% and confidence interval of 95%. The method of sampling was purposeful and it was among all parents of children who were hospitalized in Pediatric Hematology & Oncology in Baqaei Hospital 2 in Ahvaz city. Each participant had to fill a conscious consent form in order to participate. Both groups filled the questionnaires on effective communication skills and marital status. Then the members of experimental group attended ten one-hour sessions about effective communication. Two weeks later both groups filled the marital conflicts questionnaire once again.

2-3. Measuring tools: validity and reliability

The survey comprised of a checklist and the marital instability index (MII) (15). The checklist included the socio-demographic characteristics and factors related to the marriage of the respondents. The MII questionnaire consisted of 18 Likert scale items scored from one (never) to 5 (always), that were divided into 2 sections: the first section (part A) focused on the marital instability of couples (14 items) and the second section (part B) focused on attractions and obstacles in each family (4 items). The score of 70 for part A and 5 for part B indicated the highest level of instable marriage and the score of 14 for part A and 20 for part B suggested the lowest level of marital instability. Booth et al. validated this index (14). We used the Persian version of the questionnaire, being valid and reliable beforehand (16).

a) Marital adjustment was assessed through primary caregiver report using the Dyadic Adjustment Scale (DAS):

Spanier (1976) designed this scale (17). The DAS is a well-validated 35-item self-report questionnaire used to assess marital adjustment. This measure yields an overall dyadic adjustment score computed as the sum of all items, with higher scores indicating better adjustment. Wood et al. (2005) established ranges for mildly distressed (96–107), moderately distressed (80–95.9), and severely distressed (<80) couples. Couples scoring >107 are considered to be in the happily married

range (18). This measure has been shown to reliably predict marital distress among parents of chronically ill children (19). Cronbach's alpha was high throughout the study period (.96 at Time 1, .96 at Time 2, and .97 at Time 3). The study was conducted on a sample consisting of 80 compatible and distress couples in Isfahan; the reliability coefficients of 0.59 to 0.93 for the subscales and 0.95 for the total scale were obtained (20).

b) The WHOQOL – BREF Questionnaire:

In this study, the validated Iranian version of the WHO QOL questionnaire was used (WHOQOL-BREF) (21). It is a short version of the 100-scale instrument, comprising 26 items, which reflects the multi-dimensional nature of QOL. It also emphasizes subjective experiences rather than objective life conditions and it focuses upon the respondent's perceived QOL (22). It contains four domains, namely physical health, psychological status, social relationships and environmental conditions. Items rating QOL overall and subjective satisfaction with health are not included in the domains. An Iranian validation study showed that the Cronbach's alpha coefficients for the four domains of the WHOQOL-BREF were satisfactory (physical health = 0.81, psychological status = 0.78, social relationships = 0.82, and environmental conditions = 0.80) (21). The domain score is converted to a transformed score (ranging from 4 to 20) to enable comparison between domains. A higher score denotes a higher QOL. The domain scores were computed on the basis of WHO profiles and validated (22).

2-4. Interventions

Training package was based on the texts of life skills training provided by World Health Organization (23). Communication skill training was done in-group through ten 45-minute sessions by a clinical psychologist. In these sessions, the participants were trained so that they would be able to use the skills and techniques for establishing proper communication. The main items that were discussed in the sessions are as follows: definition of communication and its importance, effective and ineffective communication, behavioral styles training, verbal and non-verbal elements of communication, recognition of communication's components, active listening training, effective methods in active listening, friendly communications, communication's obstacles, recommendations for more efficient verbal communications. Two weeks after the training, both groups filled the Marital Conflict Questionnaire again. The results were analyzed and compared together.

2.5-Ethical consideration

It should be noted that this article is the result of the first author's proposal research approved by the Vice-Chancellor of Research, Payame Noor University of Ahvaz, No. 1399.0354.

2-6. Inclusion and exclusion criteria

The inclusion criteria encompassed parents of 7-10-year-old children with any kind of cancer; they were to have at least minimum literacy, and no record in using previous consulting systems. And they had to fill in a specific form for informed consent. The exclusion criteria were lack of cooperation with the researcher in any stage of the research process**.**

2-7. Data Analysis

The data was analyzed using SPSS version 23.0. Quantitative data was expressed as mean & standard deviation. The study variables were tested using the Analysis of Covariance (ANCOVA). $P< 0.05$ was considered statistically substantial. The normality of the data was checked with Kolmogorov–Smirnov & Box and Levin tests, before examining the results of the

analysis of variance. The condition of intergroup variance equality is well observed. Therefore, the findings of ANCOVA can be reported.

Table-1: Description of Couple's Communication Skills Training sessions

Session 1: familiarity with members, introducing group rules, and presenting some explanations about verbal and non-verbal communications
Session 2: familiarity with speaking skill
Session 3: familiarity with listening skill
Session 4: familiarity with requesting (demanding) skill
Session 5: familiarity with expressing positive emotions, physical contact and verbal cares
Session 6: becoming familiar with skill of enjoying the leisure time through common and mutual joyful activities
Session 7: becoming familiar with anger and annoyance control skills
Session 8: becoming familiar with creative criticism skills
Session 9: becoming familiar with negotiation and dispute settlement skills
Session 10: a reviewing all sessions and receiving members' feedback

3- RESULTS

As can be seen in **Table 2**, the total sample included 30 couples, among whom 35% were in the age group of 38-34 years, 35% were in the age group of 43-39 years and 30% were in the age group of 44-48 years. 40% of them were married between 6-10 years and 60% between 11-15 years. 45% had 1-2 children, 50% 3-4 children and 5% 5-6 children.

Table-2: Demographic variables of the parents

Variables	Groups	Frequency	Percentage
Level of education	Diploma	12	40
	BA	12	40
	MA or PhD	6	20
Age, year	34 to 38	7	35
	43to39	7	35
	44to48	6	30

As can be seen in **Table 3**, the pretest mean ± SD of marital instability among the parents of children with cancer in the experimental group is (M=62.10± SD=3.07). Also, their pretest mean score of marital instability in the control group is (M=61.60±SD=5.08). These results show that the pretest mean score of marital instability in the control group is higher than that in the experimental group. Also, the posttest mean score of marital instability among the parents in the experimental group is (M=47.40± SD=9.48), which is less than that in the control group. These results show that the mean instability of the parents of children with cancer in the control group in the posttest is higher than that in the experimental group.

Table-3: Mean of marital instability, marital adjustment, and quality of life in both groups

Variables	Groups	Groups	Mean ±SD
Marital instability (Scores ranged 5 to 70)	Experimental	Pre-test	62.10±3.07
		Post-test	47.40 ±9.48
	Control	Pre-test	61.60 ±5.08
		Post-test	62.80 ±3.93
Marital adjustment (Scores ranged 80 to 107)	Experimental	Pre-test	53.20±4.31
		Post-test	64±7.25
	Control	Pre-test	52.10±6.50
		Post-test	46.70±10.36
Quality of life (Score ranged 4 to 20)	Experimental	Pre-test	49.20±8.12
		Post-test	59.50±6.98
	Control	Pre-test	49.60±8.42
		Post-test	49.80±10.94

As can be seen in **Table 3**, the mean and standard deviation of marital quality in the experimental group and control group were (M = 49.20± SD = 8.12), (M = 49.60± SD = 8.42), respectively. These results show that the pretest mean score of marital quality is higher in the experimental group. Also, the posttest mean and standard deviation of marital quality in the experimental group is (M=59.50± SD=6.98), and the posttest mean and standard deviation of marital quality marital quality in the control group is (M=49.80± SD= 10.94). So, the posttest mean of marital quality is lower in the control group.

Table-4: Results of obsession analysis of marital instability in both groups

Variable	Source of change	Sum of square	Degree of freedom	Mean Square	F	P-value	Test power	Eta
Marital instability	Pre-Test	1104.37	1	1104.37	12.51	0.03	0.42	0.91
	Group	1225.09	1	1225.09	14.88	0.002	0.45	0.94
	Error	1499.79	17	88.22	-	-	-	-
	Total	65373	20	-	-	-	-	-

F: variation between sample means / variation within the samples

As shown in **Table 4**, the results of the analysis of covariance showed that after removing the effect of pre-test, the independent variable of training couples in communication skills had significant effects on reducing the instability of marriage among the parents of children with cancer (f = 88.14 and P = 0.001), Which is significant at the level of P <0.05. Also, the effect rate (ETA coefficient) is 0.46, which shows that training couples in communication skills predicts 46% of the variance of marriage instability in parents of children with cancer, which is not explained by other variables. These results show that training couples in communication skills has been effective in reducing the marriage instability among the parents of children with cancer.

Table-5: Results of obsession analysis of marital adjustment in both groups

Variable	Source of change	Sum of square	Degree of freedom	Mean Square	F	P-value	Test power	eta
Marital adjustment	pre-test	132.18	1	132.18	1.70	0.021	0.09	0.23
	Group	1070.54	1	1070.54	13.88	0.002	0.45	0.94
	Error	1321.81	17	77.75				
	Total	65373	20					

As shown in **Table 5**, the results of analysis of covariance showed that, after removing the pretest effect, the independent variable of training couples in communication skills significantly increases the marital adjustment of parents of children with cancer ($f = 13.88$, $P = 0.001$), at the significance level of $P < 0.05$.

Table-6: Results of obsession analysis of Quality of life in both groups

Variable	Source of change	Sum of square	Degree of freedom	Mean Square	F	P-value	Test power	eta
Quality of life	pre-test	854.77	1	854.77	21.97	0.001	0.56	0.99
	Group	502.99	1	502.99	12.93	0.002	0.43	0.92
	Error	621.14	17	38.90	-	-	-	-
	Total	61719	20	-	-	-	-	-

As shown in **Table 6**, the results of analysis of covariance revealed that the effect of the independent variable of training couples in communication skills significantly increases the quality of life among the parents of children with cancer ($f = 12.93$; $P = 0.001$) is significant at the level of $P < 0.05$; the effect rate (ETA coefficient) is 0.43 which shows that training couples in communication skills predicts 43% of the variance of marital quality in the parents which is not explained by other variables. These results show that training couples in communication skills has been effective in increasing the marital quality among the parents of children with cancer.

4- DISCUSSION

The aim of this study was to evaluate the effect of training in communication skills on marital instability, marital adjustment, and the quality of life among the parents with pediatric cancer. It was indicated that the efforts made to increase couple's communication skills would be associated with their improved marital instability, marital adjustment, and quality of life. These results are in agreement with the findings of Sajjadi et al. (11), and Young's study (13). Katz et al. (22) discussed implications for the development of interventions that target at-risk family relationships. Identifying processes that predict between-family variability in trajectories of family relationships is an important next step, particularly for the marital relationship.

The second findings are in agreement with the results of Mullins et al.(11), Van Schoors et al. (7), which showed that communication skills training had significant effects on the marital adjustment among parents with pediatric cancer. A recent systematic review reported that many couples fare well after their child's diagnosis, but a subset declines in general marital adjustment and satisfaction particularly in the first year after diagnosis (7). There have also been

recent efforts at summarizing the literature on the adaptation of the family system as a whole after pediatric cancer diagnosis, providing evidence that most families return to, sustain, or achieve adaptive levels of family functioning after this challenge (7). To explain this finding, marital instability can weaken the love, intimacy and affection between the partners. This can significantly diminish the quality of partner's sexual life. It is specifically important for women, because their sexual satisfaction is more influenced by the emotional context. It can be, thus, concluded that the training may have increased the skills among the spouses which in turn have improved their emotional status and as a consequence, their sexual satisfaction (especially among the women). It has been shown that the intimacy and affection is the key factor of healthy marital life (23). It seems that those trained with effective communication skills could have replaced their negative emotions such as anger, anxiety, and sorrow with positive emotions such as affection, kindness, respect, and love. They could have controlled their negative emotions and instead express their needs in direct and courageous ways; this process helps them to have better adjustment with the problems occurring in the trajectories of their children's treatment (24).

The third findings confirmed that training in communication skills had significant effects on the parents' quality of life; and this in agreement with the results of Racine et al (4), and Bakula et al. (5) studies. It should be mentioned that studies explain this results in a variety of reasons, for example, Nair et al. (24) stated that the parents' knowledge and attitude towards their child's cancer and attending the initial disease counseling in pediatric oncology improved their quality of life. Ghodsbin et al. (25) showed that one of the ways to improve QoL is to implement educational strategies for parents to cope with the effects and consequences of childhood disease and to restrict them to a better quality of life. In another study, Sajjadi et al. (11) explained that childhood cancer treatment has a negative impact on parents' social and professional routines, often requiring them to leave their jobs, giving a priority to the treatment. Fully focused attention to a child may lead to communication and/or parental self-care impairments and marital conflict. A study, investigating the association between cancer-related knowledge and problem-solving ability among the mothers, demonstrated that even though cancer-related knowledge was significantly associated with educational level of the parent, it did not contribute to the variance in psychological adjustment such as depression and mood states or problem-solving ability (23).

4-1. Study Limitations

In this study, we encountered limitations that we hope will be addressed in future research. Variables such as depression, the rate of economic status, and the income of the parents, and the number of their children were not considered, in this study. In future research, the effectiveness of the treatment protocol should be considered with the mentioned demographic variables. The results are not generalizable because purposeful sampling method was used.

5- CONCLUSION

In the current research, marital instability, marital adjustment, and the quality of couples with pediatric cancer changed under training in both groups. Research results demonstrate that couple's communication skills are among the least used sources in families, stemming from the fact that people do not accept direct help due to cultural circumstances. Therefore, this duplicates the importance of institutions reinforcing and supporting patients and their families to effectively

adapt to problems. Thus, sufficient social support can improve their adaptive skills and have a direct effect on improving marital instability, marital adjustment, and QoL (25). Hence, it is suggested that required facilities be provided for them through social-supportive and welfare services; and nurses should be familiar with the services and introduce them to the caregivers. According to our findings, parents of children with cancer need physical, mental, and –particularly- social supports. In general, it is suggested that the Ministry of Healthcare along with providing costly medicine required by cancer patients, provide the caregivers with social, supportive, and welfare services such as improving health insurance.

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