Iranian Red Crescent Medical Journal

ORIGINAL ARTICLE

Coping strategies used by parents of children with cancer in Shiraz, Southern Iran

F Hashemi[1]*, Sh Razavi1, F Sharif[1], MM Shahriari[2]

[1]Fatemeh College of Nursing and Midwifery, [2]Pediatric Oncology Department, Medical School, Shiraz University of Medical Sciences, Shiraz, Iran

Abstract

Background: The assessment of family coping patterns and resources will provide a further basis for helping family's adaptation. This study was undertaken to assess the coping strategies used by parents of children with cancer in Aliasghar Cancer Hospital affiliated to Shiraz University of Medical Sciences.

Methods: Data collection was conducted based upon Family Crisis Oriented Personal Evaluation Scale (F-COPES) including social and spiritual support, reframing, seeking help and passive appraisal. A total of 72 parents including 28 couples, 8 single mothers and 8 single fathers participated in this study.

Results: The spiritual support ranked the highest and the social help, the lowest strategies used by the parents. Seeking help, reframing and passive appraisal were the remaining strategies. Statistically significant differences were found between the age of participants and reframing and seeking help strategies. A significant difference was also observed between the level of parent's education and reframing strategy but not between gender and coping strategies.

Conclusion: Familiarity with coping strategies and the method to use them could balance the emotional, psychological and social consequences of parents who have a child with cancer.

Keywords: Coping strategies; Parents; Children; Cancer; Iran

Introduction

Cancer is still regarded as one of the most important diseases of man, although recent advances in the therapy of childhood cancer have increased the chances of long-term survival for many patients. Even with the hopeful prognosis that can be realistically given in most cases, the emotional impact of the diagnosis of cancer is extreme and long lasting.[1] Childhood cancer is the second leading cause of death in children aged 1 to 14 years and the incidence of cancer in this age group was reported to be 129 per million children. The projected number of new cases and deaths in United States was estimated to be 8200 and 1600 per year respectively.[2] Parents who have a child suffering from cancer face distress in regard to multiple hospitalizations, chemotherapy side effects (hair loss, nausea, vomiting and infections). They try to provide support for their child as he or she undergoes a variety of tests and procedures.[3,4] Parents who have a child afflicted with cancer, would face distress and emotional problems, if they do not receive enough social and spiritual supports.[5]

Parent's views are thus helpful for planning services and highlighting areas of practice and administration in which improvement can be made.[2] Coping is a vital concept in nursing and its strategies can influence the nature of adaptation of a family. A nurse can support the family by respecting them and serve

***Correspondence:** Fatemeh Hashemi, MSc,
Instructor of Fatemeh College of Nursing and Midwifery,
Shiraz University of Medical Sciences, PO Box: 71935-1314,
Shiraz, Iran. Tel: +9177142113, +98-711-6260598
Fax: +98-711-6279134; e-mail: hashemifa@hotmail.com

as a support by making referrals, providing information about the illness or its management, allowing emotional expression by all family members, and by responding to the emotions when expressed. It is crucial for the nurse to take a long-term view of problems and not to expect all of them to be solved quickly.[6] Kazak and Barakat (1997) reported that children and families, who were well adapted to diagnosis and treatment, would cope better with the stressors. Family coping strategies must be broad enough to include resources which are helpful in coping with not only diagnosis, but also concurrent stressors, over which family members may have little or no control, as well as chronic uncertainly. Therefore, interpretation of the action of a family using the knowledge of both coping and family development may provide clues for children's nurses about the level of disruption caused to individual families.[7] In a study on 40 families, only 12% showed adaptation while at least one family member needed psychological support, indicating to the fact that early adaptation affects long term adaptation.[8] In another study on 50 families, 98% of them believed they needed psychological support.[9] Brett and Davis (1988) indicated to the need of psychological and spiritual support of parents who have a child suffering from cancer.[10] To cope with these problems and to have a good nursing service, assessing of coping strategies in parents seems essential.[11,12] This study was performed to assess the coping strategies used by parents of children with cancer in Shiraz Southern Iran.

Materials and Methods

From August 2001 to August 2003, 72 parents comprise 28 couples, 8 single mothers and 8 single fathers who had children suffering from leukemia or lymphoma, referred to Aliasghar Hospital, affiliated to Shiraz University of Medical Sciences, participated in present study. Data collection and scoring were carried out according to Bomar (1996).[13] The study population was determined using available simple random sampling method with a confidence interval of 95%. The inclusion criteria were duration of diagnosis for at least 6 months, absence of any other diseases except leukemia and lymphoma with both parents being alive without any history of divorce, and the supervision of children under treatment by an oncologist. Data were recorded in a questionnaire divided into two parts. The first part covered demographic information including age, gender, birth order, residential area, family size, time of hospitalization, last hospitalization date, the level of education, occupation and income of parents. The second part consisted of the translated version of English Standard Questionnaire into Persian, prepared in the Department of Psychiatry of Shiraz Medical School, to assess coping strategies used by our units. The questionnaire of the Family Crisis Oriented Personal Evaluation Scale (F-Copes)[13-17] was used to divide the coping patterns into five subdivisions of social support, spiritual help, reframing, seeking help and passive appraisal.

F-Copes measured family coping behavior. The subscales of the instrument integrated the perception of stressors within the system and use of resources, both internal and external to the family system. The instrument also measured coping that involved direct action and the more palliative modes of coping. The subscales of the instrument measured the perception of stressors, the use of family resources, and the coping behaviors used by families. The internal coping strategies included the confidence of the family in active problem-solving methods as well as more passive methods such as reframing the family perspective or passive appraisal. The external strategies used by families consisted of using resources such as church or religion; the support of the extended family, friends, and neighbors; and the use of resources available through community organizations. Scoring the instrument was done by summing-up the numbers circled for items in each subscale, except for items 17, 26 and 28, which were reversed. The subscales were social support (1,2,5,8,10,16,20,25,29); reframing (3,7,11,13,15,19,22,24), spiritual support (14,23,27,30), mobilizing the family to acquire and accept help (4,6,9,21) and passive appraisal (12,17,26, 28). Data were statistically analyzed using Mann-Whitney U and Kruskal-Wallis statistical tests to evaluate the coping strategies in relation to demographic information. A P value of less than 0.05 was considered significant.

Results

The demographic information of parents presented in Table 1 shows that most parents aged between 30 to 39 years (41.7%), and comprised those with primary to high school education (69.4%), and housewives (41.7%). Table 2 shows that, 77.3% of children were

Table 1: Demographic information of the parents participated in the study

Variable		No	%
Age (years)	20-29	17	23.6
	30-39	30	41.7
	≥ 40	25	34.7
Education	Illiterate	10	13.9
	Primary and	25	34.7
	middle school	25	34.7
	High school		
Occupation	University	12	16.7
	Government	26	36.1
	Business	16	22.2
Type of referral	Housewife	30	41.7
	Single	11	15.3
	Sometimes couple	27	37.5
Pregnancy plan	Always couple	34	47.2
	Determined	65	90.3
	Undetermined	7	9.7
Residence	Urban	19	43.2
	Rural	25	56.8
No. of children	1	4	9.1
	2	11	25
	≥ 3	29	65.9

Table 2: Demographic information of the children participated in the study

Variable		No	%
Sex	Male	34	77.3
	Female	10	22.7
Age (years)	≤ 6	16	36.4
	> 6	28	63.6
Birth order	1	17	38.6
	2	8	18.2
	≥ 3	19	43.2
Duration of diagnosis	<1 year	13	29.5
	1-2 years	11	25
	> 2 years	20	45.5
Hospitalization times	1	28	63.6
	2	9	20.5
	≥ 3	7	15.9
Last hospitalization	< 1 year	21	47.7
	1-2 years	12	27.3
	> 2 years	11	25
Previous history of disease	Positive	26	36.1
	Negative	46	63.9

male, 63.6% aged more than 6 years, 43.2% were the third sibling or more in the birth order, 63.6% had first time hospitalization, and 54.5% experienced the disease for less than 2 years. The results, as demonstrated in Table 3, showed that spiritual support surpassed all other strategies ($\overline{X}$ =4.23±0.35), followed by seeking help ($\overline{X}$ =3.90±0.37), reframing ($\overline{X}$ =3.88±0.40), passive appraisal ($\overline{X}$ =2.93±0.51) and social support ($\overline{X}$ =2.84±0.67). Table 4 shows the coping strategies in relation to the duration from disease diagnosis. There was no statistically significant between children with less and more than 1 year duration. The strategies of reframing and seeking help were used significantly by 20-29 years old age group. There was a statistically significant relationship between age and reframing (p=0.045) and seeking help strategies (p=0.019), which showed coping strategies were used less frequently by older age parents. This difference regarding social and spiritual support and passive appraisal was not significant (Table 5). There was also a significant relationship between the level of education and reframing strategy, which showed a more frequent use of reframing strategies by those with higher education (p=0.040). However, no significant relationship was observed between level of education and other coping strategies (Table 6). Reframing and spiritual coping strategies were used mostly by fathers, whereas social support, seeking help and passive appraisal were used more frequently by mothers, but the difference was not statistically significant (Table 7).

Table 3: Mean of coping strategies ($\overline{X}$ ±SD) in Shiraz, Southern Iran, 2003

Coping strategies	$\overline{X}$ ±SD	Min	Max
Social support	2.84 ±0.67	1.5	4.1
Reframing	3.88±0.40	2.5	4.3
Spiritual support	4.23±0.35	2.0	4.5
Seeking help	3.90±0.37	2.5	4.5
Passive appraisal	2.93±0.51	2.0	4.5

Discussion

Results of this study showed a higher spiritual support followed by seeking help, reframing, passive appraisal and social support. The religious conviction of Iranians is in accord with the results of present study. Yeh (2001) illustrated that expanding on the meaning of life and illness from perspective of spiritual belief,

would help parents cope while caring for a child with cancer. Parents began to reconsider the meaning and the purpose of life through folk or religious beliefs.[18] Barbarin (1985) showed that coping strategies are improved by seeking more information, concurrent with problem solving followed by efforts to restore emotional balance and religious beliefs[19] (Table 3). Results of this study are similar to the findings of Fife et al. (1987), who showed that there was no significant difference between coping strategies and different and duration of diagnosis of the cancer.[20]

Table 4: Coping strategies of families in relation to the duration of diagnosis 2003

Coping strategies / Diagnosis duration	No.	Social Support $\overline{X}$ ±SD	Reframing $\overline{X}$ ±SD	Spiritual support $\overline{X}$ ±SD	Seeking help $\overline{X}$ ±SD	Passive appraisal $\overline{X}$ ±SD
Less than 1 year	19	2.90±0.44	3.93±0.22	4.24±0.25	3.90±0.26	2.74±0.73
More than 1 year	25	2.89±0.41	3.88±0.38	4.20±0.26	3.90±0.27	2.94±0.53
Total	44	2.89±0.42	3.90±0.32	4.21±0.25	3.90±0.26	2.85±0.62
P.V	-	0.8	0.9	0.4	0.9	0.2

Table 5: Coping strategies in relation to age, 2003

Coping strategies / Age (year)	No.	Social support $\overline{X}$ ±SD	Reframing $\overline{X}$ ±SD	Spiritual support $\overline{X}$ ±SD	Seeking help $\overline{X}$ ±SD	Passive appraisal $\overline{X}$ ±SD
20-29	17	3.02±0.62	4.07±0.15	4.25±0.27	4.08±0.18	2.85±0.60
30-39	30	2.86±0.73	3.83±0.39	4.21±0.41	3.82±0.47	2.99±0.55
40-49	25	2.70±0.63	3.82±0.49	4.21±0.33	3.87±0.29	2.92±0.38
Statistical test	-	X^2=2.422	X^2=6.171	X^2=0.166	X^2=7.907	X^2=1.340
d.f.=2	-	P=0.297	*P=0.045	P=0.920	*P=0.019	P=0.511

Table 6: Coping strategies in relation to education, 2003

Coping strategies / Education	No.	Social support $\overline{X}$ ±SD	Reframing $\overline{X}$ ±SD	Spiritual support $\overline{X}$ ±SD	seeking help $\overline{X}$ ±SD	Passive appraisal $\overline{X}$ ±SD
Illiterate	10	3.23±0.66	3.68±0.53	4.20±0.23	3.65±0.67	2.95±0.61
Elementary and middle school	25	2.76±0.75	3.90±0.39	4.15±0.49	3.93±0.32	2.99±0.48
high school	25	2.68±0.60	3.86±0.40	4.30±0.22	3.94±0.23	2.85±0.44
University	12	3.05 ±0.52	4.07±0.16	4.21±0.28	3.98±0.33	2.98±0.62
Statistical test	-	X^2=5.696	X^2=8.296	X^2=1.907	X^2=4.23	X^2=1.486
d.f.=3	-	P=0.127	*P=0.040	P=0.591	P=0.237	P=0.695

Table 7: Coping strategies in relation to gender, 2003

Coping strategies / Sex	No.	Social support $\overline{X}$ ±SD	Reframing $\overline{X}$ ±SD	Spiritual support $\overline{X}$ ±SD	Seeking help $\overline{X}$ ±SD	Passive appraisal $\overline{X}$ ±SD
Male	36	2.78±0.63	3.91±0.39	4.22±0.41	3.88±0.28	2.93±0.40
Female	36	2.82±0.72	3.85±0.40	4.21±0.27	3.92±0.44	2.94±0.60
Statistical test	-	Z=0.36 P=0.718	Z=1.145 P=0.252	Z=0.95 P=0.342	Z=1.040 P=0.298	Z=0.022 P=0.981
	-					

In this study, reframing and seeking help, with respective P values of 0.045 and 0.019, were used more often in younger age parents, whereas reframing alone was followed more frequently by those with higher education (p=0.040). This demonstrated a more positive attitude in younger and more educated parents. Pradeep *et al*. (2004) showed that fathers mostly cope mostly through emotional withdrawal, whereas coping of mothers was facilitated by emotional release[21] (Tables 5-7).

The chronic illness in children affected the psychological health of the parents whose coping strategies were variable.[21] In another study it was demonstrate that parents used both emotion and problem-focused strategies for coping with their primary stressors.[22] Thus, the foregoing coping strategies helped parents adapt themselves to the problems involved. Certain parents sought internal and external help and some others changed their attitudes and beliefs.[23] Therefore, the adequate use of all strategies would help parents cope with their children's cancer more efficiently.

In conclusion, it is suggested that the parents of children afflicted with cancer should be encouraged to make use of and learn more about coping strategies. Necessary facilities should also be provided for implementation of these strategies.

Acknowledgement

The authors would like to thank the Office of Vice Chancellor for Research of Shiraz University of Medical Sciences for financial support of this study and Center for Development of Clinical Research of Nemazee Hospital for editorial and manuscript typing assistance.

References

1 Lindamood S, Wiley F. *Emotional Impact of Hematology and Oncology Illness on the Child and Family*. In coping with pediatric Illness, 2nd ed. Edited by C.E. Hollings worth International Medical Publishers: London; **1983**. p. 189-196.

2 Wong DL, Hockenberry MJ. *Wong's Nursing Care of Infants and Children*. 7th ed. St Louis: Mosby; **2003**.

3 Jay SM, Elliot CH. A stress inoculation program for parents whose children are undergoing painful medical procedures. *J Consult Clin Psychol 1990*;**58(6):**799-804.

4 Kristjanson LJ, Schccroft AT. The family's cancer journey. *Cancer Nurs 1994*;**17(1):**1-17.

5 Slopper P. Needs and responses of parents following the diagnosis of childhood cancer. *Child Care Health Develop 1996*;**22(3):**187-202.

6 Holaday B. Challenges of rearing a chronically ill child: caring and coping. *Nurs Clin North Am 1984*;**19(2):**361-8.

7 Kazak AE, Barakat LP. Brief repot: parenting stress and quality of life during treatment for childhood leukemia predicts child and parent adjustment after treatment ends. *Ped Psychol 1997*;**22(5):**749-58.

8 Michael BE, Copeland DR. Psychological issues in childhood cancer. *Am J Pediatr Hematol Oncol 1987*;**9(1):**73-83.

9 Adams-Greenly M. Psychological assessment and intervention at initial dianosis. *Pediatrician 1991*;**18:**3-10.

10 Brett KM, Davies EM. What does it mean? Sibling and parental appraisal of childhood leukemia. *Cancer Nurs 1988*;**11(6):**329-38.

11 Whyte DA. *Explorations in Family Nursing*. 1st ed., Routlege, London; 1997. p. 35-72.

12 Clarke-Steffen L. Reconstructing reliability family strategies for managing childhood cancer. *J Pediatr Nurs 1997*;**12(5):**278-87.

13 Bomar PJ. Nurses and Family Health Promotion. 2nd ed., W.B. Saunders, Philadelphia; **1996**. p. 230-35.

14 Mc Cubbin HI, McCubbin MA. Family Stress Theory and Assessment. The T-double ABCX Model of Family Adjustment and Adaptation. In: McCubbin HI and Thompsom AI. *Family Assessment Inventors for Research and Practice*. Medison, WI: University of Wisconsin; **1987**. p. 3-34.

15 Stromberg MF. *Instruments for Clinical Nursing Research*. Appleton and Lange, New York; **1988**. p. 124.

16 Leahey M, Wright LW. *Families and Life Threatening Illness*. 1st ed., Spring House; **1987**. p. 227.

17 Wegman JA. Measuring Coping. In: *Instruments of Clinical Nursing Research*. 1st ed., Appleton and Lange, New York; **1986**. p. 121-32.

18 Yeh Ch. Development and testing of the parental coping strategy inventory (PCSI) with children with cancer in Taiwan. *J Advanced Nurs 2001*;**36(1):**78-88.

19 Barbarin CA. Stress, coping and marital functioning among parents of children with cancer. *J Marriage Family 1985*;**47:**478-80.

20 Fife B, Norton J, Groom G. The family's adaptation to childhood leukemia. *Social Sci Med 1987*;**24(2):**159-68.

21 Pradeep R, Prakash PV, Henal S. Psychopathology and coping in parents of clinically ill children. *Indian J Pediatr 2004*;**1(8):**695-9.

22 Lamontagne LL, Wells N, Hepworth JT, Johnson BD, Manes R. Parent coping and child distress behaviors during invasive procedures for childhood cancer. *J Pediatr Oncol Nurs 1999*;**16(1):**3-12.

23 Johnson BD, Manes R. Parent coping and child distress behaviors during invasive procedures for childhood cancer. *J Pediatr Oncol Nurs 1999*;**16(1):**3-12