CHAPTER 4

FINDINGS AND DISCUSSION

A quasi experimental two-group design was conducted to determine the effect of informational support on psychological well-being of the postmastectomy patient in the First Teaching Hospital of Xi'an Medical University.

Findings

Data was collected during November 1998 to April 1999. Thirty subjects were selected in this study. All the subjects completed the questionnaire. After analyzed the data, findings of this study were presented in this chapter. They are organized into two parts: part I, demographic data; part II, testing the hypotheses.

Part I. Demographic data

The demographic data were presented in tables 1 to 4, about age, marital status, educational level, occupation, family income, income earned, way of hospital payment, past experience of major surgery, and stage of breast cancer. The results were as follows:

Table 1

Frequency and percentage of subjects' age and marital status in the control and experimental groups

Variable	control group		experimental group	
	F (n=15)	P (%)	f (n=15)	P (%)
Age (years)				
21-30	1	6.67	-	-
31-40	3	20.00	2	13.33
41-50	6	40.00	8	53.34
51-60	4	26.66	3	20.00
> 60	1	6.67	2	13.33
Marital status				
Married	14	93.33	15	100.00
Widowed	1	6.67	-	-

Table 1 showed that subjects (40.00%) in the control group and 8 subjects (53.34%) in the experimental group age ranged between 41 to 50 years old. For marital status, 14 subjects (93.33%) in the control group and all subjects in the experimental group were married.

Table 2

Frequency and percentage of subjects' educational level and occupation in the control and experimental groups

Variable	Control group		Experimental group	
	f (n=15)	p %	f (n=15)	p %
Educational level				
No education	3	20.00	3	20.00
Primary school	5	33.34	2	13.33
Junior middle school	2	13.33	4	26.67
Senior middle school	2	13.33	4	26.67
College and university	3	20.00	2	13.33
Occupation				
Government staff	1	6.67	1	6.67
Worker	4	26.67	6	40.00
Farmer	8	53.32	7	46.66
Teacher	1	6.67	-	-
Health personnel	1	6.67	1	6.67

Table 2 showed that the subjects' educational levels from illiterate to university graduated. As for the subjects in the control group, 5 subjects (33.34%) finished primary school, while equally 4 subjects (26.67%) in the experimental group were educated from the junior and senior middle schools.

With regard to occupation, 8 subjects (53.32%) in the control group and 7 subjects (46.66%) in the experimental group were farmers.

Table 3

Frequency and percentage of the subjects' family income, income earned, and way of hospital payment in the control and experimental groups

Variable	control group		experimental group	
	f (n=15)	p %	f (n=15)	p %
Family income (yuan/ month)				
< 250	4	26.67	3	20.00
250-500	5	33.34	4	26.67
501-800	4	26.67	7	46.67
> 800	2	13.32	1	6.66
Income earned				
Enough	11	73.33	12	80.00
Not enough	4	26.67	3	20.00
Way of hospital payment				
Total reimbursement	1	6.66	3	20.00
Partial reimbursement	5	33.34	3	20.00
Total self paid	9	60.00	9	60.00

As shown in table 3, in the control group, 5 subjects (33.34%) family incomes were around 250 to 500 yuan per month. Nearly half of the subjects in experimental group (46.67%) earned between 501 to 800 yuan per month. Majorities of the subjects (73.33%) in the control group and 80.00% in the experimental group had enough income.

For the way of hospital payment, most subjects (60.00%) in both groups paid all the expenses by themselves.

Table 4

Frequency and percentage of subjects' past experience of major surgery and stage of breast cancer in the control and experimental groups

Variable	control group		experimental group	
	f (n=15)	p %	f (n=15)	p %
Past experience of major surgery				
No	13	86.67	11	73.33
Yes	2	13.33	4	26.67
Stage of breast cancer				
I	7	46.66	6	40.00
II	8	53.34	9	60.00

Table 4 showed that most of the subjects in the control group (86.67%) and in experimental group (73.33%) had no experience of major surgery.

Most of the subjects in both groups (53.34% in the control group and 60.00% in the experimental group) had stage II of cancer. The rest of the subjects had stage I.

Part II. Testing the hypotheses

To identify the effect of informational support on psychological well-being of the postmastectomy patient, the score of psychological well-being and the results were shown in tables 5 to 7.

Table 5

Comparison of the pretest scores of psychological well-being of the subjects between the control and experimental groups

Group	N	$\bar{X}$	SD	T
Control	15	63.67	8.78	
Experimental	15	62.53	9.34	.342

Table 5 showed that before receiving informational support, the mean score of the psychological well-being of the control group was 63.67 with the SD of 8.78 and the mean score of the experimental group was 62.53 with the SD of 9.34. There is no difference between the scores of psychological well-being of the control group and experimental group.

Table 6

Comparison of the psychological well-being of the subjects in the control and experimental groups between pretest and posttest scores

Posttest - pretest	N	$\bar{X}$	SD	T
Control group	15	-5.07	3.75	-5.22 **
Experimental group	15	4.47	2.38	2.34 *

* p <.05
** p <.01

Table 6 showed that the mean score of the difference between the posttest and pretest in the control group was -5.07, the SD was 3.75. In the control group, the mean score of the posttest was statistical significant lower than the mean score of the pretest at the level of .01.

It also showed that the mean score of the difference of the posttest and pretest in the experimental group was 4.47, the SD was 2.38. In the experimental group, the mean score of the posttest was statistical significant higher than the mean score of the pretest at the level of .05.

Table 7

Comparison of the posttest scores of psychological well-being of the subjects between the control and experimental groups

Group	N	$\bar{X}$	SD	t
Control	15	58.80	8.95	
Experimental	15	67.00	7.28	-2.754 **

**p <.01

Table 7 showed that after test, the mean score of the psychological well-being of the control group was 58.80 with the SD of 8.95. The mean score of the experimental group was 67.00 with the SD of 7.28. After receiving informational support the mean score of the experimental group was significantly higher than the mean score of the control group at the level of .01.

Discussion

The result of this study is discussed and present according to the hypotheses of the study.

Demographic data

Thirty subjects were selected in this study. The age of all subjects ranged from 29 to 71 years old. The mean ages of subjects in the control group was 47.1 years old (SD=10.39) and the experimental group was 49.3 (SD=11.51). This age range is at high-risk for developing breast cancer (Lewis, Clooier, & Heitkemper, 1997). Almost all of the subjects were married, only one subject in the control group was widowed (table 1).

For the educational level of these subjects, 43.67% of the control group and 40.00% of the experimental group had education ranged from primary to junior middle schools. Equally 20.00% of both groups received no education where as equally 13.33% in the control group finished senior middle school and college or the university for the experimental group which similar to the rest number of subject. This can be explained that about one-third of the subject, probably those with age over 50 years old, do not finish nine years of education. Before the revolutionary period, China did not have the nine-year schooling system. Although the program of general nine-year education is a compulsory system at present, some less apportunated Chinese still do not receive

that educational level. However, the present generation of population has more chance to have higher education at the college or university levels.

About half of the subjects' occupation in both control and experimental groups (53.32% and 46.66%) were farmers (table 2). This is consisting with the general distribution of the Chinese population. On the other hand, the First Teaching Hospital is located in the suburban area of Xi'an city, many local residents including farmers come to this hospital for health care services. Most of the subjects, 60.01% in the control group and 46.67% in the experimental group, had family income around 500 yuan per month and lower (table 3). Majority of the subjects in both groups, 73.33% in the control group and 80.00% in the experimental group considered that their income were enough for daily living (table 3). Most of them, 60% equally in both groups, totally paid the hospital fee by themselves (table 3). Those patients who work for the government or having insurance can received a partial or total reimbursement. Since most subjects were farmers and workers, they were responsible for their own expenses of hospitalization. The socioeconomic status can affect the emotional distress. Distress from crisis decreases significantly with education and family income (Psychological aspects of breast cancer study group, 1986).

The majority of subjects in both groups, 86.67% in

control group and 73.33% in experimental group, had no experience of surgery (table 4). The stages of the breast cancer in these two groups were similar (table 4). Most subjects, 53.34%, in the control group and 60.00% in the experimental group, were having cancer at stage II, while 46.66% in the control group and 40.00% in the experimental group were diagnosed of stage I of cancer (table 4).

All the above mentioned factors can influence the patients' psychological well-being (Downe-Wamboldt & Melanson, 1995; Gill, Williams, Williams, Butki, & Kim, 1997). Since variations in these factors were similar (tables 1-4), the results were free from the influence of individual variations. These provided the equal baseline psychological well-being between two groups before the experiment (table 5). The pretest mean score of the control and the experimental groups were 63.67 and 62.53 with the SD. of 8.78 and 9.34, respectively. The t value was .342. There is no difference between the scores of psychological well-being of the control group and experimental group.

Hypothesis testing

Compare the psychological well-being of postmastectomy patients in the control group between pretest and posttest.

The result of this study showed that there was a

significant difference of the psychological well-being of postmastectomy patients in the control group between pretest and posttest scores. The psychological well-being of the posttest score on the tenth day after operation was statistically significant lower than that of the pretest score on the third day after operation ($p < .01$, table 6). This finding indicated that the psychological well-being of postmastectomy patients was decreased during these seven days.

One possible reason for explanation is that although the subjects were informed of their diagnoses including the extent of the tumor in their breasts, in many cases, the final status of lymph nodes were not yet clearly known at the time of the first interview. This could be implied that they did not know about the report of the pathological findings which will help determining the stage of disease. At this time, patients can assume a positive connotation, and the patients believe that they are cured. At time of the second interview, many patients already knew the result of pathological findings. The understanding of pathological findings may increase their negative feelings and decrease their positive expectation, thus influence their psychological well-being.

Another possible reason was that there were some differences on the patients' needs between the third and the tenth days after operation. Wang (1996) found that patients

need more physical support on the third than on the seventh days after operation. Surgical patient normally had more physical sufferings on the third day than those on the seventh day after operation. At the time of the first interview, the patients paid more attention to their physical needs, and the clinical nurses could provide them physical support to meet some of their needs. This could make the patients feel better and have more positive feelings. With the removal of pressure dressing, wound drainage tube, and the gradual wound healing, patients' physical suffering decreased obviously. Although their physical function became better, they are faced with the loss of breast. Besides, the way to live outside the hospital, fear and anxiety that result from unknown outcome, the threat of death, and uncertain future (Knobf & Stahl, 1991) can overwhelm them. In addition, less or inadequate formal information provided would not help them to cope with physical change. When these kinds of needs were not met, patients might develop more negative feelings which could also influence their evaluation of their life.

The previous finds of Bloom and his colleagues (1987) and the finding of Worden and Weisman (1977) supported the results of this study. Bloom and his colleagues (1987) noted that postmastectomy women experience moderate psychological distress and disruption in their everyday lives, and that this level of distress continues

for over a year after surgery. Worden and Weisman (1977) found that the time of peak distress is during two to three months after diagnosis. Then adjustment was being to take place.

Compare the psychological well-being of postmastectomy patients in the experimental group between pretest and posttest.

The result showed that there was a significant difference of the psychological well-being of postmastectomy patients in the experimental group between pretest and posttest scores which were on the third and tenth days after operation. The psychological well-being posttest score on the tenth day was statistically significant higher than that of the third day after operation ($p < .05$, table 6). This finding indicated that the psychological well-being of postmastectomy patients was increased after received the informational support during these seven days. This finding supported the hypothesis 1.

As one aspect of social support, informational support provided by the researcher could meet the patients' needs (Luker, Beaver, Leinster, & Glynnowenss, 1996; Northouse, 1988). It could also reduce their stress and modifies the relationship between psychological well-being and stress.

At the third and tenth days after operation, the

needs which include free of wound infection, keeping drainage patent, free of stiffness of shoulder joint, performing regularly arm exercises, and getting enough nutrition were very important for the postmastectomy patients (Wang, 1996). The informational support according to the ISG could provide the patients the information about pain relief which includes relaxation training, wound care, arm exercises, care for affected arm, and daily living which include the nutrition after operation. These information could help the patients to meet their needs. Wang (1996) also found that the patients rate that the needs for love and care from others were very important at this time. During providing the information, the researcher also provided other supports such as touching the patients, listening to them, staying with them, and showing care and sympathy to them. The patients could realize that someone were willing to help them. It could lead the patients to believe that they were cared for and loved. Thus it can enhance their positive affect and elevate senses of self-confidence.

Some of the patients in the experimental group expressed that they were glad to receive the information and the information helped them so much. Feather and Wainstock (1989) also indicated that meeting the informational and educational needs among postmastectomy patients is an important component in assisting women to cope effectively

with their disease.

Northouse (1989) found that the treatment phase in the hospital was one of the most stressful phases of breast cancer patients. In this study, the researcher provided the support to the patients. It could reduce the stress directly in some ways. The information about pain relief and wound care could help the patients to relax and make them feel easy. It can help them reduce their physical discomfort such as pain, which was a main stress for patients after operation. Same as Roberts (1989) indicated that the relaxation technique might not only relieve pain and discomfort, but also seemed to reduce the distress that was accompanying with pain and discomfort.

The informational support could also buffer the impact of stress. The information about caring for affected arm, activities of daily living and choosing the prosthesis could give the patients some suggestions for the future. It could help the patients know how to deal with some situation in the future. When the patients had some preparation for the future, they might feel less anxiety and fear. Otherwise, it could enhance their self-control and self-confidence about future living. The information about breast self-examination and follow up could allow the patients a basis for gaining control and coping with the disease. It could reduce their fear about living with cancer, build self-confidence, and feel much safer than before.

Compare the psychological well-being of postmastectomy patients between the control and experimental groups after nursing intervention.

The result showed that there was a significant difference of the psychological well-being of postmastectomy patients between the control and the experimental groups after receiving informational support. The psychological well-being in the experimental group was statistically significant higher than the control group ($p < .01$, table 7). This finding shown that the informational support has positive effect on psychological well-being of postmastectomy patients. The second hypothesis of this study was supported by this finding.

In this study, the baseline psychological well-being between two groups was equal. The result that the psychological well-being in experimental group was higher than in control group on the tenth day after operation was the effect of the informational support provision.

The advantages resulting from using informational support guideline helped the subjects in the experimental group to have increasing self care ability such as pain relief, wound care, arm exercises, care for affected arm, activity of daily living, choose the prosthesis after discharge to community or society. In addition, it also educated the subjects about breast self examination and coming for follow up which could detect the early recurrence

of secondary breast cancer. Besides providing the information, the researcher also supported them in active listening giving opportunity for the patients to express their feeling, encouraging and caring them with sympathy. These helped the subjects to release tension, anxiety which resulted in decreased negative feelings.

The previous study (Gorden et al.,1980) indicated that the psychosocial intervention including education about living with the disease and counseling can significantly decrease negative affect of the cancer patients. Linn, Linn and Brenna (1982) found that the supportive counseling and education lead the patients' depression significantly decreased, and their self-esteem, life satisfaction, and locus of control showed significantly better.

Cain and his colleagues (1986) conducted the study among 80 gynecological cancer patients. They provided the patients in the experimental group the information about cancer, ways of coping, and lifestyles. One to two weeks after intervention, the patients had significantly less anxiety and depression than the control group.

The study by Krishnasamy (1996) reported that at the time of diagnosis or recurrence, information may be significant in its ability to minimize feeling of isolation, fear, and stigmatization commonly experienced by cancer patients.

All these studies enabled that the information can

decrease the negative feeling, increase positive feeling, and enhance the evaluation of one's life. Therefore, it can enhance the patients' psychological well-being. The result of this study consistent with those previous study findings.