

Benefit Discovery Level and Influencing Factors of Postoperative Breast Cancer Patients

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Abstract: Objective: To investigate the level and influencing factors of benefit discovery in patients with breast cancer after operation. **Methods:** Convenient sampling method was used to evaluate the change of benefit discovery level of 60 patients with breast cancer after operation in a cancer ward of a hospital by using Chinese version of benefit discovery rating scale and general information questionnaire. **Results:** The level of benefit discovery of breast cancer patients at different stages was statistically different ($P < 0.05$). Age and education level entered the multiple linear stepwise regression equation of influencing factors of benefit discovery level of breast cancer patients ($P < 0.05$). **Conclusion:** Targeted nursing measures should be taken to improve the quality of life of patients with breast cancer.

Key words: After breast cancer surgery; Benefit discovery

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Breast cancer is one of the most common malignant tumors in women. Since the 1980s, it can be seen that the clinical incidence of breast cancer in China has gradually increased, and even the growth rate in large cities has reached 100% - 150%. Among them, the incidence of breast cancer in urban and rural areas accounted for 51.91/100000 and 23.12/100000 respectively^[1]. Surgical treatment is the first choice for patients with local or regional lymph nodes. The vast majority of breast cancer patients are female,

and the changes of female characteristics caused by surgical treatment will have a certain impact on the physiology and psychology of patients. In addition, the adoption of adjuvant measures of postoperative radiotherapy and chemotherapy will make patients have multiple adverse reactions, which will lead to depression in breast cancer patients^[2]. Based on the negative impact of clinical diagnosis and treatment of breast cancer on the quality of life of patients, clinical psychology has gradually paid attention to this aspect, and with the accumulation of certain experience, it is believed that individuals will also experience the process of discovering benefits from cancer or trauma, namely "benefit discovery"^[3,4]. Some research reports on benefit discovery of breast cancer patients put forward^[5]. The most prominent advantage of benefit discovery is that it has a positive impact on the quality of life of patients. At the same time, it can improve the quality of life based on the impact of depression and other negative emotions. Under the above background, the author thinks that through the evaluation of the benefit discovery level of breast cancer patients, find out the relevant influencing factors, which has a positive reference for the improvement of clinical nursing measures of such patients in the future.

1 Material and methods

1.1 Research objects

Based on convenience sampling method, 60 patients with breast cancer in a tumor ward of a tertiary general hospital in Taizhou City, Jiangsu Province

were investigated by questionnaire within 4 days, 1 month, 3 months and 5 months after surgery from June 2018 to December 2019. Inclusion criteria: ① Female patients with breast cancer were diagnosed for the first time; ② Breast cancer did not metastasize; ③ Volunteer to participate in the questionnaire survey and sign the informed letter. At the same time, the following cases will be excluded: ① Suffering from

mental illness; ② At the same time suffering from other organ diseases and systemic diseases.

1.2 Survey tools

1.2.1 General information

Designed by the researchers themselves, including age, marital status, education level, occupation, whether the only child, residence and so on. See Table 1.

Table 1. Summary of general information of respondents

Category	Subsection	Number of cases
Age	30-49 years old	17
	50-69 years old	40
	Over 70 years old	3
Marital status	married	54
	divorce	3
	Widowed	3
Degree of education	Primary school and below	14
	Middle school, technical secondary school	20
	Junior college or above	26
Occupation	Farmer	19
	Artisan	17
	Civil servants	9
	Others	15
Only child or not	Yes	21
	No	39
Residence	Rural	19
	Town	41

1.2.2 Benefit discovery scale

Use the Chinese version of the benefit discovery scale (BFS-C). After verification, it has good stability and consistency^[6]. The retest reliability was 0.874.

The scale is mainly used to evaluate the life changes of breast cancer patients when they experience disease diagnosis and treatment. There are 5 major items in total and 17 items separately. The scale adopts 5-level score. 1 point means no, 5 points means very much; With the increase of the score, the more perceived benefits of the item.

1.3 Data collection and input

All the respondents have passed the unified training, and the questionnaire is attached with a unified guide language, which is answered by the respondents on the spot to ensure the quality of the questionnaire. A total of 70 questionnaires were distributed, 64 were recovered, 60 were effective, and the effective rate was 85.71%. Double recording method is used for data entry, and the data is repeatedly verified and the wrong data is corrected to ensure the accuracy and

authenticity of the data.

1.4 Statistical processing of data

The data were sorted out and input into SPSS 22.0 software, descriptive analysis of the general statistical data of the research object, using the form of $(\bar{x} \pm s)$ to represent the measurement data, t-test, analysis of variance for multi-group comparison, χ^2 for count value test, multiple linear stepwise regression analysis for influencing factors of benefit discovery level of breast cancer patients after operation, when the test result $P < 0.05$, it means that the data is poor. The difference was statistically significant.

2 Results

2.1 Score of benefit discovery of breast cancer patients after operation

There were significant differences in the score of benefit discovery and the score of each dimension of 60 patients with breast cancer in different periods ($P < 0.05$), as shown in Table 2.

Table 2. The score and comparison of benefit discovery scale in different periods of patients with adenocarcinoma of foramen

Total score / score of each dimension	4 days after operation	One month after operation	3 months after operation	5 months after operation
Personal growth	9.18±1.81	9.15±2.28	9.97±3.10	10.48±3.41
World outlook	8.26±1.36	8.46±1.79	9.78±2.97	10.33±3.22
Family relations	7.59±1.75	7.16±2.08	7.44±2.24	7.85±2.58
Social relations	6.73±1.19	7.03±1.75	7.39±2.19	7.82±2.40
Accept	6.45±1.42	7.09±2.09	7.97±2.84	8.45±3.01
Total score	38.18±5.42	38.88±8.10	42.55±11.67	44.93±13.06
<i>F</i>	7.946			
<i>P</i>	0.000			

2.2 Comparison of benefit discovery scores of breast cancer patients with different demographic characteristics

2.2.1 Age

According to the age distribution of the respondents,

they were divided into 30-49 years old, 50-69 years old and ≥ 70 years old. The difference in the score of benefit discovery of breast cancer patients in different age groups was statistically significant, $P < 0.05$, as shown in Table 3.

Table 3. Comparison of benefit discovery scores of breast cancer patients in different age groups ($\bar{x} \pm s$, points)

Age	Number of people	score	F value	P value
30-49 years old	17	45.63±5.27		
50-69 years old	40	41.04±3.33	5.713	<0.01
Over 70 years old	3	39.16±4.44		

2.2.2 Educational level

According to the educational level of the respondents, they are divided into primary school and below, middle school and technical secondary school. There

was significant difference in the score of benefit discovery among breast cancer patients with college degree or above and different education levels ($P < 0.05$), as shown in Table 4.

Table 4. Comparison of benefit discovery scores of breast cancer patients with different education levels ($\bar{x} \pm s$, points)

Degree of education	Number of people	score	F value	P value
Primary school and below	14	37.21±4.16		
Middle school, technical secondary school	20	38.17±5.97	6.942	<0.01
Junior college or above	26	44.53±12.17		

2.3 Analysis of influencing factors of benefit discovery level of breast cancer patients in different periods

According to the total score of benefit discovery of breast cancer patients in different periods, age (1 = 30-49 years old, 2 = 50-69 years old, 3 = ≥ 70 years old), marital status (1 = married, 2 = divorced, 3 = widowed), education level (1 = primary school and below, 2 = middle school, technical secondary school,

3 = junior college and above), occupation (1 = farmer, 2 = technician, 3 = civil servant, 4 = other), and only child (1 = family)= Yes, 2 = no), residence (1 = rural, 2 = urban) as independent variables, using multiple linear stepwise regression equation for analysis, the independent variables gradually into the model. The results are as follows: The regression equation of influencing factors ($P < 0.05$) is shown in Table 5.

Table 5. Multiple linear stepwise regression analysis on influencing factors of total score of benefit discovery in patients with breast cancer after operation

Project	Influence factor	<i>b</i>	SE	β	95%CI	T value	P value
Total score of benefit discovery in patients after breast cancer surgery	degree of education	-5.147	0.365	-0799	(-3.173,-3.941)	-9.285	0.001
	Age	0.272	0.314	0.206	(0.081,0.572)	3.441	0.005
	Constant term	7.172	0.619	-	(6.193,9.317)	3.117	0.001

The regression equation of the influencing factors of the total score of benefit discovery for breast cancer patients after operation was as follows:

$$Y = 0.272x_1 - 5.147x_2 + 7.172 \quad (x_1 = \text{age}, X_2 = \text{Education}).$$

3 Discussion

3.1 Benefit discovery level of patients after breast cancer surgery

According to the above data results, there is a certain gap between the benefit discovery levels of breast cancer patients in each time period. The general trend is that the benefit discovery level of breast cancer patients is the same in 4 days and 1 month after operation, and the benefit level of patients has been significantly improved in 3 months and 5 months after operation. Compared with^[5], in this study, the benefit discovery level of breast cancer patients after operation is generally low, which leads to the low benefit discovery level. Part of the reasons for the above phenomenon may be that the patients are in a state of stress to the disease within one month after the operation, and they have not fully understood the prognosis and postoperative health care knowledge. The other part may be that the patients have not fully changed their personal image after the operation, resulting in more negative thinking. It also suggests that nursing staff should carry out psychological intervention as soon as possible in the process of caring for the patients, so as to help patients positively understand their own diseases and adverse psychological reactions brought by self-image changes, and improve their benefit discovery level.

3.2 Analysis of influencing factors of benefit discovery level in patients with breast cancer after operation

By analyzing the influencing factors of the total score of benefit discovery of postoperative patients in the above time nodes, it was found that age and education level entered the regression equation of influencing factors, that is, the lower the age and education level, the higher the benefit discovery level of postoperative breast cancer patients, on the contrary, the higher the age and education level, the lower the benefit discovery level, which is related to related research agreed^[7]. The reason may be that compared with the patients over 50 years old after

breast cancer surgery, the younger patients generally have a higher level of education. In the face of the disease, they can adjust their psychological state from many aspects, understand the relevant knowledge of the disease in many ways, and actively adapt to the physical and mental reactions brought by the disease, so that they are in a positive state of self-suggestion and motivation in the inner environment. The elderly, especially the patients with lower education level after breast cancer surgery, have a smaller way and scope of understanding of the disease, and their understanding level may be slightly lower, which is easy to produce anxiety and other psychological states. This requires nurses to help them adjust their mentality, so that they can objectively understand the disease and the corresponding adverse effects.

Therefore, in the process of clinical nursing, on the basis of basic nursing and specialized nursing, for patients with breast cancer after operation, nursing staff can evaluate the level of benefit discovery of patients according to their age range and education level, formulate targeted psychological nursing strategies, carry out nursing intervention as soon as possible, and also carry out corresponding psychological intervention in the perioperative period of breast cancer patients, so as to increase the risk of breast cancer. In order to improve the quality of life of patients with breast cancer after operation, we should carry out differentiated propaganda and education on the understanding of the disease, realize personalized psychological guidance, and finally make the patients establish a positive mood, promote the improvement of the level of postoperative benefit discovery.

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