# Discussion on the Valuable application of Healthy Education Nursing Care before Ultrasound Examination

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## **ABSTRACT**

**Objective** To analyze the effect of health education on the nursing care for ophthalmic trauma patients.

**Methods** Our hospital randomly selected 80 patients who underwent ultrasound examination from September 2017 to September 2018. According to the patients' consultation sequence numbers, they were divided into control group and observation group, with 40 cases per group. The patients in control group were only given ultrasound examination and routine guidance. The patients in observation group were given health education nursing care before ultrasound examination. The ultrasound examination time, anxiety and depression, as well as compliance of examination, health knowledge and nursing satisfaction were compared between the two groups.

**Result** Compared with the data of the patients in the control group, the anxiety and depression of the patients in the observation group were significantly improved after health education. In the observation, the patients' mastery of health knowledge, compliance of examination and examination nursing satisfaction were all higher and the ultrasound examination time was shorter than that in the control group. The difference between the two groups was statistically significant (P < 0.05).

**Conclusion** Healthy education nursing care can effectively improve the anxiety and depression of patients undergoing ultrasound examination, enhance the compliance of patients and shorten the ultrasound examination time, making the quality of clinical ultrasound examination recognized and satisfied by patients.

**KEY WORDS** Ultrasound examination; Healthy education; Discussion on value

Ultrasound examination is a common examination method in clinical treatment and diagnosis. In recent years, with the continuous development and progress of imaging technology, most diseases can be diagnosed by ultrasonography. The frequency of clinical application of ultrasonography has increased significantly. However, due to insufficient knowledge of ultrasonography and worries about their own diseases, most patients have anxiety depression and other adverse psychological state before examination, thus reducing the patient's

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compliance with the examination, so that the examination time is prolonged, Even more, patients are in excessive tension, which will lead to serious impact on the results of the examination [1]. Therefore, strengthening healthy education nursing care intervention for patients before ultrasound examination, helping patients improve their bad mood, enhancing patients'mastery of health knowledge and examination compliance are the key to ensure the effect of examination [2]. To this end, this study will explore and analyze the value of healthy education nursing care before ultrasound examination, as follows:

## 1 MATERIALS AND METHODS

## 1.1 General data

The objects in this study were 80 patients who underwent ultrasound examination in our hospital from September 2017 to September 2018. They were divided into control group and observation group, with 40 cases in each group. There were 22 cases of male patients and 18 cases of female patients in the observation group, aged 18-65 years, with a median age of 41.5 (+3.3) years. There were 21 cases of male patients and 19 cases of female patients in the control group, aged 18-66 years, with a median age of 42.0 (+3.2) years. There was no statistical difference for the comparison of the general data between the two groups (P > 0.05).

## 1.2 Nursing methods

The patients in the control group were only given ultrasound examination and routine guidance; the patients in the observation group were given health education on the basis of nursing care in the control group. Psychological education: Firstly, strengthening psychological education for patients, timely understanding of patients 'psychological state, giving patients targeted psychological counseling and encouragement and comfort, and ensuring that indoor environmental hygiene, temperature and humidity were appropriate for ultrasound examination, alleviating patients' anxiety. (2) Health education: to carefully explain the importance of ultrasound examination and related disease knowledge, examination methods, relevant matters needing attention, examination requirements, examination effect, safety and positive cooperation for patients, so as to help patients correctly understand their own diseases, enhance patients' mastery of ultrasound examination knowledge and improve patients' examination. Compliance. To enable patients to complete the examination requirements as soon as possible and shorten the examination time [4].

#### 1.3 Observation Criteria

Hamilton Anxiety Scale (HAMA) and Hamilton Depression Scale (HAMD) were used to compare the anxiety and depression of the two groups before and after nursing. A total of 24 items were scored. The higher the score was, the more serious the anxiety and depression was. The two groups were compared in terms of health knowledge mastery, examination compliance and nursing satisfaction. The higher the score was, the higher the score was. The higher the mastery of health knowledge, the higher the compliance of examination and the satisfaction of examination and nursing, and the time of ultrasound examination was recorded and compared between the two groups.

#### 1.4 Statistical Method

The data processing software is SPSS19.0 statistical software package. Inter-group measurements are described by S and t-test. The difference of data between groups is statistically significant when P < 0.05.

#### 2 RESULTS

# 2.1 Comparisons of scores between two groups of patients

The records showed that there was no significant difference in anxiety and depression scores between the observation group and the control group before nursing (P > 0.05); after nursing, compared with the control group, the anxiety and depression scores of the observation group were significantly improved, and the difference between the two groups was statistically significant (P < 0.05), as shown in Table 1.

	Anxiety scores			Depression scores		
Group	Before nursing	After nursing	Before nursing	After nursing		
Observation group(n=40)	22.3±3.3	5.3±0.5	21.4±2.5	5.2±0.4		
Control group(n=40)	22.5±3.4	13.2±1.1	21.5±2.6	13.6±1.3		
t	0.2669	41.3504	0.1753	39.0592		
P	> 0.05	< 0.05	> 0.05	< 0.05		

## 2.2 Comparisons of scores between two groups of patients

There was no significant difference in the scores of healthy knowledge mastery, inspection compliance of examination and nursing satisfaction between the observation group and the control group before nursing (P > 0.05); after nursing, the scores of health knowledge mastery, inspection compliance and nursing satisfaction of the observation group were significantly improved compared with those of the control group and the score data of the two groups had statistical significance (P < 0.05). See Table 2.

Table 2 Comparisons of scores between the two groups (n ,  $x \pm s$ )

Healthy knowledge mastery scores			Compliance of examination scores		Nursing satisfaction scores	
Group	Before nursing	After nursing	Before nursing	After nursing	Before nursing	After nursing
Observation group(n=40)	6.5±1.3	9.3±0.5	6.3±1.2	9.5±0.4	6.3±1.1	9.6±0.3
Control group(n=40)	6.4±1.4	7.2±1.1	6.4±1.3	7.6±1.3	6.2±1.0	7.5±0.8
t	0.3310	10.9919	0.3574	8.8348	0.4254	15.5448
P	> 0.05	< 0.05	> 0.05	< 0.05	> 0.05	< 0.05

## 2.2 Comparison of examination time between two groups of patients

(5.2 + 0.3) minutes is the time when the patients in the observation group took ultrasound examination after healthy education nursing, shorter than that in the control group, (7.5 + 0.8) minutes. The difference of data between the two groups showed that (t=17.0257, P<0.05) reached the standard of statistical significance.

# **3 DISCUSSION**

Ultrasound examination has many advantages in clinical application, such as wide application range, high penetration ability, high detection sensitivity, simple operation and safety. However,

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due to the limitations of imaging medicine, patients'good cooperation is still needed in the process of examination to enable doctors to observe the changes of disease in detail and reduce the errors of disease diagnosis <sup>[5]</sup>. However, most of the patients suffer from excessive tension caused by their own illness and lead to poor psychological state. It is prone to negative emotions such as anxiety and depression, which reduces the compliance of patients, thus seriously affecting the diagnosis and treatment of the disease. According to the relevant research, the targeted healhy education in the nursing of patients undergoing ultrasound examination can effectively alleviate patients' bad psychological state, enhance patients' correct understanding of disease and examination compliance, so as to ensure patients' examination effect <sup>[6]</sup>.

Health education is based on routine nursing. It can alleviate anxiety and anxiety of patients and enhance their physical and psychological comfort by giving them targeted psychological education and cordial encouragement and comfort. At the same time, it tells the patients about diseases and ultrasound examination, tells them the relevant examination requirements and cautions in detail, alleviates patients' excessive panic about diseases, enhances patients' confidence in treatment and compliance with examination, and informs the patients that bad mood will affect the effect of examination, so as to improve patients' self-control ability of mood. Finally, the inspection can be completed quickly and smoothly to ensure the inspection effect <sup>[7]</sup>. The results of this study showed that the patients anxiety and depression of the observation group were significantly improved after healthy education nursing. The patients' mastery of health knowledge, compliance and satisfaction in the examination were higher, and the patients' examination time was less. The data results of the observation group showed significant advantages compared with those of the control group without healthy education nursing. To sum up, the healthy education plays an important role in the improvement of anxiety and

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