

Preventive Effects of Humanized Nursing on Aspiration in Elderly Patients with Dysphagia and Influence on Adverse Reactions

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ABSTRACT

Objective: To assess the preventive effects of humanized nursing on aspiration in elderly patients with dysphagia and influence on adverse reactions.

Methods: A total of 94 elderly patients with dysphagia treated in our hospital from April 2018 to February 2019 were selected and divided into control group (n=47, conventional nursing) and research group (n=47, humanized nursing) using a random number table. The swallowing quality-of-life, swallowing ability, nursing satisfaction rate, adverse reactions and nursing compliance of the two groups of patients were observed and compared.

Results: There was no significant difference in the swallowing quality of life between the two groups before nursing ($P>0.05$). After nursing, the patients in research group had significantly higher scores of sleeps, fatigue, psychological health, language communication, social function, fear of eating and drinking, food selection, eating time, willingness to eat, swallowing symptom and swallowing burden than those in control group ($P<0.05$). The effective rate was increased in research group compared with that in control group (95.74% vs. 76.60%) ($P<0.05$). Research group exhibited a significantly higher nursing satisfaction rate (95.7% vs. 85.1%, $P<0.05$), fewer adverse reactions ($P<0.05$) and significantly better compliance (91.5% vs. 70.2%, $P<0.05$) than control group.

Conclusion: The humanized nursing has better efficacy on the elderly patients with dysphagia, which can effectively ameliorate the swallowing ability, improve patients' quality of life, ease the tense doctor-patient relationship and possess high safety, so it is worthy of generalization and application.

Keywords: humanized nursing; elderly patients; dysphagia; aspiration prevention

INTRODUCTION

In elderly persons there are several triggers. A research found that 25-50 percent of all cases are related by dysphagia due to brain injury and stroke, whereas most of them are related to pseudobulbar dysfunction after stroke. The swallowing and nursing preparation of such patients will also effectively avoid aspiration [1]. Caregivers ought to be well informed of the patients' swallowing issues, to establish the best care procedures for their patients and to maintain clinical consistency [2]. In this research, humanised nursing was used to

examine the quality of treatment and harmful effects of elderly patients with dysphagia.

MATERIALS AND METHODS

General information

A total of 94 elderly patients undergoing dysphagia were chosen and split into a monitoring group (n=47) and a study group (n=47) utilising a Random Number Table in our hospital from April 2018 to February 2019. There were 26 men and 21 women aged 64-78 and ($70,3 \pm 5,2$) in the study community on average. 15 patients had college and above schooling, 11 were secondary and middle school educational backgrounds and 21 had junior high school and below educational backgrounds. The sample group was comprised of 28 men and 19 women, aged 67 to 79, aged $71,8 \pm 4,0$ years on average. As for the schooling history, 14 university

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cases and above, 12 intermediate and middle school cases and 21 secondary school cases and below. The eligibility requirements are: 1) patients who certainly is diagnosed with dysphagia by review, 2) patients aged 64 years, and 3) patients whose families have decided to engage in this study. The exclusion criterion included: (1) persons with neurological, hepatic or renal dysfunction; (2) individuals with significant psychiatric disorders; (3) those that do not perform a sweat session or unaware persons; or (4) patients who have willingly withdrawn or relocated to other hospitals. General details such as age between two classes is similar ($P>0.05$). The ethics committee of our hospital has accepted this study.

Methods

The patients in control group received conventional nursing, including muscle strength training, functional training of eating and expectoration instructions. The humanized nursing was adopted in research group, which was specified as follows:

Psychological nursing

The idea of healing is a healthy psychological condition in patients. In order to increase the trust of patients in their nursing personnel, nurses can also share and interact as frequently as possible with patients. In addition, patients had to be conscious of the psychological pressure, popularise patients' understanding of dysphagia, reduce patients' depressive feelings and help them develop confidence in managing the disease. In addition, the nursing staff told the patients of the value of early schooling, so patients could interact more favourably with medical personnel [3].

Safety nursing

Dysphagia can trigger patients to cough, suck and choke when eating and drinking, hence told patients the value of eating posture in order to raise awareness. The patients were in a suitable location. If they were not willing to feed in their chairs, the patients would lie in their supine posture and bent their heads and necks and lift their trunk by approx. 30°. Hemiplegia patients got help with pillows. Patients who could sit up for meals were held in a seated posture, their heads were bent somewhat down, their throat lifted and the tongue's muscle pressure improved to promote the absorption of food into the oesophagus and adequate chewing time and gradual feeding speed were ensured. [4]

Swallowing skill nursing

The patients had a swallowing feature. If food is left in the pharynx the patients have to avoid feeding, swallow dry for many minutes, and only begin to feed until all the food is ingested. Therefore, unnecessary food traces in the pharynx prevent aspiration. The patients drank approximately 5 mL of warm water to improve their swallowing reflex per time after feeding [5].

Swallowing knowledge nursing

The nursing staff carried out publicity and education of swallowing knowledge for the patients, notified the diets and liquids suitable for swallowing to the patients and solved the problems related to swallowing patiently [6].

Social support nursing

The nursing staff should frequently communicate with patients' friends and families, encourage them to visit the patients together and express empathy, so as to increase the social support and effectively facilitate the recovery of swallowing function [7].

Observation indices

A distinction was made between swallowing quality of life, swallowing capacity, nursing efficiency, adverse effects and nursing adherence of the two patient classes.

In the two classes, swallowing quality of life has been studied by a sleeping, exhaustion, psychological and social activity, eating and drinking anxiety, language contact, chosen food, eating desire, eating time and swallowing weight, with a total of 100 points in each category, prior and after breastfeeding. Less was the indication that the standard of life was poorer [8].

The swallowing capability of both groups of patients was measured before and after a swallowing examination, where the patients were required to drink 30 mL of hot water. It is graded as 1 (single-glute drink without shock), 2 (single-glute drink at € 2 gulp without chock), 3 (single-glute drink at shock), 4 (within two-glue drinks at shocks) and 5 (water with repeated shock is not able to drinking). The findings will be substantially successful in the case that there is essentially no swallowing problem, and the swallowing capability was improved by 2-degree after nursing in the water swallowing test compared with before nursing. The findings would be calculated to be accurate if the swallowing problems had been significantly enhanced and the swallowing capability had been expanded by one degree in contrast to before a nursing after nursing in a

sweeping water examination. No increase in the swallowing abillance after breastfeeding was found unsuccessful in the water swallowing test [9]. Our satisfaction level of nursing procedures in the two categories has been assessed in line with our hospital's self-made satisfaction index, which has been graded as disappointed, normally pleased or extremely satisfactory [10]. Conditions such as asphyxia, expectations and ambitions have been identified and documented in both classes [11]. In both classes.

Statistical analysis

The data were analyzed using SPSS 20.0, the enumeration and measurement data were examined by χ^2 (%) test and t -test ($\bar{x} \pm s$), respectively. $P < 0.05$ suggested significant differences.

RESULTS

Swallowing quality-of-life

There was no significant difference in the swallowing quality-of-life between the two groups before nursing ($P > 0.05$). After nursing, the patients in research group had significantly higher scores of sleeps, fatigue, psychological health, language communication, social function, fear of eating and drinking, food selection, eating time, willingness to eat, swallowing symptom and swallowing burden than those in control group ($P < 0.05$) (Table 1).

Swallowing ability

The effective rate was increased in research group compared with that in control group (95.74% vs. 76.60%) ($P < 0.05$) (Table 2).

Nursing satisfaction rate

The nursing satisfaction rate was 95.7% in research group, which was significantly higher than that in control group (85.1%) ($P < 0.05$) (Table 3).

Incidence of adverse reactions

There were fewer cases of adverse reactions in research group in contrast with those in control group ($P < 0.05$) (Table 4).

Nursing compliance

The patients in control group exhibited significantly poorer compliance than those in research group (70.2% vs. 91.5%) ($P < 0.05$) (Table 5).

DISCUSSION

Eating is one of the essential human needs, but dysphagia not only impairs the feeding process but also boosts the likelihood of coughing and suction

due to impaired process. This improves the occurrence of complications including starvation, suction pneumonia and the duration of hospital stays, which are not conducive to rehabilitation from illness because I may. Therefore, humanised care is used by elderly people with dysphagia to help control and deal with dysphagia and ensure clinical services and improve patients' quality of life.

The humanised nursing included emotional wellbeing, protective nursing, swallowing ability, swallowing awareness and social assistance. This research included Elderly dysphagiate people had problems feeding such that they are particularly vulnerable to harmful feelings including grief, anxiety and stress [13]. Thereby the study team performed a focused and humanised therapeutic treatment for patients, which truly worried and cared for patients, immediately recognised the real psychological state of patients, and thus assisted and interacted with the patients to relieve their depressive feelings due to the different mental shifts. As seen in Table 5, conformity in the control group was considerably weaker than in the study community, which indicates that humanised nursing may increase patients' healthcare comfort such that patients may better comply with nursing personnel in the execution of nursing and treatment protocols.

The majority of elderly patients with dysphagia believe that they will regain swallowing capability, so that swallowing awareness and swallowing ability are popularised. Patient nurses can advise patients about their swallowing skills, promote and teach patients, warn patients regarding liquids and food appropriate for swallowing and assist patients in addressing healing issues. Meanwhile, they conduct the swallowing role of the patients in order to improve their recovery [14]. Table 2 indicates that the study group has an successful rate greater than the control group (95.74% vs 76.60%, < 0.05), and also, the swallowing mechanism was identified more easily in the test community than it was in the control group, demonstrating the humanised nursing that the debilitating mechanism of patients would definitely be regained more easily. Social encouragement for patients, contact with the care staff and friends and relatives of the patients as well as several contacts with patients to show concern for the treatment of the illness are useful.

The main cause of dysphagia in patients is injury to vagus and glossopharyngeal nerves. With its high plasticity, the central nervous system may well activate the neuronal excitability and redefine or recast the neurological function [15]. Details

regarding stimuli to the brain cells of people will help enhance the swallowability and standard of lives of people by psychological wellbeing, protection nursing, swallowing techniques and swallowing knowledges nursing and social assistance nursing. In this respect, the swallowing quality of life for both classes before nursing was no substantially different ($P>0.05$). Note: After the nursing era, however, the findings were dramatically improved in study groups in terms of sleep, tiredness, psychological wellbeing and verbal contact, social activity, food-selecting and drinking, time for the meal, feeding, swallowing problems and swallowing pressures ($P < 0.05$) (Table 1). Both of these findings suggest that the humanised care is able to enhance patients' quality of life successfully, along with the previous reports. Moreover, the study community reported a relatively higher rate of treatment quality (95,7% vs 85,1%, $P<0,05$) for less than the control group, suggesting that the humanised treatment team would therefore monitor the harmful effects efficiently and increase patients' health-care satisfaction. Thereafter, broad survey trials will be carried out in our hospital in order to increase the clinical effectiveness of the elderly with dysphagia much more.

In brief, the humanised nursing is more successful in older patients with dysphagia and can easily enhance their swallowing capacity, increase the quality of life for patients and and the stressful interaction between doctor and patient and have high protection, and thus warrant widespring and implementation.

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Table 1. Swallowing quality-of-life (point, $\bar{x} \pm s$)

Index	Time	Research group	Control group	t	P
Sleep	Before nursing	62.34±4.31	61.93±4.21	1.628	>0.05
	After nursing	85.91±5.09	80.34±4.75	15.427	<0.05
Fatigue	Before nursing	58.33±5.34	57.95±5.22	1.444	>0.05
	After nursing	82.67±6.73	78.61±3.51	15.688	<0.05
Psychological health	Before nursing	68.24±5.31	67.94±5.28	1.274	>0.05
	After nursing	89.61±6.31	82.38±5.17	15.987	<0.05
Language communication	Before nursing	62.64±4.10	61.58±4.31	1.211	>0.05
	After nursing	86.31±5.29	81.29±5.17	15.841	<0.05
Social function	Before nursing	56.33±4.24	57.09±4.61	1.666	>0.05
	After nursing	85.61±5.30	79.61±4.33	15.148	<0.05
Fear of eating and drinking	Before nursing	62.57±5.31	62.50±5.05	1.988	>0.05
	After nursing	85.15±5.31	81.02±4.96	16.241	<0.05
Food selection	Before nursing	61.93±4.46	62.05±4.61	1.308	>0.05
	After nursing	86.91±4.94	79.58±5.13	16.987	<0.05
Eating time	Before nursing	60.94±4.49	61.04±4.61	1.422	>0.05
	After nursing	85.78±5.02	80.34±4.95	15.900	<0.05
Willingness to eat	Before nursing	62.12±4.50	62.33±4.59	1.584	>0.05
	After nursing	86.41±4.97	79.61±4.18	15.787	<0.05
Swallowing symptom	Before nursing	61.86±4.35	62.09±4.40	1.058	>0.05
	After nursing	85.96±5.71	79.91±5.12	16.471	<0.05
Swallowing burden	Before nursing	61.36±4.25	62.29±4.42	1.477	>0.05
	After nursing	87.61±5.86	80.58±5.90	15.992	<0.05

Table 2. Swallowing ability [n (%)]

Group	n	Ineffective	Effective	Markedly effective	Effective rate
Research group	47	2 (4.26)	25 (53.19)	20 (42.55)	95.74%
Control group	47	11 (23.40)	23 (48.94)	13 (27.66)	76.60%
χ^2	/	5.428	5.227	5.698	6.421
P	/	<0.05	<0.05	<0.05<0.05	<0.05

Table 3. Nursing satisfaction rates [n (%)]

Group	n	Dissatisfied	Generally satisfied	Satisfied	Very satisfied	Nursing satisfaction rate
Control group	47	7 (14.9)	10 (21.3)	12 (25.5)	18 (38.3)	85.1%
Research group	47	2 (4.3)	6 (12.8)	13 (27.7)	26 (55.3)	95.7%
χ^2	/	5.289	5.416	1.211	5.628	5.147
P	/	<0.05	<0.05	>0.05	<0.05	<0.05

Table 4. Incidence of adverse reactions [n (%)]

Group	n	Asphyxia	Aspiration pneumonia	Aspiration
Research group	47	0 (0.00)	4 (8.51)	15 (31.91)
Control group	47	3 (6.38)	16 (34.04)	32 (68.09)
χ^2	/	5.428	5.699	5.987
P	/	<0.05	<0.05	<0.05

Table 5. Nursing compliance [n (%)]

Group	n	Excellent	Good	Poor	Excellent and good rate
Control group	47	23 (48.9)	10 (22.2)	14 (30.2)	70.2%
Research group	47	36 (76.6)	7 (14.9)	4 (5.8)	91.5%
χ^2	/	6.374	4.952	4.936	7.418
P	/	<0.05	<0.05	<0.05	<0.05