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Analysis of the Effect of the Omaha-System-Based Continuous Nursing on Quality of Life of Patients with Oral Cancer

Chun Tian, Gaiping Huang, Lijuan Wang, Li Li*

First Hospital of Shanxi Medical University, Taiyuan 030001, Shanxi Province, China

***Corresponding author:** Li Li, lili3213@163.com

Abstract: *Objective:* To explore the advantages of continuous nursing based on the Omaha system for patients with oral cancer surgery. *Methods:* 120 cases patients who were treated surgically for oral cancer from January 2020 to June 2022 were selected for this study; the ages of patients ranged from 26–78 years old. The patients were divided into a control group (60 patients) who would undergo routine nursing and an observation group who would undergo continuous nursing based on the Omaha. Statistical analysis was carried out on the clinical data. *Results:* After nursing, the quality of life, degree of understanding towards the disease, total satisfaction, and total rate of effectiveness of the observation group were significantly higher than those of the control group, and the negative emotion scores were significantly lower in the observation group ($P < 0.05$). *Conclusion:* Continuous nursing based on the Omaha system can not only improve the quality of life of oral cancer patients after surgery, but also alleviate the negative emotions of patients, expand the degree of understanding towards the disease, and improve their overall quality of life. Besides, high rates of nursing satisfaction and total effectiveness can promote the postoperative recovery of patients.

Keywords: Oral malignancy; Omaha-system-based continuous nursing; Quality of life; Cognitive level

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1. Introduction

Oral cancer is one of the most common malignant tumors, and surgical treatment is the best option, but it is difficult to completely eradicate the tumor [1]. The first prerequisite for surgical resection of tumors is to preserve the basic tissue functions, and it is also necessary to ensure a good quality of life for patients to maximize the effect of the treatment [2-3] . Therefore, it is necessary to incorporate with nursing intervention in a surgical treatment. However, conventional nursing methods are superficial and cannot meet the nursing needs of all patients, so the effect is not satisfactory. With the continuous development of medicine, the clinical application of the Omaha-system-based continuous nursing in patients with oral cancer surgery can play a significant role in improving the quality of life of patients and accelerate the recovery of patients [4]. In view of this, the importance of the Omaha-system-based continuous nursing was studied in order to ensure a good postoperative life for patients that underwent oral cancer surgery.

2. Materials and methods

2.1. General information

The male to female ratio of the control group and the observation group was 38:22 and 36:24, respectively.

The ages of the patients in the control group and observation group ranged from 26–78 years old and 26–75 years old, respectively; with a mean value of 56.83 ± 1.94 years old, 55.95 ± 1.75 years old, respectively. There was no significant difference between the two groups of data ($P > 0.05$).

Inclusion criteria: (i) signed an informed consent, (ii) no language barrier, (iii) survival period of > 6 months, (iv) diagnosed with oral cancer upon admission to the hospital.

Exclusion criteria: (i) has mental illness; (ii) withdrawal from the study.

2.2. Methods

Control group (routine care): The patients were guided to familiarize themselves with the treatment environment upon admission, and the details of the treatment and disease were explained to the patients in a simple way. After the operation, the patients were guided to perform rehabilitation exercises and given routine dietary guidance.

The observation group underwent Omaha-system-based continuous nursing. (i) A separate care team was created; oral tumor-related videos and Omaha system training content were played, and individual medical records were established for each patient, and individual care plans were then formulated formulated according to the patients' conditions; in this way, the physiological and psychological changes of patients can be fully understood, and the final intervention method can be adjusted and implemented accordingly. (ii) The nursing program was designed according to the patient's cognitive level, behavioral state, and health status, so that the post-care can be modified accordingly to ensure optimal treatment effect. (iii) The patients were informed of the drug dosage, method of administration, and related adverse reactions, and individual meal plans were created for according to the patients' conditions and dietary preferences; patients were taught how to perform self-assessment to identify exacerbations and relapses in a timely manner; besides, individual rehabilitation training plans were created according to the patient's physical condition, in which the amount of exercise were customized according to the patient's progress; most of patients suffered from pain after the surgery, causing some anxiety in them; therefore, nurses need to encourage and support the patients and answer their questions so that they will feel less anxious; lastly, regular follow-up was done after the patients recovered.

2.3. Observation indicators

(i) Quality of life: evaluated by the Quality-of-Life Scale (SF-36), the higher the score the better.

(ii) Negative emotions: evaluated by the Self-rating Anxiety Scale (SAS) and Self-rating Depression Scale (SDS) are used to measure, and the lower the score the better.

(iii) Disease cognition score: evaluated by a self-made questionnaire, with a total score of 100 points, the higher the score the better.

(iv) Total satisfaction rate of nursing care: evaluated by a self-made questionnaire, with a total score of 100 points; 70–90 points means that the patient is satisfied, and scores below 70 points means that the patient is dissatisfied.

(v) The total effectiveness of nursing care: markedly effective – no abnormal emotions after nursing, comprehensive awareness of the disease, active cooperation; effective – significant improvement in negative emotions and understanding of the disease; ineffective – not meeting the standards above.

2.4. Statistical methods

SPSS 24.0 software was used for calculation, tin which the count data was expressed in percentage; a χ^2 test was performed, and the measurement data was expressed in (mean ± SD); and a *t* test was also performed, and $P < 0.05$ was considered statistically significant.

3. Results

3.1. Comparison of quality of life

The quality of life observed after nursing was significantly higher than that of the control group ($P < 0.05$), as shown in **Table 1**.

Table 1. Comparison of quality of life (mean ± SD, points)

Group	Number of cases	Before nursing	After nursing
Observation group	60	59.77 ± 3.65	95.42 ± 3.20
Control group	60	59.42 ± 3.56	77.58 ± 3.60
t		0.532	28.690
P		0.596	0.000

3.2. Comparison of mental state-related scores

After nursing, the scores of both groups decreased, and the SAS and SDS scores of the observation group were significantly lower than those of the control group ($P <0.05$), as shown in **Table 2**.

Table 2. Mental state score comparison (mean ± SD, points)

Group	Number of cases	SAS		SDS	
		Before nursing	After nursing	Before nursing	After nursing
Observation group	60	61.47 ± 4.76	44.58 ± 3.11	63.58 ± 5.21	45.87 ± 4.71
Control group	60	61.58 ± 4.28	52.64 ± 3.98	63.71 ± 5.33	53.11 ± 4.96
t		0.133	12.360	0.135	8.199
P		0.894	0.000	0.893	0.000

3.3. Disease awareness score

After nursing, the degree of understanding towards the disease in the observation group was significantly higher than that in the control group ($P < 0.05$), as shown in **Table 3**.

Table 3. Scores of understanding of the disease (mean ± SD, points)

Group	Number of cases	Before nursing	After nursing
Observation group	60	47.64 ± 2.26	94.25 ± 3.23
Control group	60	47.22 ± 2.02	83.25 ± 3.02
t		1.073	19.269
P		0.285	0.000

3.4. Comparison of nursing satisfaction

After nursing, the rate of nursing satisfaction of the observation group was significantly higher than that of the control group, ($P < 0.05$), as shown in **Table 4**.

Table 4. Nursing satisfaction comparison (n [%])

Group	Number of cases	Satisfied	Basically satisfied	Dissatisfied	Overall satisfaction
Observation group	60	23 (38.33%)	32 (53.33%)	5 (8.33%)	55 (91.67%)
Control group	60	13 (21.67%)	20 (33.33%)	27 (45.00%)	33 (55.00%)
χ^2		3.388	3.742	18.006	34.451
P		0.066	0.053	0.000	0.000

3.5. Comparison of the total effective rate of nursing

The total effective rate of nursing of the observation group was significantly higher than that of the control group ($P < 0.05$) as shown in **Table 5**.

Table 5. Comparison of total effective rate of nursing (n [%])

Group	Number of cases	Markedly effective	Effective	Ineffective	Total effective rate
Observation group	60	25 (41.67 %)	32 (53.33 %)	3 (5.00 %)	57 (95.00 %)
Control group	60	23 (38.33 %)	27 (45.00 %)	10 (16.67 %)	50 (83.33 %)
χ^2		0.139	0.834	4.227	4.227
P		0.709	0.361	0.040	0.040

4. Discussion

It is difficult to nurse patients with oral cancer after a surgical treatment. Since the oral cavity is the only way to the digestive system, much is required from the nursing team. Nurses must be proficient in both precautions and techniques. However, as the living environment is affected by various pollutants, oral diseases continue to rise every year and begin to threaten young people [5-6].

Due to changes in people's needs and living conditions, conventional nursing methods can no longer meet the postoperative nursing needs of patients with oral cancer. Even though some hospitals continue to renew their nursing methods and introduce new concepts, the only treatment option for patients with oral cancer is only surgery. The lack of communication between doctors and patients is not conducive to the treatment process [7-8]. Therefore, it is very important to apply active and effective nursing methods to patients with oral cancer. The Omaha system is a standardization system for nursing language that is composed of problem classification, intervention methods, and effectiveness scoring. The application of the Omaha system includes firsthand identification of problems, intervention measures, and evaluation outcome , and the patient's awareness towards their disease can be improved [9-12]. The continuous nursing system established based on the Omaha system alleviates the adverse psychological and physiological effects of the treatment through health education, counseling, rehabilitation programs, drug prescription, and dietary guidance, so that patients can have a good quality of life and positive outlook towards life [13-15] . The results of this study showed that after nursing the quality of life, understanding towards the disease, total satisfaction and total effective rates of the observation group were significantly higher than those of the control group, and the scores of negative emotions were significantly lower in the observation group ($P < 0.05$). Therefore, it is clear that Omaha system continuous nursing has higher application value for patients with oral cancer after surgery compared to conventional nursing methods [8] .

5. Conclusion

In conclusion, Omaha-system-based nursing can improve the mental health of patients with oral cancer after surgery and ensure a good quality of life for patients.

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Disclosure statement

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References

[1] Liu X, Hou Y, Weng X, et al., 2020, The Application Effect of Continuous Psychological Nursing in Patients with Oral Cancer Surgery. Journal of Qiqihar Medical College, 41(19): 2468–2470.

[2] Zhou J, Li J, Luo J, 2021, Research on the Impact of the Continuous Nursing Model Based on the Omaha System on the Quality of Life of Patients with Oral Cancer After Surgery. Psychology Monthly, 16(19): 96–97.

[3] Zhu Y, 2020, Evaluation of the Application Effect of Individualized Dietary Care Combined with Oral Hygiene Management in Oral Cancer Surgery. Electronic Journal of Practical Clinical Nursing, 5(43): 168 + 182.

[4] Chen Q, Ding C, Zhang F, et al., 2020, Application of Precise Enteral Nutrition Management in Postoperative Patients with Oral Cancer. Nursing and Rehabilitation, 19(12): 49–52.

[5] Ye J, He X, Lin Z, et al., 2020, Observation on the Effect of Perioperative Personalized Nutritional Support on the Postoperative Recovery of Patients with Oral Malignant Tumors Undergoing Radical Surgery and Simultaneous Repair and Reconstruction. Chinese Journal of Practical Nursing, 36(31): 2455–2460.

[6] Huang M, Liang H, Meng J, et al., 2021, Observation on the Effect of Perioperative Medical-Nurse Integration Model Nursing for Patients with Oral and Maxillofacial Malignant Tumors. Journal of Xuzhou Medical University, 41(5): 377–379.

[7] Li W, 2021, Effects of Rational Emotive Therapy Combined with Cognitive Behavioral Intervention on Postoperative Anxiety in Patients with Oral and Maxillofacial Malignant Tumors. China Health Standard Management, 12(22): 159–162.

[8] Guo H, Wang W, Xu C, et al., 2021, Analysis of Psychological Distress and Related Factors in Patients with Oral and Maxillofacial Malignant Tumors. Journal of Nursing, 36(6): 88–90 + 94.

[9] Klionsky DJ, Abdel-Aziz AK, Abdelfatah S, et al., 2021, Guidelines for the Use and Interpretation of Assays for Monitoring Autophagy (4th edition)1. Autophagy, 17(1): 1–382. https://www.doi.org/10.1080/15548627.2020.1797280

[10] Sen S, Sen S, Kumari MG, et al., 2021, Oral Malignant Melanoma: A Case Report. Prague Med Rep, 122(3): 222–227. https://www.doi.org/10.14712/23362936.2021.20

[11] Liao PH, Chu CH, Hung YM, 2021, Tumor Subsites and Risk of Osteoradionecrosis of the Jaw in Patients with Oral Cavity Cancer: A National-Based Cohort Study. Eur Arch Otorhinolaryngol, 278(9): 3425–3433.

[12] Gündogdu F, Sayar S, 2022, Oncology Nursing Practices in the Management of Chemotherapy-Related Oral Mucositis in Accordance with Evidence-Based Guidelines: A Descriptive and Cross-Sectional Study. Support Care Cancer, 30(11): 9549–9557.

[13] Alqutaibi AY, Borzangy S, Al-Maweri SA, 2021, Early Detection of Oral Cancer and Potentially

Malignant Disorders: Experiences, Practices, and Beliefs of Prosthodontists Practicing in Saudi Arabia. J Prosthet Dent, 126(4): 569–574.

[14] Monsen RE, Herlofson BB, Gay C, 2021, A Mouth Rinse Based on a Tea Solution of Salvia Officinalis for Oral Discomfort in Palliative Cancer Care: A Randomized Controlled Trial. Support Care Cancer. 29(9): 4997–5007.

[15] Warren D, Stanek J, Dsouza RM, et al., 2022, Interprofessional Collaboration Among Dental Hygiene and Nursing Students on the Oral Health of Cancer Patients. Nurs Educ Perspect, 43(6): 85–87.