LOGO

Enhancing Nurse Competence in Malignant Wound Management: A Multicenter Assessment of Knowledge, Attitudes, and Practices in Integrated Care Settings

Xu Liang[1]; Jun Tian[1]; Mingyue Zhu[1]; Han Cheng[2]; Huiping Li[1]; Miaoning You[1]

[1]Key Laboratory of Carcinogenesis and Translational Research (Ministry of Education/Beijing), Department of Breast Oncology, Peking University Cancer Hospital & Institute, [2]The Second Affiliated Hospital of Luohe Medical College

SABCS SAN ANTONIO BREAST CANCER SYMPOSIUM®
DECEMBER 5–9, 2023
HENRY B. GONZALEZ CONVENTION CENTER
SAN ANTONIO, TEXAS

Abstract

Objective: This study evaluated nurses' knowledge, attitudes, and practices (KAP) regarding malignant wound management and the impact of specialized training.

Methods: A cross-sectional survey was conducted with 1002 nurses from 42 medical centers across China using a validated KAP questionnaire.

Results: Nurses demonstrated positive attitudes but suboptimal knowledge and practical skills, with only 34.5% having received specific malignant wound training. Trained wound care specialists achieved the highest KAP scores, and training status was a significant predictor of competency (P<0.001).

Conclusion: Enhanced and continuous educational programs are essential to address training gaps and improve nurse competency in malignant wound care.

Introduction

Malignant wounds, also known as malignant tumor wounds or cancerous wounds, manifest as ulcerative, cauliflower-like, volcano-like, and sinus tract-like lesions [1,2,3]. Patients suffer not only from life-threatening cancer but also distressing symptoms (exudation, odor, pain, and bleeding), all of which significantly impact their quality of life [4,5].

As specialized wound nursing advances, nurses play an increasingly vital role in malignant wound management. This study evaluated nurses' knowledge, attitudes, and practices in this field.

Methods and Materials

- The convenience sampling method was used to select nurses implementing the integrated medical care model in 42 Chinese medical centers. The general information questionnaire had 5 items: participant's age, gender, work experience, education level, professional title, and wound care training status. Specialized wound care nurses were nurses with a certificate of completion in wound knowledge training. The Malignant Wound Management KAP Scale Questionnaire was self-designed and previously tested.
- Data analysis used SPSS 25.0. Inferential statistics employed the independent samples t-test and one-way analysis of variance (ANOVA) to compare scores. Multiple linear regression analysis was used to identify influencing factors.

Results

From August 12, 2022 to June 27, 2024, 1002 nurses provided valid responses to the survey. The participants had a median age of 34 (21-56) years, and 86% had a bachelor's degree.

Nurses were divided into 4 groups based on training status, including non-wound (Group 1, 55.5%) and wound (Group 2, 10%) specialist nurses without training in malignant wound management and non-wound (Group 3, 17.4%) and wound (Group 4, 17.1%) specialist nurses with training in malignant wound management.

Totally 34.5% (346/1002) had training for malignant wound management.

Table 1. Demographic characteristics of nurses (N=1002).

Items	N (%)
Age (years)	
≤30	290 (28.9)
31-39	470 (46.9)
≥40	242 (24.2)
Years of Work Experience (years)	
>1 and ≤10	543 (54.2)
>10	459 (45.8)
Education Level	
Associate degree or below	95 (9.5)
Bachelor's degree	862 (86.0)
Master's degree or above	45 (4.5)
Professional Title	
Nurse	63 (6.3)
Nurse practitioner	411 (41.0)
Nurse in charge	436 (43.5)
Deputy chief nurse or above	92 (9.2)
Urban classification	
First-tier cities	314 (31.3)
Second-tier cities	284 (28.3)
Third-tier cities	404 (40.3)
Wound-related training	
Group 1	556 (55.5)
Group 2	100 (10.0)
Group 3	174 (17.4)
Group 4	172 (17.1)

Group 1: Non-specialist nurses with no training in managing malignant wounds.
Group 2: Wound specialist nurses with no training in managing malignant wounds.
Group 3: Non-specialist nurses with training in managing malignant wounds.
Group 4: Wound specialist nurses with training in managing malignant wounds.

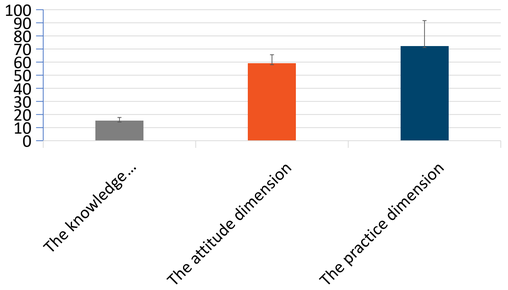


Chart 1. Overall mean score for the knowledge, attitude, and practice dimensions.

Here's a point-by-point breakdown of the KAP score analysis (Chart 1):

- **Knowledge Level:** Participants demonstrated a moderate level of knowledge.
  - Mean Score: 15.24 ± 2.51
  - Percentage of Maximum Score: 72.6%
- **Attitude Level:** Participants exhibited favorable attitudes.
  - Mean Score: 59.02 ± 6.61
  - Percentage of Maximum Score: 90.8%
- **Practical Competency:** Practical competency remained relatively low.
  - Mean Practice Score: 72.10 ± 19.58
  - Percentage of Maximum Score: 62.7%

- **Analysis of Factors Affecting KAP (Knowledge, Attitude, Practice) in Malignant Wound Management:**

I. Univariate Analysis Findings:

- Factors significantly affecting Knowledge scores (P<0.05): age, years of experience, education level, professional title, and wound-related training
- Factors significantly affecting Attitude scores (P<0.001): age, years of experience, professional title, and wound-related training
- Factors significantly impacting Practice scores (P<0.01): years of experience, city classification, and wound-related training

II. Multiple Linear Regression Analysis Findings:

- Factor affecting overall KAP (P<0.05): wound-related training
- Key determinant of Knowledge score: professional title
- Significant impacts on Practice score: years of experience and city classification

Discussion

I. Current Status of Nurses' KAP in Malignant Wound Management

Nurses exhibit moderately low knowledge (72.6%) and practice (62.7%) scores, aligning with prior research [6-9]. Significant knowledge gaps exist, particularly in defining malignant wounds, assessing exudate, and selecting cleansing solutions, pointing to curriculum deficiencies in current training. While attitudes are positive and correlated with training (P < 0.001), practical application is hindered by limited opportunities and resources.

II. Critical Role of Training and Influencing Factors

Wound-related training is a critical common factor positively impacting all KAP dimensions, yet participation is low (34.5%). Other influencing factors include professional title, with higher scores for supervising and senior nurses (P = 0.010, P = 0.022), and work experience, where nurses with over 10 years experience scored higher in practice (P < 0.05). City classification also plays a role, with first-tier city nurses demonstrating better practice scores compared to those in second- and third-tier cities.

III. Recommendations for Improvement

To improve KAP outcomes, nursing administrators must prioritize and expand specialized malignant wound care training, targeting junior nurses and those with lower professional titles, and addressing current curriculum gaps. Furthermore, collaboration between primary and tertiary hospitals, potentially utilizing online platforms, is crucial to provide ongoing guidance and support to less experienced nurses, especially in lower-tier cities, echoing international practices [10].

Conclusions

Current Status of Nurses' KAP

- Nurses show positive attitudes and adequate knowledge in malignant wound management, but their clinical practice requires improvement.

Critical Role of Training

- Training is a crucial factor for KAP outcomes, yet it's infrequent in China and often lacks specific malignant wound content.

Key Determinants for Improved Outcomes

- Specialized training and professional experience are vital for enhancing KAP outcomes in malignant wound care.

Recommendations for Improvement

- Targeted training for junior nurses and increased collaboration between primary and tertiary hospitals are essential to advance care.

Contact

<your name>
<your organization>
Email:
Website:
Phone:

References

1. Vardhan, M., et al., The Microbiome, Malignant Fungating Wounds, and Palliative Care. Front Cell Infect Microbiol, 2019. 9: p. 373.
2. Maqueda Ara, S., M. Del Barrio Fernández, and L. Suárez González, Malignant wounds: Basal cell carcinoma presenting as a nonhealing ulceration on an arteriovenous fistula. J Vasc Access, 2021. 22(4): p. 682-684.
3. Starace, M., et al., Management of malignant cutaneous wounds in oncologic patients. Support Care Cancer, 2022. 30(9): p. 7615-7623.
4. Tilley, C.P., et al., Symptoms of Malignant Fungating Wounds and Functional Performance among Patients with Advanced Cancer: An Integrative Review from 2000 to 2019. J Palliat Med, 2020. 23(6): p. 848-862.
5. Tilley, C., J. Lipson, and M. Ramos, Palliative Wound Care for Malignant Fungating Wounds: Holistic Considerations at End-of-Life. Nurs Clin North Am, 2016. 51(3): p. 513-31.
6. Miaoning You, Jun Tian, Xiang Cao, et al. Status quo of knowledge, attitude and practice on Malignant Fungating Wounds management in oncology nurses [J].Chinese Nursing Management, 2022, 22(8): 1136-1142.
7. Huiren Zhuang, Lili Ma, Yingjie Gu, et al. Current status of knowledge, attitude and practice of 238 enterostomal therapist in chronic wound pain management [J]. Chinese Journal of Modern Nursing. 2021, 27(3):359-364.
8. Gonzaga de Faria GB, Nascimento do Prado T, Lima A, et al. Knowledge and practice of nurses on the care of wounds. J Nurs UFPE 2016; 10:4532–8.
9. Ferreira AM, Rigotti MA, da Silva Barcelos L, et al. Knowledge and practice of nurses abut care for patients with wounds. J Res fundam Care 2016; 6:1178–90.
10. Hasisfield-Wolfe ME, Rund C. Malignant cutaneous wounds: developing education for hospice, oncology and wound care nurses. Int J Palliat Nurs. 2002 Feb; 8(2):57-66.

This presentation is the intellectual property of the author/presenter. Contact them at <<your email address>> for permission to reprint and/or distribute.

© Poster Template by Genigraphics® 1.800.790.4001 www.genigraphics.com