

World Journal of *Clinical Cases*

World J Clin Cases 2023 October 6; 11(28): 6670-6973



MINIREVIEWS

- 6670 Neurotransmitters regulate β cells insulin secretion: A neglected factor
Kong CC, Cheng JD, Wang W

ORIGINAL ARTICLE

Case Control Study

- 6680 Factors influencing the surveillance of re-emerging intracranial infections in elective neurosurgical patients: A single-center retrospective study
Wang JL, Wu XW, Wang SN, Liu X, Xiao B, Wang Y, Yu J

Retrospective Study

- 6688 Clinical value of chemiluminescence method for detection of antinuclear antibody profiles
Xiang HY, Xiang XY, Ten TB, Ding X, Liu YW, Luo CH
- 6698 Value of ultrasound guided biopsy combined with Xpert *Mycobacterium tuberculosis*/resistance to rifampin assay in the diagnosis of chest wall tuberculosis
Yan QH, Chi JY, Zhang L, Xue F, Cui J, Kong HL
- 6707 Research on the intelligent internet nursing model based on the child respiratory and asthma control test scale for asthma management of preschool children
Pei CF, Zhang L, Xu XY, Qin Z, Liang HM
- 6715 Effects of different doses of long-acting growth hormone in treating children with growth hormone deficiency
Xia W, Wang T, Pan JY
- 6725 Efficacy and anti-inflammatory analysis of glucocorticoid, antihistamine and leukotriene receptor antagonist in the treatment of allergic rhinitis
Qiu C, Feng D
- 6733 Subchondral fatigue fracture of the femoral head in young military recruits: Potential risk factors
Yang JZ, Chen P, Chen BH, Zhao B
- 6744 Anemia status of infants and young children aged six to thirty-six months in Ma'anshan City: A retrospective study
Wang XM, Wang QY, Huang J
- Observational Study
- 6754 Impact of coronary artery bypass grafting surgery on the chorioretinal biomicroscopic characteristics
Shahriari M, Nikkhah H, Mahjoob MP, Behnaz N, Barkhordari S, Cheraqpour K

Prospective Study

- 6763** Effects of humanized nursing care on negative emotions and complications in patients undergoing hysteromyoma surgery
Liu L, Xiao YH, Zhou XH

Randomized Controlled Trial

- 6774** Randomized controlled trial on the efficacy and safety of autologous serum eye drops in dry eye syndrome
Zheng N, Zhu SQ

SYSTEMATIC REVIEWS

- 6782** Primary adrenal Ewing sarcoma: A systematic review of the literature
Manatakis DK, Tsouknidas I, Mylonakis E, Tasis NP, Antonopoulou MI, Acheimastos V, Mastoropoulou A, Korkolis DP

CASE REPORT

- 6792** Pulmonary artery aneurysm protruding into the bronchus as an endobronchial mass: A case report
Li M, Zhu WY, Wu RR, Wang L, Mo MT, Liu SN, Zhu DY, Luo Z
- 6797** Rare rectal gastrointestinal stromal tumor case: A case report and review of the literature
Dong RX, Wang C, Zhou H, Yin HQ, Liu Y, Liang HT, Pan YB, Wang JW, Cao YQ
- 6806** Bilateral retinal nerve fiber layer thickness reduction in a 9-year-old myopic boy suffering from unilateral optic neuritis: A case report
Zhao FF, Yao SQ, Wang Y, Li TP, Yang JF, Pang CP, Cen LP
- 6812** Application of negative pressure wound therapy after skin grafting in the treatment of skin cancer: A case report
Huang GS, Xu KC
- 6817** Diagnosis and treatment of McCune-Albright syndrome: A case report
Lin X, Feng NY, Lei YJ
- 6823** Paraneoplastic myopathy-related rhabdomyolysis and pancreatic cancer: A case report and review of the literature
Costantini A, Moletta L, Pierobon ES, Serafini S, Valmasoni M, Sperti C
- 6831** Multi-organ hereditary hemorrhagic telangiectasia: A case report
Chen YL, Jiang HY, Li DP, Lin J, Chen Y, Xu LL, Gao H
- 6841** Hyperprogression after anti-programmed death-1 therapy in a patient with urothelial bladder carcinoma: A case report
Yang HY, Du YX, Hou YJ, Lu DR, Xue P
- 6850** Effectiveness of antidepressant repetitive transcranial magnetic stimulation in a patient with refractory psychogenic dysphagia: A case report and review of literature
Woo CG, Kim JH, Lee JH, Kim HJ

- 6857** Entrapment neuropathy of common peroneal nerve by fabella: A case report
Lin JC, Tsai MH, Lin WP, Kuan TS, Lien WC
- 6864** Importance of accurate diagnosis of congenital agenesis of the gallbladder from atypical gallbladder stone presentations: A case report
Sun HJ, Ge F, Si Y, Wang Z, Sun HB
- 6871** Dorsal approach for isolated volar fracture-dislocation of the base of the second metacarpal: A case report
Kurozumi T, Saito M, Odachi K, Masui F
- 6877** Rotationplasty type BIIIb as an effective alternative to limb salvage procedure in adults: Two case reports
Chen ZX, Guo XW, Hong HS, Zhang C, Xie W, Sha M, Ding ZQ
- 6889** Primary cutaneous anaplastic large cell lymphoma with over-expressed Ki-67 transitioning into systemic anaplastic large cell lymphoma: A case report
Mu HX, Tang XQ
- 6895** Confusing finding of quantitative fluorescent polymerase chain reaction analysis in invasive prenatal genetic diagnosis: A case report
Chen C, Tang T, Song QL, He YJ, Cai Y
- 6902** Testicular mixed germ cell tumor: A case report
Xiao QF, Li J, Tang B, Zhu YQ
- 6908** Leukemic transformation during anti-tuberculosis treatment in aplastic anemia-paroxysmal nocturnal hemoglobinuria syndrome: A case report and review of literature
Xiu NN, Yang XD, Xu J, Ju B, Sun XY, Zhao XC
- 6920** Pancreatic arteriovenous malformation treated with transcatheter arterial embolization: Two case reports and review of literature
Shin SH, Cho CK, Yu SY
- 6931** Cecal duplication cyst in an infant presenting as shock: A case report
Kim SM, Lee SH, Park GY, Kim SS, Lee CG, Jin SJ
- 6938** Pulmonary reversed halo cycles and consolidations after immunotherapy: A case report
Suo H, Shi YJ, Huang ZD, Xu K, Huang H
- 6943** Unusual case of emphysematous cystitis mimicking intestinal perforation: A case report
Kang HY, Lee DS, Lee D
- 6949** Malignant proliferative ependymoma of the neck with lymph node metastasis: A case report
Wang K, Wen JZ, Zhou SX, Ye LF, Fang C, Chen Y, Wang HX, Luo X
- 6955** Wandering spleen torsion with portal vein thrombosis: A case report
Zhu XY, Ji DX, Shi WZ, Fu YW, Zhang DK

- 6961** Intracranial infection and sepsis in infants caused by *Salmonella derby*: A case report
Yu JL, Jiang LL, Dong R, Liu SY
- 6967** Large gastric hamartomatous inverted polyp accompanied by advanced gastric cancer: A case report
Park G, Kim J, Lee SH, Kim Y

ABOUT COVER

Editorial Board Member of *World Journal of Clinical Cases*, Hao Wang, MD, PhD, Associate Professor, Department of Emergency Medicine, John Peter Smith Health Network, Texas Christian University and University of North Texas Health Science Center, School of Medicine, Fort Worth, TX 76104, United States. hwang@ies.healthcare

AIMS AND SCOPE

The primary aim of *World Journal of Clinical Cases* (WJCC, *World J Clin Cases*) is to provide scholars and readers from various fields of clinical medicine with a platform to publish high-quality clinical research articles and communicate their research findings online.

WJCC mainly publishes articles reporting research results and findings obtained in the field of clinical medicine and covering a wide range of topics, including case control studies, retrospective cohort studies, retrospective studies, clinical trials studies, observational studies, prospective studies, randomized controlled trials, randomized clinical trials, systematic reviews, meta-analysis, and case reports.

INDEXING/ABSTRACTING

The WJCC is now abstracted and indexed in Science Citation Index Expanded (SCIE, also known as SciSearch®), Journal Citation Reports/Science Edition, Current Contents®/Clinical Medicine, PubMed, PubMed Central, Reference Citation Analysis, China National Knowledge Infrastructure, China Science and Technology Journal Database, and Superstar Journals Database. The 2023 Edition of Journal Citation Reports® cites the 2022 impact factor (IF) for WJCC as 1.1; IF without journal self cites: 1.1; 5-year IF: 1.3; Journal Citation Indicator: 0.26; Ranking: 133 among 167 journals in medicine, general and internal; and Quartile category: Q4.

RESPONSIBLE EDITORS FOR THIS ISSUE

Production Editor: *Si Zhao*; Production Department Director: *Xu Guo*; Editorial Office Director: *Jin-Lei Wang*.

NAME OF JOURNAL

World Journal of Clinical Cases

ISSN

ISSN 2307-8960 (online)

LAUNCH DATE

April 16, 2013

FREQUENCY

Thrice Monthly

EDITORS-IN-CHIEF

Bao-Gan Peng, Jerzy Tadeusz Chudek, George Kontogeorgos, Maurizio Serati, Ja Hyeon Ku

EDITORIAL BOARD MEMBERS

<https://www.wjgnet.com/2307-8960/editorialboard.htm>

PUBLICATION DATE

October 6, 2023

COPYRIGHT

© 2023 Baishideng Publishing Group Inc

INSTRUCTIONS TO AUTHORS

<https://www.wjgnet.com/bpg/gerinfo/204>

GUIDELINES FOR ETHICS DOCUMENTS

<https://www.wjgnet.com/bpg/GerInfo/287>

GUIDELINES FOR NON-NATIVE SPEAKERS OF ENGLISH

<https://www.wjgnet.com/bpg/gerinfo/240>

PUBLICATION ETHICS

<https://www.wjgnet.com/bpg/GerInfo/288>

PUBLICATION MISCONDUCT

<https://www.wjgnet.com/bpg/gerinfo/208>

ARTICLE PROCESSING CHARGE

<https://www.wjgnet.com/bpg/gerinfo/242>

STEPS FOR SUBMITTING MANUSCRIPTS

<https://www.wjgnet.com/bpg/GerInfo/239>

ONLINE SUBMISSION

<https://www.f6publishing.com>



Prospective Study

Effects of humanized nursing care on negative emotions and complications in patients undergoing hysteromyoma surgery

Li Liu, Ya-Hong Xiao, Xue-Hua Zhou

Specialty type: Nursing

Provenance and peer review:

Unsolicited article; Externally peer reviewed.

Peer-review model: Single blind

Peer-review report's scientific quality classification

Grade A (Excellent): 0

Grade B (Very good): 0

Grade C (Good): C, C

Grade D (Fair): 0

Grade E (Poor): 0

P-Reviewer: Andreasson A, Sweden; Bertuccio RF, United States

Received: June 20, 2023

Peer-review started: June 20, 2023

First decision: July 7, 2023

Revised: July 13, 2023

Accepted: August 29, 2023

Article in press: August 29, 2023

Published online: October 6, 2023



Li Liu, Operating Room, Fudan University Affiliated Obstetrics and Gynecology Hospital, Shanghai 200092, China

Ya-Hong Xiao, Operating Room, Cardiovascular Hospital of The Second Affiliated Hospital of Hainan Medical College, Haikou 571199, Hainan Province, China

Xue-Hua Zhou, Department of Nursing, Chongzuo People's Hospital, Chongzuo 532200, Guangxi Zhuang Autonomous Region, China

Corresponding author: Xue-Hua Zhou, MNurs, Associate Chief Nurse, Department of Nursing, Chongzuo People's Hospital, No. 6 Longxia East Road, Jiangzhou District, Chongzuo 532200, Guangxi Zhuang Autonomous Region, China. yvwi84@163.com

Abstract

BACKGROUND

Uterine fibroids, are prevalent benign tumors affecting women of reproductive age. However, surgical treatment is often necessary for symptomatic hysteromyoma cases. This study examines the impact of humanized nursing care on reducing negative emotions and postoperative complications in patients receiving hysteromyoma surgery.

AIM

To investigate the impact of humanized nursing care on patients undergoing hysteromyoma surgery.

METHODS

Among patients who underwent hysteromyoma surgery at the Fudan University Affiliated Obstetrics and Gynecology Hospital, 200 were randomly assigned to either the control group ($n = 100$) or the humanized nursing care group ($n = 100$). The control group received traditional nursing care, while the humanized nursing care group received a comprehensive care plan encompassing psychological support, pain management, and tailored rehabilitation programs. In addition, anxiety and depression levels were assessed using the hospital anxiety and depression scale preoperatively and postoperatively. Postoperative complications were evaluated during follow-up assessments and compared between both groups.

RESULTS

The humanized nursing care group demonstrated a significant decrease in anxiety and depression levels compared to the control group ($P < 0.05$). The rate of postoperative complications, including infection, bleeding, and deep venous thrombosis, was also markedly lower in the humanized nursing care group ($P < 0.05$).

CONCLUSION

Humanized nursing care can effectively alleviate negative emotions and reduce the incidence of postoperative complications in patients undergoing hysteromyoma surgery. This approach should be considered a crucial component of perioperative care for these patients. Further research may be needed to explore additional benefits and long-term outcomes of implementing humanized nursing care in this population.

Key Words: Hysteromyoma; Humanized nursing care; Anxiety; Depression; Postoperative complications

©The Author(s) 2023. Published by Baishideng Publishing Group Inc. All rights reserved.

Core Tip: Humanized nursing care can effectively alleviate negative emotions and reduce postoperative complications in patients undergoing hysteromyoma surgery, as observed in this study. The approach included psychological support, pain management, and tailored rehabilitation programs. Moreover, the study highlights the importance of adopting a patient-centered approach to care that emphasizes effective communication, shared decision-making, and establishing a therapeutic relationship between nurses and patients. The findings suggest that healthcare providers should consider humanized nursing care as an essential component of perioperative care for these patients. Further research is needed to explore the long-term effects of implementing humanized nursing care and its additional benefits in diverse patient populations in various surgical settings.

Citation: Liu L, Xiao YH, Zhou XH. Effects of humanized nursing care on negative emotions and complications in patients undergoing hysteromyoma surgery. *World J Clin Cases* 2023; 11(28): 6763-6773

URL: <https://www.wjgnet.com/2307-8960/full/v11/i28/6763.htm>

DOI: <https://dx.doi.org/10.12998/wjcc.v11.i28.6763>

INTRODUCTION

Uterine fibroids, also known as hysteromyomas, are common benign tumors affecting 20%-40% of women of reproductive age[1]. These benign smooth muscle tumors originate from the uterine wall and can vary in size, number, and location. Hysteromyomas can be categorized into three types based on their location: submucosal, intramural, and subserosal[2]. Symptoms associated with uterine fibroids include heavy menstrual bleeding, pelvic pain, frequent urination, constipation, and fertility problems that significantly affect many women's quality of life[3].

Depending on the size, location, and severity of symptoms, surgical intervention may be necessary for patients with symptomatic hysteromyoma. Surgical approaches include myomectomy, hysterectomy, and laparoscopic or robotic-assisted surgery[4]. However, despite advances in surgical techniques, patients undergoing hysteromyoma surgery often grapple with significant stress and anxiety due to uncertainties surrounding the procedure, potential complications, fertility preservation, and postoperative recovery[5].

Surgery can be a significant source of stress and anxiety for patients, contributing to poor emotional well-being and increasing the risk of postoperative complications[6]. Additionally, several studies have reported that patients with high preoperative anxiety levels are more likely to experience increased pain, prolonged hospital stays, and a higher incidence of postoperative complications[7]. As a result, negative emotions postoperatively, such as anxiety and depression, can impair immune function and wound healing, which may further increase the risk of complications and delay recovery[8].

Recent years have seen a growing recognition of holistic patient care that encompasses both the physical aspects of a patient's condition and their psychological, emotional, and social needs. Humanized nursing care emphasizes the human aspects of care and seeks to create a supportive and therapeutic environment for patients, and has been increasingly recognized as a valuable approach to improving patient outcomes[9]. Humanized nursing care encompasses various interventions, such as providing psychological support, individualized pain management, and customized rehabilitation programs, which aim to enhance patient satisfaction and promote a better quality of life after surgery[10].

Several studies have documented the beneficial effects of humanized nursing care on patient outcomes across a variety of clinical settings, such as oncology, orthopedics, and cardiovascular surgery[11]. For example, humanized nursing has been shown to reduce anxiety and depression, improve pain control, and enhance patient satisfaction in cancer treatment patients[12]. Similarly, humanized nursing has been associated with improved functional outcomes and reduced complications in patients undergoing joint replacement surgery[13]. However, the effects of humanized nursing on negative emotions and postoperative complications in patients undergoing hysteromyoma surgery remain unclear. Given the potential benefits of humanized nursing care in other clinical settings, exploring its effects on the emotional well-being and postoperative outcomes of patients undergoing hysteromyoma surgery is necessary. This insight could drive the development of evidence-based, patient-centered care strategies for this patient population[14,15].

This study aims to examine the impact of humanized nursing care on the negative emotions and postoperative complications experienced by patients undergoing hysteromyoma surgery. We hypothesize that humanized nursing care will be associated with a significant decrease in negative emotions, such as anxiety and depression [measured by the hospital anxiety and depression scale (HADS)], and a reduced occurrence of postoperative complications compared to traditional nursing care. This study aims to illuminate the role of humanized nursing care in the perioperative management of hysteromyoma surgery, thereby contributing to the creation of optimal care strategies for these patients. Moreover, the study's findings could facilitate the development and implementation of humanized nursing care interventions across diverse surgical settings, aligning with the overarching goal of delivering high-quality, patient-centered care[16,17].

MATERIALS AND METHODS

Study design

This single-center, prospective, randomized controlled trial was conducted among patients who underwent hysteromyoma surgery at the Fudan University Affiliated Obstetrics and Gynecology Hospital. Two hundred patients were randomly assigned to either the control group ($n = 100$) or the humanized nursing care group ($n = 100$). The control group received traditional nursing care, while the humanized nursing care group received a comprehensive care plan encompassing psychological support, pain management, and tailored rehabilitation programs. In addition, anxiety and depression levels were assessed using the HADS preoperatively and postoperatively. Postoperative complications were evaluated during follow-up assessments and compared between both groups from January 2021 to December 2022. Patients undergoing elective hysteromyoma surgery were assigned to the control or humanized nursing care groups. Institutional review board approved the study protocol, and all participants signed written informed consent forms before enrollment. The study was conducted per the Declaration of Helsinki and was registered with a clinical trial registry.

Participants

Of the patients undergoing hysteromyoma surgery, 200 were enrolled for a follow-up analysis in this study. Patients aged between 18 and 60 years, who had a confirmed diagnosis of hysteromyoma through imaging examinations, were awaiting elective surgery, and provided informed consent, were included in this study. Patients with a history of psychiatric disorders or substance abuse, severe concurrent medical conditions (*e.g.*, uncontrolled diabetes or hypertension), prior hysteromyoma surgery, or those that had ineffective communication with the research team were excluded from the study.

Randomization and blinding

Participants were placed in either the control or humanized nursing care groups, using a computer-generated randomization sequence with an allocation ratio of 1:1. Randomization was stratified by age and the American Society of Anesthesiologists (ASA) physical status classification. While the research team and nurses administering interventions were aware of the group allocations, patients, surgeons, and data collection and analysis personnel were blinded to this information.

Interventions

The control group received conventional nursing care, which included routine perioperative care, such as preoperative education, pain management, and postoperative care. Preoperative education was provided by the nursing staff and focused on the surgical procedure, potential risks and complications, and postoperative care instructions. Pain management consisted of administering analgesics according to a standardized protocol based on the World Health Organization pain ladder. Postoperative care included monitoring vital signs, wound care, early mobilization, and patient education regarding self-care and follow-up appointments.

The humanized nursing care group received a comprehensive care plan incorporating psychological support, individualized pain management, and customized rehabilitation programs. The interventions were designed based on humanized nursing care principles, emphasizing empathy, active listening, and a supportive therapeutic environment. The specific interventions included:

Psychological support: Patients in the humanized nursing care group were provided emotional support by the nursing staff, who were trained in effective communication techniques and principles of psychological counseling. Support sessions were conducted preoperatively and postoperatively, during which patients were encouraged to express their fears, concerns, and expectations. The nursing staff also provided information about the surgical procedure, potential complications, and postoperative recovery in a manner tailored to each patient's needs and preferences.

Individualized pain management: Pain management in the humanized nursing care group was tailored to each patient's needs and preferences. The nursing staff assessed pain levels using a visual analog scale and adjusted analgesic administration accordingly. Beyond pharmacological interventions, patients were offered non-pharmacological pain relief options, including relaxation techniques, guided imagery, and music therapy.

Customized rehabilitation programs: Postoperative rehabilitation programs were designed for each patient based on their needs, functional status, and preferences. The programs included tailored exercises to improve mobility and strength and patient education on self-care, wound care, and coping strategies for managing postoperative symptoms.

Outcome measures

The study's primary outcome measured changes in anxiety and depression levels before and after surgery using the HADS. The HADS is a validated, self-report questionnaire comprising 14 items, split evenly between anxiety and depression. Each item is scored on a four-point Likert scale, providing a total score ranging from 0 to 21 for each subscale. Higher scores indicate greater anxiety or depression levels. The HADS is often used in clinical settings to evaluate patients' emotional well-being during surgery.

The secondary outcome was the incidence of postoperative complications, including infection, bleeding, and deep venous thrombosis. Postoperative complications were assessed by the research team based on clinical examination, laboratory tests, and imaging studies, as appropriate. The research team followed a standardized protocol for diagnosing and managing postoperative complications based on established guidelines and best practices.

Data collection

We collected baseline data from the patient's medical records, encompassing factors such as age, body mass index (BMI), the size and location of the hysteromyoma, and the ASA physical status classification. Preoperative HADS scores were obtained during the preoperative assessment, and postoperative HADS scores were obtained on the 3rd postoperative day. In addition, data on postoperative complications were collected from the patient's medical records and through follow-up assessments conducted by the research team.

Statistical analysis

We used the Statistical Package for the Social Sciences version 22.0 to analyze the data. Baseline characteristics between the two groups were compared *via* chi-square tests for categorical variables and *t*-tests for continuous variables. In addition, independent *t*-tests and chi-square tests were employed to compare changes in HADS scores and postoperative complication incidence, respectively, between the two groups. A *P* value less than 0.05 was deemed statistically significant. Additionally, we performed subgroup analyses to scrutinize potential effect modifiers, such as age, BMI, and the size and location of uterine fibroids.

RESULTS

In this study, we initially enrolled 200 patients and randomly assigned them to either a control group ($n = 100$) or a humanized nursing care group ($n = 100$). However, by the end of the study, only 193 patients had completed the program: 96 in the control group and 97 in the humanized nursing care group. This was due to the unfortunate loss of seven patients to follow-up; four from the control group and three from the humanized nursing care group withdrew their consent or were lost due to personal reasons (Figure 1).

Baseline characteristics

No significant differences were found in the baseline characteristics between the two groups, including age, BMI, the size and location of hysteromyomas, and the ASA physical status classification (Table 1). On average, the participants were 42.3-years-old [standard deviation (SD) = 7.6] with a mean BMI of 24.7 kg/m² (SD = 4.1). Most participants had intramural hysteromyomas (62.2%), followed by submucosal (21.8%) and subserosal (16.0%) types.

Humanized nursing care significantly relieved postoperative anxiety and depression

Next, we aimed to assess the effect of humanized nursing care on patient anxiety. Compared to the control group, the humanized nursing care group displayed a significant decrease in postoperative HADS anxiety scores [mean difference (MD) = -2.7, 95%CI: -3.6 to -1.8, $P < 0.001$]. Similarly, the humanized nursing care group experienced a significant reduction in postoperative HADS depression scores in comparison to the control group (MD = -2.3, 95%CI: -3.1 to -1.5, $P < 0.001$) (Table 2). Together, these data show that humanized nursing care significantly lowered postoperative complications and reduced negative emotions.

Humanized nursing care significantly lowered the postoperative complications

Subsequently, we investigated the influence of humanized nursing care on postoperative complications. The humanized nursing care group demonstrated a significantly reduced incidence of postoperative complications compared to the control group (12.4% *vs* 26.0%, $P = 0.006$). Specifically, the humanized nursing care group exhibited fewer instances of infection (4.1% *vs* 12.5%, $P = 0.017$), bleeding (3.1% *vs* 8.3%, $P = 0.049$), and deep venous thrombosis (5.2% *vs* 13.5%, $P = 0.029$) (Table 3). No reported serious adverse events were linked to the interventions during the study. Patients in the humanized nursing care group tolerated the interventions well, and no participant discontinued due to adverse events.

Subgroup analyses for psychological benefit and safety profile of humanized nursing care

The advantageous impacts of humanized nursing care on reducing negative emotions and the incidence of postoperative

Table 1 Baseline characteristics of participants

Characteristic	Control group, <i>n</i> = 100	Humanized nursing care group, <i>n</i> = 100	<i>P</i> value
Age in yr	46.2 ± 6.5	45.8 ± 6.7	0.76
Body mass index in kg/m ²	24.3 ± 3.2	24.1 ± 3.4	0.81
Hysteromyoma size in cm	5.4 ± 1.8	5.5 ± 1.9	0.87
Hysteromyoma location			0.95
Submucosal	25	24	
Intramural	55	56	
Subserosal	20	20	
ASA physical status			0.83
Class I	42	45	
Class II	50	48	
Class III	8	7	

Data are presented as mean ± SD or %. ASA: American Society of Anesthesiologists.

Table 2 Comparison of postoperative hospital anxiety and depression scale anxiety and depression scores between groups

Group	HADS anxiety score	HADS depression score
Control group, <i>n</i> = 100	10.5 ± 2.6	9.8 ± 2.3
Humanized nursing care group, <i>n</i> = 100	7.8 ± 2.1	7.5 ± 2.0

Data are presented as mean ± SD. *P* < 0.001 for both anxiety and depression score comparisons between the groups. HADS: Hospital anxiety and depression scale.

Table 3 Incidence of postoperative complications between groups, %

Complication	Control group, <i>n</i> = 100	Humanized nursing care group, <i>n</i> = 100	<i>P</i> value
Overall complications	26	12.4	0.006
Infection	12.5	4.1	0.017
Bleeding	8.3	3.1	0.049
Deep venous thrombosis	13.5	5.2	0.029

complications were uniform across various subgroups, defined by age, BMI, and the size and location of the hysteromyoma (Figures 2 and 3). Furthermore, no substantial interactions were detected between the effects of the treatment and these subgroup variables, implying these factors did not significantly alter the benefits of humanized nursing care.

DISCUSSION

Our study found that humanized nursing care significantly reduced negative emotions and postoperative complications among patients undergoing hysteromyoma surgery. These findings contribute to the growing body of evidence supporting the effectiveness of humanized nursing care in improving patient outcomes and enhancing the overall quality of care in surgical settings.

The observed improvement in negative emotions in the group receiving humanized nursing care can be attributed to several factors. First, providing psychological support, including emotional support and tailored information about the surgery and recovery process, may have helped patients better understand their condition and cope with their fears and concerns. This observation aligns with previous research showing that psychological support can reduce anxiety and depression in surgery patients[18,19]. Second, the individualized pain management approach and pharmacological and non-pharmacological interventions may have led to more effective pain relief and reduced negative emotions. This is

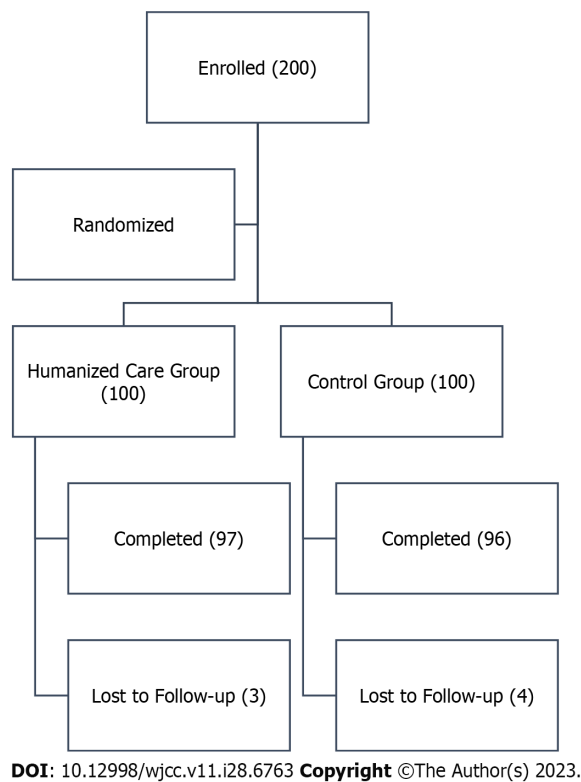


Figure 1 Participant flow diagram.

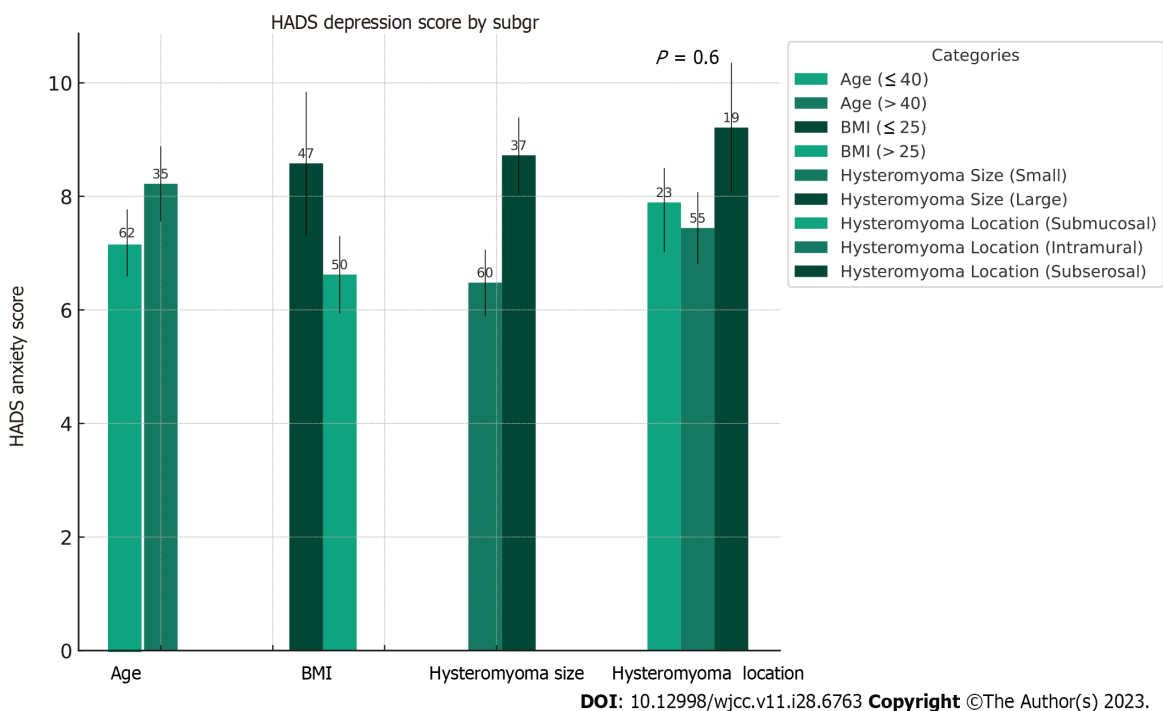


Figure 2 Hospital anxiety and depression scale anxiety scores by subgroups. The number of patients in each subgroup is shown at the top of the column. BMI: Body mass index; HADS: Hospital anxiety and depression scale.

consistent with previous studies demonstrating the benefits of individualized pain management on patient satisfaction and emotional well-being[20]. Third, the use of customized rehabilitation programs, focused on enhancing mobility and self-care skills, may have fostered a sense of control and self-efficacy, further mitigating negative emotions[21].

We observed a reduced risk of postoperative infection in the humanized nursing care group, which could be attributed to the improved emotional well-being of patients and the parallel positive impact on their immune function[22,23]. Furthermore, individualized pain management, a component of the humanized nursing approach, could facilitate early

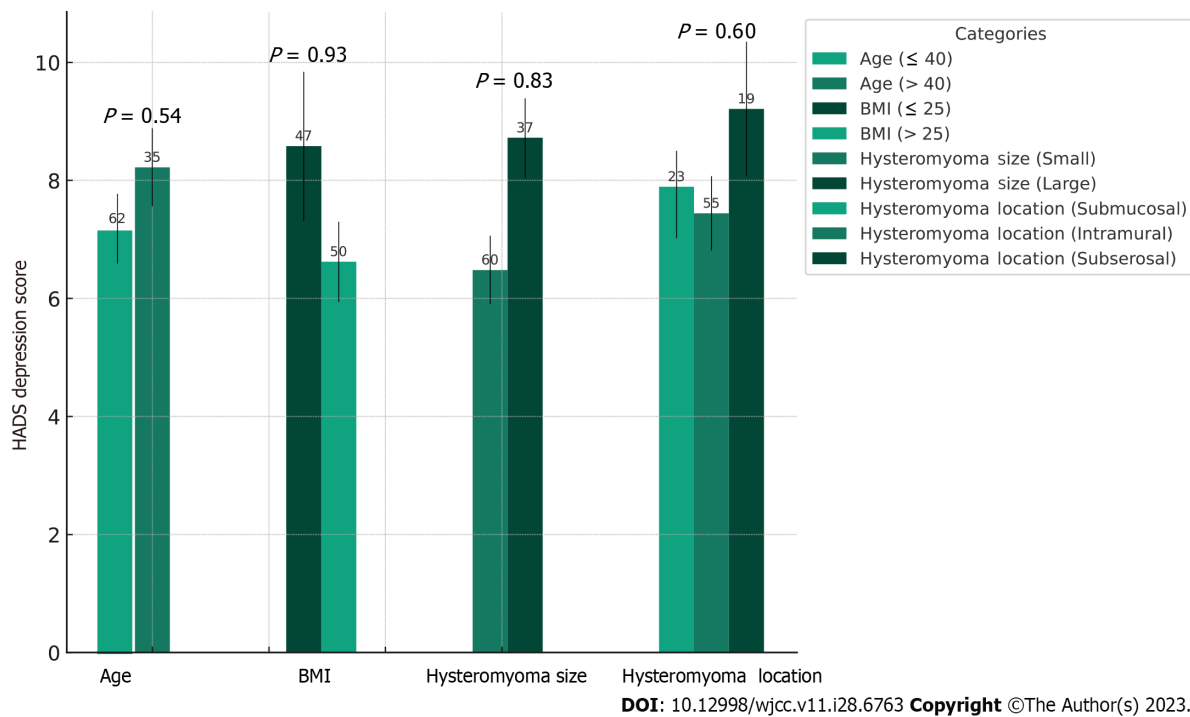


Figure 3 Hospital anxiety and depression scale depression scores by subgroups. The number of patients in each subgroup is shown at the top of the column. BMI: Body mass index; HADS: Hospital anxiety and depression scale.

mobilization in patients after surgery, potentially reducing the risk of complications such as deep venous thrombosis and bleeding[24,25]. Furthermore, to decrease the likelihood of these complications, a customized rehabilitation program could help patients comply with postoperative care instructions and self-care practices[26,27].

One of the key components of humanized nursing care is establishing a therapeutic relationship between the nurse and the patient. Based on empathy, trust, and respect, this relationship can provide a supportive environment for patients to express their emotions, concerns, and needs[28,29]. In our study, the nursing staff was trained to engage in active listening, demonstrate empathy, and respond to the patient's emotional cues, which may have contributed to the observed improvements in negative emotions. In addition, the therapeutic relationship may also facilitate patient adherence to the postoperative care plan, as patients may be more likely to follow the advice and recommendations of healthcare providers they trust[30,31].

Another facet of the humanized nursing approach is patient-centered care, where the care plan is tailored to the patient's individual needs, preferences, and values[32,33]. In our study, for instance, the nursing staff conducted comprehensive assessments of each patient's physical, psychological, and social needs, collaborating with the multidisciplinary team to develop individualized care plans. This patient-centered approach may have contributed to the observed improvements in negative emotions and postoperative complications, as it enabled the nursing staff to address each patient's unique needs and concerns and provide more targeted interventions[34,35].

Furthermore, the humanized nursing care approach emphasizes the importance of effective communication and shared decision-making throughout the care process[36]. In our study, the nursing staff communicated with the patients and their families clearly, concisely, and empathetically, ensuring they understood the information provided and were actively involved in the decision-making process. This collaborative approach may have empowered the patients, increasing satisfaction and engagement in their care and contributing to improved emotional well-being and postoperative outcomes[37].

CONCLUSION

Some limitations of our study should be acknowledged. The single-center design and the relatively small sample size may limit the generalizability of the findings. Additionally, the study focused on the short-term effects of humanized nursing care on negative emotions and postoperative complications, and further research is needed to explore the long-term effects on patient outcomes.

Despite these limitations, our study presents valuable evidence that supports the effectiveness of humanized nursing care in enhancing emotional well-being and improving postoperative outcomes among patients undergoing hysteromyoma surgery. In addition, our findings highlight the need for healthcare providers to adopt a more holistic, patient-centered approach to managing patients with hysteromyoma and other surgical conditions. Future research should investigate the long-term effects of humanized nursing care on patient outcomes through longitudinal studies with larger sample sizes and more diverse patient populations in various surgical settings.

ARTICLE HIGHLIGHTS

Research background

Uterine fibroids, prevalent benign tumors in women of reproductive age, often require surgical treatment for symptomatic cases like hysteromyoma. This study aimed to assess the impact of humanized nursing care on negative emotions and postoperative complications in patients undergoing hysteromyoma surgery. The humanized nursing care group exhibited significant reductions in anxiety and depression levels and a lower rate of postoperative complications compared to the control group. These findings highlight the effectiveness of humanized nursing care in alleviating negative emotions and reducing postoperative complications, emphasizing its importance in perioperative care for these patients. Further investigation is necessary to explore additional benefits and long-term outcomes associated with the implementation of humanized nursing care in this population.

Research motivation

The motivation for this study stemmed from the need to improve the care and outcomes of patients undergoing hysteromyoma surgery. Uterine fibroids are common benign tumors that can significantly impact a woman's quality of life, necessitating surgical intervention for symptomatic cases. Recognizing the importance of comprehensive patient care, this study aimed to investigate the impact of humanized nursing care on reducing negative emotions and postoperative complications in these patients.

Research objectives

The main objectives of this study were to investigate the impact of humanized nursing care on patients undergoing hysteromyoma surgery and to evaluate its effects on reducing negative emotions and postoperative complications. Specifically, the researchers aimed to compare the outcomes between the humanized nursing care group and the control group receiving traditional nursing care. The study sought to assess changes in anxiety and depression levels through preoperative and postoperative evaluations using the hospital anxiety and depression scale (HADS). Additionally, the researchers aimed to evaluate the incidence of postoperative complications, including infection, bleeding, and deep venous thrombosis, during follow-up assessments. By focusing on these objectives, the researchers aimed to determine whether implementing a comprehensive care plan encompassing psychological support, pain management, and tailored rehabilitation programs could effectively alleviate negative emotions and reduce postoperative complications in patients undergoing hysteromyoma surgery. The findings would provide valuable insights into the potential benefits of humanized nursing care and contribute to improving perioperative care for this patient population.

Research methods

This study employed a randomized controlled trial design at the Fudan University Affiliated Obstetrics and Gynecology Hospital. Two hundred patients undergoing hysteromyoma surgery were randomly assigned to either the control group ($n = 100$) or the humanized nursing care group ($n = 100$). The control group received traditional nursing care, while the humanized nursing care group received comprehensive care including psychological support, pain management, and tailored rehabilitation programs. Anxiety and depression levels were assessed using the HADS preoperatively and postoperatively. Postoperative complications were evaluated during follow-up assessments and compared between the two groups. Statistical analysis was conducted to determine significant differences.

Research results

The research findings revealed significant positive outcomes associated with the implementation of humanized nursing care in patients undergoing hysteromyoma surgery. The humanized nursing care group showed a notable decrease in anxiety and depression levels compared to the control group, indicating the effectiveness of this approach in alleviating negative emotions. Additionally, the humanized nursing care group exhibited a significantly lower rate of postoperative complications, including infection, bleeding, and deep venous thrombosis. These results contribute to the existing research in the field by emphasizing the importance of comprehensive patient care that extends beyond the surgical procedure itself. By integrating psychological support, pain management, and tailored rehabilitation programs, humanized nursing care demonstrated its potential to improve patient outcomes and well-being in the perioperative period. However, some unresolved issues remain. Further research is needed to explore additional benefits and long-term outcomes associated with implementing humanized nursing care in this specific population. Long-term follow-up assessments are necessary to evaluate the sustained effects of this care approach on patients' emotional well-being and postoperative recovery. Additionally, studies examining cost-effectiveness and feasibility of implementing humanized nursing care on a broader scale would provide valuable insights for healthcare institutions and policymakers.

Research conclusions

The importance of integrating humanized nursing care as a crucial component of perioperative care for patients with hysteromyoma. By addressing the holistic needs of patients throughout their surgical journey, healthcare providers can enhance emotional well-being and improve overall patient outcomes. However, further research is needed to explore additional benefits and long-term outcomes associated with implementing humanized nursing care in this specific population. Such investigations would provide valuable insights for optimizing perioperative care and improving the overall quality of life for patients undergoing hysteromyoma surgery.

Research perspectives

The findings of this study provide valuable perspectives for future research in the field of nursing care for hysteromyoma surgery patients. Firstly, further investigations should explore the mechanisms by which humanized nursing care interventions alleviate negative emotions and reduce postoperative complications. Understanding the specific components and approaches within humanized nursing care that contribute to these positive outcomes can inform the development of targeted interventions. Secondly, long-term follow-up studies are warranted to evaluate the sustained effects of humanized nursing care on patient well-being beyond the immediate postoperative period. Assessing patient outcomes, quality of life, and the potential for recurrence or long-term complications would provide a comprehensive understanding of the impact of humanized nursing care over time.

ACKNOWLEDGEMENTS

Over the course of my researching and writing this paper, I would like to express my thanks to all those who have helped me.

FOOTNOTES

Author contributions: Liu L proposed the concept, validated this study, and wrote the first draft; Xiao YH has contributed to data collection; Zhou XH made contributions to formal analysis; Liu L and Xiao YH participated in the survey and contributed to these methods; Xiao YH and Zhou XH contributed to the visualization of this study; All authors jointly guided the research, reviewed and edited the manuscript.

Institutional review board statement: The study was reviewed and approved by the Institutional review board of Red House Hospital (No. FDYY-139).

Clinical trial registration statement: This study is registered at Clinical hospital center "www.researchregistry.com" trial registry. The registration identification number is researchregistry9015.

Informed consent statement: All study participants, or their legal guardian, provided written consent prior to study enrollment.

Conflict-of-interest statement: The authors declare that they have no conflicts of interest.

Data sharing statement: No additional data are available.

CONSORT 2010 statement: The authors have read the CONSORT 2010 Statement, and the manuscript was prepared and revised according to the CONSORT 2010 Statement.

Open-Access: This article is an open-access article that was selected by an in-house editor and fully peer-reviewed by external reviewers. It is distributed in accordance with the Creative Commons Attribution NonCommercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited and the use is non-commercial. See: <https://creativecommons.org/licenses/by-nc/4.0/>

Country/Territory of origin: China

ORCID number: Li Liu [0009-0009-0799-5008](#); Xue-Hua Zhou [0009-0004-8296-6251](#).

S-Editor: Zhang H

L-Editor: Filipodia

P-Editor: Zhao S

REFERENCES

- 1 Stewart EA, Cookson CL, Gandolfo RA, Schulze-Rath R. Epidemiology of uterine fibroids: a systematic review. *BJOG* 2017; **124**: 1501-1512 [PMID: [28296146](#) DOI: [10.1111/1471-0528.14640](#)]
- 2 Donnez J, Dolmans MM. Uterine fibroid management: from the present to the future. *Hum Reprod Update* 2016; **22**: 665-686 [PMID: [27466209](#) DOI: [10.1093/humupd/dmw023](#)]
- 3 Cardozo ER, Clark AD, Banks NK, Henne MB, Stegmann BJ, Segars JH. The estimated annual cost of uterine leiomyomata in the United States. *Am J Obstet Gynecol* 2012; **206**: 211.e1-211.e9 [PMID: [22244472](#) DOI: [10.1016/j.ajog.2011.12.002](#)]
- 4 Peddada SD, Laughlin SK, Miner K, Guyon JP, Haneke K, Vahdat HL, Semelka RC, Kowalik A, Armao D, Davis B, Baird DD. Growth of uterine leiomyomata among premenopausal black and white women. *Proc Natl Acad Sci U S A* 2008; **105**: 19887-19892 [PMID: [19047643](#) DOI: [10.1073/pnas.0808188105](#)]
- 5 Vilos GA, Allaire C, Laberge PY, Leyland N; SPECIAL CONTRIBUTORS. The management of uterine leiomyomas. *J Obstet Gynaecol Can*

- 2015; **37**: 157-178 [PMID: [25767949](#) DOI: [10.1016/S1701-2163\(15\)30338-8](#)]
- 6 **Mitchell M.** Patient anxiety and modern elective surgery: a literature review. *J Clin Nurs* 2003; **12**: 806-815 [PMID: [14632973](#) DOI: [10.1046/j.1365-2702.2003.00812.x](#)]
- 7 **Caumo W**, Schmidt AP, Schneider CN, Bergmann J, Iwamoto CW, Bandeira D, Ferreira MB. Risk factors for preoperative anxiety in adults. *Acta Anaesthesiol Scand* 2001; **45**: 298-307 [PMID: [11207465](#) DOI: [10.1034/j.1399-6576.2001.045003298.x](#)]
- 8 **Kiecolt-Glaser JK**, Page GG, Marucha PT, MacCallum RC, Glaser R. Psychological influences on surgical recovery. Perspectives from psychoneuroimmunology. *Am Psychol* 1998; **53**: 1209-1218 [PMID: [9830373](#) DOI: [10.1037//0003-066x.53.11.1209](#)]
- 9 **McCance T**, McCormack B, Dewing J. An exploration of person-centredness in practice. *Online J Issues Nurs* 2011; **16**: 1 [PMID: [22088150](#)]
- 10 **Papastavrou E**, Efstathiou G, Tsangari H, Suhonen R, Leino-Kilpi H, Patiraki E, Karlou C, Balogh Z, Palese A, Tomietto M, Jarosova D, Merkouris A. A cross-cultural study of the concept of caring through behaviours: patients' and nurses' perspectives in six different EU countries. *J Adv Nurs* 2012; **68**: 1026-1037 [PMID: [21834834](#) DOI: [10.1111/j.1365-2648.2011.05807.x](#)]
- 11 **Olsson LE**, Hansson E, Ekman I, Karlsson J. A cost-effectiveness study of a patient-centred integrated care pathway. *J Adv Nurs* 2009; **65**: 1626-1635 [PMID: [19493145](#) DOI: [10.1111/j.1365-2648.2009.05017.x](#)]
- 12 **Zimmermann C**, Swami N, Krzyzanowska M, Hannon B, Leighl N, Oza A, Moore M, Rydall A, Rodin G, Tannock I, Donner A, Lo C. Early palliative care for patients with advanced cancer: a cluster-randomised controlled trial. *Lancet* 2014; **383**: 1721-1730 [PMID: [24559581](#) DOI: [10.1016/S0140-6736\(13\)62416-2](#)]
- 13 **McDonald S**, Hetrick S, Green S. Pre-operative education for hip or knee replacement. *Cochrane Database Syst Rev* 2004; CD003526 [PMID: [14974019](#) DOI: [10.1002/14651858.CD003526.pub2](#)]
- 14 **Coulter A**, Entwistle VA, Eccles A, Ryan S, Shepperd S, Perera R. Personalised care planning for adults with chronic or long-term health conditions. *Cochrane Database Syst Rev* 2015; **2015**: CD010523 [PMID: [25733495](#) DOI: [10.1002/14651858.CD010523.pub2](#)]
- 15 **Zigmond AS**, Snaith RP. The hospital anxiety and depression scale. *Acta Psychiatr Scand* 1983; **67**: 361-370 [PMID: [6880820](#) DOI: [10.1111/j.1600-0447.1983.tb09716.x](#)]
- 16 **Berwick DM**, Nolan TW, Whittington J. The triple aim: care, health, and cost. *Health Aff (Millwood)* 2008; **27**: 759-769 [PMID: [18474969](#) DOI: [10.1377/hlthaff.27.3.759](#)]
- 17 **Schulz KF**, Altman DG, Moher D; Consort Group. [CONSORT 2010 Statement: updated guidelines for reporting parallel group randomised trials (Chinese version)]. *Zhong Xi Yi Jie He Xue Bao* 2010; **8**: 604-612 [PMID: [20619135](#) DOI: [10.3736/jcim20100702](#)]
- 18 **Carr E**, Brockbank K, Allen S, Strike P. Patterns and frequency of anxiety in women undergoing gynaecological surgery. *J Clin Nurs* 2006; **15**: 341-352 [PMID: [16466484](#) DOI: [10.1111/j.1365-2702.2006.01285.x](#)]
- 19 **Linden W**, Vodermaier A, Mackenzie R, Greig D. Anxiety and depression after cancer diagnosis: prevalence rates by cancer type, gender, and age. *J Affect Disord* 2012; **141**: 343-351 [PMID: [22727334](#) DOI: [10.1016/j.jad.2012.03.025](#)]
- 20 **Eccleston C**, Fisher E, Craig L, Duggan GB, Rosser BA, Keogh E. Psychological therapies (Internet-delivered) for the management of chronic pain in adults. *Cochrane Database Syst Rev* 2014; **2014**: CD010152 [PMID: [24574082](#) DOI: [10.1002/14651858.CD010152.pub2](#)]
- 21 **Chiang LC**, Chen WC, Dai YT, Ho YL. The effectiveness of telehealth care on caregiver burden, mastery of stress, and family function among family caregivers of heart failure patients: a quasi-experimental study. *Int J Nurs Stud* 2012; **49**: 1230-1242 [PMID: [22633448](#) DOI: [10.1016/j.ijnurstu.2012.04.013](#)]
- 22 **Seegerstrom SC**, Miller GE. Psychological stress and the human immune system: a meta-analytic study of 30 years of inquiry. *Psychol Bull* 2004; **130**: 601-630 [PMID: [15250815](#) DOI: [10.1037/0033-2909.130.4.601](#)]
- 23 **Marsland AL**, Walsh C, Lockwood K, John-Henderson NA. The effects of acute psychological stress on circulating and stimulated inflammatory markers: A systematic review and meta-analysis. *Brain Behav Immun* 2017; **64**: 208-219 [PMID: [28089638](#) DOI: [10.1016/j.bbi.2017.01.011](#)]
- 24 **Westby MD**, Brittain A, Backman CL. Expert consensus on best practices for post-acute rehabilitation after total hip and knee arthroplasty: a Canada and United States Delphi study. *Arthritis Care Res (Hoboken)* 2014; **66**: 411-423 [PMID: [24023047](#) DOI: [10.1002/acr.22164](#)]
- 25 **Husted H**, Holm G, Jacobsen S. Predictors of length of stay and patient satisfaction after hip and knee replacement surgery: fast-track experience in 712 patients. *Acta Orthop* 2008; **79**: 168-173 [PMID: [18484241](#) DOI: [10.1080/17453670710014941](#)]
- 26 **Timmers T**, Janssen L, van der Weegen W, Das D, Marijnissen WJ, Hannink G, van der Zwaard BC, Plat A, Thomassen B, Swen JW, Kool RB, Lambers Heerspink FO. The Effect of an App for Day-to-Day Postoperative Care Education on Patients With Total Knee Replacement: Randomized Controlled Trial. *JMIR Mhealth Uhealth* 2019; **7**: e15323 [PMID: [31638594](#) DOI: [10.2196/15323](#)]
- 27 **Slade SC**, Kent P, Patel S, Bucknall T, Buchbinder R. Barriers to Primary Care Clinician Adherence to Clinical Guidelines for the Management of Low Back Pain: A Systematic Review and Metasynthesis of Qualitative Studies. *Clin J Pain* 2016; **32**: 800-816 [PMID: [26710217](#) DOI: [10.1097/AJP.0000000000000324](#)]
- 28 **McCabe C.** Nurse-patient communication: an exploration of patients' experiences. *J Clin Nurs* 2004; **13**: 41-49 [PMID: [14687292](#) DOI: [10.1111/j.1365-2702.2004.00817.x](#)]
- 29 **Sørensen K**, Van den Broucke S, Fullam J, Doyle G, Pelikan J, Slonska Z, Brand H; (HLS-EU) Consortium Health Literacy Project European. Health literacy and public health: a systematic review and integration of definitions and models. *BMC Public Health* 2012; **12**: 80 [PMID: [22276600](#) DOI: [10.1186/1471-2458-12-80](#)]
- 30 **Zolnieriek KB**, Dimatteo MR. Physician communication and patient adherence to treatment: a meta-analysis. *Med Care* 2009; **47**: 826-834 [PMID: [19584762](#) DOI: [10.1097/MLR.0b013e31819a5acc](#)]
- 31 **DiMatteo MR.** Variations in patients' adherence to medical recommendations: a quantitative review of 50 years of research. *Med Care* 2004; **42**: 200-209 [PMID: [15076819](#) DOI: [10.1097/01.mlr.0000114908.90348.f9](#)]
- 32 **Epstein RM**, Street RL Jr. The values and value of patient-centered care. *Ann Fam Med* 2011; **9**: 100-103 [PMID: [21403134](#) DOI: [10.1370/afm.1239](#)]
- 33 **Bertakis KD**, Azari R. Patient-centered care is associated with decreased health care utilization. *J Am Board Fam Med* 2011; **24**: 229-239 [PMID: [21551394](#) DOI: [10.3122/jabfm.2011.03.100170](#)]
- 34 **Bechtel C**, Ness DL. If you build it, will they come? Designing truly patient-centered health care. *Health Aff (Millwood)* 2010; **29**: 914-920 [PMID: [20439880](#) DOI: [10.1377/hlthaff.2010.0305](#)]
- 35 **Barry MJ**, Edgman-Levitan S. Shared decision making--pinnacle of patient-centered care. *N Engl J Med* 2012; **366**: 780-781 [PMID: [22375967](#) DOI: [10.1056/NEJMp1109283](#)]
- 36 **Dwamena F**, Holmes-Rovner M, Gauden CM, Jorgenson S, Sadigh G, Sikorskii A, Lewin S, Smith RC, Coffey J, Olomu A. Interventions for

providers to promote a patient-centred approach in clinical consultations. *Cochrane Database Syst Rev* 2012; **12**: CD003267 [PMID: 23235595 DOI: 10.1002/14651858.CD003267.pub2]

- 37 **Street RL Jr**, Makoul G, Arora NK, Epstein RM. How does communication heal? Pathways linking clinician-patient communication to health outcomes. *Patient Educ Couns* 2009; **74**: 295-301 [PMID: 19150199 DOI: 10.1016/j.pec.2008.11.015]



Published by **Baishideng Publishing Group Inc**
7041 Koll Center Parkway, Suite 160, Pleasanton, CA 94566, USA

Telephone: +1-925-3991568

E-mail: bpgoffice@wjgnet.com

Help Desk: <https://www.f6publishing.com/helpdesk>

<https://www.wjgnet.com>

