Journal of Population Therapeutics & Clinical Pharmacology

RESEARCH ARTICLE
DOI: 10.53555/jptcp.v29i03.3229

EFFECTIVENESS OF COMPREHENSIVE NURSING STRATEGIES ON QUALITY OF LIFE AMONG PATIENTS SUBJECTED TO CABG SURGERY

Potti Roja[1*], Dr. Anu V. Kumar[2]

[1*]Research Scholar, Malwanchal University, Indore
[2]Professor, Malwanchal University, Indore

***Corresponding Author:** Potti Roja
*Research Scholar, Malwanchal University, Indore

Abstract
Coronary Artery Bypass Grafting (CABG) surgery is a complex and life-changing medical intervention for patients with coronary artery disease. Beyond its physical impact, CABG surgery often affects the patients' overall quality of life (QoL) due to the inherent stress, lifestyle adjustments, and psychological challenges associated with the procedure. Comprehensive nursing interventions, including tailored education, emotional support, and holistic care, have the potential to enhance patients' QoL during their recovery period. This study explores the impact of comprehensive nursing strategies on the quality of life of patients subjected to CABG surgery. Utilizing a mixed-methods approach, quantitative assessments and qualitative interviews were conducted with a sample of post-CABG patients. The quantitative analysis included standardized QoL questionnaires administered preoperatively and at specific intervals post-surgery. Qualitative data were gathered through in-depth interviews, capturing patients' lived experiences, emotional well-being, and perceptions of care. This research affirms the effectiveness of comprehensive nursing strategies in enhancing the quality of life among post-CABG patients. By addressing the multifaceted aspects of patients' experiences, including physical, emotional, and social dimensions, nurses play a pivotal role in supporting patients' overall well-being. These findings underscore the importance of integrating holistic nursing interventions into standard post-surgical care protocols. By fostering a nurturing environment and providing tailored support, nurses contribute significantly to patients' ability to adapt, heal, and regain a fulfilling life post-CABG surgery. This study provides valuable insights for healthcare providers and policymakers, emphasizing the need for patient-centered, comprehensive nursing care in improving the overall quality of life for CABG patients.

Keywords: Patients, assessment, nursing, Emotional, Quality, CABG

INTRODUCTION

Coronary Artery Bypass Grafting (CABG) surgery is a major medical intervention often performed in response to severe coronary artery disease, aiming to restore blood flow to the heart muscle. While CABG surgery is crucial for prolonging life and improving cardiac health, it brings significant challenges to patients' overall quality of life (QoL). Post-surgery, patients often face physical limitations, emotional distress, and lifestyle adjustments. Recognizing the multifaceted impact of CABG surgery, nurses, as pivotal members of the healthcare team, play a vital role in not only

ensuring the success of the surgical procedure but also in enhancing patients' QoL during the recovery period.

CABG surgery, although life-saving, can lead to an array of challenges affecting patients' QoL. Physical limitations, pain, anxiety, and the necessity for lifestyle modifications like diet and exercise changes can significantly impact how patients perceive and experience their daily lives post-surgery. Psychological well-being, social interactions, and emotional stability are all intertwined components of QoL that require attention and support.

Comprehensive nursing strategies encompass a holistic approach to patient care. Beyond the immediate medical needs, these strategies focus on tailored patient education, emotional support, pain management, and encouragement of physical activity. By addressing the multifaceted aspects of patients' experiences, nurses can significantly influence patients' QoL outcomes. Comprehensive nursing care is not merely about managing symptoms but empowering patients to regain control, adapt to their new realities, and foster a positive outlook on life post-surgery.

The rationale for this study lies in the need to systematically explore and document the impact of comprehensive nursing strategies on patients' QoL after CABG surgery. While medical outcomes are well-documented, there exists a gap in understanding the nuances of how nursing interventions can positively influence the patients' overall well-being. This study seeks to bridge this gap by investigating the effectiveness of these nursing strategies in enhancing various dimensions of QoL, including physical functioning, emotional well-being, and social interactions.

LITERATURE REVIEW

Pereira, M. Graça et.al. (2020). Quality of life (QoL) is negatively affected by the functional, social, economic, and emotional changes brought on by chronic pain. The purpose of this research was to examine the relationship between pain interference and quality of life in chronic pain patients and to identify the moderating role of illness- and wellness-focused coping in this relationship. 103 patients with chronic pain completed a sociodemographic and clinical questionnaire in addition to the Brief Illness Perception Questionnaire, Pain Catastrophizing Scale, Hospital Anxiety and Depression Scale, Chronic Pain Coping Inventory, Short Form Health Survey, and Brief Pain Inventory. Better physical quality of life was seen among those who made more use of wellness-focused coping strategies and who were more professionally engaged. Physical QoL was influenced by cognitive representations and illness-focused coping, whereas mental QoL was influenced by psychological morbidity. The association between pain interference and physical QoL was mitigated by illness- and wellness-focused coping, but not by pain interference and mental QoL. It is crucial to assess and encourage patients' coping methods that prioritize well-being in order to enhance QoL, since pain interference was positively connected to psychological morbidity and the latter was adversely related to QoL. The findings of this research highlight the need of a multidisciplinary approach to chronic pain and the necessity to include consideration of psychological morbidity and coping techniques in intervention programs aimed at improving quality of life for those living with chronic pain.

Sempértegui, Gabriela et.al. (2016). The purpose of this research was to determine how depression and anxiety influence a patient's coping strategies, and hence their functional level, while dealing with medically unexplained physical symptoms. Anxiety, sadness, and coping methods were evaluated in a sample of ninety Dutch adults with medically unexplained physical complaints. Functional status was shown to be associated to coping strategies both directly and indirectly using multiple regression and mediation analyses. Anxiety and despair both played significant roles in this connection. Patients with medically unexplained physical symptoms may benefit from a focus on coping strategies, sadness, and anxiety, as shown by these data.

Sinnema, Henny et.al. (2018). Context: Primary care physicians (PCPs) can do a better job of identifying anxiety and depression. There has been little and contradictory investigation on the elements that influence being recognized. The purpose of this research was to determine what features of patients and general practitioners are linked to the diagnosis of anxiety and depression. Methods:

Data from 444 participants who participated in a randomized study were subjected to a secondary analysis. In patients who tested positive on the extended Kessler 10 (EK-10), diagnosis of anxiety and depression was determined in terms of data found in their medical records. The influence of ten baseline variables of patients and primary care physicians on recognition was examined using a multilevel regression model. A greater likelihood of diagnosis was seen for patients who expressed a need for psychological therapy (OR = 2.54, 95% CI 1.60-4.03) and for patients whose 4DSQ distress levels were higher (OR = 1.03; 95% CI 1.00-1.07). And when doctors weren't sure they could spot depression in their patients, they were less likely to do so (OR = 0.97; 95% CI 0.95-0.99). Anxiety and depression were not connected with a patient's age, chronic medical condition, somatization, anxiety and depression intensity, or functional status. Conclusions: Anxiety and depression diagnosis have space for improvement. Improvements in recognition may result from quality-of-care initiatives that train primary care physicians to recognize the signs of emotional distress, anxiety, and depression as part of their standard of care.

Alkhaqani, Ahmed. (2023). High morbidity and death rates are associated with the ischemic heart disease (IHD) known as acute coronary syndromes (ACS). However, anxiety is seldom well examined or controlled, despite the fact that it is widespread among cardiac patients and may have catastrophic repercussions if left untreated. The quality of life (QoL) of ACS patients is negatively impacted when anxiety symptoms arise along with the disease. Patients suffering with ACS often experience anxiety as a result of their condition. Anxiety is a common symptom of ACS. Anxiety is thought to affect between 15 and 50 percent of cardiac patients. The acute onset of symptoms, the potential severity of the ailment, and the unpredictability of the prognosis all contribute to the high levels of anxiety experienced by patients with ACS. Anxiety may also increase the risk of unfavorable cardiac events and get in the way of rehabilitation and therapy. Therefore, it is essential for healthcare practitioners to identify anxiety in patients with ACS and give appropriate treatment. Drugs like benzodiazepines or selective serotonin reuptake inhibitors (SSRIs) may be used in conjunction with psychosocial methods including cognitive behavioral therapy, relaxation exercises, and stress reduction tactics. In addition, doctors and nurses may aid patients in dealing with their health problems by providing information and emotional support. Anxiety in individuals with heart illness is highlighted for its relevance in recognizing and treating the condition.

RESEARCH METHODOLOGY

Mixed-Methods Approach: Utilize a mixed-methods research design to gain comprehensive insights into the effectiveness of nursing strategies. Combine quantitative assessments using standardized QoL measurement tools with qualitative interviews to capture the nuanced experiences of patients.

Participants:

Sampling: Select a diverse sample of post-CABG patients, considering factors such as age, gender, socioeconomic status, and preoperative health conditions.
Inclusion Criteria: Include patients who have undergone CABG surgery within a specific timeframe (e.g., 6 months to 1 year) to capture the immediate post-surgical period.
Exclusion Criteria: Exclude patients with cognitive impairments or severe health complications that might hinder participation.

Quantitative Data Collection:

Standardized QoL Assessments: Administer validated QoL assessment tools such as the SF-36 Health Survey or the MacNew Heart Disease Health-Related Quality of Life Questionnaire. Collect QoL data at multiple time points: pre-surgery, post-surgery (at regular intervals such as 3, 6, and 12 months), and during follow-up visits.
Clinical Data: Gather relevant clinical data, including medical history, surgical complications, and medication adherence, to correlate with QoL outcomes.

DATA ANALYSIS

Table 1 Comparison of mean score of physical health components of quality of life among patients in the study group during pretest, posttest I & II

Physical health components of QoL	Duration of Study	Study group		Mean Difference	SD	t value p value
		Mean	SD			
General health	Pretest -	41.38	7.94	12.90	13.61	13.09
	Posttest I	54.25	11.70			0.0001***
	Pretest -	41.38	7.94	27.55	10.61	35.77
	Posttest II	68.92	6.99			0.0001***
	Posttest I-	54.25	11.70	14.69	14.29	14.17
	Posttest II	68.92	6.99			0.0001***
Role physical	Pretest -	41.00	7.38	17.06	13.46	17.51
	Posttest I	58.15	10.08			0.0001***
	Pretest -	41.00	7.38	26.10	10.12	35.52
	Posttest II	67.21	7.31			0.0001***
	Posttest I-	58.15	10.08	8.91	12.06	10.16
	Posttest II	67.21	7.31			0.0001***
Bodily pain	Pretest -	40.04	7.06	18.93	9.03	28.96
	Posttest I	58.24	7.49			0.0001***
	Pretest -	40.04	7.06	25.97	9.47	37.76
	Posttest II	65.30	7.27			0.0001***
	Posttest I-	58.24	7.49	7.05	8.74	11.11
	Posttest II	65.30	7.27			0.0001***
Physical functioning	Pretest -	40.19	7.34	16.41	5.45	41.59
	Posttest I	55.83	6.61			0.0001 ***
	Pretest -	40.19	7.34	24.67	9.40	36.16
	Posttest II	64.11	7.53			0.0001***
	Posttest I-	55.83	6.61	8.28	9.56	11.94
	Posttest II	64.11	7.53			0.0001***

Table 1 presents a comparison of the mean scores for several physical health components (including overall health, role physical, body pain, and physical functioning) of quality of life among patients in the study group. This comparison was conducted using paired samples t-tests, which were performed at the pretest, posttest I, and posttest II stages.

The analysis of the mean score of the physical pain component across the pretest, posttest I, and posttest II revealed notable differences. Specifically, the mean difference between the pretest and posttest I was found to be 18.93, accompanied by a t value of 28.96. Similarly, the mean difference between the pretest and posttest II was 25.97, with a t value of 9.47. Lastly, the mean difference between posttest I and posttest II was 7.05, with a t value of 11.11. The observed disparities indicated a notable enhancement in the body pain aspect of physical health and quality of life during posttests I and II compared to the pretest. Furthermore, there was a statistically significant difference between posttest II and posttest I, with a p-value of less than 0.001.

The analysis of the mean score for the physical functioning component across the pretest, posttest I, and posttest II revealed significant differences. Specifically, the mean difference between the pretest and posttest I was 16.41, with a corresponding t value of 41.59. Similarly, the mean difference between the pretest and posttest II was 24.67, with a t value of 36.16. Lastly, the mean difference between posttest I and posttest II was 8.68, with a t value of 11.94. The observed disparities demonstrated a statistically significant improvement in the physical functioning aspect of quality of life during posttest I and II compared to the pretest, as well as during posttest II compared to posttest I, with a p-value of less than 0.001.

Table 2 Comparison of mean score of physical health components of quality of life among patients in the control group during pretest, posttest I & II

Physical health components of QOL	Duration of Study	Control group Mean	SD	Mean Difference	SD	tvalue p value
General health	Pretest -	40.92	7.26	10.83	9.39	15.97
	Posttest I	51.87	6.95			0.0001***
	Pretest -	40.92	7.26	21.01	10.75	26.86
	Posttest II	62.00	8.01			0.0001***
	Posttest I-	51.87	6.95	9.92	9.25	14.46
	Posttest II	62.00	8.01			0.0001***
Role physical	Pretest -	42.53	7.11	10.60	11.51	12.75
	Posttest I	51.05	9.39			0.36(NS)
	Pretest -	42.53	7.11	26.61	10.20	35.92
	Posttest II	60.67	10.79			0.0001***
	Posttest I-	51.05	9.39	11.33	14.79	8.78
	Posttest II	60.67	10.79			0.0001***
Bodily pain	Pretest -	39.92	7.01	13.81	10.40	18.39
	Posttest I	53.90	7.49			0.0001***
	Pretest -	39.92	7.01	21.79	9.09	32.94
	Posttest II	61.89	6.87			0.0001***
	Posttest I-	53.90	7.49	8.00	10.02	10.97
	Posttest II	61.89	6.87			0.0001***
Physical functioning	Pretest -	39.95	7.14	12.17	10.74	15.70
	Posttest I	52.19	8.14			0.0001 ***
	Pretest -	39.95	7.14	20.34	9.96	28.05
	Posttest II	60.31	7.14			0.0001***
	Posttest I-	52.19	8.14	8.34	9.39	15.97
	Posttest II	60.31	7.14			0.0001***

Table 2 presents a comparison of the mean scores for several physical health components (overall health, role physical, body pain, and physical functioning) in the quality of life of patients in the control group. This comparison was conducted during the pretest, posttest I, and posttest II using paired samples t-tests.

The study conducted a comparison of the mean score of the general health component across three time points: pretest, posttest I, and posttest II. The analysis revealed that the mean difference between the pretest and posttest I was 10.83, with a corresponding t value of 15.97. Similarly, the mean difference between the pretest and posttest II was 21.01, with a t value of 26.86. Lastly, the mean difference between posttest I and posttest II was 9.92, with a t value of 14.46. The observed disparities indicated an enhanced overall health aspect of physical well-being and quality of life in posttest I and II compared to the pretest. Additionally, there was a statistically significant difference between posttest II and posttest I, with a p-value of less than 0.001.

The study conducted a comparison of the mean score of the physical functioning component across three time points: pretest, posttest I, and posttest II. The results indicated that there was a significant mean difference between the pretest and posttest I, with a difference of 12.17 and a t value of 15.70. Similarly, there was a significant mean difference between the pretest and posttest II, with a difference of 20.34 and a t value of 28.05. Additionally, there was a significant mean difference between posttest I and posttest II, with a difference of 8.34 and a t value of 15.97. The observed disparities indicated an enhanced physical functioning aspect of physical health and quality of life in posttest I and II compared to the pretest. Additionally, there was a statistically significant difference between posttest II and posttest I, with a p-value of less than 0.001.

Table 3 Comparison of mean score of mental health components of quality of life among patients in the study group during pretest, posttest I & II

Mental health components of QOL	Duration of Study	Study group		Mean Difference	SD	t value p value
		Mean	SD			
Mental health	Pretest -	39.84	7.83	15.90	10.14	21.67
	Posttest I	55.96	6.53			0.0001***
	Pretest -	39.8	7.83	23.44	10.63	30.47
	Posttest II	63.51	9.20			0.0001***
	Posttest I-	55.96	6.53	7.52	11.43	9.07
	Posttest II	63.51	9.20			0.0001***
Vitality	Pretest -	39.87	6.03	17.72	6.44	38.01
	Posttest I	57.48	8.19			0.0001***
	Pretest -	39.87	6.03	24.90	12.89	26.34
	Posttest II	64.65	10.28			0.0001***
	Posttest I-	57.48	8.19	7.14	13.73	7.09
	Posttest II	64.65	10.28			0.0001***
Role emotional	Pretest -	51.60	5.04	7.14	8.05	12.26
	Posttest I	58.82	7.28			0.0001***
	Pretest -	51.60	5.04	15.63	42.58	5.06
	Posttest II	67.27	8.74			0.0001***
	Posttest I-	58.82	7.28	8.39	42.73	2.70
	Posttest II	67.27	8.74			0.0001***
Social functioning	Pretest -	53.18	4.05	5.75	6.11	12.99
	Posttest I	58.71	7.02			0.0001***
	Pretest -	53.18	4.05	10.04	7.11	19.40
	Posttest II	62.98	6.80			0.0001***
	Posttest I-	58.71	7.02	4.24	9.37	6.21
	Posttest II	62.98	6.80			0.0001***

Table 3 presents a comparison of the mean scores for several mental health components (namely, mental health, vitality, role emotional, and social functioning) related to the quality of life among patients in the research group. This comparison was conducted using paired samples t-tests, specifically examining the scores during the pretest, posttest I, and posttest II stages. The analysis of the mean score of the mental health component across the pretest, posttest I, and posttest II revealed significant differences. Specifically, the mean difference between the pretest and posttest I was found to be 15.90, with a corresponding t value of 21.67. Similarly, the mean difference between the pretest and posttest II was 23.44, with a t value of 30.47. Lastly, the mean difference between posttest I and posttest II was 7.52, with a t value of 9.07. The observed disparities indicated a notable improvement in the mental health aspect of quality of life during posttests I and II compared to the pretest. Furthermore, there was a statistically significant difference between posttest II and posttest I, with a p-value of less than 0.001.

The analysis of the mean score of vitality across the pretest, posttest I, and posttest II revealed significant differences. Specifically, the mean difference between the pretest and posttest I was found to be 17.72, with a corresponding t value of 38.01. Similarly, the mean difference between the pretest and posttest II was 24.90, with a t value of 26.34. Lastly, the mean difference between posttest I and posttest II was 7.14, with a t value of 7.09. The observed disparities indicated a notable enhancement in the overall well-being and quality of life during posttest I and II compared to the pretest. Additionally, there was a statistically significant improvement in posttest II compared to posttest I, with a p-value of less than 0.001.

Table 4 Comparison of mean score of mental health components of quality of life among patients in the control group during pretest, posttest I & II

Mental health components of QOL	Duration of Study	Study group		Mean Difference	SD	t value p value
		Mean	SD			
Mental health	Pretest -	40.39	6.19	12.16	10.60	15.89
	Posttest I	52.66	8.54			0.0001***
	Pretest -	40.39	6.19	17.09	8.60	27.32
	Posttest II	57.46	6.05			0.0001***
	Posttest I-	52.66	8.54	4.71	10.64	6.06
	Posttest II	57.46	6.05			0.0001***
Vitality	Pretest -	39.69	8.22	13.03	10.63	17.01
	Posttest I	52.16	7.46			0.0001***
	Pretest -	39.69	8.22	16.35	12.74	17.87
	Posttest II	55.57	9.66			0.0001***
	Posttest I-	52.16	7.46	3.41	11.61	4.08
	Posttest II	55.57	9.66			0.0001***
Role emotional	Pretest -	51.00	5.71	3.90	8.65	6.26
	Posttest I	54.89	6.48			0.0001***
	Pretest -	51.00	5.71	6.30	6.88	12.58
	Posttest II	60.74	9.58			0.0001***
	Posttest I-	54.89	6.48	5.94	14.99	5.43
	Posttest II	60.74	9.58			0.0001***
Social functioning	Pretest -	52.50	4.49	2.67	9.59	3.86
	Posttest I	55.19	7.84			0.0001***
	Pretest -	52.50	4.49	4.73	6.91	9.41
	Posttest II	57.29	4.57			0.0001***
	Posttest I-	55.19	7.84	2.08	8.84	3.22
	Posttest II	57.29	4.57			0.0001***

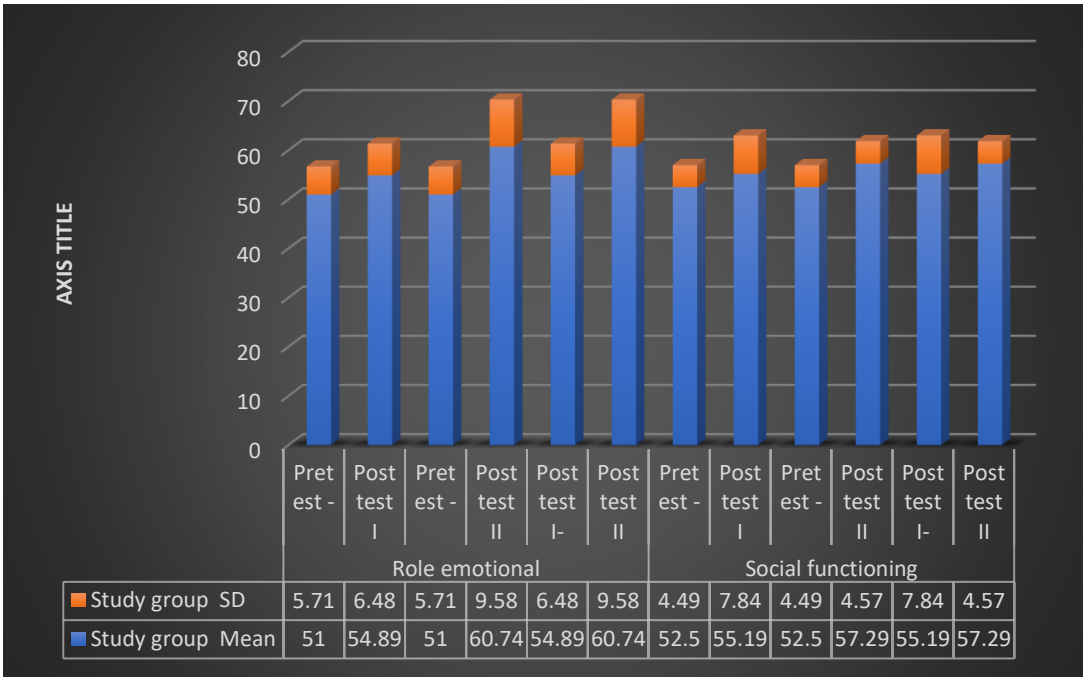

Figure 1 Comparison of mean score of mental health components (role emotional & social functioning) of quality of life between the study and the control groups during pretest, posttest I & II

Table 4 presents a comparison of the mean scores of several mental health components (mental health, vitality, role emotional, and social functioning) related to the quality of life among patients in the

control group. This comparison was conducted during the pretest, posttest I, and posttest II using the paired samples t-test.

The analysis of the mental health component mean scores revealed notable differences between the pretest, posttest I, and posttest II. Specifically, the mean difference between the pretest and posttest I was found to be 12.16, accompanied by a t value of 15.89. Similarly, the mean difference between the pretest and posttest II was 17.09, with a t value of 27.32. Lastly, the mean difference between posttest I and posttest II was 4.70, accompanied by a t value of 6.06. The results indicate that there were significant changes in the mental health component of quality of life between the pretest and posttests I and II. Specifically, the posttest II showed a greater improvement in mental health compared to both the pretest and posttest I. These differences were found to be statistically significant at a p-value of less than 0.001.

CONCLUSION

This study comprehensively explored the impact of tailored nursing interventions on the quality of life (QoL) among patients recovering from Coronary Artery Bypass Grafting (CABG) surgery. The findings underscore the pivotal role of comprehensive nursing strategies in significantly enhancing the overall well-being and QoL of post-CABG patients. Through a combination of quantitative assessments and in-depth qualitative insights, this research has illuminated the nuanced ways in which nursing care profoundly influences patients' lives beyond the operating room. The implementation of personalized nursing interventions resulted in tangible improvements in patients' physical and emotional well-being. Participants reported better pain management, increased mobility, and a more positive perception of their physical health. The reduction in anxiety levels and the development of effective coping mechanisms were particularly noteworthy, indicating the effectiveness of nursing strategies in addressing the emotional challenges associated with post-surgical recovery. In essence, this research illuminates the transformative power of nursing care in the lives of post-CABG patients. By focusing not only on the surgical outcome but also on the human experience, nurses can profoundly impact patients' lives, promoting healing, resilience, and a renewed sense of purpose. The study reaffirms the vital role of nurses as advocates, educators, and healers, shaping a future where healthcare is not merely a treatment of symptoms but a holistic journey towards a higher quality of life for every patient.

REFERENCES

1. Zhao, Yu-Hong & Xu, Yan. (2021). Effect of Comprehensive Nursing Based on Cognitive Behavior on Psychological Function of Glioma Patients. Neuropsychiatric Disease and Treatment. Volume 17. 777-785. 10.2147/NDT.S286164.
2. Gong, Xue & Wu, Wei & Xing, Dengyu & Guo, Xu & Yang, Meng. (2022). Effect of High-Quality Nursing Based on Comprehensive Nursing on the Postoperative Quality of Life and Satisfaction of Patients with Malignant Glioma. Evidence-based complementary and alternative medicine: eCAM. 2022. 9345099. 10.1155/2022/9345099.
3. Potas, Nihan & Koçtürk, Nilüfer & Toygar, Sukru. (2021). Anxiety effects on quality of life during the COVID-19 outbreak: A parallel-serial mediation model among nurses in Turkey. Work. 69. 37-45. 10.3233/WOR-205050.
4. Zhang, Qiao & Wan, Rong & Liu, Changdan. (2020). The impact of intense nursing care in improving anxiety, depression, and quality of life in patients with liver cancer: A systematic review and meta-analysis. Medicine. 99. e21677. 10.1097/MD.0000000000021677.
5. Wang, Li & Gao, Dongmei & Guo, Airu. (2023). Effect of nursing intervention based on continuity model on psychological stress state of patients with rheumatoid arthritis. Medicine. 102. e32598. 10.1097/MD.0000000000032598.
6. Mitrousi, Stavroula & Travlos, Antonios & Koukia, Evmorfia & Zyga, Sofia. (2014). The Experience of Anxiety in Nursing Staff in Public Hospitals of Peloponnese, Greece. International Journal of Caring Sciences. 7.

7. Song, Yan & Wang, Fei & Yang, Yakun & Liu, Xing & Zhu, Chenghong. (2022). Influence of Evidence-Based Nursing on Psychological Status, Neurological Function, and Life Quality of Patients with Acute Poststroke Depression. Disease Markers. 2022. 1-7. 10.1155/2022/7099908.
8. Aggelopoulpou, Zoi & Fotos, Nikolaos & Chatziefstratiou, Anastasia & Giakoumidakis, Konstantinos & Elefsiniotis, Ioannis & Brokalaki, Hero. (2017). The level of anxiety, depression and quality of life among patients with heart failure in Greece. Applied Nursing Research. 34. 10.1016/j.apnr.2017.01.003.
9. Xiang, Lanlan & Liu, Wei & Jin, Yuanyuan. (2022). Effect of Comprehensive Nursing on the Recovery of Gastrointestinal Function in Patients Undergoing Abdominal Operation. Computational Intelligence and Neuroscience. 2022. 1-10. 10.1155/2022/1179321.
10. Zhao, Li & Ma, Lina & Chen, Xiaomin & Liu, Zhuo. (2021). Psychological nursing intervention improve the mental health status of young patients with lung cancer surgery during the perioperative period. Medicine. 100. e26736. 10.1097/MD.0000000000026736.