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Original Research Article

Effect of pre-operative and post operative spiritual care interventions in patients undergoing major gynaecology surgeries in a tertiary care hospital

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ABSTRACT

Background: For women undergoing gynaecological surgery, anxiety, depression and stress is recognized as an important factor because of the sensitive and emotive nature of their treatment. Therefore, this study is conducted with an aim to evaluate the utility of pre-operative and operative phase spiritual care intervention on post-operative stress, anxiety, depression and pain.
Methods: This was a prospective, controlled, randomized study in which total of 100 patients were enrolled, 50 (interventional group) and 50 (control group). The spiritual care interventions were done in 3 phases i.e. pre-operative, operative and post operative which comprise of 4 types of spiritual intervention each for 10 minutes namely spiritual counselling, spiritual prayer, spiritual reading and listening to chanting of mantras The parameters like stress, depression, anxiety and pain were assessed by using DASS-41 scale and VAS scale respectively.
Results: Post intervention mean for anxiety, depression and stress score decreased significantly in intervention group with p values <0.001, <0.01 and <0.01 respectively in comparison with control group with p values 0.87, 0.96 and 0.43 respectively. The was no statistically difference in mean pain score post intervention in both intervention and control group
Conclusions: Spiritual care intervention on the basis of MATCH guidelines improved the symptoms of stress, anxiety, depression of the patient's undergoing surgery. However, there was no change in the physiological pain parameter of the patients.

Keywords: Spiritual intervention, Mantras, Anxiety, Depression, Stress

INTRODUCTION

Hospitalization for surgery or other invasive procedures is considered as an anxiety provoking event since it comprises of various fears which includes an alteration in body image, administration of anaesthesia, postoperative discomfort, separation from family, loss of independence, fear of surgery and death, as well as numerous other factors.[1] Surgery, serious sickness, trauma, and burns all trigger the stress, anxiety, depression response, which includes metabolic and physiological disturbances that interfere with the inflammatory, acute phase, hormonal, and genomic responses as well as jeopardises the comfort and well-being of patients. The end outcome is hypermetabolism and hyper catabolism, which causes muscle atrophy, slowed immunological response and

delayed wound healing, organ failure, and eventual death. Therefore, it is generally accepted that patients who undergo surgery becomes anxious.[2] The anxiety, depression, stress has also been demonstrated to be an independent predictor of severe postoperative pain.[3] Preoperative anxiety incidence is commonly seen in adult patients ranging between 11% to 80%.[4] Furthermore, anxiety has been linked to an upsurge in postoperative morbidity as well as mortality.[5,6] For women undergoing gynaecological surgery, anxiety is recognized as an important factor because of the sensitive and emotive nature of their treatment. It has additionally been demonstrated that women undergoing gynaecological surgery who expressed more concern before their surgery had higher heart rate and blood pressure changes before and during surgery, which in turn are difficult to anaesthetize, and were more likely to experience headache, vomiting, and pain afterwards.[7] Studies have shown that gynaecology patients experienced significantly high anxiety while undergoing invasive radiological procedures when compared with other patients.[8] In circumstances involving severe anxiety, most surgeons postpone procedures.[9]

Depression is also a significant predictor and associated with prolonged post-operative pain.[10] When recovering from a surgery, about one in five individuals periodically have significant depressive symptoms or at least a mild form of depression in accordance with DSM-IV criteria.[11] Many studies have found depression to be an independent risk factor for the development of postoperative delusions, which may be the cause of a delayed and incomplete recovery after surgery. Postoperative delirium is a clinical syndrome defined by an immediate change in mental status with a variable course, a significant disturbance in attention, and either disorganised thinking or an altered level of awareness.[10] Many studies have identified depression as an independent risk factor for postoperative delirium.[12] Patients with preoperative depression symptoms are more likely to experience long-lasting postoperative delirium and incomplete recovery to independent functioning complying with surgery.[12] Postoperative delirium affects 15-53% of surgery patients over the age of 65 and is associated with significant morbidity and mortality.[10] Numerous studies have found that depression boosts the burden and cost of health care, increases the risk of myocardial infarction, negatively affects participation in rehabilitation programmes, increases morbidity, mortality, and hospital admissions.[14] Stress, anxiety, despair, anger, and fascination are all negatively correlated with spiritual care in both patients and caregivers.[15] According to study literature, Spiritual Care (SC) can be broadly defined as a form of care that attempts to meet existential and spiritual demands and problems associated with disease and crises.[16] Life-threatening illness frequently results in an amplification of spiritual demands and considerations.[17] The scientific literature has only shown the significance of religiosity/spirituality (R/S) in the physical and mental health of patients. There is a need for more research examining the use of religion or spirituality as a complementary treatment in healthcare given the variability of procedures and outcomes linked to a lack of standardisation of interventions.[18] Therefore this study was conducted in patients undergoing gynaecological surgeries to assess the effect of spiritual care in anxiety, stress, depression, pain by evaluating the parameters by using depression, anxiety, stress (DASS)-42 and VAS score for pain. The objective of this study was to evaluate the utility of pre-operative and operative phase spiritual care intervention on post-operative stress, anxiety, depression and pain.

METHODS

This study was a two arm, prospective, single centre, randomised study conducted from December 2021 to December 2022 at the department of obstetrics and gynaecology of Bhaktivedanta Hospital and Research Institute, Thane, India. A total of 100 patients were enrolled in the study, based on simple randomisation technique, 50 participants were included in interventional group (spiritual therapy) and 50 were in control group. Patients in age group of 18-65 years undergoing major gynaecology surgery were included and randomised in intervention and control group post informed consent. After consenting, study procedures were performed in which the study team thoroughly explained the purpose of the study and importance of spiritual care to the patients, and patients' medical history, history of any psychiatric disorder and comorbid conditions, indication for surgery, vital signs were noted.

Preoperative and post operative spiritual interventions were introduced as an intervention along with standard of care in interventional group, whereas only standard of care was provided for patients assigned in control group. Foundation of spiritual care intervention is based on common broad principles of patients' religion, beliefs, and acceptability ensuring no discrimination based on religion, sex, age, or belief in God, and through conducive environment such as vegetarian wholesome food, spiritual sound vibration, and emotional care. The spiritual care interventions comprised of 4 parts (10 minutes each) namely spiritual counselling, spiritual prayer, listening to chanting of mantras and spiritual reading based on MATCH guidelines (mercy, austerity, truthfulness, cleanliness, and holy name) and was offered preoperative and post operative period for 30 minutes each. Spiritual reading included reading of the spiritual literatures/ scriptures and patients were asked to hear chanting of the mantras preoperatively for 10 mins and the pre-recorded chanting of mantras in low volume was played during surgical procedures All the above-mentioned intervention were performed under the guidance of the study team member and if the patient were unable to perform the spiritual activities, they were performed by either patient relative or by study team member. The stress, depression, anxiety of the patients was evaluated by using (DASS)-42 (Depression, Anxiety and Stress Scale-42 Items) which is

a reliable and valid measure of depression, anxiety, and stress in clinical and nonclinical population of adults. The pain was evaluated using VAS (visual analog scale).

The numeric data and categorical data were summarized by descriptive statistics like, n, mean, frequency count and percentage. Normality test was performed before applying any statistical test. A p value less than 0.05 was considered statistically significance.

RESULTS

A total of 100 patients were randomized in the study with 50 patients in intervention group and control group.

Table 1: Assessment of anxiety, depression, stress, pain score in experiment and control group.

Parameters	Scores	Experiment, N (%)		Control, N (%)	
		Pretest	Post test	Pretest	Post test
Anxiety	0-7 (Normal)	13 (26)	26 (52)	19 (38)	18 (36)
	8-9 (Mild)	6 (12)	5 (10)	8 (16)	7 (14)
	10-14 (Moderate)	12 (24)	10 (20)	9 (18)	9 (18)
	15-19 (Severe)	7 (14)	4 (8)	8 (16)	10 (20)
	20+ (Extremely severe)	12 (24)	5 (10)	6 (12)	6 (12)
Depression	0-9 (Normal)	16 (32)	29 (58)	19 (38)	21 (42)
	10-13 (Mild)	10 (20)	5 (10)	9 (18)	10 (20)
	14-20 (Moderate)	11 (22)	9 (18)	7 (14)	6 (12)
	21-27 (Severe)	8 (16)	3 (6)	12 (24)	10 (20)
	28+ (Extremely severe)	5 (10)	4 (8)	3 (6)	3(6)
Stress	0-14 (Normal)	14 (28)	29 (58)	13 (26)	17 (34)
	15-18 (Mild)	13 (26)	8 (16)	10 (20)	9 (18)
	19-25 (Moderate)	14 (28)	8(16)	16 (32)	14 (28)
	26-33 (Severe)	5 (10)	2 (4)	8 (16)	7 (14)
	34+ (Extremely severe)	4 (8)	3(6)	3 (6)	3(6)
Pain-VAS	0-3 (No)	15 (30)	16 (32)	24 (48)	24 (48)
	4-6 (Moderate)	33 (66)	32 (64)	25 (50)	25 (50)
	7-10 (Unbearable)	2 (4)	2 (4)	1(2)	1(2)

Table 2: Comparison of anxiety, depression, stress, pain score between pre and post-test in experimental and control group.

Parameters	Groups	Pretest	Post test	Wilcoxon Z value	P value
		Mean±SD	Mean±SD		
Anxiety score	Experimental	12.60±11.28	6.40±7.73	3.35	<0.001
	Control	10.24±8.80	9.20±8.62	1.86	0.87
Depression score	Experimental	14.42±10.36	8.36±7.04	2.82	<0.01
	Control	13.24±10.55	12.10±9.80	1.52	0.96
Stress score	Experimental	13.64±11.66	7.78±6.15	2.93	<0.01
	Control	12.72±8.96	11.12±7.76	0.78	0.43
Pain score	Experimental	5.56±2.54	4.58±1.85	0.58	0.38
	Control	4.70 ±3.46	4.28±2.43	0.76	0.67

There were no significant differences between intervention and control groups with respect to demographic variables such as age There was no statistically significant difference between the groups in all variables which includes stress, depression, anxiety, pain prior to the intervention (Table 2, 3). Post intervention Mean for anxiety, depression and stress score decreased significantly in intervention group with p values <0.001, <0.01 and <0.01 respectively in comparison with control group with p values 0.87, 0.96 and 0.43 respectively (Table 3). The pain was evaluated by using Visual Analog Scale (VAS Scale) which interpretated that there was not a statistically difference in mean score post intervention in both intervention and control group.

DISCUSSION

Surgical prehabilitation is an emerging concept that refers to interventions in the preoperative period aimed at improving postsurgical outcomes. These are pre-emptive strategies including physical therapies, pharmacological, and non-pharmacological measures to improve outcomes.

Table 3: Comparison of anxiety, depression, stress, pain score between experimental and control group.

Time points	Experiment (n=50) (mean±SD)	Control (n=50) (mean±SD)	MW test Z value	P value
Anxiety score				
Pretest	12.60±11.28	10.24±8.80	1.74	0.6
Post test	6.40±7.73	9.20±8.62	2.86	<0.001
Depression score				
Pretest	14.42±10.36	13.24±10.55	1.69	0.78
Post test	8.36±7.04	12.10±9.80	2.79	<0.01
Stress score				
Pretest	13.64±11.66	12.72±8.96	0.98	0.37
Post test	7.78±6.15	11.12±7.76	2.34	<0.001
Pain score				
Pretest	5.56±2.54	4.70±3.46	0.89	0.67
Post test	4.58±1.85	4.28±2.43	1.05	0.45

Mind-body interventions include a wide range of practices and therapies that positively impact the mind's influence on physical health. Spirituality can act as a safeguard against psychological concerns and issues.[19] Research has shown that the spirituality can have a preventative effect on many psychological disorders and religion has healing effects on many psychiatric disorders.[20] Research has demonstrated that spiritual practises enhance synaptic contacts in the amygdala, which is a brain area responsible for anxiety and emotional responses.[21] A study interpreted that symptoms of anxiety, depression and stress had inverse relationship with spirituality.[19] In order to check the efficacy of spiritual intervention, our study was conducted in which spiritual counselling was an intervention which was supported by the results of a similar study in which the intervention group (N=40) received eight sessions of group counselling with spiritual approach, each lasted for 60 minutes, the results interpreteted a significant difference in terms of mean scores of depression, anxiety, stress, spiritual intelligence, and its components ($p<0.05$) the results concluded that spiritual counselling could help pregnant women cope with depression, anxiety, and stress, and that it could be utilized as a complementary, effective, and non-invasive strategy to manage their psychological disorders.[22] In our study, we used religious sounds (mantras) as an intervention, which had a positive effect in terms of mindfulness and in terms of reduction of stress, anxiety, depression in patients. A similar study was conducted in which the effect of Hare Krishna mahamantra for 25 mins each day was studied on the outcome of stress and depression, the results interpreted that post intervention anxiety, death depression and death distress decreased significantly ($p<05$).[23]

A randomized controlled study showed significantly lower depression, anxiety scores in intervention group measured by HAM-A, HAM-D and FACIT-Sp 12 in the intervention group, post spiritual care intervention in comparison with control group, which is in similar lines with results in our study which also showed statistically significant difference in the intervention group ($p<0.001$) with pre-test mean anxiety score (12.60±11.28) and post-test anxiety score (6.40±7.73) (Table 2). A study showed significant increase in the spiritual wellbeing of the patients undergoing Haemodialysis post spiritual care intervention. The spiritual care intervention included spiritual chanting and listening to mantras. The parameters were assessed by kidney diseases QoL (KDQoL), and Functional assessment of chronic illness therapy (FACIT) Sp-12.[24,25] Study on hospice patients showed significant reduction in situational anxiety , post spiritual nursing intervention in the interventional group compared to the control group.[21] Delarm et al held a quasi-experimental study with spiritual counselling sessions as an intervention to raise women's awareness about labour pain,delivery and C- session ,the results from the study interpreted that the mean anxiety score in the intervention group were statistically significant.[26]

A randomized clinical trial conducted by Dalal et al to check the efficacy of spiritual care therapy in patients who had undergone percutaneous transluminal coronary angioplasty in which the intervention included spiritual counselling and holy name chanting before angioplasty and holy name chanting over a period of 14-day postangioplasty the results interpreted a significant reduction in the anxiety and depression scores of HADS in the spiritual care group as compared to control group Furthermore, a significant shorter length of hospital stay and lower levels of high-sensitivity C-reactive protein was observed in the spiritual group.[27] Studies have also reported that spiritual interventions not only expand peoples' attitudes toward life but also improve the mood of depressed patients through a range of religious practices and beliefs.[28,29] In our present study, after the spiritual intervention there was a statistically significant difference in pretest mean depression score (14.42±10.36) and post-test depression score (8.36±7.04) with a $p<0.01$ in experimental group (Table 2). Similarly, a study reported significant correlations between spiritual health and both anxiety and depression in three groups of women (non-

pregnant and with normal pregnancy and high-risk pregnancy).[30] Our study revealed statistically significant difference (p<0.001) in interventional group with pre test mean stress score (13.64±11.66) and post-test mean stress score (7.78±6.15) (Table 2). Similarly, a study reported that Buddhist-based mindfulness meditation reduced perceived stress and blood pressure in pregnant women.[31] According to a study, spiritual counselling reduces stress and improves mothers' ability to cope with distress when their premature babies are in NICUs.[32] A double-blind clinical trial was conducted to check the efficacy of Spiritual Intervention on Postmenopausal Depression in Women, the results of this study interpreted that after intervention the mean depression scores in the experimental group were significantly lower than the control group.[33]

Post-operative pain can have various causes, including but not limited to Surgical Trauma, Inflammation, Nerve Injury, Muscle Spasms, Scar Tissue, Infection, Hematoma or Seroma.[34] A study was conducted to check the effects of spirituality on postoperative pain, hemodynamic functioning and anxiety after caesarean section the results of this study interpreted that statistically significant improvement in pain score. However, there was no significant difference in the physiological responses, which concluded that spirituality intervention could be used as one of non-pharmacological pain management techniques.[35]

The findings of our study showed that the implementation of spiritual intervention did not improve the patients' pain status in the experimental group (p=0.38), such an inconsistency may have been caused by variations in the cultural and religious features, the type of surgery, severity of the pain, type of pain inhibitors administered. The effect of spiritual care, mantras, and prayers on post-operative pain is a complex and subjective matter. It's important to note that the effectiveness of spiritual care, mantras, and prayers in pain management can vary greatly from person to person. While some people may experience significant pain relief, others may not find these practices as effective. Healthcare providers often encourage holistic approaches for pain management, which may include integrating spiritual care if it aligns with the patient's beliefs and preferences. Therefore, Spiritual care-based approach can be implemented in addition to the medical treatment by healthcare professionals. As this study was a single center study with limited sample size, therefore the study population might not be representative of the general population. A larger sample size from a heterogenous population could have been more reliable.

CONCLUSION

Spiritual care intervention based on MATCH guidelines improved the symptoms of stress, anxiety, depression of the patient's undergoing surgery. However, there was no change in the physiological pain parameter of the patients.

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REFERENCES

1. Williams JB, Alexander KP, Morin JF, Langlois Y, Noiseux N, Perrault LP, et al. Preoperative Anxiety as a Predictor of Mortality and Major Morbidity in Patients >70 Years of Age Undergoing Cardiac Surgery. Am J Cardiol. 2013;111(1):137-42.
2. Finnerty CC, Mabvuure NT, Ali A, Kozar RA, Herndon DN. The Surgically Induced Stress Response. J Parent Enter Nutr. 2013;37(5):21S29S.
3. Mavridou P, Dimitriou V, Manataki A, Arnaoutoglou E, Papadopoulos G. Patient's anxiety and fear of anesthesia: effect of gender, age, education, and previous experience of anesthesia. A survey of 400 patients. J Anesth. 2013;27(1):104-8.
4. Caumo W, Schmidt AP, Schneider CN, Bergmann J, Iwamoto CW, Bandeira D, et al. Risk factors for preoperative anxiety in adults. Acta Anaesthesiol Scand. 2001;45(3):298-307.
5. Kalkman JC, Visser K, Moen J, Bonsel JG, Grobbee ED, Moons MKG. Preoperative prediction of severe postoperative pain. Pain. 2003;105(3):415.
6. Karanci AN, Dirik G. Predictors of pre- and postoperative anxiety in emergency surgery patients. J Psychosomat Res. 2003;55(4):363-9.
7. Abbott J, Abbott P. Psychological and cardiovascular predictors of anaesthesia induction, operative and post-operative complications in minor gynaecological surgery. Br J Clin Psychol. 1995;34(4):613-25.
8. Aksoy F, Özdemir A, Genç Y. Invasiveness of Radiological Procedures: State-Trait Anxiety in Women Undergoing 3 Different Investigations and 3 Months Follow-Up. Turk J Med Sci. 2000;30(6):595-9.
9. Hosseini M, Davidson P, Khoshknab M, Green A. Spiritual and religious interventions in health care: An integrative review. Iran Rehab J. 2013;11:87-93.
10. Marcantonio ER. Postoperative Delirium. JAMA. 2012;1:308.
11. Freedland KE, Skala JA, Carney RM, Rubin EH, Lustman PJ, Dávila-Román VG, et al. Treatment of Depression After Coronary Artery Bypass Surgery: A Randomized Controlled Trial. Arch General Psychiatr. 2009;66(4):387-96.
12. Ghoneim MM, O'Hara MW. Depression and postoperative complications: an overview. BMC Surg. 2016;1:16.

13. Leung JM. Postoperative delirium: are there modifiable risk factors? Eur Jo Anaesthesiol. 2010;27(5):403-5.
14. Rutledge T, Vaccarino V, Johnson BD, Bittner V, Olson MB, Linke SE, et al. Depression and Cardiovascular Health Care Costs Among Women With Suspected Myocardial Ischemia. J Am Coll Cardiol. 2009;53(2):176-83.
15. Akkuş Y, Karacan Y, Ünlü K, Deniz M, Parlak A. The effect of anxiety and spiritual well-being on the care burden of caregivers of cancer patients during the COVID-19 pandemic. Support Care Cancer. 2021;2:30.
16. Koenig HG, King D, Carson VB. Handbook of Religion and Health. USA: Oxford University Press; 2012.
17. Jones JM, Cohen SR, Zimmermann C, Rodin G. Quality of Life and Symptom Burden in Cancer Patients Admitted to An Acute Palliative Care Unit. J Palliat Care. 2010;26(2):94-102.
18. Murgia C, Notarnicola I, Rocco G, Stievano A. Spirituality in nursing: A concept analysis. Nurs Ethics. 2020;27(5):969.
19. Bodaghi E, Alipour F, Bodaghi M, Nori R, Peiman N, Saeidpour S. The Role of Spirituality and Social Support in Pregnant Women's Anxiety, Depression and Stress Symptoms. Community Health J. 2017;10(2):72-82.
20. Nikfarjam M, Solati K, Heidari-Soureshjani S, Safavi P, Zarean E, Fallah E, et al. Effect of Group religious intervention on spiritual health and reduction of symptoms in patients with anxiety. J Clin Diagnos Res. 2018.
21. Yoon MO, Park JS. The Effect of Spiritual Nursing Intervention on Anxiety and Depression of the Hospice Patients. J Korean Acad Adult Nurs. 2002;1:337-47.
22. Khodakarami B, Golalizadeh Bibalan F, Soltani F, Soltanian A, Mohagheghi H. Impact of a Counseling Program on Depression, Anxiety, Stress and Spiritual Intelligence in Pregnant Women. J Midwifery Reprod Health. 2017 Apr 1 [cited 2023;5(2):858-66.
23. Wolf D. Effects of the hare krsna maha mantra on stress, depression, and the three gunas. Available at: https://www.proquest.com/openview/5c1d9484af0e693dc4b72415ebebaa93/1?pq-origsite=gscholar&cbl=18750&diss=y. Accessed on 20 November 2023.
24. Dalal K, Sankhe A, Zope J. A Prospective, Controlled Study to Assess Effect of Spiritual Therapy in Patient Undergoing Hemodialysis at Bhaktivedanta Hospital. Saudi J Kidney Dis Transplant. 2021;32(6):1570.
25. Sankhe A, Dalal K, Save D, Sarve P. Evaluation of the effect of Spiritual care on patients with generalized anxiety and depression: a randomized controlled study. Psychol Health Med. 2017;22(10):1186-91.
26. Delaram M, Soltanpour F. The Effect of Spiritual Counseling in Third Trimester on Anxiety of Nulliparous Women at the Time of Admission for Labor. Zahedan J Res Med Sci. 2018.
27. Dalal K, Aklujkar A, Singh H, Sarve P. Efficacy of spiritual care therapy in patients undergoing percutaneous transluminal coronary angioplasty: A randomized controlled clinical study. J Clin Prevent Cardiol. 2018;7(3):100.
28. Puig A, Lee SM, Goodwin L, Sherrard PAD. The efficacy of creative arts therapies to enhance emotional expression, spirituality, and psychological well-being of newly diagnosed Stage I and Stage II breast cancer patients: A preliminary study. Arts Psychother. 2006; 33(3):218-28.
29. Moritz S, Kelly MT, Xu TJ, Toews J, Rickhi B. A spirituality teaching program for depression: Qualitative findings on cognitive and emotional change. Complement Therap Med. 2011;19(4):201-7.
30. Dunn LL, Shelton MM. Spiritual well-being, anxiety, and depression in antepartal women on bedrest. Issues Mental Health Nurs. 2007;28(11):1235-46.
31. Muthukrishnan S. Effect of Mindfulness Meditation on Perceived Stress Scores and Autonomic Function Tests of Pregnant Indian Women. J Clin Diagnos Res. 2016; 4:10.
32. Tayebeh R, Zohre SP, Heidarzadeh M. The Effect of Spiritual Self-Care Training on Feeling of Comfort in Mothers of Hospitalized Preterm Infants. J Midwifery Reprod Health. 2014;2(2):112-9.
33. Shafiee Z, Zandiyeh Z, Moeini M, Gholami A. The Effect of Spiritual Intervention on Postmenopausal Depression in Women Referred to Urban Healthcare Centers in Isfahan: A Double-Blind Clinical Trial. Nurs Midwifery Stud. 2016.
34. Hutchison RW. Challenges in acute post-operative pain management. Am J Health Syst Pharm. 2007;64(6):S2-5.
35. Beiranvand S, Noparast M, Eslamizade N, Saeedikia S. The effects of religion and spirituality on postoperative pain, hemodynamic functioning and anxiety after cesarean section. Acta Med Iran. 2014;52(12):909-15.
36. Raghuram N, Vinay C, Chandrashekara S, Gopinath K, Srinath B, Rao R, et al. Influence of yoga on mood states, distress, quality of life and immune outcomes in early-stage breast cancer patients undergoing surgery. Int J Yoga. 2008;1(1):11.

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