

KNOWLEDGE, ATTITUDE AND PERCEIVED BARRIERS OF CLINICAL NURSES IN INTEGRATING SELECTED COMPLEMENTARY AND ALTERNATIVE THERAPIES(CAT) DURING PATIENT CARE.

- 1. Itishree Pradhan**, RN, MSC Tutor, Department of Medical-Surgical Nursing, SUM Nursing College, Siksha O Anusandhan (Deemed to be University), Bhubaneswar, Odisha, India
- 2. SasmitaDas**, Associate Dean, Head Department of Medical-Surgical Nursing, SUM Nursing College, Siksha O Anusandhan (Deemed to be University), Bhubaneswar, Odisha, India;
- 3. Jhunilata Pradhan**, Assistant Professor Department of Medical-Surgical Nursing, SUM Nursing College, Siksha O Anusandhan (Deemed to be University), Bhubaneswar, Odisha, India

Corresponding author: Prof (Dr). Sasmita Das; Email: das.sasmita2@gmail.com

Abstract

Complementary and Alternative Therapy usage is increasing throughout the world. Complementary therapies are used to Complement conventional health care practices. A Quantitative research study with descriptive correlational research design was conducted among 300 clinical nurses by using convenient sampling technique to find out Knowledge, Attitude and perceived Barriers during patient care at selected hospitals of Bhubaneswar, Odisha. Samples who met the inclusion criteria were taken for study. The tool like Self-structured socio-demographic performa was used to collect socio-demographic data and self-structured Multiple choice questionnaire on Knowledge and self-structured five-point Likert scale was used to assess the Attitude and perceived Barriers of clinical nurses. The findings of this study show that maximum 63% nurses had Average knowledge on CAT, maximum 93% nurses had neutral attitude and maximum 77% nurses had faced intermediate perceived barriers in the integration of CAT during patient care. The result of the study describes it that there was a significant relationship exist between knowledge and belief of clinical nurses in integrating CAT during patient care as the 'P' Value is 0.001 and r value is 0.846 Which is Statistically Significant at the 0.01 level. There was a significant association between knowledge, Attitude and perceived

Barriers with Area of working in a place and professional qualification in nursing of the clinical nurses. There was a significant association between perceived Barriers with professional qualification in nursing of the clinical nurses. The results of the present study concluded that the clinical nurses had average knowledge and neutral attitude to integrate CAT which also affected by perceived barriers of clinical nurses on CAT during patient care. The study has several implications in nursing education, practice and research. Further study can be conducted with a large sample of different groups of samples with different departments of the hospital.

Keywords: *Knowledge, Attitude, Perceived Barriers, Clinical nurses, Complementary and Alternative Therapies, Patient care*

Introduction

Complementary and alternative therapies make an integrative approach to our physical and mental health. This means they take into consideration all aspects of our physical and emotional wellbeing as a whole, rather than treating particular signs and symptoms separately. For example, some complementary therapies focus on the mind, body and spirit or energy therapies through our body.¹

The main aim of therapy is to search out people's unavoidable needs for psychological and physical healing. The therapy has developed by drawing on the religious beliefs and social structures of numerous indigenous peoples, by exploiting natural products in their environments, and more recently by developing and validating therapeutic and preventive approaches using the scientific method.² Aveni et al. (2016) conducted a study on clinical nurses, doctors, physiotherapists and midwives attitude towards complementary medicine for chronic pain, they found physiotherapists were possibly less (37.7%) to start the conversation regarding CAM with patients in relation with nurses (66.7%). The study also found that younger physiotherapists had a better opinion of CAM compared with older physiotherapists.³

Topuz S. et al (2015) conducted a descriptive study on Opinions and skills of Nursing Students on use of Complementary and Alternative Therapy for Cancer Patients consisting of 148 students. Students were having more fact and skill about complementary and alternative Therapy practices such as acupuncture (39.2%), and religious practices (34.5%). Only 20.9% of them showed that they always received information through television, radio and internet,

but 58.8% of them thought that these facts and information were not sufficient. A majority were in support of the integration of complementary and alternative practices in the nursing curriculum. Student nurses had not sufficient knowledge about complementary and alternative medicine practices, but they wanted to learn about CAT. Students had positive beliefs about the use of complementary and alternative medicine for cancer patients. Therefore, complementary and alternative practices could be included in the nursing curriculum and nursing practices.⁴

The researcher observed that current nurses require adequate knowledge of CAT because patient demand is growing on the use of CAT during care. Clinical nurses need to understand the safety and efficacy issues pertinent to widely used CAT. Many complementary therapies help the patient to feel better by reducing the side effect of drugs and provides relaxation. So the researcher thought that more study is needed to guide nurse managers and nurse educators to provide training to the nurses to equip nurses with the knowledge and skills on CAT to integrate during patient care.

Methods

Research Design and setting

This was a descriptive correlational study conducted at IMS and SUM hospital (a tertiary care hospital), Odisha between 8th June to 9th July to find out the knowledge, Attitude and Perceived Barriers of Clinical nurses in integrating selected CAT during patient care.

Sample size

In the present study, the sample size is estimated by following Yamane formula

$$n = \frac{N}{1 + N * (e)^2}$$

The 'n' value will represent the sample size 'N' value represents the population size and the 'e' is called tolerable error in estimating the variables in question. In this study, the confidence level is 95%. This means researcher can afford to have 5% error or e=5% or 0.05 thus e²= 0.0025.

Now putting the values of 'N' and 'e²' the researcher gets the sample size n = 288, but for convenience, uniformity and availability, the researcher has taken total 300 clinical nurses working in sum hospital.

n (Total sample) = 300

Ethical consideration

Ethical approval was obtained from the Institutional ethical committee, IMS and SUM Hospital (Ref. No./DRI/IMS.SH/180433). Clinical nurses were explained about the purpose and methods of the study. Approval from the participants was collected in the written informed consent form. The participants were assured that they can withdraw from the study at anytime without the need for any explanation.

Participant selection

The participants were included in the study based on the criteria: Registered nurses and working in In-patient department, Available at the time of data collection, IPD nurses having minimum 6month experience and work more than 1 month in particular present working Area. The participants who excluded in the study were Registered nurses of O.T and O.P.D and Supervisors.

Measures/ Instruments

Tool A:Sociodemographic proforma

This proforma composed of items related to clinical nurses characteristics: age, gender, marital status, religion, experience after registration, work experience in the present working area etc. One to one interview was conducted with the clinical nurses those who had given consent to take part in the study to collect the required sociodemographic data.

Tool B: Self-structured Knowledge questionnaire in the integration of Complementary and Alternative therapy inpatient care

- It consists of self-structured Multiple-choice questionnaire containing 15 questions related to knowledge of clinical nurses in the integration of CAT.
- Knowledge of clinical nurses is assessed by self-structured MCQ.
- There were 15 multiple choice questions and each question had 4 options, scoring for each correct question 1 point is given. The total score is 15 marks and the lowest score is 0 mark.

Scoring procedure:

The score is ranked as follows-

1. 0-5=poor knowledge
2. 6-10=Average knowledge

3. >11=Good knowledge

Tool C: Integrating Complementary Therapy inpatientCare-Attitude Scale for Nurses (ICTAS-Nurse)

It consists of self-structured Likert scale (5-point Likert scale) containing 19 questions related to Attitude of clinical nurses in the integration of CAT during patient care.

Scoring procedure:

All items are answered using the five-point scale as follows-

- 1= strongly disagree
- 2= disagree
- 3= uncertain
- 4= agree
- 5= strongly agree

Maximum score 95

Minimum score 19

Scoring Key

Statements	Items	SA	A	U	D	SD
▪ Positive Statement	1,2,3,4,5,6,7,8,9,10,11	5	4	3	2	1
▪ Negative Statement	12,13,14 ,15 ,16, 17, 18 ,19	1	2	3	4	5

Grading	Score
Poor	19-44
Neutral	45-70
Good	71-95

Tool D: Self-structured Likert scale of Perceived Barriers in integrating CAT

- It consists of a self-structured Likert scale with 22 numbers of questions.
- The questions are designed to elicit the perceived barriers in integrating CAT during patient care.

Scoring procedure:

All items are answered using a five-point scale described as-

- 1= strongly disagree

2= disagree

3= uncertain

4= agree

5= strongly agree

-Maximum score 110 and minimum score 22

Grading	Score
Poor	22-51
Neutral	52-81
Good	82-110

Procedure

Formal written permission was obtained from the research committee of Sum Nursing College, Bhubaneswar and the Medical superintendent of IMS&SUM hospital Bhubaneswar, Odisha before the data collection. Before interviewing informed consent from the samples were obtained after explanation of objectives of the study and confidentiality was maintained. Data collection was done from 8th June 2020 to 9th July 2020 at SUM Hospital, Bhubaneswar. A total of 300 samples were selected for the study who fulfilled the inclusion criteria and socio-demographic data were collected. Investigator maintained privacy while conducting the interview. The investigator filled the response personally. The data for Tool B, Tool C and Tool D were collected through paper and pencil. The average time taken for interviewing each subject was 20-25 minutes. Investigator thanked the respondents for their cooperation and participation.

Data Analysis

SPSS version 20 was used for statistical analysis. Socio-demographic characteristics were analysed by using descriptive statistics. The data was analysed by using inferential statistics based on the objectives of the study. The analysed data was organized in tables and graphs for better clarification. Study findings were organized according to the objectives of the following sections:

Section A

Frequency and percentage distribution of the study population according to socio-demographic variables.

Section B

- i) Frequency and percentage distribution of the study population according to knowledge, Attitude and Perceived Barriers in integrating CAT during patient care.
- ii) Factor analysis of Attitude and perceived Barriers of the study population in integrating CAT during patient care.

Section C

Correlation and Regression analysis between knowledge on CAT and attitude of nurses in integrating CAT during patient care.

Section D

Association of knowledge, attitudes and perceived barriers with sociodemographic variables to integrating CAT during patient by using the chi-square test.

Results

Demographic data

The majority (60.3%) were from the age group of 21-25 years, most of (87.3%) nurses were female. Most of (66.7%) nurses were unmarried. Many (41.3%) nurses had work experience after registration of state nursing council was the one-three year. Majority (58.3%) nurses had the professional qualification of GNM. Maximum (85.3%) nurses were Hindu. Most of (49.3%) nurses were working in the General ward. Many (52%) nurses were having work experience in the present working area for more than one year. Majority (69%) nurses had not done any formal education on CAT. A majority (60.2%) had not personally undertaken any CAT.

Findings related to knowledge, Attitude and Perceived Barriers in integrating CAT during Patient care.

Maximum (63%) nurses had Average knowledge, (36.4%) had Good knowledge and (0.3%) nurses did not know CAT. Maximum (93%) nurses had a neutral attitude, (5.3%) nurses had a good attitude and (1.7%) had a poor attitude regarding the integration of CAT. Majority (77%) nurses had an intermediate barrier, (20.7%) nurses had high barrier and (2.3%) nurses had a low barrier in integrating CAT during patient care

Findings related to factor analysis of Attitude and perceived Barriers in integrating CAT

Two new factors i.e. ‘Good prognosis with a combination of conventional treatment with CAT’ and “CAT used as supportive therapy and takes time to work” were successfully constructed using factor analysis and assigned as the factors affecting Attitude of nurses in the integration of CAT during patient care.

Three new factors i.e “inappropriate resources to integrate CAT, Acceptance of patient and Institutional protocol, Professional limitation” were successfully constructed using factor Analysis and assigned as the Factors of the perceived barrier of clinical nurses in the integration of CAT during patient care.

Findings related to the Correlation between knowledge and attitude of nurses in integrating CAT.

Correlation of knowledge and Attitude shows that r-value is 0.846 and p-value is 0.001, Hence there is a positive correlation between knowledge and Attitude of clinical nurses in integrating CAT during patient care.

Findings related to Simple Linear Regression Analysis of knowledge and Attitude of clinical nurses.

The simple linear regression analysis is calculated to determine the relationship of knowledge with an attitude of nurses in integrating CAT. The p-value for the simple linear regression among knowledge and attitude is $<0.05^*$. Therefore, it is significant.

Findings related to Association of knowledge, Attitude and perceived barriers with sociodemographic variables

Age of nurses, professional qualification in nursing and Area of working (in place) are significantly associated with knowledge of nurses, as the p-value (≤ 0.05). Area of working (p-value is 0.000*) are significantly associated with an attitude of nurses in integrating CAT during patient care. Professional qualification in nursing and Area of working in place is significantly ($p < 0.001$) associated with a perceived barrier in integrating CAT during patient care.

Table 1: Frequency (f) and percentage (%) distribution of participants according to knowledge, Attitude and Perceived Barriers in integrating CAT during Patient care.

n=300

Characteristics	F	%
Knowledge on CAT		
Poor	2	0.3
Average	188	63
Good	110	36.4
The attitude in integrating CAT		
Poor	5	1.7
Neutral	289	93
Good	6	5.3
Perceived Barriers in integrating CAT		
Low	7	2.3
Intermediate	231	77
High	62	20.7

Table 2: Showing Kmo&Bartlett's Test

n=300

Kmo& Bartlett's Test			
Kaiser-Meyer-Olkin			.806
Measure of Sampling Adequacy.			
Bartlett's Test of Sphericity	Approx. Chi-Square		449.409
	Df		171

Sig. **.000***

$p \leq 0.05$ *(statistically significant)

Table 3. New factors with factor loading after factor analysis. n=300

Factor Name	Factor loading
1. Good prognosis with a combination of conventional treatment and CAT	
a. I believe patient care should be a combination of conventional and complementary therapy to provide the best results.	.533
b. I think the medical professions should encourage patient to use CAT and make it available to patient along with conventional treatment	- .505
c. I believe clinical nurses should be able to advise their patients about commonly used CAT methods.	.730
2. CAT used as supportive therapy and takes time to work	.549
a. I believe CAT practices would not help patients with the disease to improve their psychological/emotional wellbeing and give patient hope.	
b. I believe CAT cannot work as primary treatments.	.569
c. I think CAT practices take time to work.	.706

Table4: Showing the Kmo and Bartlett's test

n=300

KMO Measure of Sampling Adequacy.		.836
Bartlett's Test of Sphericity	Approx. Chi-Square	1256.977
	Df	120
	Sig.	.000*
P≤0.005*(Statically significant)		

Table5: New factors with factor loading after factor analysis

n=300

Factor	Name	Factor Loadings
1.	Inappropriate equipment and staff to integrate CAT	
a.	Insufficient staffs	643
b.	Handing over is not done clearly	509
c.	lack of appropriate equipment for CAT use	676
2.	Acceptance of patient and institution protocol	
a.	The patient is not co-operative with you	.508
b.	Due to psychological stress	.669
c.	The religion of the patient.	.537

d.	Hospital policies	.577
3.	Professional limitation	
a.	The physician does not allow you to	.786
b.	integrate the CAT.	.537
	Lack of evidence for practices.	

Table6: Correlation between Knowledge and Attitude of Clinical nurses in Integrating CAT during Patient Care by using Pearson's correlation.

n=300

Variables	r value	p-value
Knowledge of clinical nurses on CAT		
The attitude of clinical nurses in integrating CAT during Patient Care	0.846	0.001*

p≤ 0.05* =Significant

Table7: Simple linear regression analysis of Knowledge and Attitude of clinical nurses on CAT.

n=300

Constant	Variable	Estimate	t value	P-value
Knowledge on CAT	Attitude	0.817	0.011	0.004*

R²=0.223
F=0.038
p=0.003

P≤0.05*=Significant

Table 8. Association of Knowledge with Sociodemographic variables by using Chi-square.

n=300

Variables	Chi-square value	df	P value
Age	18.633	4	0.001*
Gender	0.655	2	0.721
Marital status	6.979	4	0.137
Work experience after registration	16.363	6	0.012
Professional qualification in nursing	19.392	4	0.001*
Religion	3.819	4	0.431
Area of working in the place	140.433	6	0.000*
Work experience in the present working area	8.438	6	0.208

p≤0.05*=Significant

Table 9. Association of Attitude with sociodemographic Variables by using Chi-square.

n=300

Variables	Chi-square value	Df	P-value
Age	9.42	4	0.051
Gender	0.853	2	0.653
Marital status	2.969	4	0.563
Work experience after registration of state nursing	7.110	6	0.311

council			
Professional qualification in nursing	6.205	4	0.184
Religion	2.039	4	0.729
Area of working	88.056	6	0.000*
Work experience in the present working area	7.613	6	0.268

P≤0.05*=Significant

Table 10. Association of Perceived Barriers with Sociodemographic Variables by using chi-square.

n=300			
Variables	Chi-square value	Df	P-value
Age	12.708	4	0.013
Gender	1.710	2	0.425
Marital status	5.000	4	0.287
Work experience after registration of state nursing council	10.234	6	0.115
Professional qualification in nursing	14.652	4	0.005*
Religion	2.257	4	0.689
Area of working in a place	148.936	6	0.000*
Work experience in the present working are	9.932	6	0.128

P≤0.05*=Significant

Discussion on sociodemographic data of study participants:

The findings of the present study evidenced that (28.7%) of study samples were from the age group of 26-30 years working in a selected hospital. The present study was supported by Bahall M. et al a study on Knowledge, attitudes and use of CAT by health personnel. They show that (45%) study samples were from the age group of 26-35 years.⁷

The findings of the present study evidenced that maximum (87.3%) of study samples were females. The present study was supported by a study on Nurses' beliefs and behaviour towards the use of complementary therapies for the patient: A mixed-methods study conducted by Dr Helen Hall show that (94%) nurses were female.⁸

The findings of the present study evidenced that (31%) study participants had done formal education on CAT. The present study was supported by a study conducted by Dr Helen Hall, Nurses attitudes and behaviour towards patients use of complementary therapies. The study shows that (38.7%) participants had studied CAT.⁸

The findings of the present study evidenced that (12.7%) of study participants are Male. The present study was supported by a study conducted by Cinar N. Attitudes of nursing students regarding complementary and alternative medicine. The study shows that (15.1 %) study sample was male.⁵

Discussion on Knowledge and Attitude of nurses in integrating CAT

The findings of the study showed that (63%) nurses had Average knowledge of CAT. The present study was supported by Soheir Waheida et al (2006). Nursing students' knowledge and Attitudes towards Complementary Therapies. They showed that (65.3%) nurses had a fair knowledge of CAT.⁶ The findings of the study showed that (1.7%) nurses have poor Attitude in integrating CAT. The present study was supported by Balouchi A. et al study on Knowledge, Attitude and use of CAT. They showed that (0.6%) nurses had poor Attitude.⁹

Conclusion

From the result of the study, it was concluded that the clinical nurses with average knowledge on CAT are having neutral attitude in integrating CAT and they are having some barriers in integrating CAT during patient care but there is significant relationship found between knowledge and attitude of nurses in integrating CAT during patient care. Hence it is recommended that due to the widespread use of CAT, the clinical nurses and other health care professionals need to be informed about the CAT that their patients are using or thinking of using.

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Conflict of Interest: The author declares there is no conflict of interest

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