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Assess the Stressors and Coping Strategy Among the First Year BSc Nursing Students in Selected College of Nursing Coimbatore

K Dhanapandi

Abstract

This study aims to assess the stressors and coping strategy among the first year BSc Nursing students in selected College of Nursing at Coimbatore. A descriptive study was conducted for sample of 30 nursing students by using simple random sampling technique. The data was collected by using stressor scale and coping strategy scale. The results show that most of the students have moderate level of stressor 20 (66.67%) and coping strategy 26 (86.67%) respectively. There is a negative correlation between the level of stressor and coping strategy among the first BSc Nursing students. The researcher concluded that implementing empirically tested approaches useful to prevent the recurrence of stress and lessen its impact.

Keywords: Stressors; Coping strategy; Empirical; Recurrence; Impact.

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Introduction

Students are subjected to different kinds of stressors, such as the pressure of academics with an obligation to succeed, an uncertain future and difficulties of integrating into the system.¹ Every person experiences different forms of stress throughout their life. Therefore a student nurse is no exception as they have to adjust to an entirely new environment on joining nursing. It may affect in psychological distress, physical complains, behavior problems and poor academic performance.²

Coping strategies to manage stress through social care can positively reduce levels of stress and promote health.³ The World Health Organization has estimated that stress related disorder will be one of the leading causes of disability by the year of 2020. Dhar R et al. reported 48.83% mild stress, 11.62% moderate stress among nursing students. Studies from India and United Kingdom Have reported increasing level of stress among nursing students.⁴

In K.G. College of Nursing, the academic year of 2016–2017 three students (3%) were discontinued the course. In the academic year of 2017–2018 one student (1%) were discontinued the course and the academic year of 2018–2019 one student (1%) were discontinued the course. In last three years five students (1.7%) were discontinued the Nursing course due to their personal and academic stressors. The researcher found that, this study aims to assess the stressors and coping strategy among the First year BSc Nursing students.

Statement of the Problem

A Descriptive study to assess the stressors and coping strategy among the First year BSc Nursing students in selected college of Nursing, Coimbatore.

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Objectives

- To assess the stressors among the First year BSc Nursing students.
- To assess the coping strategy among the First year BSc Nursing students.
- To correlate the stressors and coping strategy among the First year BSc Nursing students.
- To associate the level of stressors among the First year BSc Nursing students with the selected demographic variables.
- To associate the coping strategy among the First year BSc Nursing students with the selected demographic variables.

Operational Definitions

Stressors: Stressors refers as something that causes a state of strain or tension among the First year BSc Nursing students Based on academic, clinical, hostel and others.

Coping strategy: Coping strategy refer to the specific efforts, both behavioral and psychological, that people employ to master, tolerate, reduce or minimize stressful event.

First Year BSc Nursing Students: The students who are studying First year BSc Nursing and who have perceived stress scale score is 27-40.

Materials and Methods

Research design: Descriptive research design was adopted in this study.

Setting: The study was conducted in selected College of Nursing at Coimbatore.

Population: Students who are studying in first year BSc Nursing are considered as target population.

Sample size and sampling Technique: A total number of 30 First year BSc Nursing students were selected by simple random sampling using lottery method.

Criteria for Sample Selection:

Inclusion criteria: First year BSc Nursing students,

- who are having a high score of perceived stress level (27-40).
- who can read, write and understand English.

- who are being away from home.

Exclusion criteria

- who are already taking medication for mental illness (stress).
- who are not willing to participate in the study.

Description of Tool

Section A: Questionnaire on Demographic profile. It consists of personal information about the student such as age in years, sex, religion, type of family, how do you rate the quality of your sleep, the place of residence, type of sociability.

Section B: Perceived stress scale. The perceived stress scale (PSS) is designed to provide individuals with some insights into their stress level by answering each question candidly. This consists of 10 standardized questions to survey the samples. Each question has five options: never, almost never, sometimes, fairly often, and very often. Score interprets like 0-13 – Low stress, 14-26 – Moderate stress, 27-40 – Severe stress.

Section C: Stressor scale: This tool is designed to Identify the stressors of the student by tick: Yes or No for each question. This consists of 4 subheadings. It interpreted that Low stressor – 0-7, Moderate stressor – 8-16, Severe stressor – 17-25.

Section D: Coping strategy scale: This tool is designed to assess the coping strategy of the student. This scale consists of 12 subheadings. Each statement has 5 options: never, hardly, sometimes, often, most of the time. This is scored as Normal coping strategy – 0-40, Moderate coping strategy – 41-80, Low coping strategy – 81-120.

Data Collection

Before the actual collection of data the investigator obtained the written permission from the Director of Education and Principal of College of Nursing to conduct the study, on oral consent obtained from the participants of the study to ensure the protection of human rights safety. Data collection was done for a period of one week. By using simple random sampling technique, based on the inclusion and exclusion criteria, 30 samples were selected for the study. The demographic data of the student were obtained by questionnaire. Level of stressors and coping strategy were collected by modified stressor and coping scale.

Results

Description of the demographic variables: Among 30 female students most of them are above 18 years, Hindu and Christian religion, most of the students belong to nuclear family from urban area; most of them are having moderate sleep pattern.

Findings related to level of stressor: Among 30 First year BSc Nursing students 20 (66.67%) of them have moderate stressor (Fig. 1).

Findings related to level of coping strategy: Among 30 First year BSc Nursing students 26 (86.67%) of them have moderate coping strategy (Fig. 2).

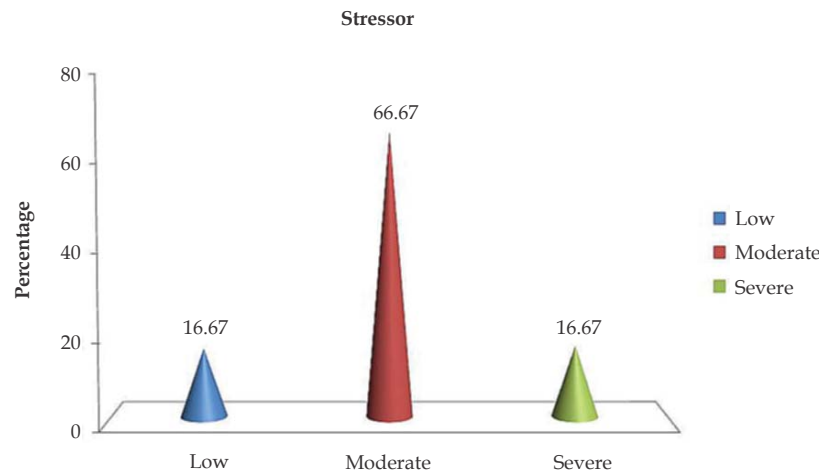


Fig. 1: Over all distribution level of stressor among First year BSc Nursing students.

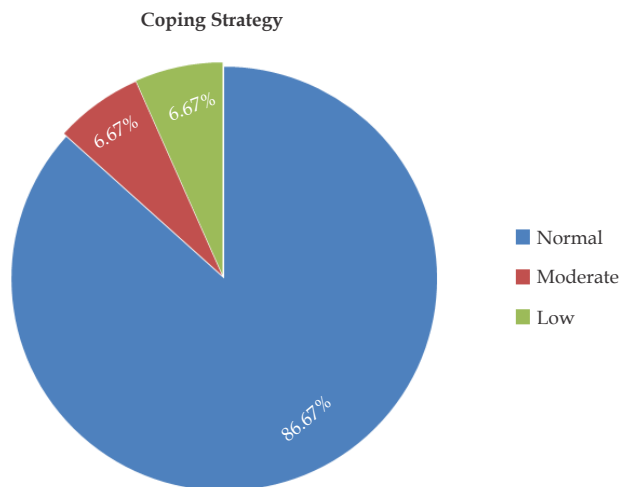


Fig. 2: Over all distribution level of coping strategy among the First year BSc Nursing students.

Findings related to level of stressor and coping strategy: The level of stressor and coping strategy Mean, Standard deviation and Correlation as respectively, Mean - (12 and 60.57), SD - (3.61 and 14.61), r (-0.2889). So, there is a Negative correlation

between the level of stressor and coping strategy (Table 1). Hence it is proved that if the students have good coping mechanism they can reduce the level of stressors.

Table 1: Correlation between stressor and coping strategy among First year BSc Nursing students

N = 30

S. No	Variables	Mean	Standard deviation	Correlation
1.	Stressor	12	3.61	-0.2889
2.	Coping strategy	60.57	14.61	

Findings related to association between level of stressors and coping strategy with selected demographic variables: There is no significant association between the level of stressor and coping strategy with selected demographic variables such as age, sex, religion, type of family, place of residence, quality of sleep and type of sociability.

Recommendations

- A similar study can be undertaken in large sample for better generalization.
- A Comparative study can be conducted to assess the level of stressor and coping strategy between hostellers and day scholars.
- A Comparative study can be conducted to assess the level of stressor and coping strategy among professional students with arts and science students.

Discussion

The study finding was consistent with the study conducted by Emad Shdaifat (2018)³ aimed to identify the level of stress and common stressors among nursing students and to identify the coping mechanisms used by the nursing students. It shows that the moderate level of stress among nursing students illustrate need for stress management programs and the provision of suitable support. The researcher reported that majority of subjects tend to use more of healthy coping strategies as compared to negative or unhealthy ones. Findings was coherent with the study conducted by Rajesh Kumar (2011)¹ which is aimed to seeking diversion and seeking professional or social support is the most common strategy identified by nursing students. The study found that negative correlation between level of stressor and coping strategy which was consistent with the findings of the study conducted by Darayus Percy Gazder (2014)⁵ aimed to evaluate stressors course work stress and coping strategy such as

wishful thinking and problem solving among nursing students. Which concluded that students who were frequently using coping technique seem to experience high level of course work.

Conclusion

Strengthening nursing students positive coping skills may be helpful for them to effectively deal with various stressors during their educational experiences while maximizing learning. Hence from the data analysis and results, it was concluded that implementing empirically tested approaches may be useful to prevent the recurrence of stress and lessen its impact such as stress management, counseling program, establishing peer and family support systems and formulating hospital policies that will support nursing students.

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Assessment of Severity, Distress and Cognitive Functions of Dementia Clients Seeking Treatment in Southern Part of India

Divya Gigy¹, Anumol Joseph²

Abstract

A new case of dementia every three seconds is a strong message that highlights how dementia will be the biggest challenges faced by the growing elderly population across the globe in the coming years. In India, the situation is no different; since there is no cure for dementia research plays a crucial role in improving the quality of care. Research in the field of dementia must be encouraged in order to bring about a change in the quality of care and to develop and implement new methods and activities for the active well-being of people of dementia. *Objectives:* To assess the severity, distress and cognitive functions of dementia patients and to seek association between them. *Methodology:* Quantitative research approach with non-experimental descriptive survey design was selected for the present study. The sampling technique chosen was non-probability convenient sampling technique for a sample size of 100. The study chosen was from memory clinic of Southern India. The tool consisted of Part A demographic profile with 5 variables. Part B consisted of Clinical dementia rating scale (CDR), Neuropsychiatric symptom inventory (NPI) and Addenbrooke's cognitive Examination (ACE-III). We analyzed the scores using descriptive and inferential analysis. Association between them was performed using Chi-square. Statistical significance was taken to be $p < 0.05$. *Results:* The study shows that the majority were in the age group of 60–70 years. Maximum numbers of dementia clients were females. Duration of cognitive impairment was majorly between 1 and 3 years. The greater part of the diagnosis was of Alzheimer's dementia and mostly under hospital care. The study also revealed that the CDR score constituted majorly of mild level among dementia clients and out of 85 clients receiving domiciliary services majority had mild impairment of 47%. The NPI-D confirms that 99% had mild distress. Moreover, in Residential care facility out of 5 clients there was equal percentage of mild and severe impairment, i.e. 40%, in Day care service out of 10 clients, half of them had severe impairment, i.e. 50%. Furthermore, NPI-FxS presented 90% with mild distress and ACE-III showed 79% with impaired cognition. There was no association between distress and severity and gender but there is a significant association between diagnosis and cognitive function. *Conclusion:* Dementia awareness and early detection is the urgent need of the hour, early symptom detection will help in alleviating the distress to a significant level. The interventional package will serve to cater the needs of the dementia patients in various dimensions of holistic health.

Keywords: Cognitive impairment; Alzheimer's disease; Dementia; Domiciliary Service; Cognition.

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Introduction

The ability to think sets apart humans from other living things. An ailing brain can play havoc with one's life as one grows older. An estimated 4 million people suffer from dementia and Alzheimer's and the number expected to triple by 2050.¹ Globally, at least 44 million people are living with dementia, making the disease a global health crisis that must be addressed.² About 10% of people

develop the disorder at some point in their lives. It becomes more common with age. About 3% of people develop between the ages of 65 and 74 have dementia, 19% between 75 and 84 and nearly half of those over 85 years of age.³

Alzheimer's disease is by far the most common cause of dementia. A combination of brain cell death and depletion of the neurotransmitter acetylcholine is responsible for its symptoms. Alzheimer's disease develops as a result of complex interactions among multiple factors including age, genetics, environment, lifestyle and coexisting medical conditions. Aging population, vascular diseases, diabetes, genetic and nutritional factors, stroke and poor economic status are risk factors for dementia. Dementia is a broad term that describes symptoms associated with a decline in memory or other thinking skills, severe enough to reduce a person's ability to perform everyday activities.⁴

As we grow older, our brains change and we have problems remembering certain details. However, Alzheimer's disease and other dementias cause memory loss and other symptoms which are serious enough to interfere in once daily life. The symptoms of Alzheimer's include: trouble in completing task that were once easy, difficulty solving problems, changes in mood or personality; withdrawal from friends and family, problem with communication, either written or spoken, confusion about places, people and events, visual changes such as trouble understanding images.²

For diagnosis, the symptoms must be present for at least six months. Diagnosing accurately and earlier is important because it allows a better treatment to improve the quality of life, provides better opportunity of support services, provides opportunity to express wishes regarding future care and living arrangements and time to put financial and legal plans in place.²

Defining a person's disease stage helps physicians determine the best treatment approach and aids communication between health providers and caregivers. The scales allow one to better understand the different stages of Alzheimer's disease via cognitive decline and functionally.⁵

Currently, there is no cure for Alzheimer's disease from progressing; there are medications to treat dementia symptoms. In addition, having support systems in place and the use of non-pharmacologic behavioral interventions can improve quality of life for both people with dementia and their caregivers and families. People with this disease should be motivated to remain active towards preventing

mental decline. Proper nutrition and exercises help. Advanced cases need more supervision. For decades, physician and researchers believed dementia cannot be prevented. However new research in which the researchers identified nine risk factors which might increase person's chances of developing dementia. This includes lack of education, midlife hypertension, obesity, hearing loss, depression, diabetes, physical inactivity, smoking and social isolation.⁶ The researchers believe targeting these risk factors with treatment or intervention could delay or prevent some cases of dementia. The objectives were to assess the severity, distress and cognitive functions of dementia patients and to seek association between them.

Materials and Methods

Quantitative research approach with non experimental descriptive survey design was selected for the present study. The sampling technique chosen was non-probability convenient sampling technique for a sample size of 100. The study chosen was from memory clinic of Southern India. The tool consisted of Part A demographic profile with 5 variables. Part B consisted of Clinical dementia rating scale (CDR), Neuropsychiatric symptom inventory (NPI) and Addenbrooke's cognitive Examination (ACE-III). We analyzed the scores using descriptive and inferential analysis. Association between them was performed using Pearson correlation. Statistical significance was taken to be $p < 0.05$. An interventional package will be developed comprising of education and training of staff, career prospects for nurses in dementia care, implementation of regular caregiver meetings, establishment of dementia friendly communities, follow-up home visits and end of life care, psychosocial interventions and nursing interventions.

Results

Table 1 presents the age, gender, duration of cognitive impairment, diagnosis and types of facilities of the dementia clients. The data show that 39% dementia clients were in the age group of 60–70, 36% were in the age group of 71–80, 18% were under 59 and only 7% were in the age group of 81 and above. The gender wise breakup revealed that the maximum numbers of dementia clients under study were females, i.e. 59% and remaining were males 41%.

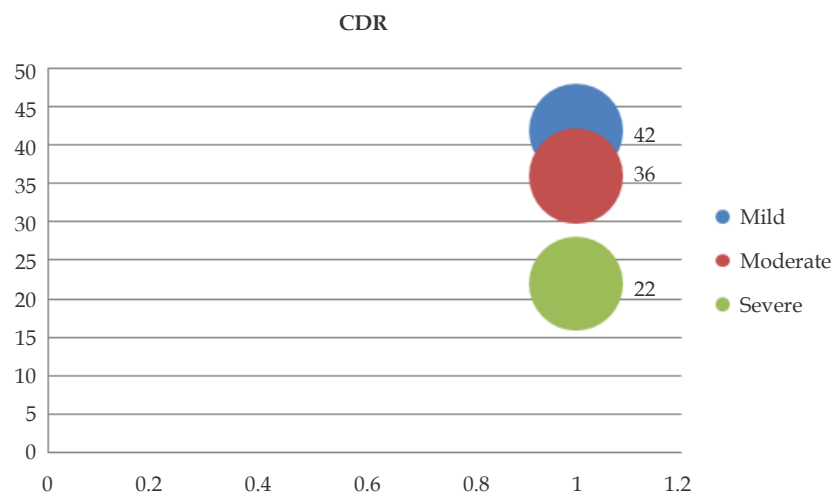
Table 1: Frequency and percentage distribution of dementia clients by their sample characteristics

N = 100

S. No	Sample Characteristics	Frequency	Percentage
1	Age		
	Under 59	18	18
	60–70	39	39
	71–80	36	36
	81 & above	7	7
2	Gender		
	Male	41	41
	Female	59	59
3	Duration of cognitive impairment		
	Less than a year	34	34
	1–3 years	43	43
	4–6 years	19	19
	7–10 years	1	1
	More than 11 years	3	3
4	Diagnosis		
	Frontal lobe dementia	2	2
	Vascular lobe dementia	6	6
	Alzheimer's dementia	80	80
	Mild cognitive impairment	7	7
	Other type of dementia	5	5
5	Types of facilities		
	Residential care	5	5
	Day care	10	10
	Hospital	85	85

The findings reveal that a significant proportion 43% had been suffering with dementia for the past 1–3 years. Additionally, 34% got diagnosed with dementia in less than a year. 19% of our patients are living with dementia for a period of 4–6 years. Some proportion of the clients that is 3% reported that had been suffering for more than a decade and only 1% reported to be affected with dementia for 7–10 years. Table 1 depicts that a significant percentage

of the dementia clients that is 80% had Alzheimer's dementia followed by mild cognitive impairment, vascular dementia, other types of dementia and frontal lobe dementia comprising of 7%, 6%, 5% and 2% respectively. The data revealed that most of the patient seek OPD hospital services that is 85%, whereas 10% of people were from day care facilities and only 5% had residential care facility.

**Fig. 1:** A Scattered diagram shows the frequency distribution of CDR among dementia clients.

The data reveals that the CDR of dementia clients constituted majority of mild clients with 42% then 36% moderate and 22% severe (Fig. 1).

Figure 2 shows that most of the patients had mild distress that is 99% with 1% moderate distress and no severe distress.

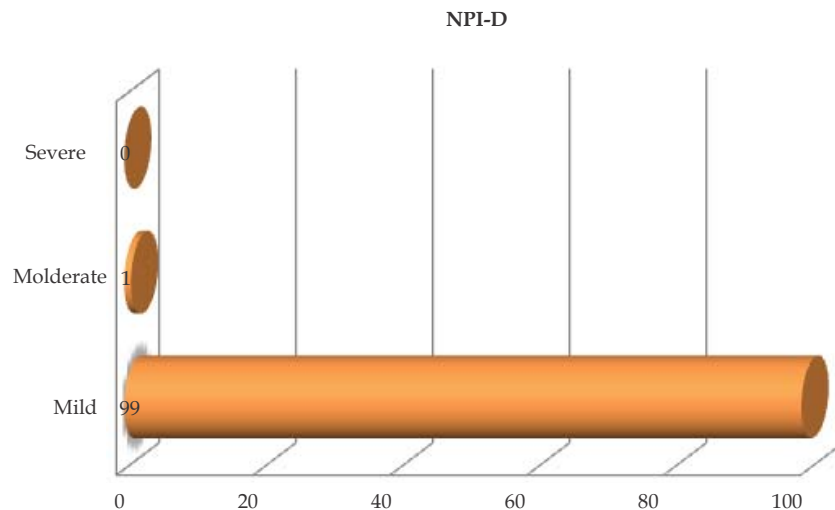


Fig. 2: A bar diagram shows the frequency distribution of NPI-D among dementia clients.

The data reveals that most of the patients had mild distress that is 90% and 9% had mild NPI-FxS respectively (Fig 3.).

Figure 4 donut diagram illustrates that 79% of the people with dementia had moderate impaired cognition whereas 21% had mild impaired cognition.

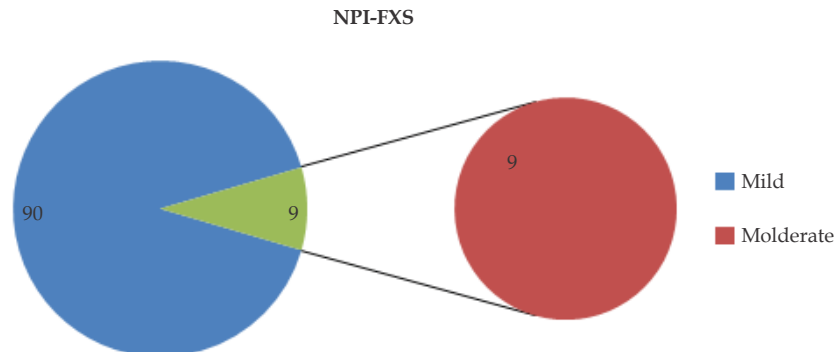


Fig. 3: A pie diagram shows the frequency distribution of NPI-FxS among dementia clients.

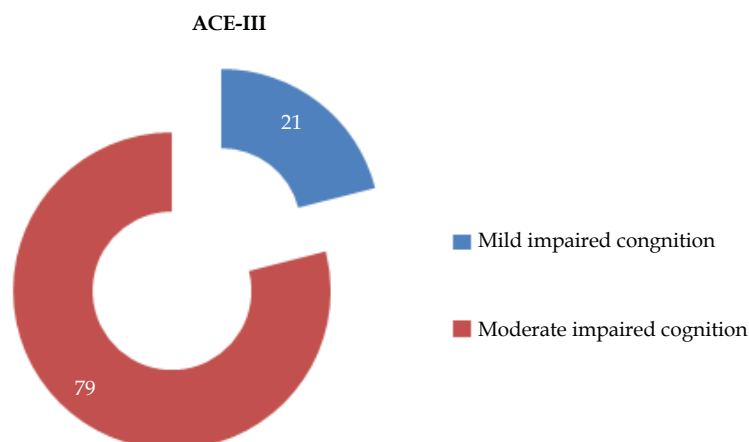


Fig. 4: A donut diagram shows the frequency distribution of ACE-III among dementia clients.

The data represents that out of 85 clients receiving domiciliary services majority of the clients had mild impairment that is 47%, 38.8% had moderate impairment and 14% had severe impairment. Moreover, in Residential care facility out of 5 clients there was equal percentage of mild and

severe impairment, i.e. 40% and 20% with moderate impairment. Furthermore, in Day care service out of 10 clients, half of them had severe impairment, i.e. 50%, rest 30% moderate impairment and 20% mild impairment respectively (Fig. 5).

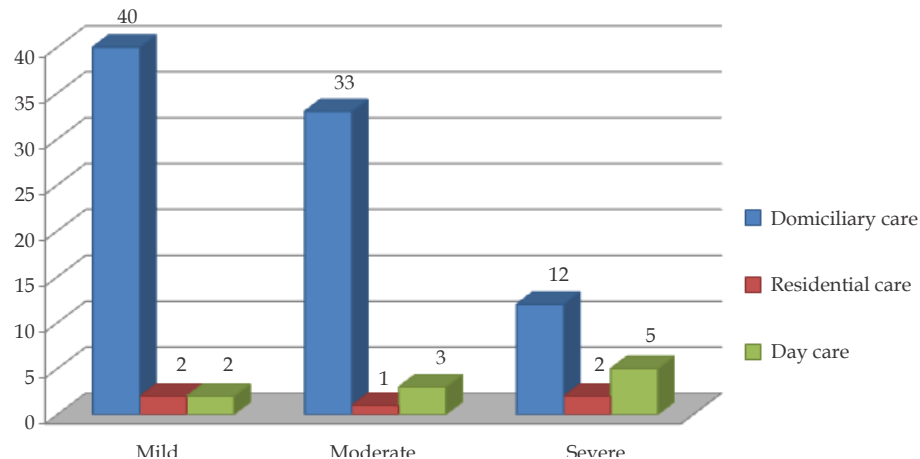


Fig. 5: A bar diagram shows the frequency distribution of dementia clients in domiciliary, residential, day care services in relation to the CDR-III.

The data given in Table 2 indicate that the mean value of CDR scale was 1.67, NPI-D was 8.19, NPI-FxS was 19.87 and ACE-III was 69.36. The median value of CDR scale was 0.5, NPI-D was 7, NPI-FxS was 16.5 and ACE-III was 73.5. The mode value

of CDR scale was 0.5, NPI-D was 2, NPI-FxS was 18 and ACE-III was 87. The standard deviation of CDR scale was 8.5, NPI-D was 5.6, NPI-FxS was 16.2 and ACE-III was 21.3.

Table 2: Mean median, mode and standard deviation on the levels of severity, distress and cognitive impairment among the dementia clients

S. No	Dementia clients	Mean	Median	Mode	Standard Deviation
1	CDR	1.67	0.5	0.5	8.5
2	NPI-D	8.19	7	2	5.6
3	NPI FxS	19.87	16.5	18	16.2
4	ACE-III	69.36	73.5	87	21.3

Table 3 shows that there is no association between distress and severity and gender but there

is a significant association between diagnosis and cognitive function.

Table 3: Association between selected demographic variables and distress and severity and impairment

Parameters	Demographic variables	Chi-square	Degree of freedom	Table value	Test of significance
Gender					
1. CDR		4.1	3	7.82	NS
2. NPI-F		0.01	2	5.9	NS
3. NPI-FxS		0.0	2	5.9	NS
4. ACE		0.42	1	3.8	NS
Diagnosis					
1. CDR		4.20	8	15.51	NS
2. NPI-F		7.8	8	15.51	NS
3. NPI-FxS		6.6	4	9.4	NS
4. ACE		18.5	8	15.5	NS

Discussion

Dementia refers to a syndrome that is characterized by progressive deterioration of cognitive functions. According to data we collected, Prevalence of dementia was higher in women than in men and nearly doubled with every five year increase in age.⁷ Age is the most important risk factor for dementia. The present study revealed that majority was in the age group of 60–80 years and were females which are in line with the study of Jishnu⁸ et al. which confirms that majority were in the age group of 75–85 years and mostly were females.

In this study, it was examined that majority were diagnosed Alzheimer's dementia which is similar to the article of W M van der Flier & P Scheltens⁷ which says Alzheimer's disease (AD) is the most prevalent cause of dementia. It is a neurodegenerative disorder, generally assumed to be caused by neurotic plaques and neurofibrillary tangles accumulating in the brain.

The study revealed that the majority of the clients in the domiciliary services had mild impairment which is in parallel to the study of Khurana PS⁹ et al. which says only 27% out of 100 in the hospital setup confirms the high risk symptoms.

There was no association between distress and severity and gender but there is a significant association between diagnosis and cognitive function.

Conclusion

Dementia is the most common form of neurodegenerative condition and is increasingly frequent as world population ages. It is a leading cause of death and is responsible for considerable morbidity, expressed in the high levels of functional dependence and need for burden some interventions characteristic of late stages of dementia. A healthy lifestyle that is good for the heart and brain might reduce the risk of developing dementia and might delay the onset of dementia symptoms to a later age. Keeping your heart and

brain active will help to build brain reserve, so that your brain can compensate and keep functioning well for longer, delaying the onset of dementia. Diagnosis requires careful history-taking and skilled clinical assessment, followed by appropriate laboratory investigations. Drug treatments at present provide symptomatic relief. Psychosocial and other supportive therapies are essential.

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Comparative Stress among BSc Nursing Students of Selected Government and Private Colleges in Ernakulam

Sindhu Devi M¹, Vidyeeswari²

Abstract

A Comparative study was done to assess the academic stress among final year BSc nursing students in selected self-financing government and private colleges of Ernakulam. From selected colleges of Ernakulam, 100 samples were taken for the study. The tools used for the study comprised Socio-demographic data and Academic Stress Scale Majority (73%) of the samples belonged to Christian community, and females between 21 and 24 years of age group. Forty percentage of their fathers are educated up to high school and 43% of the mothers up to high school, 32% of their fathers are daily wages and 79% of the mothers are housewives. Fifty five percentage of the subjects were from rural Area and 54% of the samples spend 4–6 hr for study. Majority (80%) of the subjects spend 1–3 hr for extracurricular activities. The study findings revealed that the level of academic stress is almost same in Government (111.4 ± 23.66) and private (108.6 ± 23.74). In itemwise analysis the *p*-values corresponding to AS- score for item 23 (lack of communication between teachers and students) and AS-score for item 40 (Inadequate lab and library facilities) are less than the significance level 0.05; the difference in AS- score for item 23 and AS-score for item 40 between Government and private is significant. AS-score for item 23: The weighted mean confirms that the AS- score for item 23 (Lack of communication between teachers and students) is significantly higher in Government (3.28) compared to private (2.72). The mean rank also confirms that AS-score for item 23 is significantly higher in Government (56.9) compared to private (44.1). AS-score for item 40: The weighted mean confirms that the AS-score for item 40 (Inadequate lab and library facilities) is significantly higher in Government (2.56) compared to private (2.00). The mean rank also confirms that AS-score for item 40 is significantly higher in Government (56.8) compared to private (44.2). Therefore, the research hypothesis that there is significant difference between academic stress of final year students of government and private college is partially accepted. There is significant association between academic stress and education of father, mother and occupation of mother. Therefore, the research hypothesis that there is significant association between academic stress and education of father, mother and mother's education is accepted. There is no significant association between academic stress and other demographical variables.

Keywords: Comparative; Academic stress; Nursing Students.

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Introduction

Stress is an unpleasant state of emotional and physiological arousal that people experience in situations that they perceive as dangerous or threatening to their well-being. The word “stress” means perception or sensation different to different people. Stress is a part and parcel of human lifestyle. It can serve as a driving force in terms of obtaining results, but on the other hand, non-stop stress can act as a killer in terms of performance. It is a known fact that students are subjected to different kinds of stressors, such as the pressure of academics with

an obligation to succeed, an uncertain future, and difficulties of integrating into the system.¹

Academic stress is inevitable in any educational institution. In optimal limits it mobilizes the potentialities of the students to perform more effectively. However, increasing amounts of academic stress for prolonged periods may create over-whelming frustration and anxiety in the students which may in turn adversely affect their morale, academic achievement, mental health, study habits and adjustment styles.³

During nursing education and training, nursing students are frequently exposed to various stressors which may directly or indirectly impede their learning and performance. The nature of clinical education presents challenges that may cause students to experience stress.² This study provides baseline information about nursing students' academic stress, and the associated factors. Thus the purpose of the present study is to assess and compare the academic stress among BSc nursing students of selected government and private colleges of nursing, in Kerala.

Materials and Methods

In view of the nature of the problem selected for the present study and the objectives to be fulfilled quantitative approach and a comparative cross-sectional survey design was used in this study.

Objectives

- To assess the academic stress among final year BSc nursing students in selected self-financing government and private colleges of Ernakulam
- To compare the academic stress of final year BSc nursing students in selected self-financing government and private colleges of Ernakulam.
- Determine the association between the selected socio-demographic variables and academic stress of nursing students.

Hypotheses: (at 0.05 level of significance)

- There is significant difference in mean scores of self-financing Government and self-financing private Nursing College students with respect to academic stress.
- There is significant difference in mean scores of rural and urban area students with respect to academic stress.

- There is significant association between the academic stress and selected socio-demographic variables.

The investigator has selected one government and private self-financing college of Ernakulam district by purposive sampling after considering the proximity, availability of subjects and co-operation from authorities. Each college consists of 75 students' annual intake per year. The population of the study included all the final year students enrolled in the B.Sc Nursing program in a selected self-financing government and private nursing college in Ernakulam District. The freshmen and sophomore students were excluded since they have limited clinical experience prior to collection of data. The present study consists of 100 final year students enrolled in the Bachelor of Science in nursing program in the selected nursing colleges. Purposive sampling was used to select the colleges for the study. Subjects were assigned to the study group by lottery method of simple random sampling technique. The tool intend to be used for the study comprised Section A, contains Socio-demographic data which includes age, gender, type of family, religion, rural/urban, education and occupation of the father, education and occupation of the mother. General information included age, gender, year level, family monthly income, hours spent for studying/day, and hours of sleep/night.

Section B consists of Academic Stress Scale to find out the level of academic stress and to compare the stress among BSc Nursing students from different colleges for this purpose the investigator used the academic stress scale constructed and standardized by R. Balaji Rao. The scale was adopted to Indian conditions by Rajendran and Kaliappan (1990).

The items are classified into five areas contained 8 items each viz.,

- Personal inadequacy ... (F1)
- Fear of failure ... (F2)
- Interpersonal difficulties with teachers ... (F3)
- Teacher-pupil relationship/Teaching methods ... (F4)
- Inadequate study facilities ... (F5)

The total items were 40. Therefore 200 (5×40) is the maximum possible score and the highest score on each factor would be 40 (5×8). Each factor has equal number of items. The higher the value of the score, the more the academic stress and vice-versa. As the investigator is using the tool, viz., Students-Academic Stress Scale, is assumed that the adopted

version is having validity and reliability. This scale consists of as many as 40 items and each item has five alternative responses, i.e. "No Stress", "Slightly Stress", "Moderate Stress", "Highly Stress" and "Extremely High Stress". So the scoring to the response given by the students should be like the following.

Response	Weightage
No stress	1.
Slightly stress	2.
Moderate stress	3
Highly stress	4.
Extremely High stress	5

High scores are an indication of high stress and low scores on the scale are an indication of low stress. Ethical clearance was obtained from the institutional ethical committee after presenting it in detail before the committee. Permission was also taken from the Principals, and managements of selected colleges. The pilot study was conducted before the main study. The study was found feasible and practicable. Study was conducted from 09th of August to 17th of September 2017. The study was carried out in single session. The data were collected by the researcher herself. Each college was visited one after another. The subjects were asked to get together in a common classroom. The researcher introduced herself and explained the purpose of the study to the subjects, obtained their willingness and written consent. Confidentiality was assured to the subjects. Explained the procedure to the group including the teachers who are helping out in the study. The scale used in the study were projected for the group with the help of LCD and instruction regarding the filling the forms were given. The baseline data was collected. The researcher administered the tools and which took almost 40 to 45 mins. The data were analyzed in terms of the objectives of the study using descriptive and inferential statistics. Data are analyzed using SPSS 20 version.

Results

The Demographic Variables of Study Subjects Using Frequency and Percentage.

Majority (73%) of the samples belonged to Christian community, 21% Hindu and 6% Muslim community and they are females between 21–24 years of age group. 40% of their fathers are educated up to high school and 21% up to higher secondary. 43% of the mothers are educated up to

high school and 28% up to higher secondary. 32% of the fathers are daily wages and 21% of them are doing agriculture for their livelihood. 79% of the mothers are housewives. Majority of the samples are in between ₹10001 and 20.000/- as monthly income. Majority of the subjects (76%) are hostlers. 54% of the samples spend 4–6 hr and 46% spend 1–3 hr for study. Majority (80%) of the subjects spend 1–3 hr for extracurricular activities.

The study revealed that the academic stress score in subjects of government is 38% which shows that they are highly stressed 48% are moderately and 14% are low stressed. But in private 48% are highly stressed 34% are moderately and 18% are low stressed. These study findings revealed that the academic stress is almost same in Government (111.4 ± 23.66) and private (108.6 ± 23.74). This difference was calculated through testing following null hypothesis by using Independent Sample *t*-test. Here the *p*-value is greater than the significance level 0.05. There is no significant difference between academic stress of final year students of government and private college. Therefore, the research hypothesis that there is significant difference between academic stress of final year students of government and private college is rejected.

Itemwise Analysis of Academic Stress Scale of Study Subjects

In itemwise analysis, here the *p*-values corresponding to AS-score for item 23 (lack of communication between teachers and students) and AS-score for item 40 (Inadequate lab and library facilities) are less than the significance level 0.05; the difference in AS- score for item 23 and AS-score for item 40 between government and private is significant. AS-score for item 23: The weighted mean confirms that the AS-score for item 23 (lack of communication between teachers and students) is significantly higher in government (3.28) compared to private (2.72). The mean rank also confirms that AS-score for item 23 is significantly higher in government (56.9) compared to private (44.1). AS-score for item 40: The weighted mean confirms that the AS-score for item 40 (Inadequate lab and library facilities) is significantly higher in Government (2.56) compared to private (2.00). The mean rank also confirms that AS-score for item 40 is significantly higher in government (56.8) compared to private (44.2). Therefore, the research hypothesis that there is significant difference between academic stress of final year students of government and private college is partially accepted.

Table 1: Comparison of areas of academic stress scale between government and private

	Mean	SD	t-value	df	p-value
Personal inadequacy					
Government	16.44	4.413	0.583	98	0.561
Private	15.92	4.499			
Fear of failure					
Government	15.54	5.800	0.809	98	0.420
Private	14.58	6.061			
Interpersonal difficulties with Teachers					
Government	13.14	5.806	0.866	98	0.389
Private	12.12	5.971			
Teacher-pupil relationship/teaching methods					
Government	13.98	6.099	0.825	98	0.412
Private	12.94	6.504			
Inadequate study facilities					
Government	12.30	5.856	0.612	98	0.542
Private	13.00	5.570			

Personal inadequacy: the difference in personal inadequacy between Government and private is not significant. Table 1 that the personal inadequacy is almost same in Government (16.44 ± 4.413) and private (15.92 ± 4.499).

Fear of failure: the difference in fear of failure between Government and private is not significant. Table 1 shows that the fear of failure is almost same in Government (15.54 ± 5.800) and private (14.58 ± 6.061).

Interpersonal difficulties with teachers: The difference in interpersonal difficulties with teachers between Government and private is not significant. Table 1 shows that the interpersonal difficulties with teachers are almost same in Government (13.14 ± 5.806) and private (12.12 ± 5.971).

Teacher-pupil relationship/teaching methods: The difference in teacher-pupil relationship/teaching methods between Government and private is not significant. The table shows that the teacher-pupil relationship/teaching methods is almost same in

Government (13.98 ± 6.099) and private (12.94 ± 6.504).

Inadequate study facilities: The difference in inadequate study facilities between Government and private is not significant. Table 1 shows that the inadequate study facilities are almost same in Government (12.30 ± 5.856) and private (13.00 ± 5.570).

The difference in all other academic stress scores is almost same between Government and private as the corresponding *p*-values are greater than the significance level (Table 2).

Determines the association between the selected socio-demographic variables and academic stress of nursing students.

There is significant association between academic stress and education of father, mother and occupation of mother. Therefore, the research hypothesis that there is significant association between academic stress and education of father, mother and mother's education is accepted.

Table 2: Comparison of academic stress scale between government and private colleges

	Mean	SD	t-value	df	p-value
Government	71.40	23.66	0.599	98	0.550
Private	68.56	23.74			

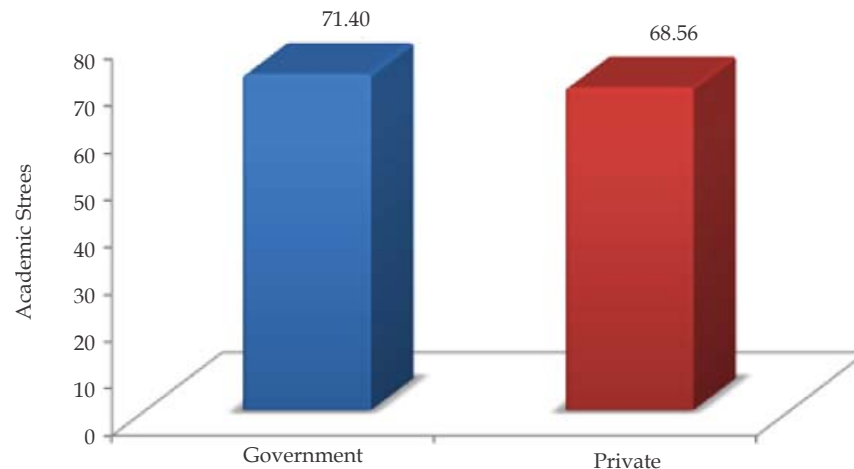


Fig. 1: Comparison of Academic Stress Scale between Government and Private Colleges

Discussion

Teachers and Nurse educators are the first persons who can identify behavioral and emotional problems of children and nurses play a vital role in educating teachers for the same. The result of the study is motivating to those who are interested in conducting similar studies in the same area which will help them to identify adolescents' stress and different modes of management. Psychologists/nurses play a vital role in the care of adolescents in the colleges/community. The findings of this study would help the authorities to educate the parents and teachers either government or private colleges regarding Academic stress in children. Faculty need to be prepared to effectively provide care for these children. They can become a vital link between the teaching institution and home. Teachers/Parents should be offered in-service training in Academic stress. The schools and colleges should take initiative through health professionals to provide information on Academic stress and related disorders and their management to the teachers. The findings of the study indicated that more emphasis should be placed on Care of students with Academic stress in the curriculum and should be made mandatory. Teaching techniques and college environments should be adapted to the needs of the students. Similarly, students living in hostels are observed to be prone to develop stress; thus, a periodic review of hostels, with feedback from the students, should be conducted and the complaints of students should be promptly addressed. The majority of students are in favor of stress management education being included in the curriculum, and hence steps should be taken for its incorporation. Health is a major

concern of students, and therefore the promotion of healthy dietary and lifestyle habits should be encouraged. Additionally, teachers, parents and even students themselves should be aware that undue expectations about academic achievement can lead to stress. Finally, regular study habits and adequate preparation can help students to avoid stress.

Acknowledgment

Any accomplishment requires the handwork and effort of many people and this work is no exception. I am extremely grateful to the IGNOU, and Regional Centre for the platform provided for advancement of my education. My hearty and faithful thanks to my guide Dr. Vidyeeswari, V for her unwavering support, advice, insightful conversations, helpful comments and for her hard work, inspiration, and encouragement during the study. I would like to place on record my appreciation and thanks to all the students, for their willing participation, giving me needed feedback, for making up the time during the sessions conducted and enabling me to complete my research in a befitting manner. I owe my special thanks to Board of directors, and staff of Sree Sudheendra College of Nursing for their unconditional support, and cooperation to carry out the study.

Conclusion

The findings in this study show that both government and private undergraduates reported higher degree of stress in certain areas due to studies related sources of stress, such as the increased class workloads, the pressure due to examinations, the

fear of results, excessive and unclear assignments. However, it will be interesting to explore in the future research, how these sources of academic stress may influence the performance and the health of the undergraduate students, and the consequences of stress may be dependent upon its sources and severity. Secondly, it is important to organize some workshops at the beginning of each year for the undergraduate students. In these workshops, they will learn how to cope with these the academic stress, how to manage it, and to learn some effective time management and adapted study techniques in order to be able to reduce the negative effects of the academic stress on their health and performance.

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A Study to Determine the Knowledge and Attitude Regarding the Ill-Effects of Substance Abuse among ITI Students of Selected ITI Colleges in Dharwad, Karnataka

Nagesh V Ajjawadimath

Abstract

Background of the study: Substance abuse is a growing problem in India, in 1956 by the World Health Organization and the American Psychiatric Association, substance abuse is "the illicit consumption of any naturally occurring or pharmaceutical substance for the purpose of changing the way in which a person feels, thinks or behaves, without understanding or taking into consideration the damaging physical and mental side-effects that are caused. **Objective:** To assess the knowledge and attitude. To determine the correlation and association between knowledge and attitude of ITI students regarding the ill-effects of substance abuse with selected socio-demographic variables. **Design:** A descriptive design was used for the study. **Results:** The knowledge mean score of ITI students was 9.26 with Standard deviation of ± 1.91 median of 10. The attitude mean score of ITI Students was 18.13 with Standard deviation of ± 1.58 median of 18. Study subjects according to the level of Knowledge among ITI students majority 48 (80%) had moderate knowledge and inadequate knowledge 7 (11.66%). Adequate knowledge only 5 (8.33%) of ITI students the level of attitude among ITI students majority 32 (53.33%) had positive attitude and 15 (25%) Favorable attitude only 13 (21.66%) of ITI students had Negative attitude. $r = 0.48$ ($0 > r > +1$), hence there was moderately positive correlation between knowledge and attitude. Since there was positive correlation research hypotheses is accepted. Chi-square value is significant between knowledge regarding ill-effects of substance abuse. With personal variables like association among the like educational level of students, type of family value is significant between Level of attitude regarding ill-effects of substance abuse with personal variables like age, type of family, percentage of SSLC and rest all were not significant at 0.05 level. **Conclusion:** Majority of ITI Students had moderate knowledge regarding ill-effects of substance. Most of the ITI Students had positive attitude towards ill effects of substance.

Keywords: Knowledge; Attitude; Substance abuse; ITI students.

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Introduction

"Substance abuse is the enemy of ambition and hope, and when we fight against it, we are fighting for the future."

Substance abuse is a patterned use of a substance in which the user consumes the substance in amounts or with methods neither approved nor supervised by medical professionals. Substance use and abuse is as old as mankind itself. Human beings always had a desire to eat or drink substances that make them feel relaxed, stimulated or euphoric.¹ Substance abuse has a number of negative effects

on a family, which include taking the family apart, loss of employment, failure in school, increasing domestic violence, child abuse, and other crimes. It is a complex disorder that often has other significant physical, emotional and mental effects in the abuser and his family members.² Ministry of Social Justice and Empowerment and the United Nations Office on Drugs and Crime published in 2004 one of the most comprehensive baseline studies, "The Extent, Pattern and Trends of Drug Abuse in India: National Survey". According to the report, apart from alcohol (62.46 million users), cannabis (8.75 million users), opiates such as heroin, opium, buprenorphine and propoxyphene (2.04 million users), and sedatives (0.29 million users) are the drugs most abused. Between 17 percent and 20 percent of current drug users were classified as dependent users. The users were mostly male; the Rapid Assessment Survey found only 8 percent of drug users to be women. By and large, young, underemployed males and marginalized populations were prone to substance abuse. Substance abuse causes a range of health complications – from weakness, loss of body weight and respiratory disorders. One of the most important effects of substance abuse is impaired judgment and a lack of rational thinking. Addicts develop psychological problems such as depression, anxiety and irritability, apart from personality problems.³

Objectives

- To assess the knowledge regarding ill-effects of substance abuse among ITI students.
- To assess the attitude regarding ill-effects of substance abuse among ITI students.
- To determine the correlation between knowledge and attitude of ITI students regarding the ill-effects of substance abuse.
- To find the association between knowledge and attitude of ITI students regarding the ill-effects of substance abuse with selected socio demographic variables.

Hypotheses

- H₁:** There will be statistically significant association between knowledge and attitude regarding ill-effects of substance abuse among ITI students with selected socio demographic variables.
- H₂:** There will be statistically significant correlation between knowledge and attitude regarding the ill-effects of substance abuse among ITI students with selected socio-demographic variables.

Assumptions

- Most of the ITI students may have inadequate knowledge regarding ill-effects of substance abuse.
- ITI students may have negative attitude regarding ill-effects of substance abuse.
- Certain demographic variables may influence on knowledge and attitude on ill-effects of substance abuse.

Limitations: Study was limited to

- Selected ITI colleges in Dharwad, Karnataka.
- Study duration was limited for 2 weeks.
- Study was limited to those who were available at the time of data collection.
- Students who were willing to participate in the study.

Materials and Methods

Research approach: Quantitative approach was used for this study.

Research design: The research design used in this study was descriptive design.

Settings of the study: The study was conducted in selected ITI colleges in Dharwad.

Population: The population consists of ITI students from selected ITI college in Dharwad.

Sample size: Total number of samples size is 60.

Sampling techniques: Convenient sampling technique.

Source of Data: The data were collected from ITI students.

Method of data collection: Administered structured knowledge questionnaire and semi-structured attitude scale were used for data collection.

Plan for data analysis: Descriptive and inferential statistics

Sampling criteria:

Inclusion criteria

- ITI students who were willing to participate.
- ITI students who were available during the study.

Exclusion criteria

- ITI students who were sick at the time of data collection.

Variables:

Study variables: Knowledge and attitude

Demographic variable: Age, sex, education status, economical status, area of residence, etc.

Instruments Intended to be Used:

- Structured knowledge questionnaire to assess the knowledge
- Attitude scale to assess the attitude

Development of the Tool:

The tool was developed by the investigator based on

- Research problem
- Extensive review of related literature
- Discussion and suggestions from the guide and experts
- Based on the level of understanding of the students
- Preparation of blue prints

Ethical Considerations:

- Permission was obtained from the institutional ethical committee to carry out the study.
- The subjects were explained about the purpose and nature of the study.
- Written informed consent was obtained from the subjects before proceeding the study.

Description of the Tools:

The tool designed for the study consists of

Part A: Socio-demographic data.

Part B: Structured questionnaire to assess the knowledge regarding ill-effects of substance abuse.

Part C: Three points rating scale to assess the attitude regarding ill-effects of substance abuse.

Content Validity of Tool:

In order to obtain the content validity of the tool, prepared item along with the problem statement,

objectives, operational definition and scoring pattern were submitted to experts from the field of psychiatric, psychologist and Nursing departments experts there was 100% agreement by all experts on all the items. Content validated by some experts such as Doctors, Nursing educators, psychologist and social workers there was 100% agreement by all experts.

Reliability of the Tool:

The structured knowledge and attitude questionnaire was used and reliability of the tool was checked by the test-retest method, the reliability of the knowledge tool was found to be 0.80. The attitude tool was found to be adequately reliable with a 0.98 among ITI students regarding ill-effects of substance abuse. The reliability of the tool was computed by using Karl Pearson Correlation technique.

Data Collection Process:

Written permission was obtained from Ethical Clearance Committee who were informed about the nature and importance of the study. The exact time and date planned with Principal of SDM Institute of Nursing Sciences and was communicated to the students. Prior to data collection, the investigator familiarized themselves with the subjects and explained the purpose of the study to them. The participants were requested for full cooperation and were assured for confidentiality of their responses.

Results

Data was analyzed by using descriptive and inferential statistics. The analysis of the data organized under the following sections:

Section 1: Descriptive of the baseline variables. Frequency and percentage distribution of the socio-demographical variables such as age, religion, educational level of the students, place of the residence, type of family, present place of students residence, parental education and occupation, total income of family per month, anybody in your family uses substance abuse, source of knowledge about substance abuse, have anyone in your family attended tobacco control program.

Section II: The mean, median, standard deviation of ITI students about knowledge and attitude regarding ill-effects of substance abuse.

Table 1: The mean, median, standard deviation of ITI students about knowledge and attitude regarding ill effects of substance abuse.

Tools	Mean	Median	S.D
Knowledge	9.26	10	1.91
Attitude	18.13	18	1.58

The knowledge mean score of ITI students was 9.26 with Standard deviation of ± 1.91 median of 10. The attitude mean score of ITI students was 18.13 with Standard deviation of ± 1.58 median of 18.

Section III: Knowledge of ITI students regarding ill-effects of substance abuse.

Table 2: Shows the distribution of study subjects according to the level of Knowledge among ITI students

$n = 60$

Level of knowledge & Score	Frequency	Percentage
Inadequate (1-10)	07	11.66
Moderate (11-20)	48	80.00
Adequate (21-30)	05	8.33
Total	60	100.00

The data in Table 2 shows the distribution of study subjects according to the level of knowledge among ITI students majority 48 (80%) had moderate knowledge and Inadequate knowledge 7 (11.66%) Adequate knowledge only 5 (8.33%) of ITI students.

Section IV: Attitude of ITI students regarding Ill-effects of substance abuse.

Table 3: Shows the distribution of study subjects according to the level of attitude among ITI students

Levels of attitude	Frequency	Percentage
Negative attitude	13	21.66
Favorable attitude	15	25.00
Positive attitude	32	53.33
Total	60	100.00

The data in Table 3 shows the distribution of study subjects according to the level of attitude among ITI students majority 32 (53.33%) had positive attitude and moderate 15 (25%) favorable attitude only 13 (21.66%) of ITI students had negative attitude.

Section V: Correlation between knowledge score and attitude score.

Table 4: Correlation between knowledge score and attitude score.

Knowledge	Attitude	Karl Pearson's coefficient of correlation
13.9	31.9	0.48

Table 4 reveals that $r = 0.48$ ($0 > r > +1$), hence

there was moderately positive correlation between knowledge and attitude since there was positive correlation research hypotheses is accepted.

Section VI: Chi-square knowledge and attitude values among ITI students according to their selected personal variables.

Chi-square value is significant between Level of knowledge regarding ill-effects of substance abuse. with personal variables there was significant association among the like educational level of students, type of family and rest all were not significant at 0.05 level. Chi-square value is significant between Level of attitude regarding ill-effects of substance abuse. with personal variables like age, type of family, percentage of SSLC and rest all were not significant at 0.05 level. Therefore the finding rejects the null hypothesis and accepts the research hypothesis.

Conclusion

- Majority of ITI students had moderate knowledge regarding ill-effects of substance.
- Most of ITI students had positive attitude towards ill-effects of substance.

Nursing Implication

The findings of the study have several implications for nursing practice, nursing education, nursing administration and nursing research. We nurses have a vital role to determine the knowledge and attitude regarding ill-effects of substance abuse among ITI students. In relation to these aspects the appropriate care needs to be provided to ITI college students. It is mandatory that a comprehensive care is to be provided to the younger generation in order to lead them towards healthy life-style practices by motivating them to stay away from the influences of substance abuse.

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A Study to Assess the Effectiveness of STP on Knowledge Regarding Legal and Ethical Aspects in Psychiatric Nursing among Staff Nurses

Rajendra Prasad Sharma¹, Mohita Yadav²

Abstract

Psychiatric nursing is the science and art of providing protective, therapeutic, supportive, physical and social care to the people too ill to be completely responsible for management for their own behavior. For clients in mental hospitals and other institutional settings, the psychiatric nurse is the primary health care provider and is, in fact, a primary mental health care nurse. *Background of the study:* The role of nurses and professional nursing has expanded rapidly within the past few decades to include expertise specialization, autonomy and accountability, both from a legal and ethical perspective. This expansion has forced new concern among nurses and a heightened awareness of the interaction of legal and ethical principles. Ethics is the science relating to moral actions and one's value system. Many nurses envision ethics as dealing with principles or mortality and what is right or wrong. Ethics are concern with motivates and attitudes and the relationships of these attitudes for the individuals.

Keywords: Ethics; Psychiatric nursing.

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Introduction

Psychiatric nursing is the science and art of providing protective, therapeutic, supportive, physical and social care to the people too ill to be completely responsible for management for their own behavior. For clients in mental hospitals and other institutional settings, the psychiatric nurse is the primary health care provider and is, in fact, a primary mental health care nurse.¹

The role of nurses and professional nursing has expanded rapidly within the past few decades to include expertise specialization, autonomy

and accountability, both from a legal and ethical perspective. This expansion has forced new concern among nurses and a heightened awareness of the interaction of legal and ethical principles. Areas of concerns include professional nursing practice, legal issues and ethical principles.

The term law is derived from its tantric root “lag” which means something which lies fixed or events. Law means a body of rules to guide human action. The law constitutes body of principles recognized or enforced by public and regular tribunals have the administration of justice.²

Nursing is defined as providing care to the healthy or sick individuals for preventive, promotive, curative and rehabilitative needs.

The Consumers are patients with complex needs. With increased awareness of health care, health care facilities and Consumer Protection Act, patients/clients are getting awareness about their rights. Nurses also have now the expanded role, with the result the legal responsibility is increased. Hence, it is important for nursing personnel working in hospital, community and educational field to develop understanding of Legal and Ethical Issues of Nursing.

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Nurses are one of the largest groups of professionals working in the health care system. Their presence in the health care system plays a very important role and helps in the speedy recovery from the illnesses.

A psychiatric nurse plays a very important role from the time of admission to discharge in which orientation, meeting all types of needs especially biological and emotional needs, explaining rights to patient, maintaining confidentiality, taking informed consent and following so many roles when patient goes to parole, all come under legal responsibilities of a psychiatric nurse.

Psychiatric nurse should be sufficiently aware of legal aspects of psychiatry. This will help to protect the patient's right and avoid in giving poor advice or innocently involving herself in legal issues.³

Objectives of the Study

1. To assess the knowledge regarding legal and ethical aspects in psychiatric nursing among staff nurses.
2. To evaluate the effectiveness of STP regarding legal and ethical aspects in psychiatric care among staff nurses by comparing the pre-test and post-test.
3. To associate pre-test knowledge regarding legal and ethical aspects in psychiatric care among staff nurses with their selected socio-demographic variables.

Assumptions

- Nursing personnels were some knowledge regarding legal and ethical aspects in psychiatric care among staff nurses.
- Structured teaching programme was help to improve the knowledge of nursing personnel regarding legal and ethical aspects in psychiatric care among staff nurses.

Hypothesis

- H₁:** There was a significant difference between the mean pre-test and post-test knowledge regarding legal and ethical aspects in psychiatric care among staff nurses.
- H₂:** There was a significant association between the pre-test knowledge regarding legal and ethical aspects in psychiatric care among staff nurses with their selected socio demographic variables.

Organization of Study Finding

The data obtained were entered in a master data sheet for tabulation and statistical processing. According to the objectives of the study, the data was organized and presented under the following sections:

Section I

- Description of socio-demographic characteristics of samples.

Section II

- Percentage distribution of overall knowledge levels and knowledge in specific areas related to legal and ethical aspects in psychiatric nursing among staff nurses in pre-test and post-test.
- Mean, mean% and standard deviation of pre-test knowledge scores.
- Mean, mean% and standard deviation of post-test knowledge scores.

Section III

- Effectiveness of structured teaching programme among staff nurses on legal and ethical aspects in psychiatric nursing by comparing the pre-test and post-test assessment.
- Significance difference between pre-test and post-test knowledge scores.

Section IV

- Association between the knowledge of staff nurses on legal and ethical aspects in psychiatric nursing with selected demographic variables.

Results and Discussion

Section I

A preformed for selected personal information was used to collect the sample characteristics. The characteristics included age, gender, educational qualification, total clinical experience, religion and any additional information received regarding legal and ethical aspects in psychiatric care.

Section II

The level of knowledge was classified in three

aspects includes poor (0-35%), average (35-70%), good (70-above). The data of Table 1 shows that in pre-test majority of the subjects 66.67% (40) had average knowledge and 11.66% (7) subjects

had good knowledge and 21.67% (16) had poor knowledge about the topic. Data present above: reveals that in the assessment of post-test knowledge of staff nurse, majority 83.33% (50) of subject had

Table 1: Percentage distributions of overall knowledge level and knowledge in specific areas related to legal and ethical aspects.

N = 60

S. No.	Level of knowledge	% score	Pre-test		Post-test	
			Frequency	Frequency (%)	Frequency	Frequency (%)
1	Poor	0-35	13	21.67	0	0
2	Average	35-70	40	66.67	50	83.33
3	Good	70-above	7	11.66	10	16.67

average knowledge while 16.67% (10) of them had good knowledge about the topic and none were found to be poor in knowledge.

Table 2 depicted areawise mean, mean%, standard deviation and overall score in pre-test knowledge scores of staff nurses comprising of two sections of knowledge on legal and ethical aspects,

the first section involve legal aspects data shows that maximum score allotted for this section was 15 and mean score, mean% and SD were consequently 7.53, 50.2%, and 5.78. In Section 2 ethical aspects the maximum score allotted was 15 and mean score, mean%, and SD were 6.66, 44.4% and 3.05 respectively.

Table 2: Shows mean, mean% and standard deviation of pre-test knowledge scores

S. No	Area	Maximum score	Mean score	Mean%	S.D
1	Related to legal aspects	15	7.53	50.2	5.78
2	Related to ethical aspects	15	6.66	44.4	3.05
Total		30	14.19	47.3	8.83

- Finally overall maximum score was of 30 and overall mean score, mean%, and SD were 14.19, 47.3% and 8.83 consequently.

Table 3 depicted areawise mean, mean%, standard deviation and overall score in post-test knowledge scores of staff nurses comprising of two sections of knowledge on legal and ethical aspects,

the first section involves legal aspects data shows that maximum score allotted for this section was 15 and mean score, mean% and SD were consequently 8.5, 56.66%, and 5.03. In Section 2 ethical aspects the maximum score allotted was 15 and mean score, mean%, and SD were 8.68, 57.86% and 2.27 respectively.

Table 3: Shows mean, mean% and standard deviation of post-test knowledge scores

S. No	Area	Maximum score	Mean score	Mean%	S.D
1	Related to legal aspects	15	8.5	56.66	5.03
2	Related to ethical aspects	15	8.68	57.86	2.27
Total		30	17.15	57.16	7.3

- Finally overall maximum score was of 30 and overall mean score, mean%, and SD were 17.15, 57.16% and 7.3 consequently

knowledge among staff nurses on legal and ethical aspects by comparing the pre-test and post-test assessment.

Section III

Effectiveness of Structured teaching programme of

Table 4 describes that overall findings reveals that the mean% of post-test knowledge score was more compare to the mean% of the pre-test knowledge

score. The effectiveness of STP was observed in all the areas suggesting that it was effective in increasing the knowledge of staff nurses regarding legal and ethical aspects.

Conclusion

This study had shown that majority of the staff nurses had inadequate knowledge on legal and ethical aspects. However the knowledge has significantly improved after the administration of STP; hence it has concluded that structured teaching programme is an effective teaching strategy in

improving the knowledge of staff nurses regarding legal and ethical aspect in psychiatric nursing.

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Comparative Study of Minor Physical Anomalies in Late Onset Schizophrenia

Roopesh Gopal NV¹, Sathish Kumar SV²

Abstract

Background: Minor physical anomalies are considered as neurodevelopmental abnormalities. The frequency of minor physical anomalies was considerably higher in patients with schizophrenia as compared to healthy controls. **Aims:** To compare the frequency of minor physical anomalies in late onset schizophrenia and healthy control group. **Methodology:** This study was Hospital based cross sectional comparative study by purposive sampling method which included 41 patients with late onset schizophrenia and 41 healthy controls assessed on Waldrop's Minor physical anomalies scale. **Results:** 63.4% (26) of the cases with late onset schizophrenia had one or the other minor physical anomalies and adherent ear lobe was the most common MPA which is statistically significant as compared to healthy controls. **Conclusions:** Presence of more minor physical anomalies in late onset schizophrenia indicates the possible neurodevelopmental etiology similar to early onset schizophrenia.

Keywords: Minor physical anomalies; Schizophrenia

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Introduction

When we look at the neurodevelopment perspective of schizophrenia researches noted that the frequency of minor physical anomalies was considerably higher in patient population as compared to healthy controls and it is considered as an endophenotypic marker of schizophrenia. According to Weinberger (1987)¹ minor physical anomalies are considered as neurodevelopmental abnormalities based on the facts that

1. Most minor physical anomalies and central nervous system originate in the same germ

layer, i.e. ectoderm.

2. There is an overlap between the timing of minor physical anomalies generation and the appearance of abnormal brain development in schizophrenia, i.e. during the first and/or early second trimesters of gestation.

Some of the studies^{2,3,4} noted that there is significantly increased prevalence of minor physical anomalies in patients with schizophrenia. Late onset schizophrenia has been identified as distinct diagnostic category, however the etiology for the same remains unclear. Studies were lacking in this field to identify the role of minor physical anomalies.

However, some other studies^{5,6} noted higher number of minor physical anomalies in persons with late onset schizophrenia and proposed the possibility of neurodevelopmental etiology for the same.

Materials and Methods

The study was conducted at a tertiary referral center for acute psychiatric hospitalizations and outpatient services within its catchment area which

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includes Karnataka, Tamil Nadu, Andhra Pradesh, Kerala. The protocol for the study was submitted to and approved by the institutional ethical committee.

Study Sample and Design

This is a Hospital based cross sectional comparative study and subjects were recruited by purposive sampling method. Written informed consent was obtained before the assessment. The experimental group comprising of 41 patients between the age groups of 40 to 60 with diagnosis of schizophrenia based on DSM-5 criteria and onset of illness after 40. Forty-one age and sex matched healthy controls were recruited for comparison group. Those who had acquired physical deformities which can confound the assessment of minor physical anomalies were excluded from the study.

Tools Used for Assessment

Modified Minor Physical Anomalies (MPA) scale⁷ was used for the assessment. This scale was initially developed by Waldrop et al. (1968)⁷ which was based on the assessment of physical characteristics in Downs syndrome. Later on with

various modifications it was used in schizophrenia and other psychiatric disorders. The modified scale includes covered epicanthus, adherent ear lobes, asymmetric ear lobes, high arched palate, furrowed tongue, single palmar transverse crease, head circumference, hypertelorism, low set ear, curved fifth finger long third toe. We also included presence or absence of MPA in study subjects and total MPA per person.

Data Processing and Analysis

Data was processed using Statistical Package of Social Sciences – version 16.0 (SPSS-16). Continuous variables were expressed using descriptive statistics as mean, standard deviation (SD) and frequency percentage for categorical variables.

Chi-square test was used to compare the frequency of minor physical anomalies among study groups.

Results

Sociodemographic characteristics: Majority of the patients in the study group were females, mean age of them was comparable and controls subjects were more educated as compared to cases (Table 1).

Table 1: Sample characteristics for socio-demographic variables (continuous) among study groups

		Mean	Std. deviation
Age in years (N = 41)	Cases	49.97	5.24
	Controls	50.12	5.75
Education in years (N = 41)	Cases	4.43	4.92
	Controls	7.21	5.34

Table 2: Comparison of socio-demographic variables (categorical) among the study groups

		Patient total 41 (%)	Control total 41 (%)	Total	Chi-square	P
Sex	Male	9 (22)	9 (22)	18	0.00	1
	Female	32 (78)	32 (78)	64		
Marital Status	Single	1 (2.4)	0	1	7.536	<0.05 [#]
	Married	36 (87.8)	32 (78)	68		
	Seperated	3 (7.3)	1 (2.4)	4		
	Widowed	1 (2.4)	8 (19.5)	9		
Occupation	Employed	38 (92.6)	40 (97.5)	78	15.142	<0.01 [#]
	Unemployed	3 (7.3)	1 (2.4)	4		
Residence	Rural	23 (56.1)	10 (24.4)	33	10.37	<0.01
	Semiurban	6 (14.6)	5 (12.1)	11		
	Urban	12 (29.3)	26 (63.4)	38		
Nicotine	Nil	23 (56.1)	36 (87.8)	59	11.561	<0.01
	Abuse	10 (24.4)	1 (2.4)	11		
	Dependence	8 (19.5)	4 (9.8)	12		

[#]Cell count less than 5. Fisher's exact test applied

Table 3: Chi-square test for minor physical anomalies

		Patient (%)	Control (%)	Total	Chi-square	P
Covered epicanthus	Absent	41 (100)	41 (100)	82		
Adherent ear lobes	Absent	29 (70.7)	37 (90.2)	66	4.97	<0.05
	Present	12 (29.3)	4 (9.8)	16		
Asymmetric ear lobes	Absent	39 (95.1)	39 (95.1)	78	0.00	1
	Present	2 (4.9)	2 (4.9)	4		
High arched palate	Absent	38 (92.7)	41 (100)	79	3.114	0.08
	Present	3 (7.3)	0	3		
Furrowed tongue	Absent	31 (75.6)	34 (82.9)	65	0.668	0.41
	Present	10 (24.4)	7 (17.1)	17		
Single palmar transverse crease	Absent	40 (97.6)	41 (100)	81	1.012	0.314
	Present	1 (2.4)	0	1		
Hypertelorism	Absent	41 (100)	41 (100)	82		
Low seated ears	Absent	39 (95.1)	40 (97.6)	79	0.346	0.56
	Present	2 (4.9)	1 (2.4)	3		
Curved fifth finger	Absent	38 (92.7)	38 (92.7)	76	0.00	1
	Present	3 (7.3)	3 (7.3)	6		
Long third toe	Absent	40 (97.6)	41 (100)	81	1.012	0.314
	Present	1 (2.4)	0	1		
Minor physical anomaly	Absent	15 (36.6)	26 (63.4)	41	5.902	<0.05
	Present	26 (63.4)	15 (36.6)	41		

The comparison of marital status, occupation, residence and nicotine use showed significant difference among the study groups. Majority of them were married, belonged to nuclear family, living in rural area, and are employed (Table 2).

Discussion

Minor physical anomalies indicates variations in superficial bodily structures in the head face, eye, ear, mouth, hand and foot which are subtle in nature and may not be given much attention in routine clinical examinations unless specifically looked for. So it indicates the interaction between genetic and environmental factors in the genesis of minor physical anomalies in prenatal period (Table 3).

Higher prevalence of minor physical anomalies was noted in patients with schizophrenia in the younger age group^{8,9} and considered them as endophenotypic marker which supports the neurodevelopmental hypothesis of schizophrenia.

As Late onset schizophrenia shares similar clinical features as that of early onset schizophrenia attempts were made to identify the possible neurodevelopmental etiology in this group also. Only few studies in this field shown higher presence of minor physical anomalies in patients with Late onset schizophrenia.^{5,6}

Using the standard scale, our study replicated the findings of previous studies which shows the presence of minor physical anomalies in 63.4% (26) of the cases and thus provide the additional evidence to support the neurodevelopmental etiology of late onset schizophrenia.

Limitations and Future Directions

Sample size was small and Inter-rater reliability was not assessed.

Future studies may include larger sample to generalize the findings. Neuroimaging studies needs to be considered to assess for age-related structural changes in late onset schizophrenia group.

Conclusion

Being endophenotypic marker of schizophrenia, increased frequency of minor physical anomalies in late onset schizophrenia as compared to healthy controls supports the role of neurodevelopmental factors in the etiology of this diagnostic category.

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Standard journal article

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Corporate (collective) author

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