

Coping Mechanisms Utilised for Stressors among Nursing Students on Clinical Posting at University of Port Harcourt Teaching Hospital, Rivers State

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ABSTRACT

Introduction: This is a study on coping mechanisms utilized for stressors among nursing students on clinical posting at university of Port Harcourt teaching hospital, rivers state. Study aimed determine coping mechanism for the perceived stressors among the students during clinical posting in University of Port Harcourt Teaching

Material and methods: This was a descriptive study, stratified random sampling technique was used to select 140 respondents from the total target population of 215 students. The instrument for data collection was a self structured questionnaire. The validity of the instrument was ascertained, reliability was determined using the split-half formula, values obtained were analysed using the Pearson product moment correlation coefficient and a value of 0.8 was obtained. Data was analyzed using both descriptive and inferential statistical methods.

Results: The findings revealed that; the majority of the respondents 110 (78.57%) indicated that taking clinical exams, 101 (72.14%), harsh corrections by matrons in the presence of patients, 95 (67.86%) unfamiliarity with medical terms and 95 (67.86%) indicated concern for harming patient due to lack of professional knowledge and skills are among the perceived stressors. Results of findings on coping mechanisms and their effectiveness showed that majority 100 (71.43%) of nursing students used staying optimistic; 98 (70%) praying, and 94 (67.14%) leisure time/diversional activities to cope as the most effective coping mechanism. Hypothesis testing showed that there is no significant relationship between the course level and coping mechanisms utilized by nursing students during clinical posting. (Since $X^2_{cal.} = 1.06$, is lesser than $X^2_{Tab} = 7.82$). Based on findings, implication of the study to nursing profession was discussed and recommendations were made.

Conclusion: Clinical sources of stress among the students, various coping mechanism and their level of effectiveness were identified.

Keywords: Coping, Mechanism, Utilized, Stressors, Clinical, Posting

broadly classified into internal or external, developmental or situational stressors.¹

An event is perceived as a stressor when the situation is appraised by an individual as taxing or exceeding his or her resources and endangering his or her well-being. Several factors have been identified to contribute to stress within the nursing student population, these include: Stress from taking care of patient, stress from teachers and staff nursing, stress from clinical environment, fear of carrying out a clinical procedure correctly, lack of professional knowledge and skills. Other factors include unfamiliarity with medical history, professional nursing skills and patient diagnosis; also, lack of experience and ability in providing nursing care and making judgments are among the factors identified as stressors.^{2,3}

Coping mechanisms are natural or learned ways of responding to a challenging environment or specific problem or situation. There are two types of coping strategies namely; problem-focused coping (taking action) and emotion focused coping (such as use of anger, avoidance).⁴

Studies have shown that majority of the students use the problem-focused rather than the emotion-focused strategy while some use diversionary activities, staying optimistic and social support strategy such as talking to relatives, friends and peers. The result of this study may be of benefit to nursing students, clinical instructors, other researchers, the profession and society. The findings of this study may help the students identify sources of stressors and apply the most effective coping mechanisms in dealing with them. The information obtained from this study may provide basis for the development of a well adapted clinical posting programmes and clinical teaching. Also findings from this study may reveal effective coping strategies which the nursing students may utilize to overcome perceived stressor in clinical setting. Findings from the study may provide information on strategies to prevent physical and mental

INTRODUCTION

Clinical practice is one of the crucial components in nursing education. It comprises of activities that the nursing students participate in to develop the clinical skills necessary for clinical practice. For student to excel in nursing profession there is a need for proficiency in clinical practice. However, students face many challenges in the complex and dynamic clinical environment and these have been identified as stressors. Stressors can be

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illness associated with ineffective coping among individuals in the society.

This study therefore seeks to identify the coping mechanisms as well as determine the effectiveness of these coping mechanisms utilized by nursing students for perceived stressors on clinical posting at the University of Port Harcourt Teaching Hospital in Rivers State.

The study focused on the following specific objectives with the hypothesis that there is no significant difference between the nursing student's course level of study and the choice of coping mechanisms utilized for stressors during clinical posting.

Objectives were to identify the sources of stressors experienced by the nursing students on clinical posting, to identify the coping mechanisms for perceived stressors employed by nursing students on clinical posting and to determine the perceived effectiveness of the coping mechanisms utilized by nursing students during clinical posting.

MATERIAL AND METHODS

The study is a descriptive survey aimed at determining the coping mechanisms utilized by nursing students for stressors during clinical postings to University of Port Harcourt Teaching Hospital. This design was used because it describes, explores, explains phenomenon in a real life situation or setting. It will therefore provide an accurate account of the experiences of nursing students on clinical posting. The study was conducted in the University of Port Harcourt Teaching Hospital, Port Harcourt, Rivers State, Nigeria. The hospital is a tertiary institution established in 1980. The institution provides services not only to the people of Rivers State, but also to other States in Nigeria. It is also a place where nursing students, medical students and other health care professionals receive their training. It delivers services through a crop of well trained and experienced members of the health care team.

The target population includes all nursing students in the Department of nursing Science, University of Port Harcourt, Rivers State, who had had experience on clinical posting. This consists of two-hundred and fifteen (215) students from 200-500 levels. Stratified random sampling technique was used to select a sample size of 140 nursing students on clinical posting from the target population of nursing students in the Department of Nursing Science, University of Port Harcourt (student from year two to year five).

Self structured questionnaire was used to collect data from the respondents. The questionnaire consisted of four sections (A-D). Section A consisted of 3 items on socio demographic characteristics of respondents, section B consisted of 11 items on sources of stressors among nursing students during clinical postings, Section C consisted of 12 items on coping mechanisms for the stressors utilized by nursing students and section D of 11 items on perceived effectiveness of specific coping mechanisms by nursing students for the stressors while on clinical.

The self-structured questionnaire was submitted to two (2)

specialists in measurement and evaluation and the field of study that assessed the face and content validity of the instrument and their comments were used to make necessary corrections before administration.

Reliability of the instrument was assessed using Split-Half formula. Fifteen (15) copies of the instrument were administered to 15 nursing students who were not included in the study. The questionnaire was split into odd numbers and even number. Data obtained were analyzed using the Pearson Product Moment correlation coefficient formula and a value of 0.8 reliability was obtained.

The researchers administered the instruments to nursing students during clinical posting days through the assistance of their class representatives. The duly completed 140 copies of the questionnaire were all retrieved within a period of four days recording a 100% return rate.

Analysis of data was done using descriptive statistics while inferential statistics was used for testing the hypothesis. Yes and No response were used for section B and C; the percentage of each response was calculated. In section D, percentage was used to calculate each item indicated by respondents, for always effective, sometimes effective, rarely effective and ever effective. Also a 4 point Likert's scale was used to analyze; always effective, sometimes effective, rarely effective and never effective (4, 3, 2, 1) respectively. A score of 1- 19 is ineffective coping while 20 - 44 is effective coping. The hypothesis testing was done using the inferential statistics of chi-square test.

Approval was obtained from the ethical committee of the institution where the study was carried out. Also, informed verbal consent was obtained from the respondents after explaining the purpose of the study to them. They were also assured that any information provided will be treated confidentially and not used against them in any way.

STATISTICAL ANALYSIS

Statistical methods used were descriptive and inferential statistics. Data were analysed using SPSS version 20.

Data presentation

Table 1 above showed that of the 140 respondents studied,

Variable	Classified	Frequency	%
Age (year)	16-20	57	40.7%
	21-25	64	45.7%
	26-30	14	10.1%
	31-35	3	2.1%
	36 and Above	2	1.4%
	Total		140
Sex	Male	29	20.7%
	Female	111	79.3%
	Total	140	100%
Academic Status	200 level	33	23.57%
	300 level	33	23.57%
	400 level	34	24.28%
	500 level	40	28.57%
	Total	140	100%

Table-1: Socio-demographic characteristics of respondent (n=140)

S/N	Variable	Frequency (F)	Percentages (%)
1	Lack of professional knowledge and skill	88	62.86%
2	Fear of making mistakes	85	60.71%
3	Lack of integration of theory into clinical practice.	77	55%
4	Hard corrections by matrons in the presence of patients	101	72.14%
5	Concern of harming patients because of lack of clinical knowledge	95	67.86%
6	Negative emotional response to the death of patients	94	67.14%
7	Lack of experience and ability in providing nursing care.	92	67.71%
8	Taking care of patients	84	60%
9	Seeing the pain and suffering of patients	96	68.57%
10	Unfamiliarity with medical terms	95	67.86%
11	Taking clinical exams	110	78.57%
(n=140)			
Table-2: Stressors experienced by nursing students on clinical posting			

S/N	Variables	Frequency	%
1	Ventilation of feelings	108	77.14
2	Leisure time / diversionary activities	113	80.71
3	Staying optimistic	108	77.14
4	Social support	99	70.71
5	Avoidance	68	48.57
6	Praying	114	81.43
7	Using drugs	12	8.57
8	Relaxation	118	78.57
9	Exercise	63	45
10	Drinking alcohol	26	18.57
11	Wishful thinking	110	78.57
12	Smoking	7	5
Table-3: Coping mechanisms utilized by nursing students for perceived Stressors on clinical posting (n = 140)			

57 (40.7%) were aged 16-20 years, 64 (45.7%) were aged 21-25 years, 14 (10.1%) were aged 26-30 years, 3 (2.1%) were 31-35 years, 42 (1.4%) were 36 years and above 111 (79.3%) were females while 29 (20.7%) were males. 33 (24.57%) were in 200 level, 33 (23.57%) were in 300 level, 34 (24.28%) were in 400 level, and 40 (28.57%) were 500 level respectively.

Table 2 above shows the stressors experienced by respondents; of the 140 respondent studied, 88 (62.86%) indicated lack of professional knowledge and skill; 85 (60.71%) fear of making mistakes; 77 (55%) lack of integration of theory into clinical practices; 101 (72.14%) harsh correction by matrons in the presence of patients; 95 (67.86%) concern of harming patients because of lack of clinical knowledge; 94 (67.14%) negative emotional response to death of patients; 92 (65.71%) lack of experience and ability in providing nursing care; 84 (60%) taking care of patients; 96 (68.57%) seeing the pain and suffering of patients; 95 (67.86%) unfamiliarity with medical terms and 110 (78.57%) indicated taking clinical exams as stressors perceived on clinical posting.

Table 2 above shows that, of 140 respondents studied, 108 (77.14%) indicated ventilation of feelings, 113 (80.71%) indicated leisure/diversionary activities 99 (70.71%) indicated seeking social support, 68 (48.57%) indicated avoidance, 114 (81.43%) indicated praying, (10 (78.57%) indicated wishful thinking, 108 (77.14%) indicated staying

optimistic, 12 (8.57%) indicated using drugs, 110 (78.57%) indicated relaxation, 26 (18.57%) indicated use of alcohol, 63 (45%) indicated exercise and 7 (5%) indicated that smoking was utilized in managing during clinical posting.

Table 4 shows respondents' evaluation of the level of effectiveness of the coping mechanisms used by nursing students during clinical posting, 82 (58.57%) indicated that ventilating feelings was always effective, (70%) relaxation, 94 (67.14%) pointed leisure time/diversional activities, 100 (71.43%) staying optimistic, 88 (62.86%) seeking social support, 55 (37.86%) avoidance, 98 (70%) indicated praying, 79 (56.43%) relaxation, 80 (57.14%) wishful thinking and 44 (31.43%) indicated exercise as always effective; while 120 (85.71%) and 138 (98.5%) respectively indicated using drugs and smoking as never effective.

Table 5 shows respondents' evaluation of the level of effectiveness of the coping mechanisms used by nursing students during clinical posting, 82 (58.57%) indicated that ventilating feelings was always effective, (70%) relaxation, 94 (67.14%) pointed leisure time/diversional activities, 100 (71.43%) staying optimistic, 88 (62.86%) seeking social support, 55 (37.86%) avoidance, 98 (70%) indicated praying, 79 (56.43%) relaxation, 80 (57.14%) wishful thinking and 44 (31.43%) indicated exercise as always effective; while 120 (85.71%) and 138 (98.5%) respectively indicated using drugs and smoking as never effective.

Table 6 showed the relationship between the respondents Course level and coping mechanisms. (X^2 cal. = 1.05, X^2 Tab = 7.82, df = 3, P 0.05). Since X^2 cal. = 1.06, is lesser than X^2 Tab = 7.82, hence, the null hypothesis is accepted. This means that there is no significant relationship between the course level and coping mechanisms utilized by nursing students during clinical posting.

There was no significant relationship between the nursing student course levels and the coping mechanisms utilized for stressors on clinical posting.

DISCUSSION

The perceived stressors experienced by nursing students on clinical posting

Results from the study showed that 85 (60.71%) experienced fear of making mistakes, 88 (62.86%) experienced lack of

S/N	Variables	Always Effective	Sometimes Effective	Rarely Effective	Never Effective
1	Ventilation of feelings	(F)82 (%)58.57	43 30.71	10 7.14	5 3.57
2	Leisure time/diversionary activities	(F)94 (%)67.14	34 24.29	12 8.57	0 00
3	Staying optimistic	(F)100 (%)71.43	29 20.71	9 6.43	2 1.43
4	Social support	(F)88 (%)62.86	39 26.86	10 7.14	3 2.14
5	Avoidance	(F)55 (%)37.86	41 29.29	30 21.43	14 10
6	Praying	(F)98 (%)70	31 22.14	9 6.43	2 1.43
7	Using drugs	(F)2 (%)2.43	3 2.14	9 6.43	2 1.43
8	Relaxation	(F)79 (%)56.43	46 32.86	13 9.29	2 1.43
9	Exercise	(F)44 (%)31.43	41 29.23	38 27.14	20 14.29
10	Drinking alcohol	(F) 24 (%) 17.14	20 14.29	37 26.43	59 42.14
11	Wishful thinking	(F)80 (%)57.14	38 27.14	17. 12.14	5 3.57
12	Smoking	(F)0 (%)0.00	0 0.00	2 1.43	138 98.57

Table-4: Effectiveness of the coping mechanisms utilized by nursing students for stressors experienced (n 140)

S/N	Variables	Always Effective	Sometimes Effective	Rarely Effective	Never Effective
1	Ventilation of feelings	(F)82 (%)58.57	43 30.71	10 7.14	5 3.57
2	Leisure time/diversional activities	(F)94 (%)67.14	34 24.29	12 8.57	0 00
3	Staying optimistic	(F)100 (%)71.43	29 20.71	9 6.43	2 1.43
4	Social support	(F)88 (%)62.86	39 26.86	10 7.14	3 2.14
5	Avoidance	(F)55 (%)37.86	41 29.29	30 21.43	14 10
6	Praying	(F)98 (%)70	31 22.14	9 6.43	2 1.43
7	Using drugs	(F)2 (%)2.43	3 2.14	9 6.43	2 1.43
8	Relaxation	(F)79 (%)56.43	46 32.86	13 9.29	2 1.43
9	Exercise	(F)44 (%)31.43	41 29.23	38 27.14	20 14.29
10	Drinking alcohol	(F) 24 (%) 17.14	20 14.29	37 26.43	59 42.14
11	Wishful thinking	(F)80 (%)57.14	38 27.14	17. 12.14	5 3.57
12	Smoking	(F)0 (%)0.00	0 0.00	2 1.43	138 98.57

Table-5: Effectiveness of the coping mechanisms utilized by nursing students for stressors experienced (n 140)

professional knowledge and skill, 95 (67.86%) experienced unfamiliarity with medical terms, 96 (68.57%) seeing the pain and suffering of patients, 110 (78.57%) taking clinical exams. This result corroborates the findings of other studies which observed that clinical experiences were major sources

of stressors.⁵⁻⁷ Other perceived stressors from the clinical experiences included, fear of committing errors, death and dying patient.^{2,3} Also, lack of professional knowledge and skills in providing nursing care, worry about clinical exams and discrepancy between theory and practice were among

Course level	Coping mechanism		Total	X ² calc	X ² tab	Dicision
	Effective	Ineffective coping mechanism				
200	21	12	33	1.06	7.82	Retain Null hypothesis
300	20	13	33			
400	23	11	34			
500	22	18	40			
TOTAL	86	54	140			

X²ca1=1.06, X²Tab=7.82, df=3,P=0.05

Table-6: Chi-Square test for relationship between nursing students' course and the coping mechanisms utilized for stressors on clinical posting (n=140)

the stressors.⁸

The coping mechanisms utilized by nursing students for perceived stressors during posting.

The findings from this study showed that 108 (77.14%) utilized ventilation of feelings, 99 (70.71%) utilized seeking social support, 68 (48.57%) utilized avoidance, 113 (80.71%) utilized leisure time or diversionary activities, 114 (81.43%) praying, 110 (78.57%) relaxation, 110 (78.57%) wishful thinking, and 108 (77.14%) optimistic. This result is in consonance with the findings of other studies which observed that coping mechanisms utilized by nursing students are; developing social support, ventilating feelings, relaxing, seeking spiritual support, self reliance, day dreaming and engaging in other activities; also students utilize problem-focused coping strategies, problem solving and seeking social /peer group support coping strategies more frequently than emotion-focused coping strategies which are tension reduction and avoidance coping.^{9,10}

The perceived effectiveness of coping mechanisms employed by students against the stressors they experienced

The findings from this study showed that 100 (71.43%) of the respondents indicated that staying optimistic is the most effective coping mechanisms, followed by praying, 98 (70%), leisure time/diversionary activities, 94 (67.14%), and seeking social support 88 (62.86%), while 138 (98.57%) said that smoking was the least effective. These observations are in agreement with the findings of other studies, which reported transference as the most effective coping mechanism, followed by diversionary activities (transference) staying optimistic while avoidance was the least effective coping mechanism², also, staying optimistic, use of diversionary activities were most common used and effective coping mechanisms.¹¹

Hypothesis

Hypothesis testing results using Chi-square shows no significant difference between nursing student's course level and coping mechanisms utilized.

CONCLUSION

There are clinical sources of stress among the students during clinical posting some of them include harsh correction by matrons in the presence of patient, caring for dying patient, and interpersonal conflict with other nurses, lack of clinical competence, fear of failure and interpersonal relations with

patients and concern of harming patient because of lack of clinical knowledge.

The coping mechanisms utilized by nursing students at their varying levels of effectiveness includes; developing social support, ventilating feelings, relaxing, seeking spiritual support, self reliance, day dreaming and engaging in other activities; also students utilize problem-focused coping strategies, problem solving and seeking social /peer group support coping strategies more frequently than emotion-focused coping strategies which are tension reduction and avoidance coping.

Implication for nursing

There is a growing concern about stress among nursing students. The sources of stressors reported by nursing students on clinical posting are; harsh corrections by matrons before patients, fear of making mistakes, negative responses to the death or suffering of patients. Nurses in the clinical areas and nurse tutors should ensure that nursing students are provided with information that will enable them cope effectively with the stress associated with clinical posting which is a core part of their training programme

Recommendations

Based on the findings of this study, the following are therefore recommended;

1. Nursing students on clinical postings should be encouraged to see the clinical experience as an avenue for developing their skills and competence and as such should not adjudge taking care of patient as a stressor.
2. Nursing students should be assisted by nurses in the clinical areas and the nurse tutors to develop effective coping mechanisms and positive attitude towards every aspect of the training programme to improve their clinical knowledge and competence.
3. Correction of students should not be harsh but done with caution so as to help build self esteem in them.
4. There should be adequate provision of facility for intensive training for students and prolonged period of experience in a particular unit to reduce fear and concern of harming patients as well as allowing them become familiar with that particular clinical environment and also develop confidence.
5. There should be adequate provision of instruments to facilitate the integration of theory to clinical practice, this will enhance student's ability to acquire clinical

knowledge and skills.

6. Clinical instructors should include teaching effective coping skills in clinical teaching program.

REFERENCES

1. Berman A and Synder S. Kozier and Erb Fundamentals Of nursing concepts; process and practice (9th ed). New Jersey: Pearson edition inc. Upper saddle river, New Jersey. 2012;1079- 1094.
2. Chan C.K.L. (2009). Stress coping strategies among nursing students, accessed 9/06/ 2015, from www.psychology.com.
3. Evans W, Kelly B. in Chan K. L. (2006). Stressor and coping strategies, accessed 9/06/ 2015, from <http://hdl.handle.net/net>
4. Lazarus, R.S. in Berman A., and Synder S. Kozier and Erb (2012) Fundamentals of nursing concepts, process and practice (9th ed): Upper saddle river, New jersey.
5. Gibbson C, Dempster M, Moutry M. Stress and eustress in nursing students. *J adv. Nursing* 2008;61:282-90.
6. Jimenez C, Navia-Osorio P, Diaz C. Factors related to stress in nursing students. *J adv.Nursing* 2010;66:442-55.
7. Sharif M, Masoumi A. Nursing students experience of clinical practice. *Bmc Nursing* 2005;4 (6).
8. Wedjan A, Laila M, Insuf A. Sources of stress and coping behaviours in clinical practice among baccalaureate Nursing students. *International Journal of Humanities and Social Science*. 2014;4;194-202.
9. Chan C, So W, Fong D. Hong kong baccalaureate nursing student's stress and their coping strategies in clinical practice. 2009;25:307-313.
10. Rutgers F. (2010), coping strategies for stress among nursing students, retrieved on the 31st may, 201 5 from www.google.com/copingstrategies/nursingstudents
11. Abasimi E, Atindabila S, Gai X, Mahamah M. Stress coping strategies among diploma nursing students in Ghana. *International journal of applied psychology*. 2015;5:26-32.

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