



Factors impacting the selection of psychiatric hospitals for community service placement of nurses

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Background. As a strategy to promote access to quality health services, including psychiatric nursing, compulsory community service for nurses was introduced in January 2008.

Objective. To determine the factors impacting the KwaZulu-Natal College of Nursing (KZNCN) student nurses' selection of psychiatric hospitals as their placement areas for community service.

Methods. A quantitative, exploratory, descriptive research design was adopted. Convenience sampling was used to select 125 respondents from six campuses of KZNCN. An electronic 5-point Likert scale-based self-administered questionnaire was used to collect data. SPSS version 26 (IBM Corp., USA) was used for data analysis.

Results. The study found that the following factors impacted the selection of psychiatric hospitals for community service: insufficient time allocated for the practice of psychiatry during training; fear of exposure to threat; poor infrastructure and scarce facilities; and insufficient danger allowance.

Conclusion. A positive practice environment should be created in psychiatric hospitals to attract student nurses and retain them in the psychiatric environment after community service.

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South Africa (SA) promulgated the Mental Health Care Act No. 17 of 2002, which recognised that health comprises physical, mental and social wellbeing and that mental healthcare services should be provided as part of primary, secondary and tertiary healthcare. The Act makes provision for access to mental healthcare, as well as treatment and rehabilitation of persons who are mentally ill.^[1] Globally, psychiatric mental health nursing is recognised as a specialised area of nursing practice, which is a key resource to promote mental healthcare services.^[2] In practice, there is a shortage of specialised nurses, including psychiatric nurses, and therefore community service for nurses was introduced with the hope that staff coverage would improve for psychiatric services.

In the USA, there is widespread concern regarding nursing shortages in psychiatry. The demand for mental health services continues to grow and there is a need for strategies to recruit newly qualified professional nurses.^[3] The long-term effects of negative student perceptions related to psychiatric mental health nursing may affect students' career decisions, potentially contributing to the shortage of mental health nurses.^[4] The global shortage of nurses working in the mental health field and an ever-increasing rate of mental illnesses have been noted.^[5]

Mental health nurses are ageing, while mental health nursing is not a preferred career for new graduate nurses. In SA, to promote proper care for patients who are admitted for mental healthcare, psychiatric nursing was integrated in the comprehensive nurse training programme to prepare nurses to care for mental healthcare users.^[6] As a strategy to promote quality nursing care and access to health services, compulsory community service (CCS) for nurses was included in section 40(1) of the Nursing Act (Act No. 33 of 2005) and commenced in January 2008. It is regulated by the South African Nursing Council (SANC), Regulation 765 of 24 August 2007. Community service placement is intended to successfully complete

professional training, and also to provide quality health services and support to communities.^[7]

Statement of the research problem

The student nurses experienced stress and had poor coping strategies during psychiatric clinical practice in various countries and mostly selected psychiatric nursing as a last option.^[3,8]

Despite the availability of posts for placement in psychiatric hospitals, a limited number of student nurses select psychiatric nursing for community service. In 2016, in KwaZulu-Natal (KZN) Province, only 5% of student nurses selected community service placement in psychiatric hospitals; in 2018 and 2020, only 4% selected psychiatric nursing placement.^[9]

The researchers analysed several studies on nursing students' attitudes and perceptions regarding mentally ill patients and psychiatric nursing students' experiences during placement in psychiatric facilities. The literature review revealed that limited studies have been conducted in SA on factors impacting student nurses during their selection for community service placements. This article investigates the factors impacting student nurses' selection of psychiatric hospitals for their community service placement.

Methods

The researchers used a quantitative, exploratory, descriptive research design. An explorative and descriptive design allowed them to explore, describe and predict the factors impacting the participant student nurses' selection of psychiatric hospitals for community service placement. Data were collected from six campuses at the KwaZulu-Natal College of Nursing (KZNCN). These campuses were purposively selected because they were the only campuses with fourth-year nursing students. The selected campuses

were identified alphabetically as A, B, C, D, etc. to maintain anonymity and confidentiality. The COVID-19 regulations related to visitation to the premises were taken into consideration for data collection.

The main inclusion criterion for the study was the fourth-year student nurses on the selected campuses. The participant population comprised 148 fourth-year student nurses at KZNCN, thus meeting the inclusion criteria of the study. Accordingly, probability sampling was used to determine the minimum sample size required.

Based on the simple random sampling formula, a minimum sample size of 107 respondents was required for data collection. The researchers distributed 148 electronic questionnaires to the target population as part of the data collection process. However, 125 completed electronic questionnaires were returned; therefore, the actual sample size of the study comprised 125 fourth-year nursing students who were conveniently selected from the population.

In this study, the researchers developed an electronic Likert scale-based self-administered questionnaire for data collection. The options of the 5-point Likert scale were: 1 = strongly disagree; 2 = disagree; 3 = neither disagree nor agree; 4 = agree; and 5 = strongly agree. The developed electronic questionnaire was pretested on 5 respondents, who were excluded from the main study. After obtaining permission from the provincial ethics committee, the college principal and the heads of the campuses included in the study, the researcher commenced the data collection process, and the campuses were contacted telephonically to request the respondents' email addresses. The nurse educators of the selected campuses assisted the researchers by explaining the purpose for requesting the respondents to issue their email addresses. The researchers sent the electronic questionnaire link to all the respondents via email. The link comprised the letter of information and the consent form that had to be signed by clicking 'yes' to participate before accessing the questionnaire. All completed questionnaires were automatically returned to the researchers after clicking the 'submit' button. The respondents who returned the electronic questionnaires and consent forms were automatically included in the study, and thus determined the sample size. Anonymity and confidentiality were maintained, as the electronic data collection tools did not have columns or spaces where respondents had to indicate their names and campuses. Collection of data from campuses was conducted in 2 months, from January to February 2021.

Data analysis

Data analysis is the process of inspecting, cleansing, transforming or modelling data for the purpose of identifying useful information for research studies. In quantitative studies, data analysis is a numerical representation and manipulation of observations by means of statistical techniques for the purpose of describing and explaining the outcomes of a research study.^[10] Data analysis was conducted with the assistance of a statistician, using SPSS version 26 (IBM Corp., USA) data processing and statistical analysis. We used exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) to conduct the final data analysis.

Exploratory factor analysis

Factor analysis was used to calculate each construct's total variances and factor loadings of each item under each construct or dimension. EFA was suitably applied, as the main goal of analysis was to explore factors with items grouped together. The final factor analysis computational procedure

was used to explore the dimensionality of the questionnaire, based on the function specified below:

$$\begin{bmatrix} X_1 \\ \dots \\ X_n \end{bmatrix}_{mx1} = \begin{bmatrix} \theta_{11} & \dots & \theta_{1m} \\ \dots & \dots & \dots \\ \theta_{n1} & \dots & \theta_{nm} \end{bmatrix}_{nxm} \begin{bmatrix} f_1 \\ \dots \\ f_m \end{bmatrix}_{mx1} + \begin{bmatrix} e_1 \\ \dots \\ e_n \end{bmatrix}_m$$

where $X_1 \dots X_n$ denotes dimensions of m subjects; $\theta_{11} \dots \theta_{nm}$ represents factor loadings; $f_1 \dots f_m$ symbolises factor items; and $e_1 \dots e_n$ denotes measurement errors.

Confirmatory factor analysis

CFA was applied to assess if the observed items had associations with their relevant latent constructs, which were intended to be measured. Metrics used to test models' goodness of fit include the χ^2 statistic, Akaike information criterion (AIC), Bayesian information criterion (BIC), comparative fit index (CFI), Tucker-Lewis index (TLI) and root mean square error of approximation (RMSEA). The RMSEA measures population error, while the AIC and BIC are measures of information criteria, and CFI and TLI are baseline comparison indices. Thresholds are presented in Table 1.

Table 1 summarises the cut-off thresholds of TLI and CFI. CFI is an enriched form of the normed fit index (NFI) – its value must range from 0 to 1, where a value close to 1 shows a better fit. Concurrently, the TLI functions similar to the NFI, where a value close to 1 shows a better model fit, while RMSEA scores of $<5\%$ show good fits and p of close fits of $>5\%$ shows good fits of models.

Data management

The raw data from respondents were automatically saved on Google Drive, which can only be accessed by the researcher using a password. Data are kept for 5 years, after which the data will be permanently deleted from the system.

Ethical considerations

The researchers obtained written ethical approval and permission from the Higher Degrees Committee of the Department of Health Studies, University

Table 1. General acceptable fit thresholds of fit indexes

Indexes	General acceptable model fit thresholds
Absolute fits	
χ^2 statistic	Ratio of $\chi^2:df \leq 2$ or 3; useful for nested models
Akaike information criterion	Smaller values desirable; good for model comparison
Bayesian information criterion	Smaller values desirable; good for model comparison
Comparative fits	
Tucker-Lewis index	³ 0.95 for good fit model
Comparative fit index	³ 0.95 for good fit model
Other test	
Root mean square error of approximation	$<0.06 - 0.08$ with confidence interval

of South Africa (UNISA) (ref. no. 64027058 CREC CHS 2020), KZN Department of Health Research Data Base Board (ref. no. KZ_202011_018), KZNCN principal, and campus heads to conduct the study. The ethical principles of respect for human dignity and justice, anonymity, confidentiality and informed consent were maintained through the following measures: the respondents were provided with the information on the study purpose and procedures, the respondents voluntarily participated in the study, and the identity of the campuses and respondents was anonymised through the use of pseudonyms.

Results

Respondents' profile

The respondents' demographic profiles showed that 66% ($n=82$) were females, which is in line with the SA nursing profile, where the majority of nurses are females; 39% ($n=49$) were aged 18 - 25 years, 38% ($n=48$) were aged 26 - 32 years, 13% ($n=16$) were aged 33 - 37 years, and 10% ($n=12$) were aged ≥ 38 years; 74% ($n=92$) had matric (grade 12) as their highest educational qualification, 18% ($n=23$) had a diploma, and 8% ($n=10$) had a Bachelor's degree. Regarding marital status, 86% ($n=107$) were single, 12% ($n=15$) were married, 1% ($n=2$) were divorced, and 1% ($n=1$) were widowed (Table 2).

Statistical significance

Results showed that the Kaiser-Meyer-Olkin (KMO)-measure of sampling adequacy (MSA) value for all 31 items equalled 0.752, while KMO-MSA values for items under each of the five constructs correspondingly exceeded the 0.600 required minimum threshold. In that regard, KMO-MSA scores for group items under each construct were as follows: patient's conduct impact (0.701), working environment impact (0.783), personal attitude (0.770), impact of experiences encountered during training (0.649), and general factors affecting student selection (0.670). Following the assessment of sampling adequacy, factor analysis was further conducted to assess the underlying patterns and structure of the hidden dimensions within the dataset.

Table 2. Frequency statistics of demographic informants

Demographic informants	Frequency, <i>n</i>	Proportion, %
Gender		
Male	43	34
Female	82	66
Age category, years		
18 - 25	49	39
26 - 32	48	38
33 - 37	16	13
≥ 38	12	10
Highest level of qualification		
Matric/Grade 12	92	74
Diploma	23	18
Bachelor's degree	10	8
Marital status		
Single	107	86
Married	15	12
Divorced	2	1
Widowed	1	1

Study findings

The major findings of the study included the following factors: fear of exposure to threat of being beaten by psychiatric patients; poor infrastructure and scarce facilities in the psychiatric hospital workplace; time allocated for psychiatry clinical practice during training is insufficient to gain confidence in psychiatric nursing; and danger allowance is not sufficient in case of injury by psychiatric patients.

Discussion

The study findings will be discussed in the following paragraphs.

Fear of exposure to threat of being beaten by psychiatric patients

The majority of respondents (59%) - mostly females - feared exposure to the threat of being beaten by psychiatric patients. The finding concurred with findings in studies conducted in Saudi Arabia,^[8] which stated that in spite of their education, psychiatric nursing students, mostly females, often maintained prejudices, believing that patients are dangerous, hostile and prone to violent behaviour. These prejudices have led to increased stress and anxiety in students, resulting in them avoiding patients with mental illness and limiting their communication with them. A review found that violence committed against nursing staff by patients in psychiatric outpatient settings had increased.^[11]

Poor infrastructure and scarce facilities in the psychiatric hospital workplace

The majority of respondents (52.8%) agreed that the infrastructure in psychiatric hospitals was poor and that facilities were scarce. The results were confirmed by the findings of the investigation conducted at Tower Psychiatric Hospital and the Psychosocial Rehabilitation Centre at Fort Beaufort (Esidimeni), which reported inadequate and poor infrastructure, especially the absence of compliant seclusion/single rooms, leading to poor protection of mental healthcare users. Furthermore, a study conducted in Singapore^[12] confirmed that the students who practised in an old hospital that re-opened without renovations having been done, were more anxious and fearful than those in newer facilities. Students were not keen on selecting an old psychiatric facility for placement

Insufficient time allocated for psychiatric services

With regard to the time allocated for psychiatric clinical training, the majority of respondents (50.4%) felt that it was insufficient to gain confidence in psychiatric nursing. These findings were confirmed by Karakas *et al.*,^[13] who found that students had insufficient time allocated to learn clinical skills on completion of a pre-registration programme. Increasing the amount of time in the clinical setting, including psychology-specific content, the importance of psychiatric mental health nursing and the effects of stigma, was associated with recruiting and retaining psychiatric mental health nurses.^[14]

Insufficient danger allowance

The majority of respondents (59.2%) reported that the danger allowance was not sufficient for medical assistance in case of injury by psychiatric patients. In another study,^[15] psychiatric nurses received ZAR329.00 monthly danger pay allowance, which is not sufficient for medical assistance and has a

negative effect on student nurses' selection of psychiatric hospitals on completion of the nursing programme.

Recommendations

The following recommendations are taken from the findings and comments of the respondents:

- The community service office in the Department of Health should conduct further surveys on the selection of community service placement sites by student nurses and develop an action plan to address the challenges experienced in the under-selected clinical areas to increase coverage of such areas.
- Department of Health nursing service managers and the head of mental institutions should increase the danger allowance for nurses working in psychiatric facilities in case of injury by psychiatric patients.
- An early introduction to the mental health setting could help to reduce fear and anxiety for first-year students. Preparing these students in this way would give them confidence to deliver nursing care to mental healthcare users.
- Revise the Mental Health Care Act No. 17 of 2002 to include mental health facility accreditation to solve the problem of poor facilities and infrastructure.
- Modernise mental health facilities to improve mental healthcare practice and provision. Promote student nurses' selection of psychiatric hospitals and practice for CCS placement through improved recreational facilities for staff and patients, and proper/modern closed-circuit television cameras for monitoring an aggressive patient.
- The SANC, KZNCN examination officers and subject committee members should revise the curriculum to extend allocation of sufficient notional hours for psychiatry teaching and clinical practice.
- Research studies should be conducted regarding staff retention strategies in psychiatric hospitals.

Conclusion

A positive practice environment should be created in psychiatric hospitals to attract and retain student nurses in the psychiatric environment after community service.

The researchers believe that the findings will assist the nurse educators and Department of Health nursing managers in psychiatric hospitals, as

well as college management, to develop strategies to encourage and motivate nursing students to consider mental health nursing for community service placement and as a career option going forward.

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Conflicts of interest. None.

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