Integrating mental health care services in primary health care clinics: a survey of primary health care nurses’ knowledge, attitudes and beliefs

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Background: Nurses are the main providers of care at primary health care (PHC) clinics; the high incidence of mental health problems at these clinics means that PHC nurses are important providers of mental health care. The PHC nurses’ knowledge regarding provision and identification of mental health problems has been shown to be poor.

Aim: The study aimed to investigate the knowledge, attitudes and beliefs concerning the care of psychiatric patients at PHC level amongst nurses.

Setting: The study was conducted in uThungulu Health District in the Northern Area of KwaZulu-Natal Province. Six clinics were purposively selected based on their geographical location.

Methods: The study used a quantitative survey using a structured questionnaire. Simple descriptive analysis and one-way ANOVA were used to analyse the data.

Results: The study revealed that 39% of the nurses were between the ages of 41 and 50 years and 92% were females. The association between past experience in working with psychiatric patients and positive attitude of nurses was found to be significant.

Conclusion: This study found that PHC nurses’ attitudes and beliefs towards people with mental illness were positive. PHC nurses were found to have inadequate knowledge to manage psychiatric patients.

Keywords: attitudes, beliefs, integration, knowledge

Introduction

In South Africa, mental health promotion, prevention of mental disorders and provision of mental health care are basic services that are provided in primary health care (PHC) clinics. It is estimated that one in four people in the world suffer from mental health conditions during their life span and mental health conditions are the leading cause of disability. About 23% of people attending primary health care suffer from mental health disorders. Despite the high number of people with mental health conditions, mental health has a low priority in South Africa and people with mental health disorders do not receive the care they require in PHC clinics.

Despite the important role PHC nurses play in the provision of health to the general population, their attitudes towards people with mental illness are often negative, and provision and identification of mental health problems by PHC nurses has been shown to be poor because their knowledge to deal with mental health conditions is inadequate. Many nurses lack knowledge and skills to identify and manage mental health conditions. The World Health Organization (WHO) is of the opinion that training of PHC nurses is effective in improving recognition of mental health disorders in PHC settings. In a study conducted by Hijazi, Weissbecker and Chammay nurses stated that training on mental health had helped them to share their experiences with colleagues and increased their awareness of mental health and improved their ability to listen to patients. Nordt, Rössler and Lauber found that healthcare workers’ ratings for negative attitudes were higher than for the general public and the desire for social distance was greater. Sartorius identified PHC nurses’ negative attitudes and beliefs as a major reason for patients with mental health conditions receiving poor mental health care. Personal beliefs are shaped by knowledge about mental health and this sets the measure for provision of mental health services by the healthcare worker.

The usage of stigmatising terms and psychiatric labelling by health professionals has led to the development and maintenance of stigmatisation. Results of the study conducted by Pietrzak et al., among veterans who screened positive for mental health disorders revealed that negative beliefs about mental health care and decreased perceptions of knowledge about mental health, negative attitudes towards mental health and discrimination against people with psychiatric conditions. The stigmatising attitudes may vary according to gender or whether someone knows a person with mental illness. Thornicroft et al. recommended interventions that will bring about behaviour change to reduce negative attitudes towards people with mental illness.

Given the high prevalence of mental health conditions in South Africa, there is a need for integrated mental health services at primary health care clinics. Integration of mental health services into PHC is supported by the WHO on the Optimal Mix of Services for Mental Health because the person can be treated as a whole and seeking care is less stigmatised. Integration of mental health into general PHC services ensures that all PHC health workers involved in the management of a psychiatric patient have a shared understanding of the patient’s progress and compliance with medication regimes.

Problem statement

Mental disorders account for 4 of the 10 leading causes of health disability. There is a relationship between mental disorders and
physical disorders. Mental health policies emphasise the concept of integrated mental health care with other general health services, especially at PHC level. The knowledge, beliefs and attitudes of PHC nurses around integration of mental health into PHC were not taken into account before the mental health policy on integration was introduced. This study therefore speaks to this gap.

The purpose of the study was to examine the PHC nurses’ knowledge, attitudes and beliefs regarding the integration of mental health care services in PHC settings in rural environments. It sought to document whether there was support and/or resistance towards integration of mental health into PHC. The study addressed the following research question: What are the knowledge, attitudes and beliefs about the care of psychiatric patients at PHC level amongst nurses?

Theoretical framework
Integration of mental health services into primary health care services was used as a framework for the study. The model is based on the WHO’s 10 principles of successful integration where mental disorders are managed like all other health problems, and patients are treated by all primary health care workers. (The WHO developed 10 principles that are crucial for integration to be successful, as shown in Table 1).

WHO maintains that integration of mental health services into primary health has benefits for those people with mental disorders. These benefits are that if mental health services are integrated into general health care, the burden of mental health is reduced in the community; people are treated holistically; the treatment gap is reduced; access to mental health services is enhanced; there is respect for human dignity and good health outcomes.

Petersen et al. recommended that district management authorities should be educated on what integration entails so that they develop the political will-power to strengthen mental health services provision in PHC clinics. They also supported the implementation framework of task-shifting, where psychiatric trained nurses from the hospital are deployed to work in PHC clinics in order to improve mental health care services.

Research method and design
Research design
A quantitative survey using a structured questionnaire was conducted among nurses working in PHC clinics to assess their knowledge, attitudes and beliefs regarding integration of mental health care services in PCH clinics.

Setting
The study was conducted in uThungulu Health District in the Northern Area of KwaZulu-Natal Province. This district is the third largest district in KwaZulu-Natal Province with a population of 979,513. The population is composed of African, White and Asian people. UThungulu district was selected to be the site of the study because of its rural nature whereby patients have to travel more than 5 km to the primary health care clinic. There is shortage of human resources in PHC clinics, which impacts negatively on integration of mental health into primary health care as indicated by the nurse patient ratio of 1:44 instead of 1:38, which is a national norm. The site was selected for representativity of the semi-urban and rural scenarios. No study that looked at integrated mental health care services in relation to nurses’ knowledge, attitudes and beliefs has previously been conducted in the district.

Population and sampling
The survey was done with PHC nurses from six clinics that were purposely selected based on their geographical location so that the level of support, which decreases as rurality increases, is well covered in the sample. Two clinics fell in each of the following categories: rural and deep rural. Rural clinics are geographically situated outside of towns or cities, where there is poor infrastructure. Deep rural clinics are 200 km away from urban areas and the infrastructure and human resources are extremely limited. Urban clinics were excluded because the health district in which the study was done has no urban areas. All clinics selected were public institutions and were attached to hospitals, which provided supervision of the nursing staff, and all were providing the full Primary Health Care Package as prescribed by the National Department of Health. All nurses present in the PHC clinics during the data-collection visits were included in the survey. The sample is described in Table 2.

Table 1: WHO’s 10 principles of integration

| Principle | What it entails |
|-----------|----------------|
| 1. Policy and plans need to be incorporated into primary care for mental health | There must be commitment from the government to integrate mental health care that must be guided by policy and legislation |
| 2. Advocacy is required to shift attitudes and behaviour | Information can be used strategically to influence behaviour change |
| 3. Adequate training of primary care workers is required | Continuous in-service training of primary health care workers is essential for mental health integration |
| 4. Primary care tasks must be limited and doable | Primary health care workers’ functions must be limited and doable so that they function at their optimal level |
| 5. Specialist mental health professionals and facilities must be available to support primary care | Integration of mental health care into primary health care must be accompanied by secondary care to which primary health care workers can refer |
| 6. Patients must have access to essential psychotropic medication in primary care | Availability of essential psychotropic medications is essential for the successful integration of mental health into primary care |
| 7. Integration is a process, not an event | Integration takes time and involves a series of developments |
| 8. A mental health service coordinator is crucial | A mental health coordinator is essential in facilitating the integration process |
| 9. Collaboration with other government non-health sectors, nongovernmental organisations, village and community health workers, and volunteers is required | Collaboration with government and non-governmental sectors can help patients become more functional and decrease their need for hospitalisation |
| 10. Financial and human resources are needed | Financial resources are required to establish and maintain the service |
that were tested. It was self-administered. Tables 3 and 4 provide details of the items (strongly agree to strongly disagree) and had 3 sections. The tool scale. The final tool was organised around 15 items with 4 points (strongly agree to strongly disagree) (see Table 4 for items). It was tested for reliability by using a sample of 39 medical students who completed the 16-item MICA scale 2 weeks apart (spss-t2) (IBM Corp, Armonk, NY, USA). Simple descriptive analysis was used on the quantitative data. A person’s score is the sum of the scores for individual items. For items 1, 2, 4, 6, 7, 8, 11, 12, 13, 14 and 15, the scoring was as follows: strongly agree = 1; agree = 2; disagree = 3; strongly disagree = 4. Items 3, 5, 9, and 10 were reversed as follows: strongly agree = 4, agree = 3; disagree = 2; strongly disagree = 1. The scores for each item were summed to produce a single overall score. The average total score for knowledge and attitudes was then calculated by dividing the total score by the number of items. The average margin score for knowledge and attitudes was placed at 2.5.

A score higher than the marginal score for attitudes indicated negative attitudes and a score below the margin indicated positive attitudes. A score higher than 2.5 for items (4, 6, 9, 10, 11, 12, 13 and 14) that assessed level of knowledge indicated a high degree of lack of knowledge, and a score below 2.5 indicated better knowledge.

The scores for individual items were calculated, as well as the average scores for the two subsets (attitude; knowledge). A one-way ANOVA was also calculated between demographic factors and the scores.

Data collection

**Data collection instrument**

A previously developed questionnaire was used to measure nurses’ knowledge, attitudes and beliefs after seeking permission from the researcher who developed the tool. The tool was developed in the United Kingdom, and has been used widely around the world. It was developed in English and there was no translation done since the participants were using English as a language of communication in the workplace. The Mental Illness: Clinicians’ Attitude Scale (MICA version 4) uses a Likert scale with four points (strongly agree to strongly disagree) (see Table 4 for items). It was tested for reliability by using a sample of 39 medical students who completed the 16-item MICA scale 2 weeks apart with no specific training related to reducing stigma of mental illness. The scale yielded an internal consistency of α = 0.79, which was good. A reliability coefficient of 0.70 or higher is considered ‘acceptable’ in most social science research situations. The MICA 4 scale aimed to measure only attitudes towards colleagues with mental health disorders whereas the study purported to measure attitudes towards patients with mental illness. As the researcher also wanted to assess nurses’ knowledge in the provision of mental health care, in section 8 of the questionnaire items addressing knowledge and practices were added to assess the practice of healthcare workers in relation to their attitudes. Section A on demographic characteristics of the sample was included in the scale as demographic characteristics play a role in the knowledge and attitudes of healthcare workers in their practice. One item on the original MICA scale was omitted because it asked about attitudes towards colleagues with mental health disorders whereas the study purported to measure attitudes towards patients with mental health disorders. A pilot study in which 15 nurses participated was conducted in two clinics that did not form part of the main study. Participants saw the scale for the first time and there was no prior information given to them concerning the scale. The final tool was organised around 15 items with 4 points (strongly agree to strongly disagree) and had 3 sections. The tool was self-administered. Tables 3 and 4 provide details of the items that were tested.

**Data collection**

Questionnaires were personally distributed and collected by the researcher from the clinics in order to minimise the number of missed questionnaires. Data were collected from the six clinics that were selected for case study for the major study. The nurses were given three weeks to complete the questionnaire. Three weeks was appropriate so as to allow nurses who were off duty and on leave to participate in the survey voluntarily. The total population was 55 nurses. Thirty-six questionnaires were returned out of 50 questionnaires that were distributed, which was a 76% response rate and was acceptable. The number returned was dependent on the number of nurses at the clinics who were available during the data-collection period, as some of them were on leave. The researcher personally collected the questionnaire after three weeks, which was the set date for return of the questionnaires. Those who were on leave were excluded from the study because the researcher feared that by prolonging the time the questionnaires could be misplaced by the PHC nurses.

**Data analysis**

Quantitative data were entered analysed using Statistical Package of Social Sciences (SPSS™) version 22 for Windows (spss-t2) (IBM Corp, Armonk, NY, USA). Simple descriptive analysis was used on the quantitative data. A person’s score is the sum of the scores for individual items. For items 1, 2, 4, 6, 7, 8, 11, 12, 13, 14 and 15, the scoring was as follows: strongly agree = 1; agree = 2; disagree = 3; strongly disagree = 4. Items 3, 5, 9, and 10 were reversed as follows: strongly agree = 4, agree = 3; disagree = 2; strongly disagree = 1. The scores for each item were summed to produce a single overall score. The average total score for knowledge and attitudes was then calculated by dividing the total score by the number of items. The average margin score for knowledge and attitudes was placed at 2.5.
Table 3: Demographic characteristics of respondents (n = 36)

| Item                                      | Attribute                                                                 | Frequency | Percentage |
|-------------------------------------------|---------------------------------------------------------------------------|-----------|------------|
| Age                                       | 21–30                                                                     | 6         | 17         |
|                                           | 31–40                                                                     | 11        | 30         |
|                                           | 41–50                                                                     | 14        | 39         |
|                                           | 51–60                                                                     | 5         | 14         |
| Gender                                    | Male                                                                      | 3         | 8          |
|                                           | Female                                                                    | 33        | 92         |
| Nursing qualification                     | Four-year diploma in nursing (i.e. general nursing, midwifery, community  | 24        | 66         |
|                                           | health and psychiatric nursing)                                           |           |            |
|                                           | Three-year diploma in General Nursing only                                | 5         | 14         |
|                                           | Three-year diploma in General Nursing and one-year qualification in        | 6         | 17         |
|                                           | psychiatric nursing                                                       |           |            |
|                                           | Enrolled Nurse                                                            | 1         | 3          |
| Years of practice                         | 0–1 year                                                                  | 2         | 5          |
|                                           | 2–5 years                                                                 | 10        | 28         |
|                                           | 6–10 years                                                                | 15        | 42         |
|                                           | 11–15+ years                                                              | 9         | 25         |
| Past experience working in psychiatric    | None                                                                      | 7         | 19         |
| nursing                                    | 2 years                                                                   | 8         | 22         |
|                                           | 5 years                                                                   | 13        | 36         |
|                                           | More than 10 years                                                        | 8         | 22         |
| Know someone other than patient with      | Yes                                                                       | 28        | 78         |
| psychiatric condition?                    | No                                                                        | 8         | 22         |

Ethical considerations
Before conducting the study, ethical permission was sought from the University of KwaZulu-Natal Ethics Committee, reference number: HSS/0653/011D and from the KwaZulu-Natal Department of Health. Permission was also sought from uThungulu District Office Management and from the Chief Executive Officer of the hospitals to which the clinics are attached. When clinics were visited for data collection, participants were briefed about the study and informed consent was obtained at the start of each clinic visit. Participants were advised of the confidentiality and anonymity of their responses and that they could withdraw at any time without prejudice. Participation in the interview was considered to be consent to participate.

Reliability
Test–retest reliability was applied by distributing the questionnaire to 15 nurses who did not form part of the study. The questionnaire yielded the same results after it was administered to the same nurses a month later. Participants were informed that they were not forced to participate in the study. This was done to ensure that only participants who were genuinely prepared to take part in the study would provide data freely.

Results
The participant’s characteristics are presented in Table 3. If the nurses’ number of years in practice and past experience of working in psychiatric nursing was 5 months and above, the score was rounded to the nearest 10 to add to the years. Some 39% of the respondents were between the ages of 41–50 and there were 33 females (92%) and 3 males (8%). There were differences in educational level. The participants mainly (66%) had a four-year Diploma in Nursing, 17% had General Nursing with Psychiatry and a few (14%) had General Nursing only. In total, 42% of the nurses had 6–10 years of practice as nurses. The majority of the participants (58%) had 5–10 years' past experience working with psychiatric patients. A greater proportion of respondents (78%) reported having had personal contact with someone with mental illness.

Nurses' attitudes to mental illness
Table 4 shows that the average score for nurses' attitudes was 2.326. This means that nurses had a relatively positive attitude to mental illness, since it is below the score of 2.5 and a score above that would indicate negative attitudes. The average score for knowledge and skill was 2.8 as shown in Table 4. Since this score is slightly above the 2.5 cut-off, this indicates that nurses perceive themselves to have a lack of knowledge in the management of psychiatric patients.

Three attitude items (4, 6, and 8) had a score that indicated negative attitudes, while five of the knowledge items (11 to15) indicated negative perceptions regarding their own knowledge.
Characteristics associated with nurses' attitudes towards mental illness

One-way ANOVA was carried out to test whether nurses' socio-demographic characteristics had an impact on their attitudes towards mental illness. Six socio-demographic variables (age, gender, health qualification, years in practice, past experience of working with psychiatric patients and knowing someone other than patients with a psychiatric condition) were each tested separately. The $p$-value was set at 0.05. Table 5 highlights only characteristics that were found to be significant to nurses' attitudes and knowledge.

When the ANOVA was done between the demographic factors and the total score on the MICA scale, none of the demographic factors made a significant difference; the $f$-value for age was 7.409, $f$-value for professional qualifications 8.024 and $f$-value for work experience working with psychiatric patients 3.689. However, when the demographic factors were correlated with individual items, it was found that health qualifications made a significant difference on six items, while age and past experience with psychiatric patients made a significant difference on one item each (see Table 5).

**Discussion**

This study explored the knowledge, attitudes and beliefs of PHC nurses towards mental health provision in PHC clinics. The present findings showed that age, professional qualification, and past experience in working with psychiatric patients are associated with participants' general positive attitudes towards persons with mental illness.

The fact that the majority of nurses have a four-year Diploma in Nursing indicates that PHC clinics are well covered by nurses who have psychiatric nursing training. The availability of psychiatically trained nurses in PHC clinics is necessary to ensure that mental health conditions are appropriately identified and
managed. The association with past experience in working with psychiatric patients and positive attitude of nurses was found to be significant. These findings are consistent with the findings of the study conducted by Couture and Penn. The interesting finding was that the staff have had personal contact with someone with mental health problems but this was not found to have any significance in this study. The findings differ from the findings of the study conducted by Schafer et al. who found that knowing someone with mental illness was significant.

Nurses’ attitudes towards mental illness were generally positive. These results were supported by the findings from the study by Chambers et al. and Mwape et al., who they found that nurses held positive attitudes towards management of mental health disorders.

The three items that showed negative results all have to do with the role of the nurse in caring for patients with psychiatric problems. They had negative scores in areas such as assessment, providing health information, providing information on the side effects of drug use, psycho-social problems and a feeling that treatment did not make a difference. This might indicate a lack of clarity concerning the role of the PHC nurse in this type of care and should be attended to in policy guidelines and continuing education. According to the study by Avarniti et al., nurses with increased educational levels have more positive attitudes towards patients with mental illness.

The findings regarding positive attitudes in this study are encouraging as it shows that with continuing education and supervision nurses are likely to promote mental health in PHC settings. According to Chambers et al., nurses with positive attitudes are more likely to influence patients to take control of their lives and take better decisions about their mental health care.

Although nurses showed relatively positive attitudes towards psychiatric patients, the findings of this study revealed that nurses lacked the knowledge to manage psychiatric patients. The findings are consistent with what was found by van Deventer et al., who found that primary health care nurses did not have the skill to manage patients with mental health disorders.

Lack of training and supervision by the hospital mental health teams was also identified as the cause of lack of knowledge in managing patients with mental disorders, which negatively affects integration of mental health care into PHC. This aligns with the findings in the WHO report that most healthcare workers working in PHC clinics do not receive adequate training on mental health care. According to Siddiqi and Siddiqi nurses’ lack of knowledge in managing patients with mental health disorders has led to poor detection of most mental health conditions in PHC. Continuing education may be needed for dissemination of information and guidelines and practice-based education. This will help improve skill in diagnosing and psychological therapy for the psychiatric patient. The researcher is of the opinion that further research is needed to ascertain the type of training required to equip the nurses in order to provide quality mental health care services. A larger study is needed to investigate the factors that would lead to behaviour change by nurses working in PHC clinics with regard to the provision of mental health services.

### Recommendations

Continuous staff development is recommended so that PHC nurses gain the necessary knowledge for providing integrated mental health care services.

### Limitations

Two limitations were identified in this study. The first is that the sample used was small as only nurses working in the six clinics formed part of the study. However, the clinics were carefully selected and it is not expected that a large sample would have given different results. The second limitation was that the study did not look at how nurses’ attitudes toward people with mental illness affect nursing practice.

### Conclusion

This study found that PHC nurses’ attitudes and beliefs towards people with mental illness were positive. It is of great concern that in this study PHC nurses were found to have inadequate knowledge to manage psychiatric patients. It is evident that most of them do not have the opportunity to be exposed to refresher courses related to mental health.

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**Table 5: Characteristics associated with nurses’ knowledge, attitudes and beliefs towards mental illness**

| Number | Item                                                                 | n  | Mean (SE) | F    | p-value |
|--------|----------------------------------------------------------------------|----|-----------|------|---------|
| 1      | I have a responsibility to identify patients with mental health problems | 36 | 4.027     | 7.113| 0.003   |
| 2      | For the majority of mental health conditions, counselling is a waste of effort | 36 | 4.027     | 7.113| 0.003   |
| 3      | I do not have enough clinical skills to care for psychiatric patients | 36 | 5.879     | 12.879| 0       |
| 4      | I do not have enough clinical skills to care for patients’ psychotropic drugs’ side effects | 36 | 82.479    | 3.689| 0.022   |
| 5      | I assess my patients for physical problems related to psychotropic drug use | 36 | 4.803     | 7.409| 0.002   |
| 6      | I assess my patients for psycho-social problems                      | 36 | 4.371     | 8.024| 0.001   |

Note: R = reverse-scored items.
An environment with knowledgeable and skilled staff at primary health care clinics may encourage people to seek help, thus reducing the incidence of mental health conditions.

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