

Theory-Practice Gap: The Knowledge and Perception of Nigerian Nurses

Abstract

Background: The theory-practice gap can be described as a lack of ability to relate the knowledge acquired in academics and research work with practice. This study aims to assess the knowledge and the perception of Nigerian nurses on the theory-practice gap in Nursing. **Materials and Methods:** This cross-sectional correlational study was carried out with a sample of 196 nurses who were working in the Federal Medical Centre Keffi and Aminu Kano Teaching hospital in Kano, all from the northern part of Nigeria, from April to June 2019. The participants were selected using a convenient sampling technique, where a self-administered questionnaire was utilized to collect the data and analysis was undertaken using SPSS. **Results:** The results of this study showed that 83.80% of respondents had good knowledge and 89.10% of the respondents had good perceptions. The levels of knowledge were significantly different in correlation with the educational level of respondents ($\chi^2 = 13.88$, $df = 6$, $p = 0.022$), which was determined using a Fischer exact test. Also, the level of perception was significantly different when considering the nature of work participants undertook ($X^2 = 7.65$, $df = 2$, $p = 0.022$). **Conclusions:** Given the participants' awareness and perceptions in this study, it is clear that they are well informed of the theory-practice gap. This is a call for all professionals at an individual and organizational level to work, as it will translate into gap minimization, thereby increasing the quality of health care delivery as nurses constitute the largest part of the health care team in Nigeria.

Keywords: Knowledge, Nigeria, nurses, perception, professional practice gaps

Introduction

Clinical mastery and knowledge acquisition are important aspects of a nurse's overall performance.^[1,2] The theory-practice gap is described as a lack of ability to relate and enforce the knowledge acquired in academics and research work with practice and its attending consequences make nurses vulnerable, thereby affecting the health care system of any nation in general.^[3-5] The consequences of these gaps have resulted in poor awareness of current advancements and research findings by nurses. Rather a strong reliance on traditional approaches has been adopted, such as intuition against empirical and research discoveries; lack of integration of Evidence-Based Practice (EBP) into either the curriculum or day-to-day care; and poor collaboration between academic areas and clinical activities.^[6,7] The outcome of the intertwined relationship of both knowledge and perception has a great influence on the way clinical nurses practice, regardless of the professional guidelines that depend

on how situations are handled, they either positively become minimized or negatively become wider.^[7-9]

In Nigeria, however, the majority of the nurses are diploma or certificate holders from a school of nursing, only 28 of 265 training institutions are university-based and these institutes produce a very limited percentage of graduate nurses^[10-12] which results in a poor educational level, thereby widening the theory-practice gap. Nigeria was chosen for the study because of its diversified and multicultural nature and to ascertain the extent of the nursing theory-practice gap so that adequate measures can be taken to minimize it. It is a country with over 400 different languages and over 200 ethnic groups and it is blessed with a maximum variation,^[13] and it is also the home country of one of the researchers which makes data collection a little easier as well as possible follow up implementation.

There are many studies about theory-practice gaps in the world^[1,4,5,8,14] but

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none have been identified in the Nigerian context, except for a qualitative study which was focused on student nurses and revealed a multidimensional gap in nursing education, theory, and practice. This gap expresses itself in structural, political, and material terms as well as transient stresses.^[15] This study aims to assess the knowledge and the perception of Nigerian nurses about the theory-practice gap in nursing.

Materials and Methods

This study adopts a cross-sectional correlational study design. It is supposed to be part of the thesis research work in which the other part is a qualitative study, together making a mixed-methods design. The study was conducted between April and June 2019 with 196 nurses who are working in the two tertiary hospitals and a Federal University who were purposefully selected for the study. The study place is Aminu Kano Teaching Hospitals (AKTH), Kano; the Federal Medical Centre, Keffi (FMCK); and Bayero University Kano (BUK), all in the northern part of Nigeria. The study population includes practicing nurses in the hospitals mentioned above and all lecturers from the Department of Nursing at Bayero University, Kano, Nigeria. A clinical nurse in this study means those nurses that work in Nigerian hospitals (AKTH and FMCK) enlisted for study purposes, while academic nurses are those working in the university selected (BUK). The inclusion criteria for this study are all the nurses from the AKTH, FMCK, and the nursing lecturers in the department of nursing at BUK; while the exclusion criteria are all other nurses and lecturers from other departments and other universities and hospitals. The target population of the study that met the inclusion criteria, as seen from the institution data of the nursing personnel, is as follows: Federal Medical Centre Keffi (FMCK) =575 nurses; Aminu Kano Teaching Hospitals (AKTH) =661 nurses; and Department of Nursing, Bayero University Kano (BUK) =46 academic staff, making the population 1,282 as a whole. Of this population, 196 sample respondents were determined based on power ($d = 0.05$) and the expected proportion of the population was based on a pilot study ($p = 0.15$) with a confidence interval percentage of 95%.^[16,17]

Convenience sampling was used to gather the data from the institution selected for the study using a self-administered questionnaire. The questionnaire was reviewed and commented on by ten nursing professors/teachers who have experience and are familiar with the field and the context in which the study was carried out. Then, the opinions and comments were reviewed by the research team, and finally, the validity of the questionnaire was confirmed. The results of the assessment were evaluated by the Coefficient of Variation Ratio (CVR) which was used to measure the validity. The evaluation yielded a CVR of 0.79, amounting to 79.00% validity, and Cronbach's alpha was used to determine the reliability of the instrument, which resulted

in 76% for the knowledge aspect and 71.30% for the perception aspect. The questionnaire was divided into three sections: background characteristics such as age, gender, years of experience, level of education, and nature of job, all of which underwent descriptive analysis. The second section contained 16 items used to assess the respondents' knowledge about the theory-practice gap. This section included questions like, "Have you noticed that there are differences (gap) between the knowledge known of the theory and the practices in nursing?"; "What factors do you think are responsible for this gap "In what ways do you think this theory-practice gap can be minimized?"

In all, the maximum score cumulatively measured up to 34 points. Out of which, the respondents are categorized as: less than or equal to 20 points meant they had poor knowledge; 21 to 25 points equaled moderate knowledge; greater or equal to 26 points meant they had good knowledge. The last part is five items positively worded for a Likert style scaled response pattern of strongly agree (3 points), agree (2 points), disagree (1 point), and strongly disagree (0 points), to assess the respondents' perceptions about the theory-practice gap. The maximum score here is 15 points and the respondents' scores are categorized as: having less than or equal to nine points meant they had poor perceptions, ten to 12 points was seen as moderate perception; and 13 or more points meant they had good perceptions.

A self-administered questionnaire was served by the principal investigator (first author) to all the participants who were present in the hospital at the time of data collection. After the questionnaires had been filled by each respondent, they were then checked for completeness and collected by the researcher (first author).^[18]

Data analysis was performed with the help of the Statistical Package of the Social Sciences (SPSS) Version 26 (Inc., Chicago, IL, USA), where a P value of <0.05 was considered to be statistically significant. The researchers used a Chi-square test and Fischer exact test. Then, a comparison between the dependent variables and the independent variables (such as age, level of education, and years of experience) was conducted.

Ethical considerations

This study was approved by the ethical committee of the Tehran University of Medical Sciences (TUMS), Tehran (IR.TUMS.FNM.REC.1398.089). After being informed of the procedures and told that participation in the study was voluntary, each participant gave verbal consent. They were assured that the information they provided would be kept confidential and anonymous, that it would only be used for research purposes, and that they could opt-out at any time if they felt uncomfortable. All necessary permissions were obtained from TUMS, hospital administrators, and the university ethical committee

approval had been obtained before the data collection process.

Results

In all, out of 196 questionnaires distributed to the respondent, 175 were returned filled, amounting to an 89.29% response rate. The demographic characteristics of the respondent are as shown in Table 1. Overall, 83.80% of the respondents have good knowledge and 89.10% had positive perceptions of the theory-practice gap in nursing, ranging from a moderate level to a high level, as shown in Figure 1. The level of knowledge showed significant differences with the educational levels of the respondents. This was evident in the Fischer exact test ($\chi^2 = 13.88$, $df = 6$, $p = 0.022$) because the Chi-square violated the expected value at 33% (i.e., >20% max expected value) where respondents who presented the lowest knowledge of the gap were Diploma nurses (78.50%), and the highest knowledge recorded were at an MSc degree level (94.40%), which is followed by those with a bachelor degree (90.40%), and then PhD degree or higher (87.50%). The X^2 test showed statistically significant differences between the levels of perception and the nature of work of the respondents ($X^2 = 7.65$, $df = 2$, $p = 0.022$). Here, the clinical nurses elicited a higher perception (89.70%) than the academicians (88.40%) as they demonstrated the existence of a theory-practice gap in nursing, as shown in Table 2. Other results from the Chi-square test are not statistically significant and that's why they were not mentioned due to the space limitation of the journal.

Discussion

This study aimed to determine the level of awareness of Nigerian nurses by assessing their knowledge and perceptions of the theory-practice gap in nursing. Nigerian nurses work mainly as clinical and academic nurses. Nurses, both clinical and academic, have at one point or the other been confronted with the reality and consequences of the theory-practice gap as they are charged to furnish equitable, effective, affordable, and excellent health care services, as depicted by many researchers.^[19]

The findings in this study showed that there was a high level of knowledge and perception in general about the existence of a gap between theory and practice and this knowledge is seen to be highest amongst the MSc holders, followed by the bachelor degree holders, and then those with PhD degrees or higher. The lowest levels of knowledge were seen among the Diploma nurses. This result shows that the majority of the MSc degree level nurses are both clinical and academic nurses as they are fully involved in both teaching and hospital-based care. The synergy of these two factors (clinical and academic task) gives better insight and understanding into the existence of the gap which suggests an urgent need for effective collaboration in the profession which would thereby decrease the theory-practice gap.

Table 1: Demographic characteristics of the respondents

| Variables | Mean (SD) | n (%) |
|----------------------------|--------------|-------------|
| Age group (Years) | 33.70 (8.39) | |
| 21-30 | | 25 (14.29) |
| 31-40 | | 77 (44.00) |
| 41-50 | | 57 (32.57) |
| Above 50 | | 16 (9.14) |
| Gender | | |
| Male | | 60 (34.88) |
| Female | | 112 (65.12) |
| Level of Education | | |
| PhD + | | 9 (5.20) |
| MSc | | 18 (10.40) |
| Bachelor | | 53 (30.64) |
| Diploma | | 93 (53.76) |
| Nature of Work | | |
| Lecturer/Academicians | | 26 (15.20) |
| Clinicians/Practitioner | | 145 (84.80) |
| Year of Experience (Years) | | |
| 1-3 | 8.10 (3.07) | 13 (7.43) |
| 4-7 | | 48 (27.43) |
| 8-10 | | 28 (16.00) |
| Above 10 | | 86 (49.14) |

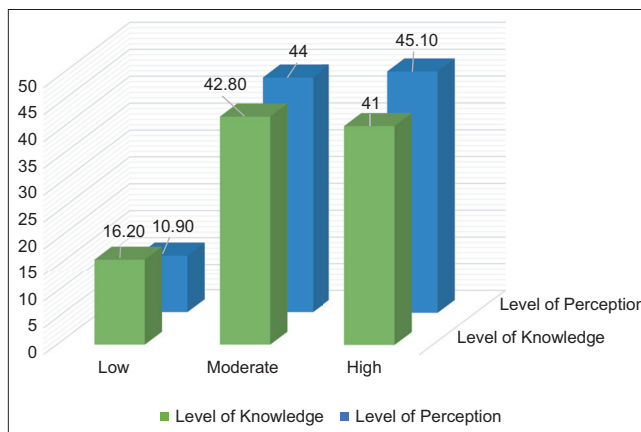


Figure 1: General level of knowledge and perception

This is in agreement with a study conducted in the USA (University of Calgary) by Dopson and Beshai (2013)^[20] which states the importance of knowledge and research as they suggest a protocol for planning and design, training, and competency maintenance, as well as knowledge dissemination, policy implementation, and change. Nurses with a PhD educational level or higher, even though they have a high educational status, demonstrated lower knowledge of the theory-practice gap than the participants with an MSc degree. This may be because most PhD degree holders, who are mainly faculty members of the university, don't deem it fit to even go to the hospitals, even with their students, for clinical coaching and/or supervision. This is agreeable to a study conducted in Ethiopia, where only a few of all the educators (less

Table 2: Association of knowledge level with the educational level of the respondent and perception level with nature of work of the respondent

| Variables | Level of Knowledge | | | p |
|-----------------------|--------------------|---------------------|-------------|---------|
| | Low: n (%) | Moderate: n (%) | High: n (%) | |
| Educational Level | | | | |
| PhD ⁺ | 1 (12.50) | 0 (0.00) | 7 (87.50) | 0.022** |
| MSc | 1 (5.56) | 9 (50.00) | 8 (44.44) | |
| Bachelor | 5 (9.62) | 28 (53.85) | 19 (36.53) | |
| Diploma | 20 (21.51) | 37 (39.78) | 36 (38.71) | |
| | | Level of Perception | | |
| Nature of Work | | | | 0.022* |
| Lecturer/Academicians | 3 (11.54) | 5 (19.23) | 18 (69.23) | |
| Nurse Clinicians | 15 (10.34) | 69 (47.59) | 61 (42.07) | |

* Chi-square test, ** Fischer exact test, p is significant at the level below $\alpha = 0.05$, n=frequency, %= Percentages, PhD⁺ = Respondent with PhD degree or higher

than 50%) were found to be knowledgeable about clinical preceptorship and clinical ordeals^[21] as they employed the services of a clinical instructor who usually took on that responsibility, which is in itself the source of a gap. Academicians who teach students in classrooms and other educational settings were not allowed to participate in their clinical practices. The researchers recommend that nurse academicians be employed in hospitals, similar to how medical professionals are treated in Nigeria where the professors are often employed in university-affiliated teaching hospitals. This will ensure that whoever teaches students in classrooms are allowed and motivated to direct them in clinical areas to sharpen their skills in connecting what is learned in the classroom with real-life situations and practice.

Furthermore, the findings of this study reveal that the level of perception is significantly related to the nature of the respondents' nature of work. This signifies that clinical nurses show a higher perception than the academic nurses. This may be because they are directly involved in patient care and they are exposed to the real situations of our health care system. Though, the system has been seen to be bedeviled with so many problems and challenges. These challenges stemmed from poor facilities and equipment and poor intra- and inter-professional collaboration, contributing to the knowledge deficit and lack of continuing education, especially among the clinical nurses. To minimize the theory-practice gap, having good knowledge and perceptions about the existence of the gap is not enough, efforts needs to be put in place to minimize the gap. Researches from other settings show that effective collaboration, improved knowledge acquisition, continuous education, periodic curriculum updates,^[22-24] and the inculcation of evidence-based practices into the curriculum of learning will help reduce or minimize the theory-practice gap.^[25,26]

The findings of this research will help future studies to accommodate the peculiar nature of Nigeria as a multicultural society with so many cultures, tribes,

and ways of life to strategies ways to minimize the nursing theory-practice gap in Nigeria. This study, like any other studies, has its limitations. One of them is that the participants were selected only from one of the six geographic regions in Nigeria. To increase the generalizability of the findings, other hospitals and universities from the other geographical region have to be involved and a larger sample should be used to represent the Nigerian nursing community. The other limitations are financial, enough funds would make the study more robust and more hands and institutions could potentially be involved in taking care of the research costs and logistics.

Conclusion

Based on the knowledge and perceptions demonstrated in this study, it is shown that nursing educators and practitioners are fully aware of the existence of the theory-practice gap in nursing. It is expected that efforts should be made, both at individual and organizational levels to look into the suggestions and recommendations provided by this study. Minimizing this gap will manifest in increasing the quality of care since nurses are the highest population of health care personnel in Nigeria, even though they are the least recognized and appreciated in the Nigeria context.

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Conflicts of interest

Nothing to declare.

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