

THEORY-PRACTICE GAP: THE EXPERIENCES OF NIGERIAN NURSING STUDENTS

Titilayo D. Odetola

orcid.org/0000-0002-3363-8073
University of Ibadan, Nigeria
odetolatitilayo@yahoo.com

Olusola Oluwasola

orcid.org/0000-0001-5849-6908
University of Ibadan, Nigeria

Christoph Pimmer

orcid.org/0000-0002-7622-6685
University of Applied Sciences and Arts,
Northwestern Switzerland

Isaac O. Dipeolu

orcid.org/0000-0002-7538-1050
University of Ibadan, Nigeria

Samson O. Akande

orcid.org/0000-0002-2232-7579
University of Ibadan, Nigeria

Oladipupo S. Olaleye

orcid.org/0000-0002-8156-8217
University of Ibadan, Nigeria

Urs Gröbriel

University of Applied Sciences and Arts,
Northwestern Switzerland

Ademola J. Ajuwon

orcid.org/0000-0002-0892-7578
University of Ibadan, Nigeria

ABSTRACT

The “disconnect” between the body of knowledge acquired in classroom settings and the application of this knowledge in clinical practice is one of the main reasons for professional fear, anxiety and feelings of incompetence among freshly graduated nurses. While the phenomenon of the theory-to-practice gap has been researched quite extensively in high-income country settings much less is known about nursing students’ experiences in a developing country context. To rectify this shortcoming, the qualitative study investigated the experiences of nursing students in their attempt to apply what they learn in classrooms in clinical learning contexts in seven sites in Nigeria. Thematic content analysis was used to analyse data gained from eight focus group discussions (n = 80) with the students. The findings reveal a multifaceted theory-practice gap which plays out along four tensions: (1) procedural, i.e. the difference between practices from education institutions and the ones enacted in clinical wards – and contradictions that emerge even within one clinical setting;

(2) political, i.e. conflicts that arise between students and clinical staff, especially personnel with a lower qualification profile than the degree that students pursue; (3) material, i.e. the disconnect between contemporary instruments and equipment available in schools and the lack thereof in clinical settings; and (4) temporal, i.e. restricted opportunities for supervised practice owing to time constraints in clinical settings in which education tends to be undervalued. Many of these aspects are linked to and aggravated by infrastructural limitations, which are typical for the setting of a developing country. Nursing students need to be prepared regarding how to deal with the identified procedural, political, material and temporal tensions before and while being immersed in clinical practice, and, in so doing, they need to be supported by educationally better qualified clinical staff.

Keywords: theory-practice gap; nursing students; training; Nigeria

Introduction

In an academic system, every profession has a curriculum that consists of different parts. The nursing profession, as observed by Saifan et al. (2015), is composed of two main parts: the theoretical part, which reflects knowledge that is conveyed in the classroom, and the practical part, which focuses on improving skills in the clinical area and prepares student nurses to be able of “doing” as well as “knowing” the clinical principles in practice (Sharif and Masoumi 2005) and on stimulating students to use their critical thinking skills for problem-solving (Dunn and Burnett 1995).

These students in training cannot undergo a thorough immersion and scrutiny from these two aspects of study before they graduate. As such, Dale (1994), Nabolsi et al. (2012) and Saifan et al. (2015) reported that the theoretical aspect of the curriculum of any school of nursing provides the basis for understanding the reality of nursing, that is, the theoretical basis for all procedures, diseases, interpersonal skills and requirements to be a nurse (Landers 2000), while the practical part provides nursing students with a mechanism to extend classroom learning into the nursing practice environments (McKenna and Wellard 2009) and promotes “laying hands-on” experience. As Scully (2011) reported, matching textbook descriptions of clinical situations with the reality of practice is an ongoing problem faced by members of the nursing profession and is commonly referred to as the “theory-practice gap”. Scully (2011) also identified that the ubiquitous gap often encountered at various times and at different institutions is a common challenge for students who find themselves in the midst of the theory-practice void.

However, students’ perception of coherence between theory and practice during initial nursing education is directly influenced by reflective skills and theoretical knowledge (Hatlevik 2011). Nevertheless, practical skills have a fully mediated and theoretical knowledge influence on students’ perception and reflective coherence (Hatlevik 2011). Therefore, the teaching-learning process of nursing should be seen as a theory that is informing, and practice should give way to a mutually enhancing model in which theory

is derived from practice, and in turn influences future practice (Rolfe 1993.) These two, if well harmonised in the curriculum, will help in shaping nurses for competency and professional development (Budgen and Garmoth 2008; Fitzpatrick, While, and Roberts 1996).

According to Saifan et al. (2015), literature shows that there is a gap between the theory and practice components of nursing education (Allan, Smith, and O'Driscoll 2011; Chan 2013; Landers 2000; McKenna and Wellard 2009). Some of the reasons for these gaps are inappropriate teaching techniques such as the use of abstract ideas to explain some clinical procedures (Chan 2013); the use of subjective terms in defining nursing terms and theories and giving different meanings to these terms (Upton 1999); difficulties students face in linking what they have learnt in the classroom with the realities they encounter in the ward; uncooperative attitudes of the very old senior nurses of the ward; replacement of vocational training to academic education (Fairbrother and Ford 1998; McKenna and Wellard 2009); and complexity and the continuous change in the clinical environment (Nabolsi et al. 2012). Therefore, in bridging these gaps, several authors were of the opinion that effective theoretical education in the academic context can be of little use when the student encounters the complexities of the clinical situation (McCaugherty 1991; Nabolsi et al. 2012; Smith et al. 2007).

Several authors have offered solutions to the theory-practice gaps including improvement in the clarity of teaching concepts (Saifan et al. 2015; Stockhausen 2005), shorter time from out-of-clinical environment (Fulbrook et al. 2000) and equipping nurses with more clinical skills than theories (Landers 2000). The research on this subject has been derived mostly from the developed countries but this issue has been largely under-researched in sub-Saharan Africa, including Nigeria.

Purpose

This study was designed to explore the experience of nursing students in applying theory and school knowledge in practice settings. Drawing on extant literature, the goal of this study was to understand better the degree of alignment, and, in the same way, the disconnection between theories, i.e. knowledge taught in school, and the clinical practice of nursing students in the context of a developing country. From a practical perspective, the idea was that insights into this topic would provide the basis for new approaches, measures and policies that can help nursing students in bridging these gaps more effectively.

Research Approach/Methods

A qualitative approach was used to explore the experience of nursing students in the application of knowledge, which was acquired in the classroom, in the context of clinical practice. More specifically, focus group discussions were conducted to investigate

nursing students' view about the alignment, and (potential) mismatch, between theory and practice, and associated efforts to overcome these divides.

Settings

Focus group discussion sessions were held from May to June 2016, with randomly selected participants from 7 out of the 15 accredited departments and schools of nursing in the south-western states of Nigeria. These departments and schools of nursing run degree and diploma programmes. The university training programme takes five years and the diploma school programmes are taught over three years.

Participants

The participants consisted of 80 students from a total of about 294 final-year students across the selected schools. The sample included 64 female students and 16 male students. Eight focus group sessions were conducted in a classroom in each of the schools. Each group included a range of 8 to 12 participants. The discussions lasted on average 50 minutes. Using an open-ended discussion guide, three trained facilitators, one note taker and one trained observer, who is knowledgeable about the nursing science profession, facilitated the discussions, which were also tape-recorded with the consent of the participants.

Methodological Approach

The guide consisted of 10 sub-items, which broadly dealt with the experiences of the nursing students when learning and working in practice settings, focusing on typical challenges that prevented them from applying knowledge. They also sought to elicit students' perceptions regarding how to overcome the potential gaps and any concrete measures and suggestions. The questions were pretested with nursing students with similar characteristics in institutions outside of the sample to establish their reliability. To ensure ethical compliance, the anonymity of participants was protected in this report with the introduction of acronyms such as "R" to denote discussants or respondents. The tape-recordings of the discussions were transcribed and enhanced with the notes taken during the discussions which included observed non-verbal cues. The subsequent process of analysis followed two main phases. First, a preliminary analysis was carried out to obtain a general sense of the data and to identify potential themes. Thereafter, the researchers read and reread the transcripts and extracted themes that reflected the specific thoughts and experiences of discussants in an iterative manner.

Ethical Considerations

The study was conducted after approval had been obtained from the University of Ibadan and the University College Hospital Ethics Review Committee. In addition, permission was obtained from the administrators of each of the institutions involved. All participants were duly informed of the objective of the research and of the voluntary nature of participation. Moreover, they were assured that the participants' names would not be mentioned during the discussions. Finally, the participants completed a written informed consent form.

Findings

The findings reveal a multifaceted theory-practice gap which plays out along four tensions: (1) procedural, i.e. the difference between practices from education institutions and the ones enacted in clinical wards – and contradictions that emerge even within one clinical setting; (2) political, i.e. conflicts that arise between students and clinical staff, especially personnel with a lower qualification profile than the degree that the students pursue; (3) material, i.e. the disconnect between contemporary instruments and equipment available in schools and the lack thereof in clinical settings; and (4) temporal, i.e. restricted opportunities for supervised practice owing to time constraints in clinical settings in which education tends to be undervalued. Many of these aspects are linked to and aggravated by infrastructural limitations, which are typical for the setting of a developing country.

Procedural: Discrepancies between School and Ward Practices

The participants expressed frustrations caused by their inability to practice in the ward what they had been taught in the classroom. This originates in the observation of a lack of a unified standard of practice. Hospitals had established individual practices, which were, in addition, not compatible with the standards taught in school. This presented considerable challenges to the students, who found themselves in situations in which they needed to reject some of the knowledge from the school, or to adapt it to the specificities of the “lived practice”. The tension became particular tangible in situations in which students were evaluated, such as in ward exams. The following quotations from the participants illustrate this issue:

... though they [clinical instructors] have been trying to tell us to practice what we are being taught because this is the rightful procedure. So, what happens is that when we are in the ward the clinical instructors go round to ensure that the clinical procedures being carried out are the right ones that she has taught us and that we are following not the way the nurses are doing in the ward and it's not every time they can be with us. (R4, SON 1)

In wards, the new ideas gotten from school and internet cannot be used because they [nurses in the hospital] already have standards. What is given in class is different from what is applicable in the ward so we can't practice what is given in class in the ward even in exams we have to look for a way out to cram what is right. (R5, SON 1)

This tension became even more pronounced by clinical staff who claimed that their way of practicing nursing was the correct one, whereas students in school did not learn the "real procedure" (R1, DON 2):

They will say you people (we) don't know anything. Therefore, different schools of thought affect our practice.

The situation was further complicated by discrepancies in practices within the ward context itself. Participants explained that a major challenge arose, for example when they received contradictory instructions from older and experienced nurses and newly trained ones. These contradictions created confusion and provoked insecurity in students who were not prepared to deal with these tensions. Often students did not dare to speak out in order to avoid conflicts.

We are also taught that if we are working with a nurse and we can see that the person is doing the wrong thing we should not hesitate to tell the person the right thing, but each time we do that, they always feel that we are feeling too big or making because we are from degree awarding institution. So we just keep quiet and watch them to do what they think is right even though it's wrong which brings confusion because it is contrary to what we were taught in class. (R5, DON 1)

Political: Tensions between Students and Clinical Staff

Students noted that their opportunities to learn in the ward and to put their knowledge into practice were restricted through tensions with other nursing staff, which often amounted to open conflicts. This manifested in situations in which participants reported being criticised unfairly by staff with a prejudicial attitude to nursing students. Moreover, some of the critique was reported to be beyond any factual level, targeting the students on a very personal basis ("your fathers should bring the money used for ... school fees to me so ... instead of wasting it on you" R6, DON 1). In part, these political conflicts were attributed to envy and resentment created by staff with lower qualifications (but more experience) than the degrees pursued by the participants:

... because most of the instructors only have their RN [registered nurse diploma] while some don't have. But for the fact that we have come to have our BNSc and RN in nursing does not mean that we want to be greater than them; they should understand that people have to grow in knowledge. Most time they just shout at us because they are beefing us (who are undergoing degree programmes). (R6, DON 1)

... by the time we make mistakes, because they (our instructors, our nurses in the wards) will shout at us, like “have you not been taught this, why are you doing it in this way, you don’t know anything”. I think it is going to help us if we are doing something wrong and they correct us in love. (R9, DON 1)

The response indicates clearly that, instead of encouraging students to learn from mistakes, these situations have negative ramifications, as in the absence of constructive feedback they do not only amount to non-learning situations but to a deep sense of frustration and demotivation.

Sometimes, you will wake up and you will be like I don’t want to go to the ward. (R6, DON 1)

Material: Disconnect between Technical Instruments in Schools and Practice

Many students pointed to discrepancies between instrumental equipment in wards and in schools. In class and from reading in textbooks, students are taught and learn about using state-of-the-art instruments and equipment. In contrast, the clinical environment either lacked specific technical instruments completely, which might have disappeared from hospital wards, or specific technical instruments were unavailable. Alternatively, students could only use older equipment that did not allow them to practice and deepen their experience with tools with which they were familiar with in school. This misalignment caused students’ frustrations but also showed them how to improvise in clinical settings.

I think the thing about theory and practice is that the theory idea is quite different from what you meet in the hospital. There are tools that are not provided in the hospital that made some nurses use what they are provided with, which is quite different from the tools that are taught in class. (R4, DON 1)

There are some things like that equipment we are to use that may not be available, e.g. cardiopulmonary resuscitation, so we are not able to practice it. (R4, SON 1)

Paradoxically, this resulted in abstract practice situations, in which ward instructors were required to explain the use of instruments in theory to prepare students for the exams.

Yeah, most times when you are being taught things in school, is not every time you practice, because you will not get instruments to practice those things, so the only thing they will now do then is improvising, and for our exams too, we do improvise and you hear our instructors saying, we are supposed to have this, we are supposed to have that. So most of the time, we learn things in abstract. (R3, DON 1)

The participants also pointed to another dimension of the problem, namely the discrepancy of instruments available in public and private clinical facilities. Although privately owned teaching hospitals tend to have sufficient instruments, the limited number of patients in these settings offers fewer opportunities to practice. In contrast, whereas public facilities have a heavy patient load that allows sufficient practice exposure, they often lack basic equipment which would be needed not only for learning and teaching but also for effective patient care.

In hospital X [public hospital], we see many cases, unfortunately, there are not enough equipment and resources. In our university teaching hospital (which is privately owned) there are enough equipment but no cases (because many patients cannot afford to pay for the cost of care in this facility).

Temporal: Restricted Opportunities for Learning and Supervision owing to Time Constraints

Many participants explained that the time dedicated to learning and feedback during clinical postings was generally insufficient. Instead of allowing students to engage in practice and providing them with constructive feedback, they were often left in the role of passive observers, as one participant narrated her experience from clinical postings:

... like wound dressing and all that, they [nurses in the ward] will just say ‘ah, you people cannot do it’; they will not even give us the chance to try it, so that they can make the necessary corrections. They will just say, ‘you cannot do it. Just watch and see’. (R6, DON 2)

One reason was the lack of time, which typically occurred in a setting marked by the prioritisation of patient care over education. Remarkably, time (and associated resources) constraints amounted not only to practices with little instructional value but also to practices that deviated from established standards:

... some procedures that we are taught here, we don’t actually have time to practice it and sometimes when we try to do it, they (our tutors) even tell us ‘there is no time for this, there is no time for that’: they just do it in a way, you know, that is less time consuming instead of doing it in the proper way, the normal way that is generally acceptable. So, as students, we don’t have that much opportunity to practice what have been taught. (R7, DON 2)

Discussion

This study has revealed a multidimensional theory-practice gap in nurse education in the development context observed, which manifests in procedural, political, material and temporal tensions.

Some results of the present study corroborate findings from the extant literature. For example, the divergence identified between practices and content in schools and clinical contexts is consistent with the findings from many previous studies (Hatlevik 2011; Sharif and Masoumi 2005). For example, in Sharif and Masoumi's (2005) work, one of the respondents stated, "I have learnt so many things in the class, but there is not much more chance to do them in actual settings [hospital wards]". Restricted opportunities for putting school knowledge into practice were also one of the key findings of this study. Hussein and Osuji (2017) point to the risks of learners who adopt knowledge from work colleagues, as many of these practices might not correspond with up-to-date clinical standards. In Nigeria, this factor is likely to be worsened by inadequate continuous training offered to nurse practitioners. The obvious implication is that the opportunities for continual professional development need to be expanded. In addition, nursing students need to be sensitised to avoid any uncritical adoption of clinical practices, and they need particular support in this process.

The limited opportunities for students to engage in active forms of learning and practice are another central challenge revealed by this study. This aspect is critical, especially if examined from theoretical educational perspectives. Following the principles of Cognitive Apprenticeship (Pimmer et al. 2012), learning as portrayed by many participants was restricted and rather narrow, as it was mostly based on modelling, which presents a practice in which learners observe experts who perform critical tasks. Importantly, many of the students' accounts suggest a lack of higher-level teaching and learning practices of the cognitive apprenticeship, which include coaching, scaffolding and particularly exploration. These are methods that allow learners to acquire skills and knowledge while becoming increasingly independent from the teacher. A possible approach to deal with these issues will be the allocation of more time for clinical staff to support students with feedback and help them become increasingly self-directed learners and, consequently, competent professionals. Perhaps even more important is the training and sensitisation of ward staff towards facilitating rich forms of learning and teaching. An exclusive focus on patient care, which seems to predominate in the settings researched, is short-sighted for any health service system, which needs to ensure the maintenance of an effective system to which the production of new and highly qualified staff is critical.

Another important finding is the striking differences in technical equipment between schools and wards, with many of the instruments taught in class not being available in clinical settings. This is a resultant effect of the limited health system funding in Nigeria. The funding of healthcare in Nigeria has often been described as inadequate with a budgetary provision to health hardly exceeding three per cent of the nation's total budgetary provisions (Orubuloye and Oni 1996). The highest budgetary allocation of health funding in Nigeria since the 2001 "Abuja declaration" by the Africa Union (AU) was in 2012 when 5.95 per cent of the budget was allotted to health (Onyeji 2017). This is currently worsened by the economic recession experienced in the country in the

last few years. Participants in the present study appeared to be mostly unprepared to deal with these discrepancies and their learning was marked by improvisation. Notably, these limitations do not only play out on the educational dimension alone, but, more dramatically, they inhibit the provision of effective patient care and may likely contribute to poor health outcomes. It is thus not only students but also patients who would much benefit from having adequate instruments in clinical wards, and the findings of this study once more underline the relevance of increased investment in the national health system.

The findings of the study need to be interpreted in the light of its limitations. First, results from this study were generated drawing on study participants from one specific geographical area in one country, i.e. south-western Nigeria. Hence, the generalisation of the findings beyond the study context needs to be treated with caution. Second, the issue of theory-practice gap was mostly based on the experiences of students during clinical placements in the course of their training programmes. Accordingly, and as a means to corroborate and extend the present findings, future research might involve further stakeholders including lecturers and clinical supervisors and staff, and might also focus on other theory-practice gaps issues among different populations, such as the ones that newly graduated nurses experience when they start to work in practice settings. In addition to the suggested triangulation of research subjects and perspectives, a methodological triangulation, which was absent in the present study, will certainly be of benefit in future research. For example, observation could be used in addition to focus groups, and the qualitative patterns identified might be strengthened by quantitative surveys that involve a much larger number of participants.

Conclusion and Recommendations

This study has revealed a multifaceted gap between theory and practice, which emanates from differences in practices and procedures, materials and tools, priorities (of patient care vs education), and political and power imbalances. While procedural tensions are widely present in prior literature, the revelation of the specific material and political discrepancies are aspects of the theory-practice gap that have been discussed only to a limited extent to date. Many aspects of the gap appeared to be linked to and aggravated by infrastructural limitations that are typical for the settings of a developing country. The findings from this study also suggest that students are not exposed to sufficient high-quality learning opportunities in the ward that allow them to practice and deepen what has been taught in the classroom, and to reconcile school knowledge with practice-based learning. There is a resultant need to train clinical instructors and staff in their capability to support students in this critical process.

Knowledge Translation

This study explored and identified the experienced gaps between nursing theory taught in class and the actual nursing care in practice areas using the qualitative method. In addition to the theoretical training, there is an urgent need to review nursing curricula to improve nursing students' exposure to practical training.

Contributions of this Article to Existing Knowledge

This study confirmed the theory-practice gap being experienced by student nurses in training in Nigeria and the need for the curricula of training to be revised.

This study is the first of its kind in Nigeria to bring to the fore the disparities between what is taught in the class and what nurses in training observe being practiced by the senior nursing staff during their clinical postings. This was attributed to the inadequacy of the necessary facilities for service.

The study also provided a channel for nursing students in training in Nigerian nursing schools to express their age-long challenge of having insufficient opportunities in the ward to practice what has been taught in the classroom.

The study also revealed that there is discordance between the content of training received in the classroom by nursing students and the instructions from the ward instructors.

Acknowledgements

We thank all the students who participated in the group discussions. We express our appreciation to all the administrators of the schools of nursing who gave permission to conduct the study. We also wish to thank the r4d programme of the Swiss National Science Foundation and the Swiss Agency for Development and Cooperation for their financial support of this study (IZ07ZO_160910).

Author Contributions

Authors 1, 2, 3 and 8 designed the study and conducted group sessions. Authors 4 and 5 conducted transcriptions of the group sessions while author 6 read transcripts and developed themes. Authors 3 and 7 designed the research, read transcripts and identified themes. All authors contributed to the writing, editing and approval of the manuscripts.

References

- Allan, H. T., P. Smith, and M. O'Driscoll. 2011. "Experiences of Supernumerary Status and the Hidden Curriculum in Nursing: A New Twist in the Theory-Practice Gap?" *Journal of Clinical Nursing* 20 (5–6): 847–55. <https://doi.org/10.1111/j.1365-2702.2010.03570.x>.

- Budgen, C., and L. Gamroth. 2008. "An Overview of Practice Education Models." *Nurse Education Today* 28 (3): 273–83. <https://doi.org/10.1016/j.nedt.2007.05.005>.
- Chan, Z. 2013. "A Systematic Review of Creative Thinking/Creativity in Nursing Education." *Nurse Education Today* 33 (11): 1382–7. <https://doi.org/10.1016/j.nedt.2012.09.005>.
- Dale, A. E. 1994. "The Theory-Theory Gap: The Challenge for Nurse Teachers." *Journal of Advanced Nursing* 20 (3): 521–4. <https://doi.org/10.1111/j.1365-2648.1994.tb02390.x>.
- Dunn, S. V., and P. Burnett. 1995. "The Development of a Clinical Learning Environment Scale." *Journal of Advanced Nursing* 22 (6): 1166–73. <https://doi.org/10.1111/j.1365-2648.1995.tb03119.x>.
- Fairbrother, P., and S. Ford. 1998. "Lecturer Practitioners: A Literature Review." *Journal of Advanced Nursing* 27 (2): 274–9. <https://doi.org/10.1046/j.1365-2648.1998.00525.x>.
- Fitzpatrick, J. M., A. E. While, and J. D. Roberts. 1996. "Key Influences on the Professional Socialisation and Practice of Students Undertaking Different Preregistration Nurse Education Programmes in the United Kingdom." *International Journal of Nursing Studies* 33 (5): 506–18. [https://doi.org/10.1016/0020-7489\(96\)00003-X](https://doi.org/10.1016/0020-7489(96)00003-X).
- Fulbrook, P., G. Rolfe, J. Albarran, and F. Boxall. 2000. "Fit for Practice: Project 2000 Student Nurses' Views on How Well the Curriculum Prepares Them for Clinical Practice." *Nurse Education Today* 20 (5): 350–7. <https://doi.org/10.1054/nedt.2000.0479>.
- Hatlevik, I. K. R. 2011. "The Theory-Practice Relationship: Reflective Skills and Theoretical Knowledge as Key Factors in Bridging the Gap between Theory and Practice in Initial Nursing Education." *Journal of Advanced Nursing* 68 (4): 868–77. <https://doi.org/10.1111/j.1365-2648.2011.05789.x>.
- Hussein, M., and J. Osuji. 2017. "Bridging the Theory-Practice Dichotomy in Nursing: The Role of Nurse Educators." *Journal of Nursing Education and Practice* 7 (3): 1–6. <https://doi.org/10.5430/jnep.v7n3p20>.
- Landers, M. G. 2000. "The Theory-Practice Gap in Nursing: The Role of the Nurse Teacher." *Journal of Advanced Nursing* 32 (6): 1550–6. <https://doi.org/10.1046/j.1365-2648.2000.01605.x>.
- McCaugherty, D. 1991. "The Theory-Practice Gap in Nurse Education: Its Causes and Possible Solutions. Findings from an Action Research Study." *Journal of Advanced Nursing* 16 (9): 1055–61. <https://doi.org/10.1111/j.1365-2648.1991.tb03366.x>.
- McKenna, L., and S. Wellard. 2009. "Mothering: An Unacknowledged Aspect of Undergraduate Clinical Teachers' Work in Nursing." *Advances in Health Sciences Education* 14 (2): 275–85. <https://doi.org/10.1007/s10459-008-9109-3>.
- Nabolsi, M., A. Zumot, L. Wardam, and F. Abu-Moghli. 2012. "The Experience of Jordanian Nursing Students in Their Clinical Practice." *Procedia – Social and Behavioral Sciences* 46:5849–57. <https://doi.org/10.1016/j.sbspro.2012.06.527>.
- Onyeji, E. 2017. "2018 Budget: Again, Nigeria Falls Short of AU Health Funding Commitment." *Premium Times*. Accessed 18 February 2018. <https://www.premiumtimesng.com/news/headlines/248909-2018-budget-nigeria-falls-short-au-health-funding-commitment.html>.

- Orubuloye, I. O., and J. B. Oni. 1996. "Health Transition Research in Nigeria in the Era of the Structural Adjustment Programme." *Health Transition Review* (Supplement) 6:301–24.
- Pimmer, C., N. Pachler, J. Nierle, and U. Genewein. 2012. "Learning through Inter- and Intradisciplinary Problem Solving: Using Cognitive Apprenticeship to Analyse Doctor-to-Doctor Consultation." *Advances in Health Sciences Education* 17 (5): 759–78. <https://doi.org/10.1007/s10459-012-9350-7>.
- Rolfe, G. 1993. "Closing the Theory-Practice Gap: A Model of Nursing Praxis." *Journal of Clinical Nursing* 2 (3): 173–7. <https://doi.org/10.1111/j.1365-2702.1993.tb00157.x>.
- Saifan, A. R., H. A. Safieh, R. Milbes, and R. Shibly. 2015. "Suggestions to Close the Gap in Nursing Education: Nursing Students' Perspectives." *International Journal of Advanced Nursing Studies* 4 (2): 62–68. <https://doi.org/10.14419/ijans.v4i2.4318>.
- Scully, N. J. 2011. "The Theory-Practice Gap and Skill Acquisition: An Issue for Nursing Education." *Collegian: The Australian Journal of Nursing Practice, Scholarship and Research* 18 (2): 93–98. <https://doi.org/10.1016/j.colegn.2010.04.002>.
- Sharif, F., and S. Masoumi. 2005. "A Qualitative Study of Nursing Student Experiences of Clinical Practice." *BMC Nursing* 4:6. <https://doi.org/10.1186/1472-6955-4-6>.
- Smith, K., S. Clegg, E. Lawrence, and M. J. Todd. 2007. "The Challenges of Reflection: Students Learning from Work Placements." *Innovations in Education and Teaching International* 44 (2): 131–41. <https://doi.org/10.1080/14703290701241042>.
- Stockhausen, L. J. 2005. "Learning to Become a Nurse: Students' Reflections on Their Clinical Experiences." *Australian Journal of Advanced Nursing* 22 (3): 8–14.
- Upton, D. J. 1999. "How Can We Achieve Evidence-Based Practice if We Have a Theory-Practice Gap in Nursing Today?" *Journal of Advanced Nursing* 29 (3): 549–55. <https://doi.org/10.1046/j.1365-2648.1999.00922.x>.