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SPECIAL ISSUE
A Nursing Program Across Cultures

EDITORIAL

ARTICLES

EDITORIAL

The First Fifty Years at the University of Calgary and the First Few in Qatar

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This special issue of JET is devoted to some of the educationally interesting problems that relate to a relatively new venture, namely the development of a limited objective branch campus of one university in a very different setting from the location of the original university. The university in question is the University of Calgary which sponsors this publication. The limited objective branch plant is a nursing school in Qatar opened on the request of the government of that kingdom on the basis of the excellence of the nursing school at the University of Calgary. The University of Calgary was founded out of a branch of the University of Alberta fifty years ago. In those fifty years the University of Calgary has gone from being initially an extension of a provincial normal school to being a world ranked university. Rankings of the universities under fifty years of age have seen the University of Calgary move from nowhere to being ranked not only the number one young university in Canada but the present number one young university in North America. In the process it has gone from a handful of students and faculty members in 1966 to being a university with over 32,000 students and three thousand faculty members as well as a large cadre of support staff. At the present time the University of Calgary, even in comparison with the older Canadian universities, is ranked as a research institution on nearly all measures in the top five of Canadian university institutions.

The University of Calgary is, in Canadian terms, a medical comprehensive university that covers all traditional faculties and has a medical school as one of those. In fact it also has now a number of faculties named after generous donors: the Haskayne School of Business, the Schulich School of Engineering, the Werklund School of Education and the Cumming School of Medicine with the benefits that the generous funding from the named donors brings to those faculties. It also has a very large Faculty of Arts recently combining a number of former faculties including a faculty of fine arts, a faculty of general studies and the earlier faculty of arts. Its graduates include a recent Canadian prime minister. It's science faculty covers a broad spectrum of scientific specialties and does exceptional work in physics and biology. It's medical school is a pioneering one that at its beginning created a three year program in medicine and its nursing faculty is equally original. The university physically hosted the Winter Olympic Games in 1988 and the legacy of that event is prominent in the university's Olympic Skating Oval where nearly all the worlds records have

been and are still being set. Our present Chancellor is a graduate of our school of engineering and a former NASA astronaut who has brought an interesting international perspective to his guidance and leadership of our institution.

One of the more adventuresome things that the University of Calgary has pioneered is the locating of a branch of its nursing school in the middle Eastern kingdom of Qatar. This has proven to be a challenging venture but a very successful one. This special issue is in celebration of both the first fifty years of the University of Calgary and of its Faculty of Nursing that is presently pioneering the graduation of nurses in Qatar working in the English language with students whose background is primarily Arabic and whose beliefs and understanding come from a different vantage point than the usual nursing students at the University of Calgary. May both this venture and the venture of the University of Calgary continue to be pathbreaking and as successful for the next fifty years as it has been in the first.

Our guest Editors for this Special Issue of the Journal of Educational Thought are Willam Kay and Mary Saudelli, until recently both teaching staff at the university's nursing school branch in Qatar. I would like to thank them for the interesting and important papers they have put together for this issue and to wish them success in their future ventures.

Ian Winchester
Editor

Broadening the Landscapes of Learning: Language, Culture, Meaning-Making in a Nursing Degree Program

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The title '*Broadening the Landscapes of Learning*' represents the Guest Editors' beliefs that exploring the nature of learning in diverse contexts and communicating this knowledge to a broad scholarly audience is both highly needed and highly valued among academics, researchers, and educators today.

We were inspired to develop a special issue devoted to teaching and learning after our 2nd Annual Conference, 2014. During that event, research presentations ranged from specific aspects of language, use of innovative teaching practices with technology, reflections on teaching practices, and the complexities of teaching nursing and health care in this international context. Many of the presentations illuminated both opportunities and tensions related to teaching and learning within an International Branch Campus (IBC) such as the University of Calgary in Qatar (UCQ).

UCQ is an IBC of the Canadian University of Calgary main campus which is located in Calgary, Alberta. As a nursing intensive higher educational institution, it offers both a Bachelor's and Master's degree in Nursing. Most of the student body consists of non-native English speaking students. While some students enter the UCQ Nursing Program directly from high school, others enter after having been in the workforce and out of higher education for several years. Regardless, both of these student populations require academic support in specific areas prior to beginning their degree in Nursing. As such, UCQ offers a Foundations Program that focuses on bridging student knowledge to reach the appropriate entry requirements of the Nursing Program in the areas of English for Academic Purposes (EAP), Math, and Science education. This Foundations Program also extends academic support throughout the students' university experience. As a result, students entering UCQ through the Foundations Program are provided with the required skills sets to lead them toward success throughout their academic journey in the Nursing Bachelor's Degree Program and in their future nursing work placements.

In this opening paper, we will explore the intersection of language, culture and meaning-making. These three themes dominated the manuscripts submitted to this Special Issue and illuminated the nature of teaching and learning in this context. This will be followed by an overview of the articles comprising this Special Issue, including two book reviews: One related to

Nursing and the other related to teaching in an Arab context. The co-editors will then discuss implications and recommendations.

The Interconnectedness of Language, Culture and Meaning-Making

Qatar's rapid growth and development over the past two decades has resulted in a rich and diverse socio-cultural and linguistic landscape. As Qatar has transformed from a small tribal-based country to a wealthy modern state situated in the heart of the Gulf Cooperation Council (GCC), it has experienced a corresponding change in its population demographics. Efforts to meet the human resource needs that coincide with such a daunting transformation has resulted in vast numbers of foreign populace residing in Qatar. This foreign population brings specialized skill sets needed to enhance and support Qatar's infrastructural growth and development. In addition, Qatar has also been relying upon the experience of foreign-based and world-class higher educational institutions to provide and support educational opportunities for its own populace through the establishment of IBCs.

The prevalence of North American-based higher educational IBCs in Qatar has resulted in English being the primary medium of instruction in higher education. Since the student linguistic demographic in Qatar is predominately composed of native Arabic language learners, English language instruction has profound implications on the student learning experience. Prominent scholars such as Gloria Ladson-Billings (1995) have explored the interconnected nature of language and culture in culturally relevant pedagogy particularly in the United States, and Jennifer Rowsell and Kate Pahl (2010, 2011) have discussed the role of language, culture and meaning-making in 21st century literacies education. But, how do language, culture and meaning-making interrelate in an English as a foreign language, higher educational context in Qatar?

The complex issues of language and culture that present themselves to IBC educators in Qatar involves a degree of delicate brokering between the domains of English language instruction and sociocultural reality. Further complicating the nature of teaching and learning in higher education in Qatar is the intersection of Western academic culture and the social cultural reality of the students. From the viewpoint of instructors, Telafici, Martinez, and Telafici (2014) observed that "The struggles we face as instructors [in Qatar] often stem from our own inner debate on what it means to teach a form of education we associate very deeply with our own form of society and government in a land where both are very different" (pg. 188). This struggle is further perpetuated if instructors are not able to fully understand and appreciate the linguistic and sociocultural contexts of their own students.

In relation to English language learning areas, it is crucial for educators in Qatar to understand the nature of the educational background and linguistic development their students have previously experienced. While a majority of the student body in Qatar consist of native Arabic speakers, there is also a significant proportion of learners from countries as linguistically diverse as Iran, India, and the Philippines. Although all of these learners might fit under the

English Language Learner (ELL) umbrella, their backgrounds in terms of their own approaches and understandings of the English language remain quite diverse. Educators in this environment need to be cognizant of creating a teaching and learning environment that is accepting and conducive to the linguistic development of all cultures and with recognition to multiple variations of English, commonly referred to as "World Englishes" (Kilickaya, 2009). This entails a balance between exploring paths in improving students' academic reading and writing skills, while at the same time appreciating the shared and negotiated discourse that develops and is often reflective of the unique World English environment that surrounds them.

The sociocultural reality relates to Qatar as a conservative, Islamic, political monarchy on the world stage. The educator must first consider the role that Islam and the Muslim faith brings to bear on learners' thought processes and their interpretation of content delivered by Western instructors. Furthermore, the educator must consider the implications a hierarchical social and political structure has on introducing concepts such as inquiry-based learning and critical thinking. It is within this unique context that Telafici, et al. (2014) have argued the need for educators to become more familiar with the linguistic and sociocultural realities of their students. These realities have been identified as assisting students in better understanding and coping with the effects of "globalization happening in their own country" as opposed to measuring them through the lens of preconceived Western standards (p. 188).

The contributions in this Special Issue reflect a unique opportunity to consider the landscape of learning at UCQ as revealed and represented through the research from Canadian-based educators currently teaching and residing in Qatar. This blend of insights offers a rich understanding of the implications of language, culture, and teaching and learning at UCQ which has the potential to broaden understandings of learning across higher education contexts.

The Articles

Kim Critchley and Mary Gene Saudelli present a historical framework for the creation of UCQ as an international branch campus of the University of Calgary in the article "*Helping Qatar Achieve its National Vision 2030: One Successful International Branch Campus*". This article outlines how UCQ as a nursing degree granting institution provides education that is designed to align with Qatar's National Vision 2030 while maintaining the integrity of the Eyes High Vision of University of Calgary. The article recognizes the role context plays in the success or failure of an international education endeavour. Critchley and Saudelli highlight the salience of strategic growth, identity and partnerships, and community engagement in order to deliver a quality learning experience for students. The article provides valuable lessons learned about ensuring the success of an international branch campus.

In "*Bridging the Theory-Practice Cap: Situated Learning as a Pedagogical Framework for Teaching Undergraduate Nursing Students*", Jason Hickey and Zohra Hasnani-Samnani describe the theory and practice gap that

exists in teaching clinical nursing. They adopted a situated learning approach to teaching clinical nursing in order to provide an authentic learning experience for second year Nursing students. Using a mixed method case study research design, they explored how utilizing simulated learning, creating a community of practice among students and the development of situated learning strategies may bridge the theory and practice gap to create an authentic learning experience.

Crucial to any understanding of education in an international context is the role of students' culture and faith. Jan Marie Graham and Diana White explore how students beliefs about Jinn Black Magic and Evil Eye impact teaching and learning in a nursing degree program. Their article "Muslim Nursing Student Beliefs about Possession States: An Exploratory Survey of Beliefs and Causal Attributions" is a quantitative study that problematizes the incongruence of teaching Western orientations to health care. They found that students believe in possession states and approach health care from a conflation of both spiritual health and wellbeing and physical health and wellbeing. Graham and White assert the importance of teaching for health care competency and cultural and religious competency in nursing education.

Jason Hickey, Mohamoud Adam, Ken Ryba and student researchers address the teaching and learning challenges encountered by English Language Learners (ELL) in his study of Clinical Nursing instruction. The article "*Development of a Clinical Nursing Wordlist*" is a quantitative cross-sectional study of communicative, oral instruction English language use in four clinical educational contexts. Hickey's results offer a preliminary clinical nursing wordlist essential for students in their development of nursing practices.

Continuing the theme of language, M. Gregory Tweedie, Robert C. Johnson, D. William Kay, and Jody Shimoda address phonemic awareness in teaching reading in the Foundation Nursing Program at UCQ. Their article "Direct Phonemic Awareness Instruction as a Means of Improving Academic Text Comprehension for Adult English Language Learners" is a quantitative quasi-experimental study of a commercial, digital reading program for ELL learners. They found that direct phonemic awareness instruction had a significant impact on vowel recognition and academic reading comprehension skills of Arab higher education learners.

Sharon Caroll contributed a book review of "*The Resilient Nurse: Empowering Your Practice.*" Carroll asserts that this text is an excellent resource for nursing students and nursing educators. Although it is not written specifically for an international audience, it does have relevance for the nursing profession as the topic offers both understanding of workplace stressors and copies strategies. Carroll asserts that the book provides useful educational interventions in teaching student nurses strategies that will support and sustain them in their professional careers.

The Special Issue concludes with Marie-Claude Toriida's book review of "*Teaching and Learning in the Arab World.*" Toriida identifies that although the book title indicates the teaching and learning in the Arab World, the dominating focus is specific to the Arabian/Persian Gulf region. Toriida shares that this book is valuable to anyone interested in teaching and learning in this

context as chapters relate to the historical accounts of Arab education, the challenges related to teaching to ELL learners and the role of education and change in 21st education in the Arab Gulf region.

Implications and Recommendations

It is important to note, there were few submissions to this Special Issue using qualitative research methodologies. Given the unique educational context, the complex interplay of language, culture and meaning-making inherent in teaching and learning in Qatar, it would be beneficial to have qualitative research that speaks to these aspects. Particularly valuable would be narrative inquiries, ethnographic explorations, and case studies that address perceptions, beliefs, interactions and dynamics of teaching and learning in higher education in the Middle East. These are potential avenues of descriptive research that will hopefully be explored in a subsequent issue.

It would be naïve to assume international students can or should conform to Western ideals of teaching and learning. The authors in this Special Issue indicate the complex and dynamic relationship among language, culture and meaning-making in both teaching practices and educational research. These areas need to be edified in further research in order to inform other systems integrating international education.

International education initiatives are increasing in prominence in institutions of higher learning. Students, educators and institutions are currently and increasingly crossing geographical boundaries in pursuit of higher education opportunities. If these efforts at internationalization are to be successful and relevant, they need to embrace the complexities that form part of the 21st century learning experience for both educators and students. Ultimately, these articles explore the implementation of teaching and learning that is authentic and relevant to this unique international learning context. This is a context that involves a Canadian university delivering a nursing degree in Qatar. These initiatives can hopefully play an important role in further informing the field of nursing education, international education and English language learning across the globe.

Conclusion

The contributions in this Special Edition capture an important period in UCQ's development as an emerging voice in Qatar's higher education community. They also illustrate the crucial and interrelated impact that language and culture have in the process of meaning making within Qatar's diverse sociocultural context. This background resembles a rich and vibrant sociocultural landscape that UCQ leadership, faculty, and staff continue to explore in defining their own unique contributions to educational development in Qatar.

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Helping Qatar Achieve its National Vision 2030: One Successful International Branch Campus

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ABSTRACT: Higher education today is promoting internationalization efforts and the development of an International Branch Campus (IBC) is one manner of this internationalization effort. Little scholarly work has been published thus far that traces the history or development of an International Branch Campus (IBC). This paper shares the development of the University of Calgary in Qatar (UCQ) from inception to today. Aspects of development of UCQ provided are insight to the priorities set by the leadership, faculty, staff and students at UCQ, and the progress that has been made in overcoming the barriers inherent in being an IBC to achieve these priorities. The priorities have been aligned with the Qatar National Vision 2030 and the Eyes High vision for the UC, Canada and are believed to be the reason for the success of this IBC. Presented is a discussion focussed on: two worlds coming together, IBCs and known challenges, UCQ one successful IBC, and lessons learned. The authors include their recommendations which include support from home and host communities, recognition of structural and cultural boundaries, and community engagement.

Key words: internationalization, higher education, governance, cultural differences, Qatar

RESUMÉ: Aujourd'hui, l'enseignement supérieur encourage l'internationalisation. Ainsi la création d'un Campus international délocalisé (IBC) en est l'exemple. Jusqu'ici, très peu de recherches universitaires publiées retracent l'histoire ou la mise en place d'un Campus international délocalisé (IBC). Nous dévoilons ici ce que l'Université de Calgary au Qatar a réalisé (UCQ) depuis la mise en place à aujourd'hui. Les aspects de la réalisation de UCQ ne sont qu'un aperçu des priorités établies par la direction, le personnel, la faculté et les étudiants de UCQ et les progrès accomplis ne font qu'aider à vaincre les obstacles liés à IBC pour atteindre ces priorités. Les priorités ont été alignées sur l'objectif national 2030 du Qatar (Qatar National Vision 2030) et sur (Eyes High vision) pour l'Université de Calgary au Canada ce qui constitue, apparemment, la raison pour laquelle cet IBC est une réussite. Dans cet article, deux mondes se rencontrent ; IBC et ses obstacles évidents et la réussite d'un Campus international délocalisé de UCQ puis, les leçons que l'on en a tirées.

Les auteurs y apportent des conseils dont leur soutien et celui des communautés hôtes, la reconnaissance de frontières structurales et culturelles et l'engagement des communautés.

Mots-clés : internationalisation, enseignement supérieur, gouvernance, différences culturelles.

Introduction

By 2030, Qatar, a developing country on the littoral of the Arabian Peninsula, aims to be:

> an advanced society capable of sustaining its development and providing a high standard of living for all its people. Qatar's National Vision defines the long-term outcomes for the country and provides a framework within which national strategies and implementation plans can be developed. (Pillars Qatar's National Vision, 2014)

In the area of human development, Qatar aims to develop its people to enable them to sustain a prosperous society. In the area of social development, Qatar aims to develop a just and caring society based on high moral standards, and capable of playing a significant role in global partnerships for development. In the area of healthcare, Qatar aims to be a leader of health, wellbeing, and quality patient care. Qatar, recognizing the need for highly professional, skilled nurses, engaged in discussions with University of Calgary (UC) to open an International Branch Campus (IBC) in Qatar offering a Bachelor of Nursing degree. This paper shares the development of the University of Calgary in Qatar (UCQ) as a successful IBC and traces this development from inception to today.

Background

As part of this vision, Qatar is undergoing a tremendous change in the healthcare sector and part of that change is a concerted focus on nurses, increased community health services, and the potential of the nursing profession in this evolving healthcare system. Qatar needs thousands of nurses, many to be placed in the newly developed Primary Care Centers which presents unlimited opportunity for UCQ faculty, staff and students to positively impact patient care, nursing education and health research.

Given the scope of the 2030 Vision for Qatar, the opportunities for nurse graduates from UCQ are endless. Whereas patient care will always be the core focus of nursing education, students studying at UCQ are also involved in health research that informs their practice both in acute care and community health. This establishment of a strong research program is one way of influencing change in nursing practice here in Qatar. Much of the research conducted at UCQ is interprofessional in nature with a focus on health promotion and illness prevention activities. In fact, the Strategic Research Plan for UCQ identifies interprofessional education and community health research

as both a strength and a priority. Her Highness Sheikha Moza bint Nasser has initiated the formation of an Academic Health System (AHS) in Qatar, a collaboration of health and health education agencies. UCQ is proud to be an active partner in the AHS and encourages interdisciplinary patient care as well as interdisciplinary education and research for healthcare professionals.

UCQ looks to the direction of the Eyes High strategy developed by the University of Calgary (UC), Canada to foster a sense of community in Qatar. UCQ has created, and will continue to create opportunities for engagement, collaboration and partnership with key stakeholders and health partner agencies. Creating such culture of community provides opportunities for UCQ faculty, staff and students to connect with community health agencies, share knowledge and experience and create innovations that promote nursing excellence.

UCQ is an International Branch Campus (IBC). It is a branch of the "home institution" UC, which opened in a "host" UCQ, country or community (Waterval, Frambach, Driessen, & Scherpbier, 2014, p. 2) as a form of internationalization. Various forms of internationalizing education exist, "borderless education", "transnational education", and "crossborder education" (Organization for economic Co-operation & Development, 2003, 2005, 2007), but it is important to note that the partnership generally involves: (a) recruitment of faculty and staff, often with preference given to the home institutions' nationality; (b) provision of an educational program, and; (c) some form of quality assurance (Waterval, et al., 2014). Despite efforts across the globe to internationalize via IBC, the success of these internationalization efforts remains relatively unstudied. Although there is a paucity of empirical research, anecdotally, both authors have witnessed higher education efforts to internationalize that have proven to be unsuccessful for various reasons. The second author has personally witnessed internationalization efforts hindered by leadership intent on "exporting methodologies" (Halbach, 2002, p. 243). Exporting methodologies refers to lack of recognition of the learning, leadership or curricular needs of the host context in favor of the directly transposing theories, curriculum, educational practices, and leadership approaches valued by the home institution (Garson, 2005). Lane, Brown, and Pearcey (2004) identify the need for research that will assist institutional decision makers in understanding the factors associated with successfully operating a postsecondary IBC. Saudelli (2015) asserts that it is crucial to consider both the global and the local implications in discussions of successful internationalization of higher education in 21st century teaching and learning.

Through tracing the history of UCQ's genesis from inception to the present day, this paper gives insight to the priorities set by the leadership, faculty, staff and students at UCQ, and the progress that has been made in overcoming the barriers inherent in being an IBC to achieve these priorities. The priorities have been aligned with the Qatar National Vision 2030 and the Eyes High vision for the UC, Canada and are believed to be the reason for the success of this IBC.

Two Worlds Come Together

In accordance with the vision of the State of Qatar to develop a knowledge-based economy and a world class sustainable health care system, the Comprehensive Agreement to Establish a Campus of the University of Calgary in Qatar was signed with the UC on June 11, 2006. UCQ was established to offer a nursing program of equal calibre and standards as the Faculty of Nursing in Calgary. The first six students were enrolled in September, 2007. In 2011, the State of Qatar announced its five year National Health Strategy. While UCQ was poised to assist in meeting the seven goals identified in the strategy to make Qatar a world class health care system, two goals have particular relevance to UCQ: The development a skilled National workforce capable of providing high-quality health services, and the development of high caliber research directed at improving the effectiveness and quality of health care. Thus, two worlds have come together, Qatar and Canada, to achieve the goal of educating world class nurses.

About Qatar

As a monarchy, Qatar has been ruled by the Al-Thani family since the mid-1800's (Abdullah, 2014). Qatar became an independent nation in 1971 and since this time has undergone tremendous social, economical, and industrial development. Qatar has successfully transformed itself from a poor British territory to a wealthy oil and natural gas rich state. That provides opportunities for business, social events, education, and research institutions. According to the Qatar Statistic Authority, in September 2014, there are 2,077, 357 Qatari residents, approximately 10% of whom are Qatari nationals (World Report, 2014).

Health care continues to evolve in Qatar as life expectancy continues to increase and people are living longer with debilitating non-communicable diseases such as diabetes, cancer and heart disease (WHO, 2002). Qatar is at the forefront of initiating new research, clinical and community projects to control these diseases. Qatar's goal in health care is changing from a disease based approach, to a comprehensive, evidence-based, integrative, multidisciplinary care and a preventative approach in managing patient care (Chouchane, Mamtani, Al-Thani, Al-Thani Ameduri & Sheikh, 2011). As such, the Qatar Foundation (QF) was established in 1995. QF is an independent not for profit organization whose mission is to prepare the people of Qatar and the region to meet the challenges of an ever-changing world, and to make Qatar a leader in innovative education and research. His Highness Sheikh Hamad Bin Khalifa, the Emir of Qatar at that time, is the founder the organization. Under the leadership of Her Highness Sheikha Mozah Bint Nasser Al-Missned, Chairperson of QF, the Foundation is transforming Qatar society by educating the rising generation to the highest world standards and transforming Qatar into a producer of knowledge by building a strong research base.

The University of Calgary

The City of Calgary is the fastest growing metropolitan area in Canada (Canada Census, 2011). It is a vibrant, enterprising, energetic city that was recently named one of the top 5 livable cities in the world ("Best City's and Ranking Report", August, 2014). The entrepreneurial and can-do spirit of Calgary, in combination with geographical location, provides key strategic advantages for its home university, UC. UC has aspirations to be a great university with global reach in a great city and province. There is also community expectation for the university to match the vibrancy and increasing importance of the city by delivering academic excellence with societal impact and public prominence. UC has already achieved excellence in a number of important areas in teaching and research and has a clear identification of purpose through its Eyes High vision (University of Calgary Academic Plan (2012).

UC aims to be one of Canada's top 5 research universities by 2016, grounded in innovative teaching and learning and fully integrated with its community. The roadmap for achieving this vision is laid out in the UC Academic and Strategic Research plans that were approved in 2012. As well, top research universities are international in orientation with well developed and strategically positioned global webs of interactions that reinforce their goals in the creation, dissemination and application of knowledge. To achieve this, UC selected 7 priority countries to consider where it could build a solid base of ongoing activity and strong relationships that integrate with the Academic and Strategic Research plans. The State of Qatar was an obvious country of priority because of the School of Nursing is based there. In addition, there are exciting opportunities for expansion and in the future, Qatar could be used to bridge to other countries in the Gulf region.

The International Branch Campus: Defined and Known Challenges

An international branch campus (IBC) can be defined as an educational facility owned by a foreign institution and operating under the name of the foreign institution, where students receive face to face instruction to achieve a qualification bearing the name of the foreign institution (Wilkins & Huisman, 2012). In 2011 there were at least 183 IBCs (C-BERT, 2011). According to Becker (2009), the largest host countries for these campuses are the United Arab Emirates (UAE), China, Singapore and Qatar, with the largest source countries being the United States, Australia and the United Kingdom.

The literature suggests that a campus established in Italy by John Hopkins University in the 1950's with the purpose to provide graduate programs in international relationships is perhaps the oldest IBC in history (Verbik & Merkley, 2006). Otherwise, it is known that Florida State and other institutions have been providing programs internationally since the early 1900's in order to serve the US military and civil personnel working in the US owned Panama Canal (Lane, 2011). The last few decades however have demonstrated an increase in institutional movements toward expanding internationalization opportunities either through recruiting of international students to the home

institution, delivering digital and distance education programs, or creating of IBCs.

Known Challenges

The literature acknowledges that most IBCs are located in developing countries and as such, in environments very different from the home campus (Becker, 2009; Verbik & Merkley, 2006; Wilkins & Huisman, 2012). Those who are responsible for managing and leading these IBCs face a range of challenges that would not exist in the home institutions. Perhaps most significant is the point made by Lane (2011) that it is essential for the leaders of IBCs to realize not only the intentions of the home campus for authorizing the creation of the IBC, but also the role that the IBC can play in the host country. It is known that often the roles do not meet the traditional roles of a higher education institution, and thus, can create many unpredicted challenges to operations.

The most common challenges experienced by the leaders of IBCs as cited in the literature are the desire of the home institution to create new revenue streams, to pursue increased institutional prestige and the belief that such international partnerships will improve the quality of education in the home institution (Becker, 2009; Naidoo, 2010; Verbik & Merkley, 2006). As is the case with most IBCs, these institutions are not subsidized by the home campus, and many hope to generate additional revenue to support programs and operations at home. Additionally, it is anticipated that the IBCs will provide something different or perhaps better than what is already being provided by the home institution. Different may be described as access to additional academic programs, unique teaching styles or a different type of educational experience that cannot be found in the home country (Lane, 2011). Lane and Kinser (2011) found that in some nations where IBCs have been established, the IBCs receive a great deal of financial support from their local governments intended to provide opportunity for local students to engage in service to the local community. As well, such revenues provide opportunities and the expectation of engagement in the local community for the faculty on the IBC as opposed to faculty at the home campus.

Another significant challenge posed for the leadership of IBCs is the ability of the college or university to adapt to the local environmental conditions. IBCs are often located in environments that are socially, culturally, and politically different from the home institution. As such, the practices that proved successful for the home campus in dealing with its environment have not always been successful when applied to the IBC (Lane, 2011). Leaders of IBCs must understand how local conditions differ from those of the home campuses and find ways to adapt existing policies and procedures to best meet the demands of new environments. All this while still respecting and upholding the standards of the home campuses. One example of such differences can be seen in the recruitment of students to the IBC. According to Lane (2011), IBCs in the Middle East have reported that most students only begin to show interest in a university a month or two prior to the start of the fall semester, and many come the first week of classes expecting to be admitted. As well, many potential

students have not taken the required high school academic courses for admission to university: nor do they have sufficient English language skills that will allow them to be successful. Finally, IBCs must compete locally with other IBCs. This often requires establishing a local brand of recognition and learning to be different than local competitors, regardless of the fact that the home campuses have very set branding identities.

Unfortunately, despite these well identified differences between the home and host environments, many home campuses do not permit IBCs the freedom to adapt their policies and procedures to local conditions (Lane, 2011). Lane argues this restrictive condition often stems from a fear that such adaptations would lessen quality of the program of study and therefore negatively affect the home campus's institutional reputation. According to the C-BERT (2011) data, most IBCs that have closed their doors have done so because they have failed to adapt to the local environment or because their predicted plans for success were flawed. Lane (2011) indicates that in both failed and successful IBCs, student enrolment projections usually fall short and the academic preparation of students proves to be lower than what was initially assumed. In addition to these environmental differences, it is also essential to be aware of the stability or fragility of the local international environment. Even where local governments are stable, most IBCs are operating in very fluid higher education sectors. Altbach (2011) has stated that the frequent changes within the local higher education sector may prove to be one of the most significant threats to the success of IBCs.

Cultural differences, particularly those that exist between Western and non-Western countries have proven to be a significant challenge for both faculty and students in IBCs. Faculty can face significant challenges when teaching students with different linguistic and cultural backgrounds (Bodycott & Walker, 2000; author, 2012) and/or with different learning styles (author, 2012; Rostron, 2009). For example, in the State of Qatar, education has historically been related to religious instruction based on oral tradition, memorization and transmission of knowledge. Therefore, Qatari students may have difficulty with the higher education expectations of dialogue, active learning and critical thinking (Rostron, 2009). The Western educational traditions of questioning and debate form distinct challenges in Arab cultures, which values "saving face" and boundaries regarding what can be questioned and by whom (author, 2012). Gender segregation, tribal affiliation, and social status of students can impact the teaching and learning approaches (author, 2012). As such certain traditions, customs, policies, and teaching methods that are used on the home campus may not translate for use on the IBC. Culture can affect operational issues ranging from pedagogical practices to outfitting the campus space with furnishings and information technology that must be purchased locally. The IBC usually does not have a local support structure in place to assist with such things and cannot use the experts at the home campus that often do not understand that other countries will not conform to their operational procedures.

The University of Calgary in Qatar: One Successful International Branch Campus

In accordance with the vision of the State of Qatar to develop a knowledge-based economy and a world class sustainable health care system, the Comprehensive Agreement to Establish a Campus of the University of Calgary in Qatar was signed with the University of Calgary (UC) on June 11, 2006. This campus was established to offer a nursing program of equal caliber and standards as the Faculty of Nursing in Calgary. The first six students were enrolled in September, 2007.

By September 2014, UCQ has increased its student enrolment from six students in 2007 to over 500. With a goal of 1,000 students as established by the Joint Oversight Board, UCQ plans to strategically increase student numbers to meet those targets. This growth in numbers and programs is testament to the work that UCQ is doing to promote and increase the profile of professional nursing practice in Qatar. There is now a healthy competition by qualified candidates for limited enrolment – UCQ received over 300 applications for admission to its undergraduate programs in both September 2013 and 2014. Additionally, UCQ has now continues to graduate nurses adding to the educated workforce of health professionals.

UCQ offers two undergraduate programs: the Bachelor of Nursing Regular Track (BNRT) and the Post Diploma Bachelor of Nursing (PDBN). A course-based Master of Nursing program was launched in January 2013, and a thesis-based Master of Nursing program began in January 2014. An in-house Nursing Foundation Program, which includes English for Academic Purposes (EAP), math, biology, chemistry, and study/computer skills, is provided for those students who require upgrading to prepare them for post-secondary education.

In the fall of 2011, UCQ undertook a strategic planning exercise which set a clear path for UCQ through to 2015. Each department and all faculty members participated in this plan, which is reviewed and monitored regularly to ensure the deliverables are being met. The major priorities are to: Grow strategically, strengthen identity and partnerships and increase the profile of nursing, deliver a quality learning experience and continue to improve organizational capacity.

Grow Strategically

UCQ has a total of 119 staff; 87 Canadian hires and 32 local hires. As part of UCQ's commitment to improving organizational capacity, recruitment and retention of Canadian faculty and staff is essential. The majority of Canadian hire faculty and staff are on two year contracts, which are renewable upon mutual agreement. Obstacles such as moving to an overseas location and lack of tenure for faculty result in significant recruitment challenges. Strategies to manage these issues include secondments with the University of Calgary and employment branding. Secondments offer the benefit of job security to potential faculty and employment branding highlights the potential benefits for faculty

(such as high salary, lifestyle, career growth) that may make lack of tenure more palatable. The growth in student numbers and programs and the increase in qualified faculty and staff are testament to the work that UCQ is doing to promote and increase the profile of professional nursing practice in Qatar. As noted above, UCQ has increased its student enrolment from six students in 2007 to over 500 in 2014, with a target goal of 1,000 students.

Strengthen Identity and Partnerships and Increase the Profile of Nursing

UCQ has established and maintained strong partnerships with a number of organizations, including: UC in Canada, the State of Qatar through the College of Nursing Project and with the Supreme Councils of Education and Health, clinical partners including most notably Hamad Medical Corporation (HMC), Primary Health Care Centres, Sidra Medical and Research Centre (SMRC), private hospitals and health care centres, academic institutions, including Qatar University, Weill-Cornell Medical College in Qatar, College of the North Atlantic – Qatar, and the education departments at HMC and SMRC. Currently, 44 clinical partnership agreements are in place and negotiations are underway with an additional seven partners. These partnerships contribute to knowledge sharing and academic and institutional support in Qatar. In turn, as the profile of the nursing profession continues to increase, UCQ is able to form and maintain lasting, meaningful partnerships and new opportunities for teaching and research.

Community Engagement

Faculty and staff at UCQ have a sincere desire to create a sense of community, not only within its own community, but also extending to the wider, external community as well. UCQ has engaged in diverse opportunities to engage, collaborate, and partner with community members, key stakeholders and agency partners. Some examples of these partnerships include childbirth classes offered in both English and Arabic and participation in HMC's child seat safety campaign. A partnership has been created through UCQ's Clinical Simulation Centre (CSC) and the involvement other health education organizations has resulted in programs for educators interested in utilizing the power of simulation in their teaching and training. The synergy resulting from these encounters has informed the development of simulation programs at SMRC and HMC, and has boosted the status of the UCQ program among health educators. As well, UCQ has targeted school health as an area of increased focus for its nursing program. A great deal can be done to improve the health of Qatar residents through educating children about healthy lifestyles.

Partner of the Qatar Academic Health Systems Initiative

UCQ continues to be an active partner in the Academic Health System (AHS) initiative with the dean sitting on the Steering Committee and four UCQ faculty members sitting on the subcommittees of clinical, education, research and human resources. In addition, faculty members sit on the Cancer Strategy Committee and the Neuroscience Committee. Project proposals from each of the

sub committees were submitted for funding and approved and are progressing well. The goal of the AHS is to generate a significant positive impact on patient care through health education and research. The strength of the AHS results from the intertwining of the various partners in Qatar who are central to improving health and wellbeing while expanding the boundaries of knowledge that will ensure a modern, flexible and sustainable healthcare workforce.

Deliver a Quality Learning Experience

Accreditation. The Canadian Association of Schools of Nursing (CASN) is the accrediting body for schools of nursing in Canada. In February of 2011, UCQ received Phase 1 (formative) accreditation from the Canadian Association of Schools of Nursing (CASN). In October 2013, UCQ prepared for the site visit for Phase 2 (summative) accreditation. This included the preparation of three self-study documents as well as the compilation of material evidence in support of the self-study reports. Throughout the process, faculty and staff were actively involved in identifying strengths and weaknesses of the programs and in providing supporting evidence such as examples of teaching innovations, sample evaluation strategies, examples of student work, course outlines, and project reports.

The outcome of the Phase 2 accreditation was conveyed to UCQ in February 2014. UCQ received a seven-year accreditation which is the best that can be received. The feedback from the accreditation reviewers was overall very positive, complimenting faculty and staff on the delivery of a quality program. The reviewers stated that this success story could be an example of what should be done to deliver a quality Canadian nursing program internationally. They also commented that UCQ was well positioned and held great potential for future opportunities.

Students experience success. Student success within the various UCQ programs weighs heavily on the combined efforts of the Nursing Foundations Program, the Language Resource Centre, the Centre for Teaching and Learning (CTL) and the Learning Commons (LC). Together, these valuable resources provide assistance to all students and faculty in UCQ programs: foundation, undergraduate, and master's. With collaboration from the LC, the math and science team has been providing academic support to all UCQ students through individualized support, tutorials, and workshops. Work is also continuing between math and science, English for Academic Purposes, nursing instructors and the CTL to establish a nursing vocabulary corpus with methodologies for increasing student capacity to engage with the language for discipline-specific content. The LC and CTL provide learning, teaching, research, writing, and technology support to the students, faculty and staff of the University of Calgary in Qatar. In addition to the qualified staff working in the LC a peer tutoring program was successfully launched in September 2013 and continues to grow. Emphasis at UCQ is collaboration between and among departments and centres to enhance opportunities for students' success.

Continue to Improve Organizational Capacity

Research development. The University of Calgary in Qatar (UCQ) has been conducting research since 2010. Within four years, UCQ has become one of the research intensive universities in Qatar, officially opening its research office in August 2012. This office has a close working relationship with and reports to the Qatar National Research Fund (QNRF). UCQ is at the forefront of health promotion and disease prevention and therefore, well aligned with the vision to enrich health and wellness in Qatar and the Gulf region. While educating future nurses of Qatar, UCQ faculty engage individuals, families, communities, and key stakeholders in educational research activities designed to enhance individuals, family, and community capacity to attain, maintain, and improve health. In total UCQ has received close to 15,000,000 QR in research funding from QNRF. Research activity at UCQ continues to progress steadily. There is enthusiasm among faculty to work with peers and increase collaborations with other institutions, as well as participate in future grant funding cycles. The Office of Research and Graduate Studies plays an important role gathering and sharing information, training and facilitating grant preparation, submission and post award management.

Centre for Teaching and Learning. The mission of the CTL is to optimize teaching, learning and scholarly research through collaborative working relationships with academic staff. The goal is to develop teaching excellence and to undertake inquiries, research and projects aimed to explore the scholarship of teaching and learning at UCQ and in Qatar. The three main pillars that encompass the work of CTL are Pedagogy – enhancing teaching for better learning, Scholarship of Teaching, Learning and Research, and Educational Technology. To achieve these goals, the CTL has established several certificate programs including the Certificate of Professional Inquiry and the Certificate of Professional and Academic Writing. The CTL has generated scholarly initiatives such as the UCQ Annual Conference on Teaching and Learning and initiated several communities of practice (Lave & Wenger, 1991) to provide a forum for scholarly discourses about teaching and learning at UCQ.

Marketing & Communications. Public events are an ideal venue to reach out to the community, create awareness, get UCQ's message across and engage UCQ's nursing students. All such events lead to increased student recruitment, a heightened image of the nurse and the ability to change common misconceptions about the nursing profession. Students have become a great resource for UCQ. They volunteer to represent UCQ in different venues and platforms, and they are great ambassadors to our educational institution, nursing education, nursing students and the profession. PA seeks to lead and participate in events, conferences, community initiatives and/or exhibitions, and engage where new opportunities avail. To illustrate, the Gulf Cooperation Council countries hold International Nurses Day every March. During this event, UCQ opened a booth for a 2 day International Nurses Day event at a prominent local shopping mall and UCQ students, under the supervision of nursing faculty, provided free blood pressure and blood testing. Over 1000 people accessed

these services from UCQ students. It is important to note that health care in Qatar is free, but some people neither access nor have the required knowledge to know how to access appropriate health care, so this was a very valuable service to the community in Qatar. Both authors were present during the event and witnessed the students' pride and ownership in the success of this event and their contribution to the Qatar Vision 2030.

The Marketing & Communications office recognizes the need to responsive to context. The office has both English and Arabic speaking Marketing & Communications specialists. Every effort is made to ensure that images and wording in various communications are culturally sensitive and demographically relevant. As family structure is an important aspect of culture in this context, communications regarding UCQ are printed in both traditional media sources (Arabic paperbased news sites) while also embracing new media sources such as social media (Facebook, Twitter). Balancing the traditional and the contemporary, recognizing cultural sensitivities, and embracing the value of nursing in Qatar highlight the components of success for Marketing & Communications at UCQ.

Lessons Learned to Ensure the Success of an International Branch Campus

Establishing an IBC is a process that involves not only hard work, it also involves encountering new cultures, faith systems, and regulations, and ensuring that these in addition to legalities of the host country are respected. According to Wildavsky (2010), one of the most important issues that IBCs face is the fact that they often find themselves at the intersection of new cultures and perhaps confusing regulations. In order for these IBCs to be academically and economically successful, they must recognize the cultural and legal differences in the host country. They must recognize and understand the host country's laws, regulations and cultural differences (Hirschfeld & Baker, 2010).

UCQ has worked extensively to ensure a balance between preserving its Canadian institutional ethos and integrating the Qatar campus into the local community. One of UCQ's greatest challenges was to understand why students in Qatar decide to become nurses and to learn more about the perception of nursing in the community. This is significant as there is a severe shortage of Qatari National nurses due to a decline in the number of students entering nursing school (Almeer, 1998). Only one referenced research study was able to give some insight into these questions. Okasha and Ziady (2001) found the two most common reasons for joining the nursing profession in Qatar were an interest in medical services and the humanitarian nature of nursing. Additionally, 57.89% of student nurses surveyed (N=33 and representing a combination of urban student nurses, 23, and bedouin student nurses, 10), considered there was a negative community attitude toward nursing, mainly due to the presence of male patients that would need to be cared for by female nurses, and the necessity of working shift work. These authors recommend mass media campaigns and governmental leaders' support as potential strategies to change the negative community attitude towards nursing. We also recommend

involvement of students in addition to faculty and staff in community endeavours, which can open a dialogue related to the influence of culture and changing attitudes toward nursing.

UCQ is fortunate to receive tremendous support from the State of Qatar and is seen as a priority in helping to achieve the National Health Strategy. In addition, UCQ uses the media as a mechanism to educate the community about the important work of nursing. The general community is often invited to the campus to celebrate the accomplishments of both nursing students and faculty. This approach encourages local collaboration and partnership in a positive approach that has sparked optimism among the nursing community. As well UCQ, which started primarily as a teaching institution, has now developed substantial research capacity. This has been accomplished through encouraging faculty to pursue research agendas that are locally relevant and through tremendous financial support of QNRF.

UCQ has learned from experience that an IBC can be restricted by structural and cultural boundaries. Lane (2011) would argue that in order to be successful, the leadership within any IBC is key. Leaders within UCQ have learned ways to overcome such boundaries and lead the change required for growth and development in this international context. One of the most significant boundaries that can exist is one between the home campus and the IBC themselves. Regardless of how an IBC is structured and governed, administrators, faculty and staff from the home campus will often view the IBC as being different and/or separate from the home institution. The Senior Leadership Team (SLT) at UCQ has worked extremely hard to ensure there is not only a connection to the home campus, but also an understanding of its operations. SLT members at UCQ attend regular meetings with their counterparts on the home campus. Each member is encouraged to make an annual trip to the home campus to meet regularly with their colleagues. As well, UCQ makes a deliberate attempt to bring in various deans and directors from the home campus to promote a collegial working relationship and foster an understanding of the operations at UCQ. A two-way student exchange program has proven to be very successful and popular among students with all exchange placements being filled within the past three years. Secondments of faculty and staff from the home institution are also promoted to ensure the internal quality and agreement in terms of what it means to provide comparable education to students. UCQ consciously publishes success stories and stories of interest on the home institution's daily distributed newsletter.

All of this however, is not without its challenges. Perhaps the greatest challenge is the fact that UCQ is located several time zones away from the home campus. This, coupled with the fact that the UCQ workweek runs from Sunday to Thursday makes it difficult to coordinate meetings and often extends the decision making process. Lane (2011) refers to these time differences as temporal boundaries which can make it difficult for even simple issues to be quickly addressed when they involve individuals from both campuses. Hefferman and Poole (2004) found that such disconnections between the two campuses can lead to an absence of trust, commitment and effective

communication, which can then in turn lead to a deterioration of the branch campus. UCQ and the home campus recognize the effect that temporal boundaries can have on sustaining working relationships and find ways for employees from both campuses to be flexible in their schedules. This promotes regular meetings and ensures a flow of open communication. As such, administrators, faculty and staff from both institutions are aware of the potential implications for decisions made on the functions and effectiveness of both campuses.

Conclusion

IBCs are organizations different from any other educational organizations. Normally, they do not fit neatly within the organizational structure of the home institution or the host country. Their student population is diverse, global in nature and spans national borders. There is a mixture of cross-border dynamics and differences that can affect the operations of the institution, as well as distinct management and leadership challenges. UCQ, now in its 8th year of operation has proven to be a model of success as an IBC. Today, UCQ boasts enrolment of over 500 students, a Canadian Association of Schools of Nursing Accreditation, a strong foundation program and both undergraduate and graduate programs in nursing. Although within the literature it is evident that IBCs can be filled with structural and cultural boundaries, UCQ leaders, faculty and staff have successfully learned to overcome such boundaries.

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Bridging the Theory-Practice Gap: Situated Learning as a Pedagogical Framework for Teaching Undergraduate Nursing Students

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ABSTRACT: A theory-practice gap has been described in the literature where essential nursing skills and knowledge covered in the classroom do not transfer well to the clinical setting. In order to minimize this gap, a situated learning framework was implemented to teach essential skills and knowledge to 2nd year medical/surgical nursing students. This paper describes the innovative development and implementation of this approach in detail. A clinical simulation center was utilized to create an authentic learning environment and a collaborative community of practice was established through the use of situated learning strategies. These included case scenarios, reflective practice and debriefing, cognitive apprenticeship, collaboration, coaching, multiple practices, articulation of learning skills, and the use of technology. The situated learning approach enabled simultaneous delivery of multiple teaching and learning points. Students' feedback suggests that this hands-on, interactive approach is engaging for students and teachers, has potential to reduce the theory-practice gap and is a viable and valuable theoretical approach to nursing instruction.

Keywords: Situated Learning, Pedagogy, Theory-Practice Gap, Nursing Education, Simulation

RESUMÉ: En littérature, on a décrit le décalage entre la théorie et la pratique comme étant un ensemble de connaissances et de capacités infirmières fondamentales apprises en classe mais que l'on ne peut réellement pas adapter au milieu hospitalier. Afin de réduire ce décalage, on a mis en place un cadre d'apprentissage contextualisé pour enseigner les connaissances et capacités élémentaires infirmières aux étudiants de deuxième année des services médical et/ou chirurgical. Dans cet article, on décrit en détails l'élaboration et la mise en application de cette méthode innovatrice. Un véritable milieu d'apprentissage a été créé dans un centre de simulation hospitalier et une communauté de pratique participative a été mise en place grâce au recours de stratégies de formation contextualisée. Les stratégies comprenaient des scénarii, une pratique pédagogique ainsi que des réunions bilan, un apprentissage cognitif, une coopération, un encadrement, des pratiques diverses, une articulation de capacités d'apprentissage et le recours à la technologie.

La méthode d'apprentissage contextualisé a permis de présenter divers aspects pédagogiques et de formation en même temps. La réaction des étudiants laisse à penser que cette méthode de terrain interactive leur est motivante ainsi que pour les enseignants, qu'elle pourrait réduire le décalage entre la théorie et la pratique, et que c'est un procédé théorique réalisable et utile dans l'enseignement des soins infirmiers.

Mots-clés : apprentissage contextualisé, pédagogie, décalage entre la théorie et la pratique, enseignement des soins infirmiers, simulation.

Background

Skills and theory instruction for clinical nursing courses are often difficult to teach in context. Competency in mathematics, in particular, has been recognized as a vital skill for nursing practice and one that is also difficult to teach effectively. This is partially because students sometimes experience difficulty making the cognitive link between how textbook information and didactic presentations apply to nursing practice (Greenfield, Whelan, & Cohn, 2006; Sherriff, Wallis, & Burston, 2011; Wright, 2004). Even when students achieve competency in the classroom, these concepts and skills may not transfer to the hospital. This lack of transference is widely referred to in the nursing literature as the theory-practice gap. Since Nursing is a practice-based profession that is also dependent on theoretical knowledge, finding ways to reduce the theory-practice gap is a highly important endeavor for Nursing education.

Theoretical Framework and Literature Review

Scully (2011) defines theory-practice gap as the inability to "[match] textbook descriptions of clinical situations with the reality of practice" (p.93). This definition highlights the 'distance' that exists between theoretical knowledge and its practical application. One of the possible reasons for this 'distance' is a range of discrepancies between what is taught and observed in the classroom and what is experienced in the reality of the clinical setting (Dadgaran, Parvizy, & Peyrovi, 2012). One of the challenges inherent in the issue lays in the fact that theoretical knowledge and practical skills are both vitally important. Adequate theoretical preparation is critical for intelligent nursing practice, but will not suffice if new graduate nurses do not possess satisfactory hands-on skills (Perin, 2011; Wright, 2007; Yoo & Yoo, 2003).

The complexity of the factors that contribute to the theory-practice gap has stimulated much debate over the design and application of teaching strategies to address this gap (Perin, 2011; Wright, 2007; Yoo & Yoo, 2003). One of the barriers to successfully applying classroom knowledge to clinical practice is contextual difference between the two environments (Landers, 2000). The creation of an authentic context for learning is seen as essential for students

to develop strong connections between theoretical topics and the realities of practice (Cope, Cuthbertson, & Stoddart, 2000).

Past experience and observations by two authors of this paper (JH and ZH) teaching a medical-surgical nursing course prompted a search for a different method of delivering preclinical skills and theory lab classes. Poor comprehension and retention of information, combined with having to re-teach much of the material covered in lab classes once students entered the hospital, led the authors to believe that traditional methods were ineffective. The purpose of this paper is to describe the innovative development and application of a situated learning framework for teaching core skills and knowledge to 2nd year medical/surgical nursing students.

Vygostsky (1978) laid the foundations for situated learning theory when he proposed that learning occurs through collaboration and shared activities with more capable peers in the zone of proximal development. The shared activity creates a context where learning takes place, and the learner is viewed as a "cognitive apprentice" who observes and emulates through practice in shared activities (Brown, Collins, & Duguid, 1989; Collins, Brown, & Newman, 1987). Lave and Wenger (1991) view the situated learning environment as a "community of practice" where novices work alongside experts on shared activities and gradually develop increasing mastery of knowledge and tasks. There is minimal direct instruction; learning occurs through practice and instructor demonstration and feedback within the authentic context in which the skill will be used. Sayer (2014) examined the enactment of situated learning theory in clinical teaching and found that instructors were able to use some components of the theory with good effect. Sayer also extended understanding of how communities of practice "(re)produce" (p.433). The author concluded that mentorship provided under a community of practice model can be helpful in developing novice practitioners. Situated learning has also been adapted as a potentially useful framework for understanding and guiding nursing education in the classroom (Gieselman, Stark, & Farrugia, 2000). The authors identified eight strategies (discussed in detail later) that can be incorporated into classroom teaching. Paige and Daley (2009) have extended the application of situated learning theory to clinical simulation. The authors have adapted the concept of situated cognition to provide a learning framework for guiding and designing simulation activities. Paige and Daley (2009) explain that, the context where learning takes place is central to understanding cognition. Comprehension evolves within the learning environment from interactions between the: (a) activity; (b) people; and (c) prior knowledge that are brought to the situation (Jean Lave, 1988). Figure 1 illustrates the ecology of the situated learning environment.

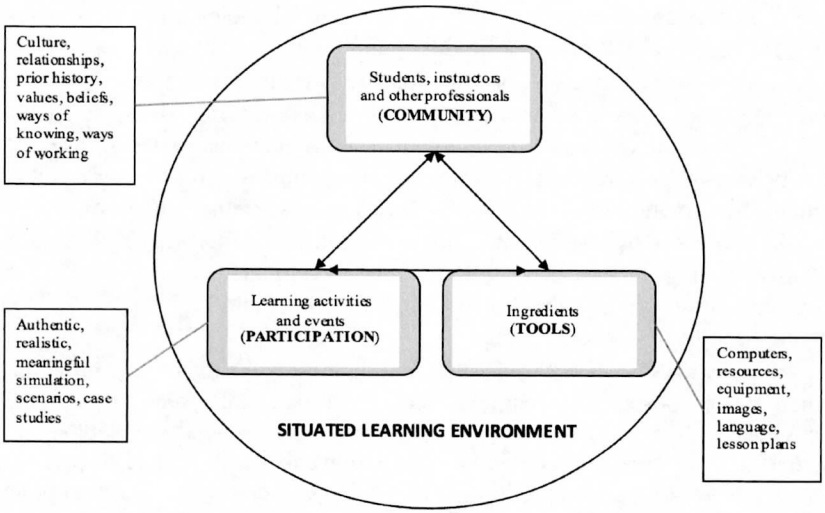

Figure 1: Ecological Analysis of the Situated Learning Environment (Adapted from Wyrostok, Hoffart, Kelly, & Ryba, 2014).

McLellen (1996) summarized eight situated learning strategies that can be applied to instructional settings: "stories" play an important role in the social construction of knowledge and provide a way for information to be understood, stored, and accessed at a later time; "reflection" enhances the integration of new knowledge and buffers the shortcomings of purely experiential learning; "cognitive apprenticeship" exposes learners to authentic practices using activity and social interaction; "collaboration" can be used to promote shared problem solving and role model best practices; "coaching" occurs when instructors observe students carrying out a task and provide information, feedback and direction when necessary; "multiple practice" allows learners to become increasingly competent and confident performing skills within a collaborative and reflective context; "articulation of skills" allows learners to make their knowledge, reasoning and problem solving explicit to gain a better understanding of these processes; and "technology" can be used to enhance other situated learning strategies (McLellen, 1996). A collaborative community of practice was developed through the utilization of these situated learning strategies in an authentic context.

Methods

Methodology

A mixed methods case study approach was used to assess the development and implementation of this project. A situated learning framework was developed based on our review of the literature. Delivery of a medical/surgical nursing course was adapted based on this framework. The environment was manipulated to approximate as closely as possible the actual hospital

environment. Detailed lesson plans were created that linked situated learning strategies to classroom activities. Survey data, a focus group, and instructors' reflections were used to assess the process. We hypothesized that the creation of a community of practice in an authentic environment utilizing the situated learning strategies as described by McLellen (1996) would minimize the theory practice gap and facilitate retention of knowledge.

Pedagogical Difference

Table 1 highlights the key differences between the situated learning approach and the usual approach to teaching this class. Previously this course was taught utilizing traditional methods.

Table 1. Pedagogical differences between situated learning approach and traditional approach

Situated learning approach	**Traditional approach**
Practice first, theory during and after	Theory first, practice later
Student learns through action	Student receives information and is expected to transfer knowledge to action
Learning in context	Learning out of context
Practical math exam	Paper/pencil exam

Development of a Situated Learning Framework

Lesson plan. A lesson plan was developed with the aim of creating a more interactive experience for students. It progressed from knowledge and skills learned in previous clinical courses to include new knowledge and skills required for this course. The new skills to be taught for this course included: monitoring and regulating IV lines and nasogastric (NG) tubes, administering IV and NG medications, administering NG tube feedings, and performing suctioning and blood transfusions. The eight situated learning strategies described earlier were purposefully incorporated into the lesson plan wherever possible. A sample of the lesson plan is presented in Table 2. The full lesson plan can be provided upon request to the author.

Table 2. Adult Health Practice lesson plan: day 1 of 6 (morning only)

Objectives	Perform routine AM care and assessments in a situated learning environment Prepare PO, IM and SC medications Reconstitute medication Practice math associated with PO/SC medication administration Demonstrate responsibility for assigned patient Practice receiving/giving endorsement			
Time	**Student activities**	**Instructor activities**	**Resources**	**Situated learning elements**
0800-1130	Required: Each student dyad receives handover report and assumes care for one SP: change bed sheets, take vital signs, encourage personal hygiene, prepare PO/SC meds, perform head to toe assessment, complete required documentation. Give handover report after completing work. Optional: Perform additional assessments of Foley/urine Optional: PRN Paracetemol admin	› Give handover report › Use guiding questions to help students perform required tasks. › Encourage self-directed learning › Demonstrate and instruct only when necessary › Encourage articulation of learning skills › Receive handover report	› 5 SPs › Patient scenarios › Foley › Text book (Fundamentals and Math)	› Stories (pt scenario) › Cognitive apprenticeship (instructor) › Collaboration (with instructor, in dyad, between dyads) › Coaching › Multiple practice › Articulation of learning skills › Technology (tools – syringes, medication vials, etc)

Authentic environment. All classes were held in a 5-bed simulated hospital ward located in UCQ's simulation center. The 'sim-ward' is set up like a basic shared hospital room with privacy curtains, adjustable beds, and common attachments, such as those for providing oxygen and suctioning, available near the bedside (see Figure 2). In addition to the basic set up, the sim-ward has a medication trolley containing sham stock medications, an equipment trolley containing general use items such as tape measures, penlights, reflex hammers, et cetera, and a supplies trolley containing towels, gowns and linen.

Figure 2. UCQ Simulation Center 'hospital ward'

Several innovations were introduced to increase the authenticity of the simulation ward: First, we created several different scenarios based on actual cases from the hospital units where students would be undertaking the majority of their clinical hours. Each scenario had a brief description of a patient's reason for admission and medical history, a 'night report' summarizing how the patient had fared overnight, a 'tasks' section indicating what would be expected of a nurse caring for such a patient, a 'doctor's orders' section, and a 'medication' section.

Second, we employed simulated patients to play the role of each patient described in the scenarios. The term simulated patient is used over the more traditional term, standardized patient, as scenarios (and student experiences) were not standardized but created to simulate the actual diverse environment of a hospital ward. Simulated patients were briefed on the scenarios and discussions were held with the instructors to identify common behaviours and concerns of acute care patients. Simulated patients were asked to come to the simulation ward 30 minutes prior to the first class of the semester and were prepared according to the conditions set out in the scenarios. For example, one simulated patient was given three temporary wound tattoos on her abdomen, covered with dressings, to simulate a post-laparoscopic cholycystectomy scenario. The same patient had a Foley catheter taped to the inside of her leg and connected to a urine bag, which was filled with clear, yellow liquid. Other simulated patients were set up with an IV port taped to the hand, which was connected to a bag of normal saline running at 100ml/hr (there was a towel underneath the patient's arm to collect the IV fluid, which dripped from the uninserted IV catheter).

Third, we made sure all of the necessary supplies to provide the care set out in the scenarios were available. The medication cart was stocked with the ordered medications, syringes were available for SC and IM injections, pill crushers and pill cutters were available, and a shelving unit was set up with IV fluid and tubing, emesis basins, wound care supplies, nasogastric tubes, suctioning equipment, et cetera. Previously, these items were made available in kits for the students to manipulate, but once students got to the hospital they became anxious when given the task of independently identifying and selecting the equipment from the supply room. This time, to increase authenticity we had all of the necessary supplies together in bulk on the shelving unit. Students were responsible for identifying and collecting specific items when needed.

Fourth, we created hospital charts for each simulated patient. Charts were filled with photocopies of the actual blank forms used at the clinical site and included nursing progress notes, graphic forms for vital signs, intake/output forms, doctors' orders, consent forms for surgery and anesthesia (if applicable to scenario), other assessment forms, and medication administration records. All relevant forms were filled with hypothetical data commencing on the date of admission as set out in the scenarios. The first three classes were designed to create a community of practice in an authentic context and will be described in detail. Table 3 contains a brief summary of these classes.

Table 3. Outline of the three situated learning lab-based classes

Class #	Morning session	Afternoon session
1	Simulated patients: › Routine care › PO/IM/SC medication administration › head-to-toe assessment	› Debrief › eDose©
2	Simulated patients: › IV infusion and medications › NG feeding and medications	› Debrief › Introduction to class › IV/NG math & theory
3	Vital SIM mannequins: › Safety precautions › Blood transfusion › NG tube insertion › Suctioning	› Debrief › Review of relevant math & theory from morning session

The remaining three classes were designed to supplement material covered in the situated classes, using more traditional didactic and workshop approaches (Table 4). These included: a wound care workshop, critical thinking exercises, and navigating thorough reliable sources of information to complete a patient profile and a nursing care plan. These classes will not be described in detail.

Table 4.Outline of the final three lab-based classes

Class #	Morning session	Afternoon session
4	› Math Review › Theory Review	› Math Exam › Lab Exam › eDose©
5	› Wound care workshop	› Expectations › Review learning gaps as needed › Head to toe assessment
6	› Patient research workshop	› Critical thinking › Care plans

Implementation of a Situated Learning Approach

Course delivery. Students were contacted prior to the start of classes for the semester and informed that they would be responsible for providing nursing care to simulated patients on the first day of class, and to come prepared. Students were provided with a study guide, outlining what tasks they would be responsible for during each class, what the objectives were for the class and what readings/resources they should review to prepare. When students arrived at 0800 on the first morning, they were led to a conference room and given a brief overview of situated learning and why it had been chosen to inform our instructional approach for this semester. One student asked, "So we are basically guinea pigs?" This thought was reframed and the students were told they had an important role to play in the creation and assessment of a new teaching approach and that their feedback and suggestions would be sought and acted on throughout the course. At 0830, students were given a patient assignment sheet on which student dyads had been assigned to a specific patient. Student dyads were then given their patient scenario and a brief handover report from the instructors and told to take over care for their patient. Activities set out in the scenarios for the first class were created as a review of prior learning; students were not responsible for performing any new skills or applying any new knowledge. Activities included taking vital signs, providing morning care, performing head to toe assessment, and administering oral, subcutaneous and intramuscular medications requiring dosage calculations. Throughout the morning, instructors guided and supported students' nursing care. At 1130, the simulation was ended for the day. After lunch students were debriefed and asked to reflect on their experiences from the morning and completed an online learning module for math (eDose©).

When students arrived on the morning of the second day, they were assigned to the same simulated patient. However, the scenarios for all simulated patients had evolved: in general, all patients' conditions had worsened overnight and new interventions and medications had been ordered. The scenarios were adjusted in a way that incorporated new skills/knowledge into the required nursing care for the day. For example, all patients had IV fluids, IV medications, and either a NG tube to gravity or NG feedings. Students were expected to perform necessary skills and apply relevant knowledge even though this information had not been covered in any previous class. It also required them to utilize math skills in regulating IV rates and administering IV and NG medications. Once again, instructors rotated between student dyads and used situated learning strategies to offer advice, encourage reflection and demonstrate techniques when necessary. At any given time during the clinical practice in the simulation lab, there were three instructors available for five groups of students. The instructors were regularly rotating between and guiding students at every step and were actively involved in patient care. The instructors played the role of experts (e.g., staff nurses, preceptors) providing coaching, mentoring, opportunities for multiple practices, fostering critical thinking by asking

questions, assisting with articulation of skills and encouraging reflection. Although the students were practicing new skills for the first time, they had frequent access to expert advice and demonstration (see Figure 3); which encouraged them to be more engaged and participatory without the fear of making mistakes which cannot be rectified. Students were encouraged to refer to their textbooks and web resources during the simulation to fill gaps in knowledge. Instructors were able to cover much of the theory, rationale, complications, and considerations at the bedside while working collaboratively with the students.

Figure 3. The expert (instructor) guiding the novices (students)

On the third morning, simulated patients were replaced with Vitalsim™ manikins due to the intrusiveness of skills to be covered. Manikins retained the identities of their human predecessors: scenarios once again evolved to incorporate new skills/knowledge to be learned; students were instructed to treat the manikins (as much as possible) as they treated their simulated patients in the previous two classes; and, wigs and pictures of the simulated patients' faces were attached to manikins for added effect. Manikins had a combination of IV lines, Foley catheters, nasal prongs, NG tubes, and dressings in place. Each student dyad rotated through three patients during the morning: one patient had pulled their NG tube out overnight and needed it reinserted; one had developed aspiration pneumonia and required nasotracheal and oropharyngeal suctioning; and, the other had developed low hemoglobin levels and required a transfusion of packed red blood cells. Students had to demonstrate proper safety precautions, refer to doctor's orders and provide care based on individual patient scenarios. It also involved adjusting flow rate for blood transfusion and documentation in the simulated patient's files and medication profiles. As in previous classes, students used their textbooks and online resources to gather information, and instructors employed situated learning techniques to facilitate student learning.

To further enhance math concepts, math review was performed in the afternoon of the third class utilizing examples from the morning scenarios. A take home sample math exam was given to the students, which was reviewed the next day. A paper and pencil math exam was administered, which was made more realistic by including case scenarios with doctor's orders, utilizing medication labels for commonly used medications. A practical math exam was also included requiring students to reconstitute a demo medication, prime the IV line and set the drip rate based on the exam question.

Study Procedures

This project occurred within the normal course delivery and was consistent with standard practices. Course delivery was adapted, and data was collected and analyzed but expectations for students meeting course objectives remained the same. Ethical approval for this project was obtained from the institution's Conjoint Health Research Ethics Board.

Recruitment. All students in the Adult Health Practice course were invited to participate. Recruitment was done by a co-investigator (KR) not involved with instruction or grading for potential participants. Participation was voluntary and informed consent was obtained from 9 out of 11 students. The other two students participated in the class activities but did not contribute to data collection.

Data collection. Data were collected at midterm (20 min questionnaire) and during the last week of classes (focus group). The questionnaire was developed by the researchers to explore students' perceptions on the utility of the situated learning approach, effective strategies for math instructions and students' reflection on their learning. Questions were scored from 0 (completely disagree) to 10 (completely agree). Several open-ended questions were also included.Content validity was determined through review by the University's acting Director of Teaching and Learning. Quantitative data was analyzed using Microsoft Excel data analysis formulas. A focus group was conducted to explore questionnaire responses in more detail and to help validate results. Thematic analysis was done and responses were summarized to infer the conclusions. Several areas were explored, including perceptions about the learning environment, the situated learning approach, math instructions strategies and application to practice. All data collection was conducted by the co-investigator (KR) not involved with teaching this course. Results of the regular course assessment (e.g., lab exam, math exam) as well as Instructors' reflections on the group's progress were also considered as data.

Results

Students' general perceptions of the situated learning approach are presented in Table 5.

Table 5. General perceptions of situated learning

General Perceptions	Mean(SD)
Felt like I was Nursing in a real hospital environment	7.1 (1.4)
The situated learning approach made learning easier	8.7 (1.2)
The situated learning approach was an engaging way to learn	8.4 (1.0)
Participation in the labs prepared me to apply **skills** in the hospital	8.6 (1.3)
Participation in the labs prepared me to apply **knowledge** in the hospital	8.3 (0.9)
The situated learning approach made it easier to adapt to the hospital setting	7.9 (1.4)

Students found a variety of math instructional methods to be helpful. The paper & pencil math review with instructors and the independent sample math exam were seen by the majority as being a helpful method of math instruction (n=8 and n=7, respectively). Students found other methods of instruction helpful as well, including, a computerized learning tool - eDose (n=5), 'bedside' teaching (n=4) and studying the textbook (n=3). Peer teaching was not included in the questionnaire, but was later identified by the students as another effective method for learning math skills.

During the focus group, students commented that the situated learning approach offered several advantages over traditional methods. Students were given a chance for "real practice" in an environment that was "like the hospital environment" but less threatening. Practicing new skills and knowledge was facilitated by increased presence of clinical instructors, openness of standardized patients towards students' inexperience, and ease of communication with the English-speaking standardized patients. Students requested that the situated learning approach be integrated into the curriculum at an earlier stage.

Areas for improvement were also identified. Students would have preferred to be given information about their patient prior to the lab classes, which is more in line with how they prepare for actual clinical days. Simulated patient cases were seen as being too basic. In particular, "crisis situations" or "unexpected events" were suggested as one way to increase realism. Students requested a longer debriefing to facilitate reflection on the positive and negative aspects of their nursing practice. Finally, several challenges of working in a new clinical setting were not addressed, including working with patients through a language barrier, obtaining lab results from unit computers, and dealing with sometimes negative attitudes from staff Nurses.

Overall, students felt this approach to learning was a positive and beneficial instructional method. Students preferred the experience of performing new skills before receiving related theory instruction. They felt it was "a good idea to do the procedure first" because otherwise "you don't get the real feeling of doing it." They felt it "made us more confident before going into clinical – even if we weren't 100% ok." They saw the lab classes as a collaborative experience where they were "treated more like an adult, [which] helped students to become independent." There was a consensus that "every clinical course should start the same way with hands-on learning."

Students performed well with regard to summative evaluation. All students passed the multiple choice theory exam (i.e., obtained above 64%) and 82% passed the short answer math exam (i.e., obtained above 90%). The remaining students passed the math exam after remediation. Instructors perceived a reduction in the theory-practice gap; knowledge and skills seemed to transfer to the clinical setting better than with traditionally taught cohorts and less re-teaching was needed.

Because this approach to teaching these classes represented a pedagogical change for students' learning, it is crucial to understand how students perceived the value of this situated learning approach. From the qualitative data, the researchers identified a theme in relation to students' perceptions regarding this pedagogical change:

> *"It was really helpful as I could really focus better on my areas of weakness in the theory class".*
> *"It was different from my previous experience in the sense that the simulation lab looked nearly like the hospital environment and I didn't find the hospital environment strange".*
> *"It prepares me well for my clinical practice by instilling confidence in me through the simulation experience".*
> *"It gave me an insight to how things would be in the hospital setting".*
> *"In this experience they better equip us with knowledge so that we would work [more] efficiently in the clinical".*
> *"It is a safe environment to apply what I think as a student have learned from labs, lectures, and readings in a real-life situation in a hospital setting".*
> *"I feel more comfortable in moving around the wards and communicating with the health care providers".*
> *"I gained more confidence/independence in my clinical rotations".*

These comments indicate the value students placed from this change in pedagogical approach. Because their learning was focused on integrating authentic experiences, students highlighted: their increased confidence and transference of learning to the real world environment.

Lessons Learned

This article has described the development and implementation of a situated learning framework for teaching pre-clinical classes in an undergraduate medical/surgical nursing course. Results suggest that the situated learning framework was an engaging, hands-on approach to teaching and learning. The combination of the 'ward' environment with standardized patients, realistic scenarios, props/medical equipment, and placebo medications seemed to be effective at modeling the hospital environment. Within this authentic learning environment it was relatively easy for instructors to implement the situated learning instructional techniques described earlier and to contextualize learning. Based on our students' conclusions, we feel that the teaching and learning process was enhanced by using a situated learning approach. The opportunity to practice in a non-threatening environment helped students to feel more prepared and more confident for the hospital portion of their course.

Through participation in this learning activity utilizing aspects of situated learning approach and creating a community of practice, students can gain insight and "feed forward" to see what they will be doing in the future when they have mastered certain skills and behaviors (Ryba, Selby, & Brown, 2004). The clinical placements where the students will eventually practice are complex social contexts (Cope et al., 2000). By creating the authentic environment, the learners are enabled to be successful in joining and being accepted by the community of practice in the hospital(Cope et al., 2000). The community approach to learning serves as a "collective zone of proximal development" where there is potential for the entire group of students to make greater advances in learning than would be the case if they were working independently (Ryba, Selby, & Kruger, 2002). Furthermore, the simulated context provides a safe environment to practice new skills through observational learning and social experience and has the potential to facilitate development of self-efficacy (Bandura, 1989; Goldenberg, Andrusyszyn, & Iwasiw, 2005; Pike & O'Donnell, 2010).The combination of in-class preparation, simulation, debriefing and follow-up discussion provides a basis for students to engage in "reflection-before-action, reflection-in-action, and reflection-on-action" (Onda, 2012). This reflective process has the potential to enhance comprehension and retention of a wide range of key nursing concepts and skills and decrease the theory-practice gap.

Limitations

Results from this mixed methods case study were favorable and provided evidence that situated learning approach was effective as compared to the traditional methods. However, comparison of performance against a control group would allow us to test and confirm some of the perceived successes of this approach. Additionally, the material and human resources requirement was high for implementation of this approach, which may be difficult for institutions with

restricted budgets. However, a situated learning simulation may still be feasible by identifying specific learning tasks (e.g. medication administration) and including only the resources necessary to accomplish these tasks.

Conclusion

Development of a situated learning framework for teaching medical/surgical nursing students was undertaken in response to a gap in the comprehension and retention of math and other nursing skills. Based on students' feedback on the approach and reflections on learning we recommend situated learning as a viable and potentially valuable theoretical approach to nursing instruction. Future testing using larger sample sizes and a control group would offer additional insight into the efficacy of the approach.

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Muslim Nursing Student Beliefs about Possession States: An Exploratory Survey of Beliefs and Causal Attributions

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ABSTRACT: This study was undertaken to explore beliefs about Jinn, black magic and evil eye among Muslim nursing students at University of Calgary in Qatar (UCQ). The aim was to determine the extent and ways in which Muslim nursing students attribute physical and mental health problems to these perceived possession states. One hundred and twenty eight undergraduate nursing students who self-identified as adherents of the Islamic faith completed a survey concerning their beliefs in Jinn, black magic and evil eye. The sample included two streams of students: Bachelor of Nursing Regular Track (BNRT, N=44) and Post Diploma Bachelor of Nursing students (PDBN, N=75) who had already completed a nursing qualification and were in the process of completing the degree program. Results of the survey showed that 84.1% of BNRT students and 73% of PDBNs believe that Jinn can possess or take over humans. The vast majority of students (BNRT 90.7%, PDBN 84%) believe in black magic while over 90% of BNRTs and PDBNs believe in the evil eye. This research adds to the limited literature available on beliefs regarding possession states among Muslim nursing students. It also provides information that can be used by faculty to better understand the prevailing beliefs and attitudes of nursing students.

Keywords: jinn, black magic, evil eye, nursing students, teaching and learning

RESUMÉ: On a entrepris cette étude pour en savoir un peu plus sur ce que les étudiants musulmans en soins infirmiers de l'Université de Calgary au Qatar (UCQ), croient du Djinn, de la magie noire et du mauvais œil. Il fallait en connaître l'étendue et les façons dont ces étudiants reportent les problèmes de santé physiques et/ou mentaux sur ces états de possession ressentis. Cent vingt-huit étudiants en soins infirmiers du premier cycle, et qui se considèrent adeptes de l'Islam, ont répondu au questionnaire. Le panel était composé de deux sortes d'étudiants : quarante-quatre étudiants en Baccalauréat de soins infirmiers (BNRT) et soixante-quinze étudiants d'un niveau supérieur en soins infirmiers (PDBN) qui ont déjà terminé leur formation et étaient en train de finir un autre programme. 84,1 % des étudiants (BNRT) et 73 % des étudiants (PDBN) croient que le Djinn peut posséder un individu et dominer les humains. La grande majorité des étudiants (90,7 % des BNRT) et (84% des PDBN) croient en la magie noire alors que plus de 90 % des BNRT et des PDBN croient dans le mauvais œil. Ce sondage apporte des informations supplémentaires à la

documentation un peu pauvre que nous avions jusqu'à présent sur ce que les étudiants musulmans en soins infirmiers croient de la possession. Ces informations réalisées seront aussi à la disposition du corps enseignant de la Faculté afin que ce dernier comprenne mieux les tenants et aboutissants des croyances et comportements des étudiants en soins infirmiers.

Mots-clés : Djinn, magie noire, mauvais œil, étudiants en soins infirmiers, enseignement et apprentissage.

Introduction

It is common for Muslim nursing students at the University of Calgary in Qatar (UCQ) to discuss beliefs in possession states such as Jinn, black magic or evil eye as causal factors of illness. The belief in possession states may be viewed as a contradiction or in conflict with a Western nursing curriculum which focuses on scientific methods, evidence-based, research-directed approaches to critical thinking and care. Nursing students at UCQ are educated by Canadian faculty members with a focus on the provision of care that is of evidence-based best practice. However, Muslim nursing students may attribute a person's disease or health disorder to the presence of Jinn, black magic or evil eye. It is essential to be aware of the influence of these cultural beliefs as they may impact teaching, learning and patient-centred care. Patient-centred care is described as an approach to care that is inclusive of advocacy, empowerment and respect for the individual as an autonomous, participant in decisions related to health and well-being (RNAO, 2006). It is the cornerstone of Western nursing curriculum. This study was undertaken to determine to what extent Muslim nursing students at UCQ believe in and attribute physical and mental health problems to Jinn, black magic and evil eye. This article will discuss Islam and possession states, describe the findings, and potential implications for patient care and nursing education.

Literature Review

Islam and Possession States

Islam is the second most common religion in the world after Christianity, and the predominant religion in Qatar (Pew Research Center, 2012). Islam translates as "submission" in Arabic, specifically concerning submission to the will of God (Hodge, 2005). Through the Holy Qur'an, Muslims are provided a blueprint for daily living and worship of Allah. Guidance for everyday life, philosophical, legal and health related decisions, is provided by the words, responses, and decisions of the Prophet Mohammed (Peace Be Upon Him) in the Sunna of the Qur'an and there is no separation of the physical, emotional, and spiritual self (Lovering, 2014; Sabry &Vohra, 2013). Religion and spirituality are viewed as one in Islam. Culturally relevant nursing education must acknowledge Islamic beliefs concerning the total integration and Oneness (Tawheed) of Allah and the importance of reading verses from the Qur'an and use of prayer as healing methods (Lovering, 2014).

Jinn are described as sentient beings that were created out of a smokeless fire (Johnsdotter, Ingvarsdotter, Ostman, & Carlbom, 2011). Everyone is born with a Jinn. They are unseen creatures and supernatural (as in beyond nature and in the spirit realm) spirits that can be good or bad, helpful or harmful, but generally are believed to have a negative impact on the mind and body of the recipient. People can be possessed by Jinn and it is believed that the person will have little to no control over actions and behaviours. Jinn are reported to alter mood states; create anxiety, aggression, weeping, anhedonia, and socially embarrassing behaviour (El-Islam, 2008; Hanely & Brown, 2013; Khalifa & Hardie, 2005; Lovering, 2014). Jinn are referred to approximately 30 times in the Qur'an and Muslims around the world may believe in possession states as causal factors of physical and mental illness (Al Habeeb, 2003; Dein & Illaiee, 2013; Khalifa, Hardie, & Mullick, 2012; Mullick, Khalifa, Nahar, & Walker, 2012). Islam & Campbell (2014) carried out a thematic analysis of four English translations and one Arabic text of the Qur'an and concluded that there is no connection between spirit-possession and mental illness in the text. It is clear however, that this belief, which pre-dates Islam and is considered pagan by some, continues to be an important aspect in Islamic life.

Black magic is defined as a supernatural power that can be applied to cause harm to another person (Johnsdotter, Ingvarsdotter, Ostman, & Carlbom, 2011). Evil eye is described as a look that is powerful enough to inflict harm, suffering or bad luck on those it is cast upon. Its intent is malicious; it is borne from envy and can bring about disaster, illness, or crisis to the object of one's focus. If an envious person covets another person's possessions by staring or glaring at them, the possessions can get hurt, damaged or destroyed (Mullick et al, 2012). The Qur'an refers to black magic and evil eye although with less emphasis than Jinn.

It is common in the Islamic faith and people in the Arab world, to contact faith and traditional healers first to address any physical or mental health problems (Al Habeeb, 2003; Al-Shahri, 2002; El-Islam, 2008; Islam & Campbell, 2014; Khalifa et al, 2012; Lovering, 2014; Laher, 2014; Obeid, Abulaban, Al-Ghatani, Al-Malki, & Al-Ghamdi, 2012). In fact, it is a commonly held belief that only faith healers can effectively treat a person whose physical or mental illness is caused by a possession state. Working with the health care team, a traditional healer or Imam may act as a culture broker, advising, reassuring, and supporting the patient and family to participate in biomedical treatments such as psychopharmacology, in order to assist in treatment (Al-Krenawi & Graham, 2000; Littlewood, 2004). We have used the terms faith and traditional healers interchangeably. Both are religious leaders who rely on the power of Allah to heal the sick (Ae-Ngibise et al, 2010).

The biomedical model of care, an approach that is common among health care providers educated in Western institutions, focuses on and values objective, scientific data such as lab results, diagnostic criteria, and symptomatology. These are the tools used to diagnose and treat illness. Traditionally, it is not a holistic approach nor inclusive of the broader description of health with consideration of the determinants of health (for example, education, social support, and culture). For instance, the biomedical model explains mental

illness as a brain disease and emphasizes medications as the appropriate treatment modality (Deacon, 2013) rather than a traditional healer. Typically, there is a disregard for spirituality as it cannot be measured or tested and there is literature that systematically discredits the concept of possession states (Schimmel, 2008). In fact, the researchers posit that belief in possession states is so oppositional to secular society's core beliefs that Western medical professionals dismiss it before considering it. It is common for Muslim people to attribute illness to Jinn and other possession states and this has a significant impact in diagnosing and treating particularly of psychotic disorders (Lim, Hoek, & Blom, 2014). This difference in world views creates a cultural divide that may impact nursing education and nursing care.

Other studies

Khalifa, Hardie, Latif, Jamil & Walker (2011) studied the beliefs of Muslims related to Jinn, black magic and evil eye using a convenience sample of 111 adults (age 18 and over) in Leicester, England. The study was carried out in order to explore health beliefs and practices related to the religious and cultural needs of Muslims, who make up nearly 3% of the population living in the United Kingdom. It was noted that in Britain, Muslim people were some of the worst affected by health inequalities, lower socioeconomic status and poorer health. Participants completed a self-administered survey with interpretation provided for those who did not speak English. There was almost an equal representation of male and female participants with the largest age group between the ages of 18 – 30 years. 80% of the respondents believed in Jinn, while 65% believed in black magic and 70% believed in evil eye. Approximately 60% believed in Jinn possession with females more likely to believe in black magic (females 55%, males 45%) and evil eye (females 54%, males 46%). Participants identified religious figures as the most appropriate healer for those afflicted with physical and mental illnesses resulting from all possession states (Jinn 64%, black magic 63%, evil eye 58%) with physicians alone cited as less effective (Jinn 23%, black magic 18%, evil eye 19%). However, almost half of the participants believe that healing will occur if the religious figure and doctor work together (Jinn 54%, black magic 45%, evil eye 42%). The authors conclude that it is common for Muslims to believe in possession states and to believe that religious leaders are the most appropriate treatment provider. Limitations of the study included use of a convenience sample in a single location, lack of information regarding level of education, use of an un-validated questionnaire, and lack of data regarding inter-rater reliability of translations.

Mullick et al, (2012) revised the questionnaire to determine beliefs about possession states among 320 participants who were accompanying patients at a university hospital in Dhaka, Bangladesh. 72% of the respondents believed in Jinn, 61% in Jinn possession, 50% in black magic, and 44% in evil eye. Females were more likely than males to believe in Jinn, Jinn possession and evil eye, and more likely to cite religious figures as the preferred and most appropriate healer for diseases resulting from black magic and evil eye. Those with higher education were less likely to believe in Jinn possession or as causal

factors in physical and mental health illnesses. Those with lower education had stronger beliefs in religious leaders as being the most effective healers. Both studies question whether beliefs in possession states may be related to lack of education and financial resources.

This study was undertaken to determine to what extent Muslim nursing students at UCQ believe in and attribute physical and mental health problems to Jinn, black magic and evil eye. The literature unveiled a belief system that runs in opposition to the current nursing curriculum being taught to UCQ's Muslim nursing students. What exactly do the students believe? This study will begin to unpack the beliefs of our Muslim students. The results will assist in better understanding our students, inform possible changes to nursing curriculum, and suggest the questions that need asking next.

Methodology

Procedure

This is a quantitative study of beliefs in possession states among UCQ nursing students. This study was approved by the University of Calgary Conjoint Health Research Ethics Board REB14-0256.

All UCQ nursing instructors teaching in the undergraduate program in the Spring Semester, 2014 were invited to distribute the questionnaires to Muslim students in the class. Eight instructors who were not part of the research team introduced the study and questionnaire to students in their classes regardless of year in program (Year 1, 2, 3, or 4), providing an information sheet and gaining informed consent from those students who agreed to participate. Consent was implied by participants upon completion of the questionnaire. The questionnaire was in English, which is the instructional language at UCQ. The majority of nursing students are English-as-a-Foreign-Language learners. Clear instructions were provided verbally by the faculty member administering the questionnaire with further written instructions provided on the information sheet. The survey was administered in the classroom setting and took approximately 15 minutes to complete. Participation was entirely voluntary and students were assured that class marks would not be affected. Instructors were asked to read the information sheet exactly as provided and not engage students in discussion regarding the study, or participation or non-participation.

Anonymity and confidentiality were ensured as there was no identifying information obtained about the students or the class they were taking. It was explained that all results would be analyzed and presented as an aggregate. Students were instructed to contact a member of the research team directly if they had specific questions about participating.

The survey responses were analyzed using the Statistical Package for the Social Science (SPSS, Version 18.0). Descriptive statistics were computed to determine the frequencies and percentage of responses for each question. Bar graphs were prepared to illustrate the frequencies of responses for beliefs in Jinn, black magic and evil eye.

Sample

This was a convenience sample as students who self-identified as Muslim and enrolled in the BNRT or PDBN program were invited to participate. As of February, 2014, there were 247 nursing students registered at UCQ (BNRT = 108, PDBN = 139) with an estimated 80% (198) identified as Islamic and almost 30% identified as Qatari Nationals. Approximately 90% of the student population was female and 10% male. One hundred and thirty (130) surveys were returned, and two (2) surveys were discarded due to lack of completion. Therefore data from 128 surveys resulted in a response rate of approximately 65% of the Muslim nursing student population at UCQ. Most respondents were single (59%) or married (35.4%). The majority of the respondents were between 18 – 30 years old (BNRT 93%, PDBN 51%) with the next largest age group between 31 – 40 years (28%). Almost 76% of the participants spoke Arabic as a first language with 17% identifying "Other than English" as their first language.

Instrument

The researchers administered the survey *Beliefs about Jinn, Possession, Black Magic and Evil Eye* developed for use in previous studies regarding beliefs about possession among Muslims in Leicester, England and Dhaka, Bangladesh (Khalifa et al, 2011; Khalifa et al, 2012; Mullick et al, 2012). The survey consisted of 21 questions and was divided into 4 sections:

Section 1: Demographics – includes sex, age, marital status, enrolment status including year in program, other education, nationality, place of birth, household income, first language, and other languages spoken.

Section 2: Questions specific to Jinn

Section 3: Questions specific to black magic

Section 4: Questions specific to evil eye

One additional question was added to each section.

Section 2 - Do you think you have cared for patients whose illness was caused by Jinn?

Section 3 - Do you think you have cared for patients whose illness was caused by Black Magic?

Section 4 - Do you think you have cared for patients whose illness was caused by Evil Eye?

A forced choice format was used for all questions. This consisted of 3 options for each question:

Yes, No, Don't Know.

Beliefs about Jinn

84% of BNRT and 73% of PDBN students indicated that Jinn can possess or take over humans (Figure 1). 64.3% BNRTs and 44% PDBNs attribute physical illness to Jinn. The PDBN respondents most commonly cited that the physical illnesses attributed to Jinn were convulsion, epilepsy and seizure, followed by blood pressure problems, and headache. The BNRT respondents identified headache as the most common physical illness attributed to Jinn

followed by high blood pressure, epilepsy, and mental and body weakness. The majority of respondents believe that Jinn can cause mental illness (BNRT 70.5%, PDBN 70.7%). Anxiety, depression, personality problems, and schizophrenia were identified as the results of Jinn possession by PDBN students. Interestingly, three respondents also listed fear and aggression as outcomes of Jinn. Epilepsy was also noted under mental illnesses. BNRT students identified depression and personality problems as the most common mental illnesses attributed to Jinn. One respondent stated that "It makes you do harm(ful) things to yourself and (other) people". One of the BNRT students wrote "Black magic and evil eye can cause these physical illness not Jinn". In terms of treatment, it is clear that nursing students believe that religious leaders are the most effective at treating both physical or mental illness (BNRT 84.1%, PDBN 92%) whereas their belief in the effectiveness of physicians treating those affected by Jinn is low (BNRT 9.1%, PDBNs 10.7%). One PDBN clarified however, that not any Sheikh can treat or help people with Jinn – only "Good Sheikh". If doctors and religious leaders work together, then 63.6% of BNRTs and 62.7% of PDBNs believe that a patient could be treated. Almost 28% of both BNRT and PDBN students think they have cared for a patient whose illness was caused by a Jinn. (Table 1)

Beliefs about Black Magic (Sehr, Jadu)

Figure 2 shows that 90.7% of BNRT and 84% of PDBN students subscribed to a belief in black magic. Nursing students attributed black magic to physical illness (BNRT 72.7%, PDBN 68%). PDBN respondents identified epilepsy and headache in association with black magic while BNRTs stated blindness and the inability to get pregnant as the most common identifiers. There was more generalization of illness in relation to black magic as evidenced by the following statements: "something that cannot be cured", "depends on the magic that the person (chooses)", "depends on the reason (why) they did the black magic", "depend (on) the name of the black magic", and "women not getting married, weak in body". Respondents believe that mental illness can be attributed to black magic (BNRT 88.6%, PDBN 83.6%). Both BNRT and PDBN students noted that mental illness caused by black magic manifests as depression, seizures, convulsions, epilepsy; and schizophrenia. PDBNs also noted that anxiety, abnormal behaviours, and hallucinations were indicative of black magic while BNRTs used terms such as "psycho", "mental", and "crazy". One BNRT student wrote that black magic can cause "Anything like preventing women from being pregnant, harming other people, diseases, cancers". The majority of participants indicated that religious leaders can treat or help people affected by black magic (BNRT 77.3%, PDBN, 69.3%) but few students were of the opinion that doctors alone could help these people (BNRT 9.3%, PDBN 12.2%). There was less confidence in doctors and religious leaders working together to achieve success in treating illness (BNRT 56.8%, PDBN 48.6%). Only 20.5% of BNRT and 23% of PDBN students believe they have ever cared for a patient whose illness was caused by black magic. (Table 2)

Beliefs about Evil Eye (Nazar, Hasad)

Figure 3 reveals that 90.9% of BNRT and 90.5% of PDBN respondents believe in evil eye. The findings affirm that they believe that evil eye can cause physical illness (BNRT 72.1%, PDBN 78.4%) and mental illness (BNRT 59.1%, PDBN 58.9%). The most commonly noted physical illnesses were headache, fatigue, and general body aching. Like black magic, the effects of evil eye appear to be more vague as evident by the statements: "disability/accident will happen/death", "lose the thing which (the) person has such as can't walk", "any type of medical illness – that will depend (on) the evil eye itself". Several participants documented proof of evil eye through comments such as "narrated to the Prophet Mohamed (Peace Be upon Him) that he mentioned that the evil eye is true" and "It can lead to death, you can check Holy Quran for evidence". Mental illnesses noted by PDBNs in relation to evil eye were depression, anxiety, fear, and epilepsy. BNRTs identified depression and "crazy" as the main indicators of evil eye. The participants demonstrated again that they have faith in the ability of religious leaders in treating evil eye (BNRT 81.8%, PDBN 83.8%) and only a small degree of faith in doctors (BNRT 15.9%, PDBN 17.8%). Nursing students identified that doctors and religious leaders working together would have greater success in treating illness related to evil eye (BNRT 45.5%, PDBN 25%). Twenty five percent (25%) of BNRT and 37% of PDBN students believe that they have cared for a patient whose illness was caused by evil eye. (Table 3)

Discussion

This study reveals that undergraduate nursing students at UCQ strongly believe in the existence of possession states, that they are causal factors of physical and mental illness, and that religious leaders are deemed the most effective healer. Jinn causes more specific, diagnosable physical and mental illnesses and conditions while participants reported that black magic and evil eye cause more generalized medical ailments and disabilities such as inability to walk, weakness, fatigue, and inability to bear children. Nursing students attributed Jinn and black magic as causal factors of mental illness at higher rates than physical illness. BNRT and PDBN students overwhelming support a religious leader as the most effective at treating those who are possessed. Contacting faith and traditional healers first to address any physical or mental health problems is common among Muslim people in the Arab world. (Al Habeeb, 2003; Al-Shahri, 2002; El-Islam, 2008; Islam & Campbell, 2014; Khalifa et al, 2012; Lovering, 2014; Laher, 2014; Obeid et al, 2012). The second preferred treatment team would be a religious leader and a doctor. The results show that a doctor would be the least effective at treating a person in a possessed state.

One would anticipate that since the belief in possession states is so high, that nursing students, particularly PDBNs who have generally worked as nurses for several years, would report that they have cared for many people whose illness was caused by Jinn, black magic or evil eye. This was not evident in our findings. We anticipated that PDBN students would have cared for many people

afflicted by possession states but these numbers were low, particularly for Jinn (28.4%) and black magic (23%). Evil eye was more common (37%). PDBN students thought that they had cared for patients affected by Jinn (28%), black magic (22%) and evil eye (31%). It seems that belief in possession states does not directly relate to perceptions of individuals' nursing experience. That is, although a student believes in Jinn they are most likely to report that they have not yet encountered this in their own practice. This could be a useful point for discussion in class about student beliefs and actual experiences and causal attributions.

Our study results regarding the belief in Jinn, black magic and evil eye as causal factors of physical and mental illness corroborate the findings of Khalifa et al (2011) and Mullick et al (2012). As in our study, the majority of the respondents believed in Jinn, black magic and evil eye and identified religious figures as the most appropriate healer for those afflicted with physical and mental illnesses resulting from all possession states. Doctors alone were reported as less effective at managing and treating these clients. The previous studies suggest that beliefs in possession states are related to lack of education and financial resources however, our findings revealed a different result. Our study participants were primarily female, had high levels of education, enjoyed a high standard of living, and yet demonstrated strong beliefs in possession states as causal factors in physical and mental illness. It is our experience that Muslim nursing students attributed illness to possession states; however, we were surprised by the high number of those who believed this. It was also surprising that while the Western world values and turns to medical physicians for treatment, Muslim nursing students strongly identified religious leaders (Iman, Alim, and Sheikh) as the most effective healer for possession states.

Nursing Education

Nursing students assess, plan and implement interventions, act as advocates and teachers, and provide referrals for patients and their family members who may require resources, services and support from other health and psychosocial service providers. Muslim nursing students may be inclined to base their teaching of patients and family members upon the Islamic beliefs of Jinn, black magic, and evil eye rather than evidence-based, nursing science. They may also choose to advocate and refer Muslim patients to faith and traditional healers in accordance with the Islamic teachings rather than members of the health care team (El-Islam, 2008). Faith and traditional healers may reinforce family and patient's beliefs that illness is the result of supernatural agents such as Jinn, black magic or evil eye (El-Islam, 2008). This may result in discord among the health care team, religious healers, patient and family which may impact care and recovery. These findings highlight the need to have open discourse regarding the role of possession states and illness. Muslim nursing students can serve as informants and mentors for non-Muslim faculty, peers, and nurses related to the role of Islam in health care (Dein, 1997). Nursing faculty could address the need to include the religious leader as part of the health care team which would empower students to advocate for referrals (Abdul-Khalek, 2011; Ae-Ngibise et al, 2010; Dein & Illaiee, 2013; Hill & Pargament, 2008;

Puchalski, 2001; Verhagen, 2011). In light of our findings, it is clear that nursing students practicing in mental health need to receive specialized training regarding incorporation and consideration of cultural norms and beliefs (Al-Krenawi & Graham, 2000; Al-Sharbati, Hallas, Al-Zadjali, & Al-Sharbati, 2012; Weatherhead & Daiches, 2010).

In Western culture and nursing education, value is placed in science rather than traditional healers and alternative healing modalities. It is important for nursing faculty to understand the deeply ingrained beliefs in possession states and the subsequent need for traditional healers (Al-Solaim & Loewenthal, 2011). Nursing education in Qatar must be culturally inclusive and sensitive to issues with consideration and understanding of Islamic culture and views. Culturally relevant nursing education must acknowledge Islamic beliefs concerning the total integration and Oneness (Tawheed) of Allah, the importance of reading verses from the Qur'an and use of prayer as healing methods (Lovering, 2014).

Culture determines what an individual perceives as normal within categories, rules, plans, and contexts we learned in childhood (Dein, 1997). Cultural competence, described as a set of skills or the ability to establish and maintain interpersonal and professional relationships in order to function effectively, regardless of differences in culture, is a term commonly used in health care and nursing education (Anderson et al, 2003; Beach et al, 2005; Lipson & Desantis, 2007). Instructors who are culturally competent show an appreciation, acceptance and value for cultural differences and diversity rather than the need to evaluate or confront that which is deemed outside cultural norms (Bhui, Warfa, Edonya, McKenzie, & Bhugra, 2007). In nursing and in health care, cultural considerations are important to the nurse-patient relationship, development and implementation of a treatment plan, and recovery. Consideration of possession states, integral to Islam, need to be incorporated into nursing education. (Al Mutair, Plummer, O'Brien, & Clerehan, 2014; El-Amouri & O'Neill, 2011).

Issues and Limitations

The questionnaire was an un-validated tool developed for use in England and Bangladesh. The findings are limited to UCQ undergraduate nursing students. No comparison was made between female and male participants. The philosophy and teachings of the nursing program at UCQ value and purport science rather than faith-based treatment and solutions to health care issues. Students may have been concerned that a belief in Jinn, black magic and evil eye would not be in accordance with the predominating evidence-based approach to health care therefore may not have revealed their true thoughts and beliefs. Conversely, nursing students that believe in Islam as the foundational structure of their lives and culture may not have felt free to answer the questions in any way that might have run in opposition to the religious beliefs.

Implications

Potential Benefits

The primary benefit of this study is the confirmation, improved awareness and enhanced understanding of the beliefs of UCQ nursing students regarding Jinn, black magic and evil eye. It also reveals the confidence in and preference for healing by religious leaders and faith healers rather than physicians which is incongruent with the current Western nursing education model. Other benefits include raising awareness of faculty members regarding the need to incorporate or enhance culturally inclusive content into the nursing curriculum. The increased awareness of faith-based cultural norms may lead to richer and more meaningful discussions and sharing of information that will enhance mutual learning and ultimately lead to improved patient care. This research will enhance and add to the limited literature available on nursing education for Muslim students in the Middle East. This study has raised awareness of the need to further study cultural differences and implications for health care and education in Qatar and likely other Islamic nations. (Dein & Bhui, 2013; Jaalouk, Okasha, Salamoun, & Karam, 2012; Osman & Afifi, 2010).

Potential Future Research

There are several areas that require further study. The questionnaire does not address patient care. Although we have made inferences regarding potential impact on nursing care, no conclusions can be made regarding this important issue. This study examined nursing student beliefs only. Future research could expand to include other health care providers, patients, family members, and religious leaders. Further exploration of this topic using a qualitative approach may allow clarification of data and deepen the researchers' understanding. There is a paucity of literature concerning the effectiveness of current or past models of nursing care in Muslim countries which is designed to preserve the special customs of Islamic law (Al Mutair et al, 2014). This would be another interesting area for research. The researchers did not address education strategies regarding religion, possession states, and impact on nursing.

Conclusion

While we knew there was a strong inclination toward the belief in possession states, we were not anticipating these overwhelming results. The impact of religious beliefs on causation and preferred health care provider were not fully understood either. It is interesting to note that there is little difference in the belief in each of the entities, though nursing students' comments suggest each entity is responsible for slightly different health issues. Beliefs related to Islam and the impact on health and health care are not formally included in the current nursing curriculum. As we value cultural competence in provision of patient care in our health care systems, so do we need to focus on cultural competence in nursing education (Bhui et al, 2007). This study illuminates nursing students' beliefs in possession states as causal factors of physical and mental illness and the importance of role of the religious leader. Faculty

members need to incorporate discussion regarding possession states as it may impact assessment, nursing interventions and treatment approaches. The nursing student can also advocate for inclusion of a traditional healer on the health care team caring when caring for Muslim clients to ensure culturally competent care.

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Tables

Figure 1: Do you believe that Jinn can possess or take over humans?

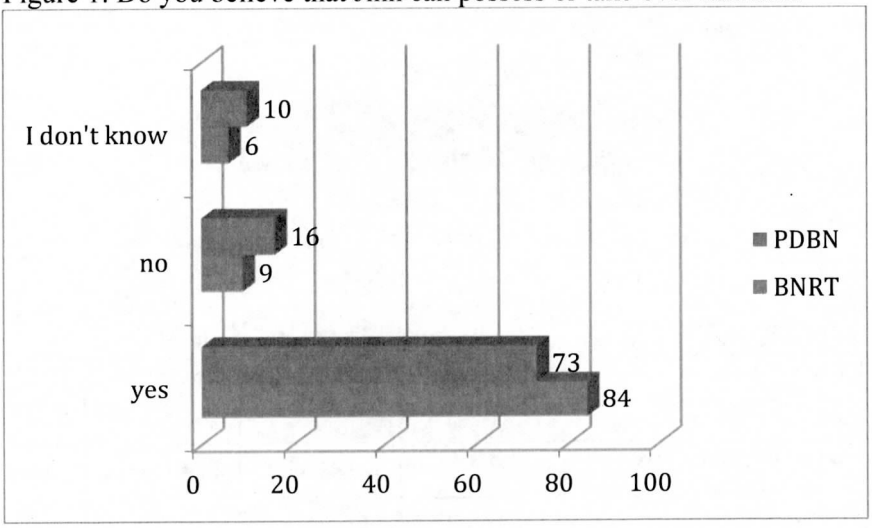

Figure 2: Do you believe in Black Magic (Sehr, Jadu)?

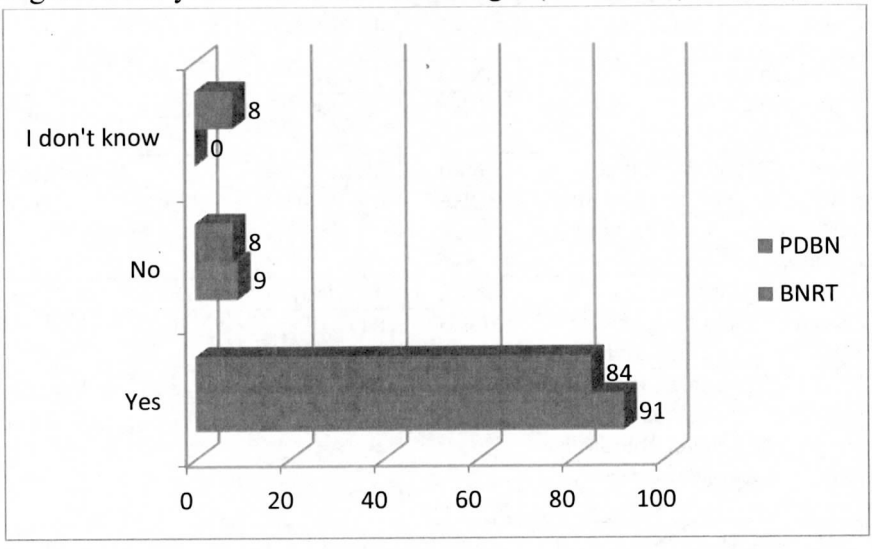

Figure 3: Do you believe in Evil Eye (Nazar, Hasad)?

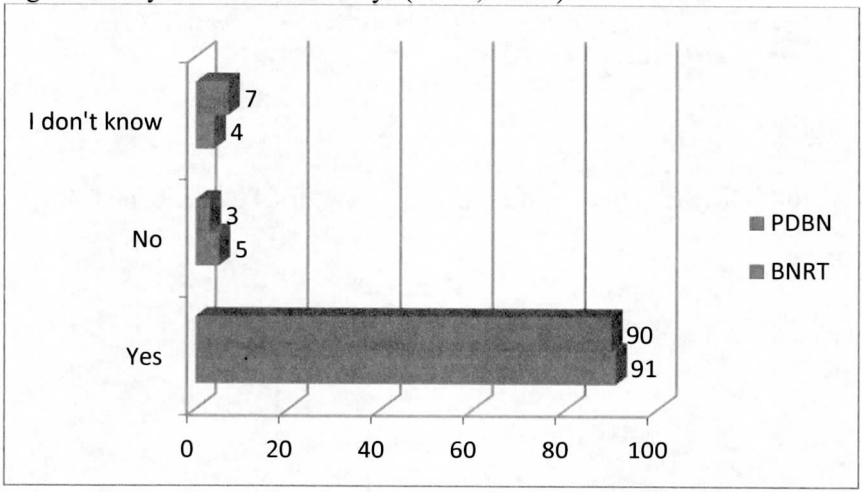

Table 1: Beliefs about Jinn – Frequencies and Cross tabulations

Questions	Status	Yes	No	Don't Know
Q1 - Do you believe that Jinn can possess or takeover humans?	BNRT	37 (84.1%)	4 (9.1%)	3 (6.8%)
	PDBN	54 (73%)	12 (16.2%)	8 (10.8%)
Q2 - Do you believe that Jinn can cause physical illness in humans?	BNRT	27 (64.3%)	10 (23.8%)	5 (11.9%)
	PDBN	33 (44.0%)	32 (42.7%)	10 (13.3%)
Q3 - Do you believe that Jinn can cause mental illness in humans?	BNRT	31 (70.5%)	9 (20.5%)	4 (9.1%)
	PDBN	53 (70.7%)	17 (22.7%)	5 (6.7%)
Q 4 - Do you think that religious leaders could treat or help people affected by Jinn?	BNRT	37 (84.1%)	3 (6.8%)	4 (9.1%)
	PDBN	69 (92.0%)	1 (1.3%)	5 (6.7%)
Q5 - Do you think that doctors could treat or help people affected by Jinn?	BNRT	4 (9.1%)	29 (65.9)	11 25.0%)
	PDBN	8 (10.7%)	53 70.7%)	14 (18.7%)
Q6 - Do you think that both doctors & religious leaders working together could treat or help people affected by Jinn?	BNRT	28 (63.6%)	10 (22.7%)	6 (13.6%)
	PDBN	47 (62.7%	11 (14.7%)	17 (22.7%)
Q7 - Do you think you have cared for patients whose illness was caused by Jinn?	BNRT	12 (27.9%)	19 (44.2%)	11 (25.6%)
	PDBN	21 (28.4%)	37 (50.0%)	16 (21.6%)

Table 2: Beliefs about Black Magic – Frequencies and Cross tabulations

Questions	**Status**	**Yes**	**No**	**Don't Know**
Q8 - Do you believe in Black Magic (Sehr, Jadu)?	BNRT	39 (90.7%)	4 (9.3%)	0 (0.0%)
	PDBN	63 (84.0%)	6 (8.0%)	6 (8.0%)
Q9 - Do you believe that Black Magic can cause physical illness in humans?	BNRT	32 (72.7%)	6 (13.6%)	6 (13.6%)
	PDBN	51 (68.0%)	13 (17.3%)	11 (14.7%)
Q10- Do you believe that Black Magic can cause mental illness in humans?	BNRT	39 (88.6%)	2 (4.5%)	3 (6.6%)
	PDBN	61 (83.6%)	5 (6.8%)	7 (9.6%)
Q11 - Do you think that religious leaders could treat or help people affected by Black Magic?	BNRT	34 (77.3%)	7 (15.9%)	3 (6.8%)
	PDBN	52 (69.3%)	14 (18.7%)	9 (6.8%)
Q12- Do you think that doctors could treat or help people affected by Black Magic?	BNRT	4 (9.3%)	27 (62.8%)	12 (27.9%)
	PDBN	9 (12.2%)	51 (68.9%)	14 (18.9%)
Q13- Do you think that both doctors & religious leaders working together could treat or help people affected by Black Magic?	BNRT	25 (56.8%)	8 (18.2%)	11 (25.0%)
	PDBN	36 (48.6%)	16 (21.6%)	22 (29.7%)
Q14- Do you think you have cared for patients whose illness was caused by Black Magic?	BNRT	9 (20.5%)	17 (38.6%)	17 (38.6%)
	PDBN	17 (23.0%)	35 (47.3%)	22 (29.7%)

Table 3: Beliefs about Evil Eye – Frequencies and Cross tabulations

Questions	Status	Yes	No	Don't Know
Q15- Do you believe in Evil Eye (Nazar, Hasad)?	BNRT	40 (90.9%)	2 (4.5%)	2 (4.5%)
	PDBN	67 (90.5%)	2 (2.7%)	5 (6.8%)
Q16- Do you believe that Evil Eye can cause physical illness in humans?	BNRT	31 (72.1%)	4 (9.3%)	8 (18.6%)
	PDBN	58 (78.4%)	7 (9.5%)	9 (12.2%)
Q17- Do you believe that Evil Eye can cause mental illness in humans?	BNRT	26 (59.1%)	10 (22.7%)	8 (18.2%)
	PDBN	43 (58.9%)	18 (24.7%)	12 (16.4%)
Q18- Do you think that religious leaders could treat or help people affected by Evil Eye?	BNRT	36 (81.8%)	4 (9.1%)	4 (9.1%)
	PDBN	62 (83.8%)	3 (4.1%)	9 (12.2%)
Q19- Do you think that doctors could treat or help people affected by Evil Eye?	BNRT	7 (15.9%)	20 (45.5%)	17 (38.6%)
	PDBN	13 (17.8%)	43 (58.9%)	17 (23.3%)
Q20- Do you think that both doctors & religious leaders working together could treat or help people affected by Evil Eye?	BNRT	20 (45.5%)	11 (25.0%)	13 (29.5%)
	PDBN	34 (45.9%)	18 24.3%)	22 (29.7%)
Q21- Do you think you have cared for patients whose illness was caused by Evil Eye?	BNRT	11 (25.0%)	17 (38.6%)	15 (34.1%)
	PDBN	27 (37.0%)	27 (37.6%)	19 (26.0%)

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Development of a Clinical Nursing Word List

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ABSTRACT: Nursing students who study in a foreign language face significant barriers to success. In particular, reading and listening comprehension have been identified as challenges for English language learners. Several studies have examined language use in nursing and medical journals but there is a lack of focus on oral vocabulary. This study aimed to identify nursing-specific oral vocabulary that is used in clinical instruction. 63.6 hours of clinical instruction was recorded and analyzed. Over 40% of vocabulary was not contained in common English and Academic word lists used to guide foreign language vocabulary instruction. Current results suggest that a considerable technical vocabulary exists for the nursing profession. It is possible that identification of this vocabulary and its incorporation in pre-nursing studies may have benefits for foreign language nursing students. Comparison of results with similar studies reveals apparent differences in vocabulary use between medicine and nursing, and between oral vocabulary and vocabulary from nursing journal articles. These differences highlight the importance of incorporating a broad range of data sources to develop a comprehensive set of nursing-specific vocabulary.

Keywords: Nursing, Corpus, Lexicon, Technical vocabulary, English for academic purposes, English for nursing purposes, Nursing academic word list

RESUMÉ: Les étudiants en soins infirmiers qui étudient dans une langue étrangère, font face à de sérieuses difficultés avant de réussir ; notamment en compréhensions écrite et orale qui sont reconnues comme étant des obstacles pour les apprenants en anglais. Dans certaines études, on a analysé la langue employée dans les revues médicales et de soins infirmiers et l'on a constaté une grosse lacune en termes de lexique utilisé à l'oral. Ici, le but est de cerner le lexique utilisé à l'oral dans les soins infirmiers et qui est employé dans l'enseignement clinique. Après avoir enregistré et « disséqué » 63 heures 6 d'enseignement clinique, on a remarqué que plus de 40 % du vocabulaire ne faisait pas partie de l'Anglais courant et des

listes lexicales scolaires que l'on utilise dans l'enseignement d'une langue étrangère. On peut donc conclure que dans le métier d'infirmier(ère), le vocabulaire technique prend une place très importante. Il se peut que la reconnaissance de ce vocabulaire et son intégration dans les études préalables de soins infirmiers, soient profitables aux étudiants de langue étrangère de cette discipline. Si l'on compare des études semblables, le vocabulaire employé en médecine et celui qui est employé dans les soins infirmiers, montre des différentiations. Il en va de même pour le vocabulaire employé à l'oral et celui qui est écrit dans les revues de soins infirmiers. Ces différences soulignent donc l'importance d'intégrer une large base de sources de données afin d'offrir un ensemble compréhensif pour un lexique spécialisé en soins infirmiers.

Mots-clés : soins infirmiers, corpus, lexique, vocabulaire technique, l'Anglais scolaire, l'Anglais pour les soins infirmiers, liste de vocabulaire scolaire en soins infirmiers

Introduction

Language use in nursing is a current topic of global importance to the profession. Developing and employing a set of vocabulary that is consistent across practice settings has potential to advance clinical outcomes by improving patient care, reducing errors and improving patient safety (NANDA, 2009). It can also help to clarify roles, describe service delivery, and facilitate development of electronic health records (Duff, Endsley, Chau, & Morgitan, 2012). Standardized language can also enhance nursing education, research and administration and can help advance the profession by facilitating the identification and evaluation of the work nurses do inside and outside of clinical settings (Rutherford, 2008). The wide variety of benefits suggests that standardizing oral and written nursing language is essential to the profession. This article will document the identification of technical clinical nursing vocabulary and argue that oral vocabulary in nursing differs from other disciplines and also from nursing word lists derived from journal articles.

In Qatar, language use in nursing and other health professions is a particularly important issue given the diversity of health professionals in terms of language and cultural background. The official working language in hospitals throughout the country is English. Accordingly, all health professions programs are delivered in English. In Qatar, throughout the Gulf region, and worldwide, there are numerous schools of nursing that offer English language nursing programs to non-native speakers. Studying nursing in a foreign language presents significant barriers to comprehension and retention, can drain faculty resources, and can reduce the amount of content covered (Eames, 2014; Ndawo, 2014).

Institutions with large numbers English Language Learners (ELL) often have departments that provide English language instruction and support. Two important resources for ELL programs are the General Service List of English Words and the Academic Word List. The General Service List contains the

2000 most frequently used word families in the English language (West, 1953). Although the list was developed over 60 years ago it continues to be a relevant reference since it typically covers 80% of vocabulary in academic texts (Yang, 2015). The Academic Word List contains an additional 570 word families and was developed from a collection of academic journals and textbooks from the arts, commerce, law and natural science (Coxhead, 2000). The combination word families from the General Service List and the Academic Word List make up approximately 90% of words used in academic texts. The remaining 10% consist of vocabulary that occur with low frequent and high frequency technical words.

Literature Review

There have been two recent literature reviews that specifically focused on the needs and challenges of ELL nursing students (Crawford & Candlin, 2013a; Olson, 2012). Both reviews identified a common theme of extra burden associated with learning technical Nursing vocabulary in addition to general English. ELL nursing students thus face specific and significant challenges, both academically and in the clinical setting. Many of these students require significant levels of support in order to be academically successful in nursing programs, and to perform at levels that are expected during clinical placements (Boughton, Halliday, & Brown, 2010; Brown & Anema, 2007). However, the success of English language support programs in promoting academic language proficiency have had mixed success, indicating a need for further research (Boughton et al., 2010; Brown & Anema, 2007; Crawford & Candlin, 2013a; Olson, 2012).

A review of literature by Starr (2009) found that ELL students encounter complex language and cultural challenges, which cannot necessarily be mediated through "special attention and additional classes" (p.486) because they lack a learning context for the instruction. Another study suggested that improvements to English language support programs for ELL nursing students should include increasing nursing related content (Crawford & Candlin, 2013b). A study undertaken to promote academic achievement for first year ELL nursing students in Australia stressed that ELL nursing students would benefit from teaching strategies that help them acquire the nursing language they need for understanding classroom discussions and lectures, instead of generic language programs (Salamonson, Everett, Koch, Andrew, & Davidson, 2008).

Listening comprehension is a meaningful, interactive process that involves interpretation and reaction to spoken language for an overall understanding of the message (Hasan, 2000). A significant factor that hinders listening comprehension is the introduction of new technical terminology (Crawford & Candlin, 2013b; Flowerdew & Miller, 1992). Many ELL nursing students experience difficulties with spoken English during clinical placements in particular, where textbooks and journal articles are not always readily accessible (Guhde, 2003; Miguel, Rogan, Kilstoff, & Brown, 2006). Studies have shown that pre-listening activities facilitate foreign language listening comprehension

(Elkhafaifi, 2005; Farrokhi & Modarres, 2012). San Miguel et al. (2006) developed an intensive clinical language workshop for ELL nursing students to address clinical comprehension issues. Teaching approaches included strategies for learning medical technology and words typically used together. A follow up assessment of the language program after three years found that early intervention language programs contributed to greater success and confidence for students (Miguel et al., 2006). However, it is difficult to know which vocabulary are most important and relevant. There are several examples in the literature that attempt to address these issues through the development of word lists that are inclusive of technical vocabulary.

Wang et al. (2008) examined specialized medical language utilizing a selection of medical journals from 32 different medical fields. This resulted in a Medical Academic Word List of 623 word families occurring with high frequency that were outside of common English vocabulary lists. The authors suggested that future work should be done to examine spoken medical academic English. Likewise, Budgell et al. (2007) developed and analyzed a pilot corpus created from textual analysis of articles found in a representative set of 6 English-language nursing journals. The authors state that although the development of a corpus using nursing journals is an efficient way of identifying the language used by the nursing profession, the written language cannot be expected to be representative of the spoken language, and therefore there is a need to develop a corpora of the oral language used in both the classroom and clinical areas (Budgell et al., 2007). Yang (2015) produced a comprehensive nursing academic word list by examining a selection of 252 nursing research articles from 21 different practice areas (e.g., cardiology, obstetrics, urology, etc). This nursing academic word list contains 676 word families, which account for 13.64% of the words used in the selected articles. Yang argues that the discipline specific word list is superior to Coxhead's (2000) Academic Word List for use in teaching ELL nursing students because the nursing academic word families occur more frequently in the selected articles than the word families from the Academic Word List. However, caution should be taken in adopting this nursing academic word list due to its focus on academic journals. On inspection of the most frequent words in the list, its relevance to undergraduate nursing practice is questionable. For example, the top ten words in the list are "participate", "significant", "data", "research", "clinic", "analyze", "assess", "score", "respond", and "symptom". The majority of these words relate specifically to the research process or design. It could be argued that this list is not valid for teaching and learning at the undergraduate level due to the lack of inclusion of textbook or oral vocabulary. This highlights the need for research related to clinical nursing communication and nursing textbook language.

Rationale and Aims

At the University of Calgary in Qatar a Nursing Foundations Program is offered to assist beginning students in reaching an adequate proficiency in

English (and other subjects) before commencing courses specific to nursing. Students enter the English for Academic Purposes (EAP) Program at one of four levels, depending on their English ability, and progress though these levels as their proficiency increases. Once they finish EAP level 4 they enter the formal Nursing Program. EAP students learn vocabulary derived from the General Service List for English and Academic Word List. Despite this support for ELL students, they continue to struggle with language difficulties throughout the Nursing program. One potential reason for this is the lack of focus on technical vocabulary. Several initiatives, including this project, have been undertaken to address this issue by identifying high frequency technical nursing vocabulary.

This study aims to explore the most frequent technical nursing vocabulary used in oral clinical instruction at the University of Calgary in Qatar. Technical vocabulary is defined as nursing-related words that are unique to nursing or have specialized meaning, and are not included in the General Service List for English or the Academic Word List (Coxhead, 2000; West, 1953). Clinical courses were chosen because nursing is primarily a practice-based profession and undertaking exploratory work with potential to improve clinical performance was seen as a priority. We focused on oral vocabulary because 1) clinical instruction and learning is primarily oral, and 2) this type of vocabulary has been neglected in the literature. The hypothesis is that a list of technical vocabulary will be identified, enabling the creation of a Clinical Nursing Word List (CNWL).

Current results add to the global discourse on the standardization of nursing language by providing a valid collection of practically employed oral instructional vocabulary. Locally, the intent is to enhance nursing instruction by providing data that can be used to improve the consistency between vocabulary instruction in our EAP program and language use by Nursing Instructors. In addition to these benefits, this study also has the potential to serve as a model for other post-secondary institutions in Qatar, the Gulf region, and worldwide who offer a foundation/bridging program for non-native speaking students. Moreover, the method of identifying technical instructional vocabulary holds potential to improve teaching and learning outcomes for non-native speakers regardless of their program of study.

Methods

This is a quantitative, cross sectional study where data were collected during several consecutive classes. However, change across time was not analyzed, and data are treated as if they were collected at a single time point. Ethical clearance was obtained from the University of Calgary's Conjoint Health Ethics Review Board. Potential participants were approached by members of the study team, the research was explained, and written informed consent was obtained prior to enrollment in the study.

Setting

The University of Calgary in Qatar is a transnational post-secondary branch campus, located in the Middle East region. The campus was established in 2006 as an initiative to strengthen the quality of nursing education in Qatar and to improve the image of nursing in the region. As of the 2014 Fall Semester there were 463 registered students, and 38 full time academic staff. The University delivers three Nursing programs: a Bachelor of Nursing regular track program for students with no previous Nursing background; a post-diploma program for students with an acceptable Nursing diploma; and, a Masters of Nursing program. Although all instruction is in English, students at this university are predominantly non-native English speakers, with the majority of those being of native Arabic language origin. A Nursing Foundations Program is also available for students who do not meet initial admission criteria for Math, Sciences, and/or English language ability. The University recently received a 7-year accreditation by the Canadian Association of Schools of Nursing, and the curriculum is based on the Nursing program at the University of Calgary in Canada. All Instructors are required to have valid Canadian nursing licensure.

Research Design

A quantitative computer-based text analysis design was used (Mercer, 2010). Oral instruction in the lab portion of clinical courses was audio-recorded and transcribed. A sample of transcriptions was checked to determine accuracy. Transcriptions were then analyzed to identify frequently occurring technical vocabulary and to develop an inclusive vocabulary list of oral clinical nursing instruction. Figure 1 illustrates the research design:

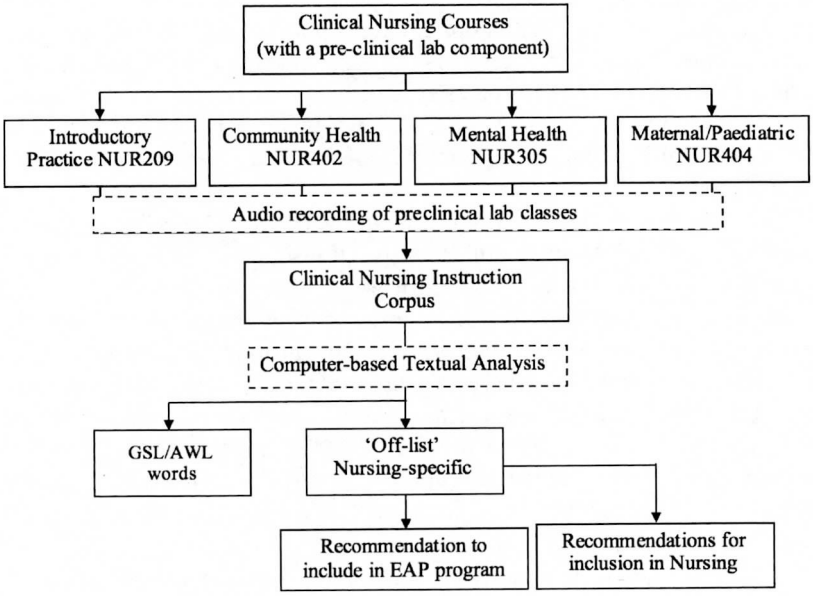

Figure 1. Illustration of the research design

Population and Sampling

Oral instruction during the lab portion of the following regular track undergraduate clinical courses was recorded: Nursing Practice, Mental Health Practice, Childbearing/Childrearing Families Practice, and Community Health Nursing Practice. These courses represent nearly the entire scope of clinical instruction at the University. Nursing Practice is a general course covering fundamentals of practice and the other three courses are specialized areas of practice that all students must complete. Childbearing/Childrearing Families Practice is a combination of two clinical courses: maternal health and pediatrics. There are two other basic clinical courses that we did not record. However, the content of these is covered in the Introductory Practice (NUR209) course, which aims to consolidate and build upon prior skills and knowledge. One additional non-basic clinical course, Adult Health Practice, was not included in this study because its timing in the 2013/2014 schedule makes data collection unfeasible. All instructors approached for recruitment agreed to participate. Although each of these clinical courses also included required readings, written vocabulary was not included in our sample. This decision was made based on the aim of the study, which was to explore oral vocabulary.

Data Collection

Each of the selected courses begins with a laboratory-situated component where key knowledge and skills are reviewed, prior to students entering the practice setting. The core skills and knowledge for each course are covered during this portion of the course. Oral instruction during laboratory classes is

broad and extensive, and reflective of hospital-based instruction. Data collection did not continue into the hospital-based portion of the courses due to confidentiality issues. Laboratory-based classes consist of 3-6 7-hour sessions at or near the beginning of the semester, depending on the course. The exception was the Community course, which had weekly 2-3 hour labs. All selected courses were offered during the Winter 2014 semester when data collection took place.

All enrolled instructors were provided with an audio recorder and given coaching on its use. Members of the research team delivered the recorder prior to the start of each class and ensured it was functioning properly. The devices recorded continuously until they were powered off at the end of the class. Audio recorders were placed in the breast pocket of the instructors' lab coat or attached to a lanyard around the instructor's neck. At the end of each class, audio recorders were collected from the participants and data was transferred onto a computer and briefly reviewed for quality. After all data had been collected, each recording was trimmed to eliminate periods with no data (e.g., during breaks). Trimmed audio files were sent electronically to a professional transcription service.

Audio recorders were tested extensively prior to commencement of the study to determine optimal settings and to test the recoding quality and capacity. The data collection process was piloted in a non-Nursing course in order to finalize the data collection protocol.

Data Analysis

Transcripts were checked for accuracy. Nine transcripts were selected at random. Each of the team members checked these transcripts against the original recording and recorded omissions and errors. Based on this, an accuracy rate was calculated. This process was piloted with the entire team in order to ensure consistency.

After accuracy of transcripts has been checked, a frequency analysis was conducted. First, transcripts were entered into VocabProfile Classic v4 (available at http://www.lextutor.ca/). This program separates text into its GSL, AWL, and off-list components. Off list words were extracted and then cleaned, by removing names, spelling errors, and artifacts (e.g., [laughter], [silence]) from the transcripts. Files containing the cleaned, off-list portion of the text were then imported into NVIVO ver10 and word frequency queries were run to determine the frequencies of off-list words. These lists were further cleaned to remove non-nursing words (e.g., Canada, Qatar) and develop the CNWL. We also grouped similar words (e.g., clinic, clinical, clinician) into word families to allow comparison to similar studies. The process of analyzing and cleaning the data was performed as a team and any questions or concerns were resolved by consensus.

Results

In total, 63.6 hours of audio data was transcribed. This included 20.2 hours of Introductory Practice, 10.1 hours of Mental Health Practice, 12.2 hours of Community Clinical and 21.2 hours of Maternity/Pediatrics (12.1/9.1hrs, respectively). Accuracy of transcripts was › 98%. Analysis revealed 9457 unique words, 4017 (42.5%) of which were off-list words.

The top ten most frequently occurring word families in each course are presented in Table 1. Medication (n=270 and 272, respectively) was the most frequent word used in both the introductory clinical course (Nursing Practice) and Maternity/Pediatrics. Interview (n=65 and 109, respectively) was the most frequently occurring word family in both Mental Health Practice and the Community Clinical Lab. The high frequency vocabulary differs between each class, and no single word appears in all four classes.

Nursing Practice		Mental Health Practice		Community Clinical Lab		Maternity/Pediatrics	
Word	**Count**	**Word**	**Count**	**Word**	**Count**	**Word**	**Count**
Medication	270	Interview	65	Interview	109	Medication	272
Catheter	148	Mood	56	Session	81	Vein	247
Sterile	130	Patient	49	Diabetes	73	Liter	236
Diagnose	113	Clinic	33	Patient	68	Fluid	164
Urine	109	Drug	31	Lab	65	Dose	155
Dose	104	Psychiatry	25	Informant	61	Partum	108
Math	89	Alcohol	23	Windshield (survey)	56	Pediatric	86
Drain	74	Nerve	19	Summative	48	Epidural	85
Drug	74	Agitate	18	Formative	44	Pregnant	84
Glove	73	Delusion	18	Stakeholder	43	Patient	69

Table 1. Top ten most frequent word families in each course.

The top 10 most frequent word families in all four courses combined appears in Table 2. Medication (n=557) is by far the most frequent word family across all courses, being used nearly twice as much as the second most frequent word (Liter, n=284). Table 2 also provides contextual examples of how the top ten word families were used by clinical Instructors.

Word	Count	Examples
Medication	557	So check the vial to make sure that you took out the right **medication**.
		Not all of [the patients] have exactly the same **meds**.
Liter	284	We'll often put 40 units in a bag, in a **liter**.
		You know the formula for calculating urine output is 2 **mL** per kilo per hour.
Vein	273	The largest **vein** that you see is not necessarily the best **vein** to use.
		Say the doctor wrote her **IV** rate as 50 mL per hour...
Dose	259	You need to know that the usual **dose** for this is 4 grams divided over 4 **doses**.
		The right patient, the right **dosage**.
Patient	242	A **patient** could also be a key informant.
		I'm sure there are tons published on diabetic **patients**.
Gram	235	**Microgram** and **gram** are very, very different.
		This patient weighs 75 **kg**.
Catheter	194	If people can't void, or are incontinent, we sometimes insert a **catheter**...
		And in the afternoon, we do **catheterization**, okay?
Fluid	186	So, we want to correct **fluid** and electrolyte imbalances.
		[Mothers] need **fluids** to make colostrum and [breast] milk eventually.
Lab	180	Yes, absolutely, [it is] a very, very expensive simulation **lab**.
		I put specifically on the **lab** outline what pages.
Clinic	175	They probably have an ultrasound **clinic** at both hospitals. When I am going to **clinical** I wake up [early] because I am afraid I will sleep in.
Interview	175	It would give me an idea of ... what information you found in your **interview**.
		When you are **interviewing**, opening is hard and closing is hard.
Sterile	175	So where are your **sterile** forceps now?
		Anything else that's been **sterilized** shouldn't have any moisture.

Table 2. Top ten most frequent word families in all classes combined. Examples from transcripts are provided.

Appendix 1 presents the top 100 word families in all classes combined, including the terms included in each family. Word frequency becomes sufficiently low toward the end of this list to bring the relative importance of terms into question. Hence, word families outside of the top 100 are excluded.

Discussion

Oral instruction during lab-based clinical courses was recorded and the audio data was analyzed to identify technical vocabulary. Over 40% of the words used in oral clinical instruction were not contained in common word lists such as the General Service List for English and the Academic Word List. By analyzing this 'off-list' vocabulary we were able to identify the most common

technical word families used in each course and across all courses combined. Vocabulary use appears to be different between classes since no single word family was included in the top ten most frequent words for each class. This suggests that while a broad, combined list may be beneficial for general English preparation, course-specific lists may also be beneficial.

The high proportion of off-list language use has implications for the listening comprehension, and learning outcomes, of foreign-language learners in clinical courses (Mulligan & Kirkpatrick, 2000). Pre-listening strategies can potentially be used to introduce vocabulary from the CNWL to students prior to them receiving oral instruction in nursing courses. These pre-listening strategies may enhance students' listening comprehension and improve retention of course content (Miguel et al., 2006). This approach will potentially remove some of the barriers ELL students face in clinical settings, and ultimately improve their chance for success in clinical courses.

Our results differ from the Medical Academic Word List developed by Wang et al. (2008). When comparing the top 30 words from both studies, only two word families (7%) appear on both lists: dose and clinic. The discrepancy between the two studies suggests that nursing language is different from medical language. However, the source of the vocabulary may also have contributed to the difference. Wang et al.'s raw data came in written form from medical journals, while our data came from an oral source. It seems likely that the language used when writing for an academic audience would be essentially different from the language used for introducing and reinforcing foundational concepts to students.

In contrast, current results are somewhat similar to the nursing corpus developed by Budgell et al. (2007). Although these authors did not distinguish between common and technical words, it is still possible to extract the technical words from their results. After doing so, there are 8 off list technical word families, three (37.5%) of which appear in the top 30 word list from our study: clinic, medication and patient. This comparison supports the notion that there is a difference between vocabulary use in medicine and nursing, although there is some overlap (e.g., clinic). Budgell et al.'s results were derived from nursing journals so again, it is difficult to make a reliable comparison to our results.

A difference was also observed between the current study and Yang (2015). Only two of Yang's top 30 word families, *clinic* and *surgery*, corresponded with our CNWL. The obvious difference being that current results are clinically relevant, where Yang's results are relevant to nursing research. Yang's study was prompted by challenges experienced by Taiwanese graduate students in reading and writing academic papers and abstracts. Hence, the development of a corpus and academic word list based on nursing journal articles may be appropriate for this population of students. However, it is not likely to be appropriate for students on clinical, or other non-academic trajectories. These students are required to read from a variety of sources, including journal articles, course materials (e.g., presentation slides, handouts, syllabuses, etc.), reliable websites, textbooks, hospital policies, ethics and competency documents, and more. Current findings demonstrate that language

use in clinical teaching differs from written academic vocabulary. This finding suggests that a wide range of sources is necessary in order to develop a comprehensive list of academic vocabulary for nursing.

Our study has several limitations. Due to the scope of the project we were not able to record data from all courses. It is possible that the language used in clinical courses may be different from that used in theoretical courses. However, since nursing is primarily a clinical profession, we feel that the decision to focus on clinical courses was sound. Even within clinical courses we were not able to capture the full scope. Data collection lasted for one semester only and so we were not able to capture data from several clinical courses. However, the breadth of clinical courses that were recorded covers a broad range of topics and most of the fundamental clinical knowledge. The data that was collected was unequally distributed across classes. For example, twice as many hours were recorded in the Introductory Nursing class. However, since all of the labs in each course were recorded, we feel that the unequal distribution is a valid representation of clinical language use. However, our analysis could have been strengthened with a larger data set and the inclusion of 'range' as a variable (see Coxhead, 2000; Yang, 2015).

Future research could address these limitations by including a much larger set of oral vocabulary, which would increase confidence in the results. Our analysis would also have been strengthened by comparing results to the New General Service List (Browne, Culligan, & Phillips, 2013b) and the New Academic Word List (Browne, Culligan, & Phillips, 2013a). These lists have enhanced coverage compared to the original lists and have been developed from a larger data set that includes spoken English (Browne, 2014). However, the final version of these lists was published after the current project was completed and as a result our team was not aware of the lists until recently. Future studies should compare technical vocabulary to these newer lists.

One further limitation is the possible discrepancy between language used the actual clinical setting and that used in the lab. Most of the fundamental knowledge and skills are covered in lab classes and should be reflective of the fundamental vocabulary. However, future studies should aim to examine vocabulary used by staff nurses, preceptors and instructors in clinical settings.

Our results highlight the frequent use of technical vocabulary in clinical nursing instructions. The implication of these results for foreign language learners is that this technical nursing vocabulary should be considered for inclusion in pre-nursing language training. Further research should aim to identify a more complete corpus of technical language. Nursing education involves clinical practice, theory, and scholarship. In order to create a widely applicable technical word list, or a nursing-specific academic word list, it is necessary to include data from a wide range of nursing literature, including journal articles, textbooks, reliable websites, and course materials, as well as oral vocabulary used in the classroom and clinical settings. Further research is also recommended to examine the potential outcomes and most effective methods of incorporating the CNWL in pre-nursing coursework. For example,

does incorporating the CNWL in pre-nursing courses improve the listening comprehension and success of ELL students in clinical nursing courses?

Comparison of current results to previously developed healthcare-related words lists suggests that there may be differences between core medical and nursing terminology. It seems possible that discipline-specific terminology courses may be more effective than generic medical terminology courses that are sometimes offered to healthcare students. Such courses may miss important nursing-specific vocabulary and the time and resources spent on this vocabulary may be wasted learning words that are used with low frequency in the nursing profession. However, more research is needed to examine the apparent differences between medical and nursing terminology.

Conclusion

To our knowledge, this is the first study to develop a list of technical nursing vocabulary based on oral language use. Our results have highlighted the importance of verbal instruction as a source of data for the development of a nursing corpus, which has implications for the standardization of nursing language worldwide. The results demonstrate that nursing instructors use a high proportion of technical language when teaching core concepts to students. Although it is difficult to generalize results to other institutions, we hope that our study raises awareness about the potentially high proportion of technical language being used in nursing instruction. We recommend that supports be put in place to assist students studying nursing in a foreign language in dealing with the additional burden posed by unfamiliar technical language.

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Appendix 1. Top 100 word families in all classes combined

Root word	Count	Other terms included in word family
medication	557	medications, med, meds, medcarts, medicated
liter	284	liters, milliliters, mL, mLs
vein	273	venous, intravenous, IV, IVs
dose	259	doses, dosed, dosing, dosage, dosages
patient	242	patients
gram	235	mg, microgram, micrograms, mcg, kilo, kilos, kg
catheter	194	catheters, catheterization, catheterize,

		catheterizing
fluid	186	fluids
lab	180	labs
clinic	175	clinics, clinical, clinicals, clinician
interview	175	interviews, interviewed, interviewer, interviewing
sterile	175	steristrips, sterility, sterilized
drug	166	drugs, drugged
diagnose	160	diagnosed, diagnosis, diagnoses, diagnostic, diagnosticians
urine	156	urinate, urinating, urination, urinary, urinal, urinalysis,
math	148	maths, mathematician
diabetes	124	diabetic, diabetics
partum	110	antepartum, intrapartum, postpartum
kid	109	kids
exam	107	exams
surgery	101	surgeries, surgical, surgically, surgeon
pregnant	96	pregnancy, pregnancies
pediatric	91	pediatrics, peds, pediatrician, pediatricians
glove	87	gloves
session	87	sessions
epidural	86	epidurals
syringe	85	syringes
insulin	84	insulins
bladder	82	bladders
drain	79	drains, drained, draining, drainage, drainages
infect	79	infected, infection, infections, infectious
pill	72	pills
saline	71	
suture	71	sutures, sutured
infant	69	infants
dilute	68	diluent, dilutant, diluted, diluting, dilution
respiration	68	respirations, respiratory, respirate, resp, resps
flush	65	flushing
informant	61	informants
spine	61	spines, spinal, spinals
therapy	60	therapies, therapist, therapeutic
video	57	videos, videotape
windshield (survey)	56	
nasogastric	51	NG
pee	50	peeing
pulse	50	pulses, pulsing

vagina	50	vaginas, vaginal, vaginally, vaginosis
grab	49	grabbed, grabbing
allergy	48	allergies, allergic
blackboard	48	
muscle	48	muscles, muscular
summative	48	
client	47	clients
hyper*	47	
staple	47	stapled, stapler, staplers, staples
uterus	47	utero, uterine
stake	46	Stakeholder, stakeholders
vital	46	vitals
alcohol	45	alcoholic, alcoholism
contraction	45	contractions, contracture, contractures
formative	44	
fetus	43	fetuses, fetal
forceps	43	forceps
powerpoint	43	
buretrol	42	
cervix	42	cervixes, cervices, cervical
squeeze	42	squeezed, squeezing
hypo*	41	
oxytocin	41	
bedside	40	bedsides
diaper	40	diapers
mood	40	moods, moody
airway	39	airways
clamp	38	clamps, clamped, clamping
expire	38	expires, expired, expiry, expiration, expiratory
nerve	38	nerves, nervous, nervousness
symptom	38	symptoms
headache	37	headaches
hemorrhage	37	hemorrhages, hemorrhaging
oxygen	37	oxygenate, oxygenated, oxygenating, oxygenation, oximetry
physician	37	physicians
anesthesia	36	anesthesiologist, anesthetic, anesthetics, anesthetist, anesthetized
balloon	36	balloons
cope	36	coped, coping
kidney	36	kidneys
oral	36	
gauze	35	gauzes
tissue	35	tissues
vial	35	vials

abdomen	34	abdomens, abdominal
bubble	34	bubbles, bubblers, bubbling, bubbly
contraindicated	34	contraindication
obstetrics	34	obstetrical, obstetrician, obstetricians
absorb	33	absorbed, absorbent, absorbing, absorption
bowel	33	bowels
CC	33	
contaminate	33	contaminates, contaminated, contaminating, contamination
inject	33	injecting, injection, injections
nutrient	33	nutrients, nutrition, nutritional
thyroid	33	thyroidectomies, thyroxine

*Although hypo- and hyper- are not usually standalone words, they often act as such in nursing language. For example, a patient may say, "I'm feeling hypo", and a nurse should know how to respond. Hence, incidences of each of these prefixes were combined and included as word families.

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Direct Phonemic Awareness Instruction as a Means of Improving Academic Text Comprehension for Adult Language Learners

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ABSTRACT: At an international branch campus of a Canadian university located in Qatar, difficulty comprehending academic English text has been an institutionally acknowledged barrier to student success. A team of teacher-researchers in the English for Academic Purposes program conducted a quasi-experimental investigation into the efficacy of phonemic awareness instruction as a means of addressing this competency gap. This project was conducted in an attempt to achieve better alignment between teaching strategies, classroom activities, and student learning outcomes. Sixty-seven students, enrolled in three program levels, were given one hour per week of standardised direct phonemic awareness instruction over a 10-week period. Two tests were used to measure pre-/post-instruction differences: a missing vowel identification test and a C-test. Learners in the treatment group improved significantly more in both measures than those in the control group. The results suggest that direct phonemic awareness instruction can promote the development of both vowel recognition and ability to comprehend academic English text among tertiary-level EAP learners in a predominantly native Arabic language environment.

Keywords: English for Academic Purposes, phonemic awareness, phonics, English as foreign language, academic reading

RESUMÉ: Dans un campus international délocalisé d'une université canadienne située au Qatar, les étudiants éprouvent des difficultés à comprendre les textes anglais universitaires. C'est une barrière institutionnellement reconnue avant qu'ils ne puissent réussir. Une équipe d'enseignants-chercheurs du programme de l'Anglais académique a mené une recherche quasi-expérimentale sur l'efficacité qu'aurait un enseignement spécialisé sur l'aspect phonémique (lecture) afin que les étudiants puissent pallier ce manque. Le but de cette étude présente est d'essayer de mieux mettre en adéquation l'enseignement des stratégies, des activités en classe et des résultats universitaires des étudiants. Soixante-sept étudiants inscrits dans trois niveaux de programmes ont suivi, pendant une heure par semaine, un enseignement standardisé sur les phonèmes et ce, pendant une période de dix semaines. On a procédé à deux analyses pour évaluer les différences notées avant et après l'enseignement:

1) une analyse pour repérer l'absence de voyelles
2) une analyse du C

Les apprenants du groupe évalué ont fait beaucoup plus de progrès dans ces deux aspects que ceux du groupe témoin. D'après les résultats, l'enseignement direct des phonèmes peut aider à développer à la fois, la reconnaissance des voyelles et la faculté à comprendre les textes académiques anglais chez les apprenants de niveau supérieur (EAP : English for Academic Purposes) issus d'un milieu principalement de langue arabe natale.

Mots-clés: Anglais académique (EAP), sensibilisation phonémique, phonétique, anglais langue étrangère, lecture académique.

Introduction

This study intends to address the role of phonemic awareness in the development of English language learners' vowel recognition and ability to comprehend academic English text within an English for Academic Purposes (EAP) Program at a tertiary-level nursing institute in Qatar. This research draws upon and extends from previous literature and research conducted in orthographic and phonological areas of English language learning within the wider Arab Gulf region. The project took place amidst a rapidly changing educational environment within the Gulf Cooperation Council (GCC) nations. This is an environment which has been utilizing partnerships with Western tertiary institutions to advance educational development (Tetreault, 2010).

The setting for this research is situated within a Canadian university's international branch campus (IBC) in Qatar, established to educate prospective, as well as currently diploma certified nurses, with a Canadian Bachelor of Nursing degree. Students presenting an International English Language Testing System (IELTS) Academic overall score of 6.0, or a Test of English as a Foreign Language (TOEFL) Internet-based Test (iBT) of 80, enter the nursing degree program directly. Students who do not meet this requirement are streamed into one of the EAP program's four levels depending on the results of a standardized placement test (Accuplacer® OnLine) and a writing sample elicited through an in-house designed question item. At the time of the study, approximately 89% of all incoming students were required to complete at least one level of the EAP program.

The level of learner proficiency in English, in particular reading, has been identified as an ongoing obstacle to student success in the four-year nursing program. Through a needs analysis conducted at the institution, nursing program instructors reported reading difficulties as a primary obstacle to student learning. Introductory nursing course textbooks used at the campus assume readers already possess academic reading comprehension skills, proficiency in academic vocabulary and knowledge of the rhetorical functions and discourse grammar typical of academic writing (Alexander, Argent, & Spencer, 2008). However, as reflected in the institutional needs analysis, students in the nursing program who have been identified as English Language Learners (ELLs), struggle with the

reading material assigned in their respective nursing courses. Furthermore, these students are challenged by the high level vocabulary presented throughout course materials. The following extract, from a textbook that is widely used in a number of first-year Bachelor of Nursing courses, highlights some of the challenges faced by learners in this study's context:

> Critical thinking is an intentional higher level reasoning process that is intellectually delineated by one's worldview, knowledge, and experience with skills, attitudes, and standards as a guide for rational judgement and action. (Berman & Snyder, 2012, p. 163)

Navigating through uncommon collocations (e.g. intellectually delineated), and infrequent lexical items (e.g. worldview) not appearing on either the General Service (West, 1953) or Academic Word Lists (Coxhead, 2000) embedded within a complex sentence construction may discourage ELLs. Such discord between student reading ability and academic text level is likely to be a considerable barrier to student learning. With regard to this, it has been noted that ELLs, in particular, require additional scaffolding when negotiating specialized language and concepts found in academic discourse due to its informational density and differentiation from recognizable spoken English (Fillmore & Fillmore, 2012). Thus, the need to assist students in navigating and comprehending academic text is a high priority at the institution and the impetus for this study.

The Literature Review

Arab English Language Learners' Approach to Reading

A first step in approaching strategies to improve Arabic L1 English Language Learners' (ELLs) reading skills is to identify common trends that may provide obstacles in understanding English text. Although the literature reviewed appears limited in terms of studies conducted in Qatar, a considerable amount of research has focused on the difficulties Arab ELLs face in approaching English vocabulary. Hayes-Harb (2006) observed that most "existing work in this area has looked to higher level aspects of reading such as, familiarity with discourse structure and cultural knowledge to explain native Arabic speakers' ESL reading difficulties" (p. 321). However, as Hayes-Harb indicates, problems in lower level processing, including letter recognition and word identification, can also undermine the ability to understand text. In relation to this present study, it is thought that a focus on the lower level influences, specifically phonemic awareness, may be a root cause of students' difficulties in understanding academic text.

Research on word error trends has developed significantly over the past twenty years in relation to the identification of consonant combination structural patterns inherent in morphologic and semantic groupings in the Arabic language (Abu-Rabia & Awwad, 2004; Al-Sulaimani, 1990; Hayes-Harb, 2006; Ryan & Meara, 1991). Studies in the area of isolated word recognition in skilled readers

of Arabic has identified that the absence of short vowels results in a reliance on morphological understanding (Abu-Rabia, 1998, 2001, cited in Abu-Rabia & Awwad, 2004). Ryan and Meara (1991) provide strong evidence that Arab ELLs' reading is obscured by vowel errors made as a result of the dependence on consonant construction. The absence of short vowels in the L1 results in Arab ELLs relying heavily upon consonant structures when approaching English texts.

The implications of the potential negative transfer that lower level reading skills had on Arab ELLs' reading difficulties was further explored by Hayes-Harb (2006). Building upon and revealing limitations from the earlier Ryan and Meara (1991) study, Hayes-Harb (2006) found that "native Arabic speakers exhibit exceptional treatment of vowel letters in English texts compared to both native English speakers and non-Arabic ESL learners" (p. 335). This finding was attributed to the minor presence of vowels in the Arabic letter system which placed importance on the possible role of transfer in Arabic speakers' approach to the English alphabet.

Phonemic Awareness and Phonological Awareness

The metalinguistic category known as phonological awareness refers to cognizance of speech sounds and therefore subsumes phonemic awareness. Phonemic awareness (PA) describes the capability to recognize, identify and deploy speech sounds. The focus of phonological awareness on larger components of speech, such as onset and rime, can be distinguished from PA's particular emphasis on phonemes, which are the smallest components of speech (Cunningham, Cunningham, Hoffman & Yopp, 1998). The National Reading Panel's definition of phonemic awareness is "the ability to focus on and manipulate phonemes in spoken words" (National Institute of Child Health and Human Development, 2000, p. 823). Indeed, capability for grapheme-phoneme manipulation is a key indicator of PA (Ehri et al., 2001). However, for the purposes of surveying the literature, this study follows Dellicarpini (2011) in fusing phonological awareness and PA, given the overlap of the two in the literature.

Phonemic Awareness and Reading

Studies have shown PA to be a significant predictor of reading ability in children (Burgess, 2006; Ehri, 2004; Goldstein, Fabiano & Washington, 2005; Lonigan, 2006; Troia, 2004; Yeung, Siegel & Chan, 2013) and a contributor in numerous ways to learning to read (Ehri, 1994; Ehri et al., 2001; Morris, Bloodgood, Lomax & Perney, 2003). Literature regarding the benefits of PA are not limited to studies of early reading in English, but also include studies of children learning to read Arabic (Abu-Rabia, Share, & Mansour, 2003), Korean (Kim & Davis, 2004), Latvian (Sprugevica & Torleiv, 2003), and Spanish (Carrillo, 1994). Further, evidence points toward positive cross-linguistic transfer from first language PA to second language reading (Gottardo, Yan, Siegel, & Wade-Woolley, 2001; Gottardo, 2002; Yeung & Chan, 2013), and to strengthen learning outcomes in contexts where English is being learned as a

second or foreign language (Cheung et al, 2010, Johnson & Tweedie, 2010; Keung & Ho, 2009; Lesaux & Siegel, 2003; Stuart, 1999; Takeda, 2002; Yeung, Siegel & Chan, 2013).

Adult Readers and Phonemic Awareness

While the causal association between reading and PA has been strengthened over time (Dellicarpini, 2011), as Taylor (2008) observed, most of the literature available in the general area of phonological awareness has focused on children and adolescents, and this appears to be the case even more so with PA. Some contributions in this regard include Dellicarpini's (2011) study of adult ESL learners in the USA, and Durgunoglu and Oney's (2002) investigation of adult learners in Turkey. In both studies, positive effects of PA instruction for adult learners were demonstrated.

As illustrated by the studies above, the benefits of PA in reading acquisition appear well-established for children, in English and in other languages, and further research shows similar findings with adult learners. However, concerns have been expressed about the nature of controlled-vocabulary texts and how they tend to appear childish to beginning adult readers (McShane, 2005). In this regard, improving phonemic awareness skills may appear irrelevant to learners in the process of pursuing a university degree since they are interacting with academic text. Nonetheless, the researchers' decision to proceed was guided by the conviction that extending the focus of PA research to adult learners may have an advantage. An adult learner demographic may be able to utilize and learn from shorter periods of research treatment due to their more developed metacognitive skills (Taylor, 2008).

Conceptual Framework

The effective alignment between an IBC and its host nation depends heavily on the ability of the IBC to align its own programs to the needs of its surrounding region. In Qatar, for example, numerous IBCs have been established throughout the past decade to facilitate moving the nation towards "a knowledge based economy" (Pillars of Qatar's National Vision 2030). However, the long-term success and sustainability of an IBC, and any meaningful contributions it might make to its host nation, depends upon the alignment of the abilities of the local pre-tertiary education system's graduates, and the expectations of the foreign institution's branch campus. In Qatar, despite efforts to improve K-12 learning outcomes, published reports and literature question whether graduates' skills are sufficient for success within their state funded and regionally located IBCs (Stasz, Eide, & Martorell, 2007; Telafici, Martinnez, & Telafici, 2014).

Where such educational misalignments exist, it is essential that IBCs are able to identify and effectively address them, as they are potential threats to both student and institutional success. Currently, every IBC in Qatar has its own academic skills preparation program, a large component of which is language focused. This indicates that gaps exist between local K-12 graduates' language

competencies and those required by the IBCs. It is the responsibility of the IBCs to identify and address these language competency gaps which impede student success in their programs.

Constructive Alignment Theory

Constructive alignment theory (Biggs, 1996; Biggs & Tang, 2011) provides an effective pedagogical framework for developing and implementing educational efforts at IBCs intended to bridge student competency gaps. Biggs and Tang (2011) conceptualized a reiterative cycle of identifying intended learning outcomes (LOs), developing teaching and learning activities to achieve these outcomes, and evaluating evidence as to whether the outcomes have been attained.

The EAP program at the institution of the current study has articulated the following reading LO: students who complete the EAP program have the ability to identify, understand, and utilize key concepts and information in the reading materials in their initial nursing program courses. Ongoing efforts in developing and implementing effective learning activities for students, via both curricular and extra-curricular means, is intended to improve skills relevant to the LO. Evidence of students' reading ability is gathered, whether through EAP course assessments (e.g., assignments or exam results) or other means (e.g., focus groups with nursing instructors). Periodic review of this evidence informs future revisions of not only the teaching and learning aspect of the model, but potentially also changes to the learning outcomes, or how they are assessed. Greater alignment between the intended outcomes of the program, teaching and learning activities, and assessment methods can be achieved through each iteration of the model.

While this framework is typically discussed with regard to identifying and ensuring course, program, and institutional LOs are met, it can also be used to guide alignment efforts at a smaller scale, such as piloting alternative pedagogical techniques. Table 1 presents how this study utilizes this framework.

Table 1. Alignment Model for the Current Study

Pilot Learning Outcomes	Teaching and Learning Activities	Assessment
Improved vowel recognition in academic English text	Direct phonemic awareness instruction (online instructional reading program)	MVI pre- and post-test results
Improved ability to understand academic English text		C-test pre- and post-test results

Should assessment outcomes from the missing vowel identification (MVI) test and the C-test (a type of cloze test) pre-/post scores indicate direct PA

instruction contributed to significant improvements in the intended learning outcomes (improved vowel recognition and ability to understand academic text), this may warrant incorporating the technique in a larger scale, such as in EAP courses and/or through extra-curricular opportunities. As such, the technique would be incorporated into the teaching and learning component of the program-level version of the model (Table 1). Subsequent assessment efforts could further inform ongoing evaluation of the technique and its contribution to reducing the misalignment between the reading skills students come to the institution with, and those they need to be successful in the nursing program.

Purpose of the Research

The main purpose behind undertaking this study is to evaluate the effectiveness of employing direct phonemic awareness (PA) instructional methods and techniques to improve student vowel recognition and ability to comprehend academic English text. Improvements in this area may increase Arabic ELLs' understanding of academic text thus better preparing them for meeting the overall objectives of the nursing program. Previous research has indicated that the impact of direct PA instruction on the acquisition of children's phonemic awareness is large and significant (Ehri, Nunes, Stahl & Willows, 2001; Johnson & Tweedie, 2010; Scarborough, Ehri, Olson & Fowler, 1998; Stuart, 1999). There has also been evidence of improved student performance in overall reading ability with a concerted focus being placed upon direct PA instruction (Chiappe, Siegel & Gottardo, 2002; Takeda, 2002). If slight improvements can be realized in reading skills amongst a more mature learner demographic, the teacher-researchers of this study feel that alignment with regard to reading outcomes in the EAP program could be strengthened.

The Research Question

The research question for this investigation follows and extends from the rationale based in a previous study conducted by Taylor (2008). Whereas the Taylor (2008) study focused on orthographic and phonological awareness among native (L1) Arabic English as second language (ESL) learners, this present study focuses on the impact PA has on the ability to comprehend academic text amongst a similar linguistic target group of learners. This study's research question is as follows: Does direct phonemic awareness instruction assist primarily Arabic L1, adult EAP students preparing for studies in an English-medium nursing baccalaureate program in achieving a statistically significant gain in vowel recognition, and consequently the ability to comprehend academic English text?

Methods

This is a quantitative, quasi-experimental study of direct phonemic awareness instruction. Research ethics clearance for data collection was obtained through the institution's Research Ethics Board.

Participants

All 67 study participants involved in this study were students in the EAP program of a Canadian university's IBC in Doha, Qatar. Participants reflected a variety of demographic characteristics: 96% female; 21% between the ages of 17-24 years old, 69% 25-35, 6% 36-45, and 1% over 46 (3% did not provide an age range); all had been in the program 1 year or less. Participants' self-identified their first language as: Arabic (88%), Persian (4%), Somali (3%), and others (4%). Participants were evenly divided across the EAP program, with 29, 25, and 24 in Levels 1, 2, and 3, respectively. In total, 31 participants were in classes receiving treatment, and 36 in classes designated as control groups.

Measures

The teacher-researchers' choice of the two measures used for this study was influenced by previous studies. The first instrument (appendix A) was the MVI test (Ryan & Meara, 1991), conceived to evaluate the hypothesis that Arab ELLs rely heavily on consonant strings in reading English texts. Following the original study, the researchers randomly selected 100 General Service List (GSL) words (West, 1953), and deleted vowels from the 2nd, 4th, 6th and 8th positions of 15 words each. 40 words were presented without vowel deletions. Study participants were shown PowerPoint slides at 1-second intervals with the correct spelling, followed either by the same word with a deleted vowel, or the word again in its correct form (see Table 2, below). Participants were asked to indicate whether the second word presented was the same (S) or different (D) than the first word.33

Table 2. Missing Vowels Identification (MVI) Test – Examples of Presented Stimuli

Word (1st presented stimulus	**GSL Number**	**Vowel deletion**	**2nd presented stimulus**
determine	355	2nd position	dtermine
dependent	835	4th position	depndent
marriage	855	6th position	marrige
possible	175	8th position	possibl
attention	613	n/a	attention

The second instrument (appendix B) was a C-test developed with texts from the four levels of the EAP program. C-tests have demonstrated validity as instruments measuring global language ability (Babaii & Ansary,

2001;Connelly, 1997; Dornyei & Katon, 1992; Eckes & Grotjahn, 2006; Klein-Braley, 1997). Adhering to the principle of reduced redundancy (Babaii & Ansary, 2001; Klein-Braley, 1997; Spolsky, 1973), C-tests typically delete the second half of every second word in 4-6 authentic texts. Beginning with word two in the second sentence, test-takers are asked to supply the missing information, calling upon both previous linguistic knowledge and contextual clues, whether grammatical, phonological, collocational or others (Klein-Braley, 1997). The researchers followed Klein-Braley's (1997) suggested procedures for C-tests; extracts from the texts used are shown in Table 3.

Table 3. Example Extracts from C-tests

EAP program level	C-test extract
1	We are the children of Korphe. We live in a village in the mountains of Pakistan. Our fami____ grow a__ gather t__ food w_ eat. Our moth___ weave a__ sew t__ clothes w_ wear.
2	There is a constant need for new drugs. This i_ because th___ is _ lot w_ don't kn__ about hu___ biology, th___ are st___ many illn_____ we can___ cure, a__ new illn_____ appear a__ the ti__ while exis____ medicines lo__ their effect_____.
3	Nurses have a moral and ethical obligation to advocate for health and well-being on behalf of individual clients and for social justice on a broader level. In th___ role a_ advocates, nur___ must add____ systemic iss___ that opp____ marginalized gro___, which incl___ those liv___ in pove___, the elde___, people wi__ mental illn___, the home____, visible minor_____, children, a__ people wi__ disabilities.[i]
4	Most scientists agree that the main safety issues of genetically engineered crops involve not people but the environment. Allison Snow i_ a plant ecol_____ at t__ Ohio State University kn___ for h__ research o_ "gene flow," t__ natural move____ of pl___ genes fr__ one popul_____ of plants t_ another.

The C-test method was selected for a number of reasons. Numerous studies have found agreement between C-test results and various assessments of ELL listening, speaking, writing, and reading macro skills (for example, Connelly, 1997; Dornyei & Katona, 1992; Eckes & Grotjahn, 2006). Beyond those four macro-skills, research also indicates C-tests access competencies in: lexis (Babaii & Ansary, 2001; Eckes & Grotjahn, 2006); grammar (Babaii & Ansary, 2001); and language processing above, at, and below the sentence level (i.e., macro- and micro-processing) (Babaii & Ansary, 2001; Dornyei & Katona, 1992).

While the instrument does not give a differentiated estimate for any particular subskill involved in recreating the original texts, it does provide a composite index for text-related skills working in unison, including lower- and upper-level language processing. As understanding the passages of the instrument is necessary to reconstruct the altered texts, improvements in post-test results would be evidence of gains in participants' ability to comprehend English text. The intention was to use the MVI procedure as a more direct indicator of PA instruction's impact on vowel recognition abilities, while the C-test provided insights as to whether or not PA instruction led to gains in overall text understanding.

Treatment

At the beginning of the semester, both treatment and control groups received pre-tests of both measures. Both groups received regular curriculum instruction associated with their level of the EAP program. Additionally, treatment group students completed designated sections of Reading Horizons™, a commercially-available, online, direct phonemic awareness instruction program (Reading Horizons, 2014). Biggs (2003) observed the importance of selecting learning strategies that maximize student engagement. The Reading Horizons™ program was considered appropriate because of its "multisensory delivery method" (n.p.) that fosters an engaged and interactive learning experience.

At the end of a 10-week period, participants repeated the MVI and C-test measures. Pre- and post-test results were used to compare gains made by control and treatment groups, and thereby estimate whether the use of PA instruction led to significantly greater improvement on vowel recognition and ability to comprehend academic English text.

Data Analysis

For both the MVI and C-test procedures, analysis of covariance (ANCOVA) was used to test for a significant group effect on post-test results. ANCOVA is useful in situations involving pre-and post-test outcomes, particularly when random assignment to treatment and control groups is not possible, as it limits the influence of any pre-existing group differences (as indicated by pre-test scores, the covariate of the ANCOVA). The result is an estimate of group effect, while controlling for the influence of any pre-treatment group difference. Where a significant group effect was found, follow-up post-hoc analysis investigated the statistical significance of the group mean differences. Finally, partial eta squared (η_p^2) was used to assist interpretation regarding the size of any effect found to be statistically significant.

Results

Observed pre- and post-test means for treatment and control groups are reported for both instruments in Table 3. From the pre-test scores of both instruments we see a pre-existing group difference – mean results of the treatment group were higher than the control group before the treatment began.

This highlights the importance of the ANCOVA method in testing for a significant group effect, as it provides estimates of effect size while controlling for such pre-treatment differences.

Table 4. Means and Means Differences for Treatment and Control Groups on Both Instruments

		MVI			C-test		
	n	Pre-test	Post-test	Mean Difference	Pre-test	Post-test	Mean Difference
Treatment	31	87.90	90.97	3.07	44.54	54.61	10.07
Control	36	81.36	80.08	-1.28	38.86	46.53	7.67

Effect of direct Phonemic Awareness instruction on MVI results

Observed mean scores for the MVI post-test, as well as post-test means adjusted for pre-treatment differences between groups, are reported in Table 4. From the adjusted means, we see that participants who received direct phonemic instruction scored higher on the MVI post-test (M = 88.96) than those in the control group (M = 81.76).

Table 5. Observed and Adjusted Means for MVI Post-test Results, by Group

		Unadjusted		Adjusted	
Group	*n*	*M*	*SD*	*M*	*SE*
Treatment	30	90.967	6.133	88.956	1.498
Control	36	80.083	11.520	81.759	1.360
Difference		10.884		7.197	

A visual inspection of the scatterplot of pre- and post-test MVI results indicated a linear relationship between the two variables, a necessary precondition for analysis of covariance. An initial ANCOVA was conducted which included testing for a potential interaction between the dependent variable (group) and the covariate (MVI pre-test scores). The interaction term was not statistically significant, $F(1, 62) = .420$, $p = .936$. As such, this term was removed from the subsequent ANCOVA, results of which are reported in Table 6.

Table 6. ANCOVA and Post-hoc analysis for Group Effect on MVI Post-test

Source	*SS*	*df*	*MS*	*F*	*p*	η_p^2
MVI Pre-test (covariate)	1766.604	1	1852.414	28.041	.000	.308
Group (treatment/control)	752.896	1	1121.403	11.950	.001	.159
Error	3969.112	63	1766.604			
Total	484864.000	66	752.896			
Corrected Total	7673.939	65	63.002			
Post-hoc analysis	Mean difference	*SE*	p^a			
(Treatment-Control)	7.197	2.082	.001			

Note. a. adjustment for multiple comparisons: Bonferroni

Results of the ANCOVA suggest that, after adjusting for pre-intervention differences, a statistically significant group effect was found between MVI post-test results of participants in the treatment and control group, $F(1, 63) = 11.950$, $p < .001$. This indicates that students receiving direct PA instruction made significantly greater gains in vowel recognition skills (as measured by the MVI) than control group peers. Further, partial eta squared estimates for group effect ($\eta_p^2 = .159$) fall within the range Cohen (1988; Ellis, 2010) describes as indicating a large effect. As the analysis involves a single factor, η_p^2 values are essentially the same as eta squared (Richardson, 2011),and therefore, can be interpreted as the amount of variance in the dependent variable accounted for by variance in the predicting variable. As such, outcomes indicate that whether or not students received direct PA instruction accounted for approximately 16% of the variance observed in MVI post-test scores.

Effect of Direct Phonemic Awareness Instruction on C-test Results

Observed and adjusted post-test means for the C-test, for both treatment and control groups, are reported in Table 6. From the adjusted means, we see that participants who received direct phonemic instruction scored higher on the C-test post-test ($M = 52.57$) than those in the control group ($M = 48.29$).

Table 7. Observed and Adjusted Means for C-test Post-test Results, by Group

		Unadjusted		Adjusted	
Group	n	M	SD	M	SE
Treatment	36	54.61	11.26	52.57	1.55
Control	31	46.53	13.37	48.29	1.44
Difference		8.08		4.28	

A scatterplot of results confirmed a linear relationship between pre- and post-test scores for both the treatment and control groups, a pre-requisite for analysis of covariance. An initial ANCOVA, conducted to test for a possible interaction between group and C-test post-scores, found the interaction term was not significant, $F(1, 63) = .045$, $p = .832$. This term was subsequently removed and the ANCOVA rerun, results of which are reported in Table 7.

Table 8. ANCOVA and Post-hoc Analysis for Group Effect on C-test Post-test

Source	*SS*	*df*	*MS*	*F*	*p*	η_p^2
MVI Pre-test (covariate)	5415.979	1	5415.979	74.569	.000	.538
Group (treatment/control)	291.464	1	291.464	4.013	.049	.059
Error	4648.348	64	72.630			
Total	180458.000	67				
Corrected Total	11153.164	66				

Post-hoc analysis	Mean difference	*SE*	*p*[a]
(Treatment-Control)	4.28	2.13	.05

Note. a. adjustment for multiple comparisons: Bonferroni

Results of the ANCOVA suggest that, after adjusting for pre-intervention differences, a statistically significant difference existed between the C-test post-test results of participants in the treatment and control groups $F(1, 64) = 4.01$, $p < .05$. This indicates that students receiving direct PA instruction made significantly greater gains in skills that allowed them to understand and reconstruct the altered texts of the C-tests. Partial eta squared estimates for group effect ($\eta_p^2 = .059$) are at the lower end of the range Cohen (1988; Ellis, 2010) describes as suggesting a moderate effect. As the model only involves a single predictor, this η_p^2 value suggests that whether students received direct PA instruction or not accounted for approximately 6% of the variance observed in C-test post-test outcomes.

Results suggest direct phonemic instruction lead not only to substantial gains in vowel recognition skills, but also to moderate gains in skills allowing ELLs to navigate and reconstruct the altered and predominantly academic texts of the C-test. Both outcomes would seem to support the position that direct PA instruction may help improve the institution's EAP students' abilities in navigating and comprehending academic English text. The implications of these findings appear to support the use of constructive alignment theory as a guide for examining the effectiveness of piloting alternative pedagogical techniques that enhance students' learning outcomes in this context.

Discussion and Conclusion

While this study is not without its limitations, discussed at relevant points throughout this section, the findings bear potentially important implications for a number of stakeholders. These include the EAP program at the host institution, institutions in a similar context and/or working with students from Arabic

language backgrounds, and for (applied) linguists interested in orthographic and phonological issues, particularly amongst Arabic L1 ELLs.

Results of the pilot indicate ten hours of direct PA instruction, over a ten-week period, led to substantial gains in vowel recognition and moderate gains in ability to comprehend academic English text. This is evidence that PA instruction may be a valuable tool in addressing the top language-related competency gap identified in a recent needs analysis at the institution – difficulties ELL students demonstrate in understanding academic nursing text. However, as with any pilot study, there are important caveats to consider as well.

A common concern in educational research, including this investigation, is the difficulties faced in isolating variables and, as a result, interpreting causality. Was it the phonemic awareness instruction that led to the increased effect size in global language skills, or could this be accounted for by the fact that treatment participants spent one more hour per week practicing English in general through the Reading Horizons™ program?

In addition, factors related to the nature of the institutional program under study need to be considered: the single faculty subject area (EAP students preparing for a Nursing program) from which participants were drawn may limit generalizations to students in other programs; and participant gender distribution (96% female). Future research might attempt to validate these findings across a wider range of post-secondary majors, and more balanced gender sampling.

Furthermore, the researchers acknowledge the potential conflict inherent in their dual roles as observers and participants as the research team served as instructors either of treatment or control group classes. However, post-positivist critiques of the interrelationship between research and researcher informed the study. Such an approach values the fact that the researcher is part of the environment being researched (Cohen, Manion, & Morrison, 2007).

Another issue, not addressed in the current study, is whether or not the concern regarding potential frustration or resentment adult learners might feel towards direct PA tuition, perhaps perceiving it as 'childish', for example. This is something future research should address, as it potentially impacts both the perception of the method by students and its usefulness.

While important, these limitations must be viewed within the larger context of the institution. Students being able to read, understand, and utilize information in the course readings encountered in the nursing program is an identified learning outcome of the EAP program. However, a recent needs analysis clearly establishes there is an ongoing competency gap in this skill area amongst EAP graduates. In reference to developing constructive alignment in a nursing skills curriculum, Joseph and Juwah (2012) observed the value of working "backwards" in determining that an appropriate "end point" has been achieved (p. 53). In this context, student difficulty in navigating and comprehending course academic texts was identified as the main language-related barrier to student success. As such, innovative teaching and learning methods that could help reduce this competency gap were very much in need.

Should fellow EAP instructors at the institution find the outcomes of the pilot compelling, the next step in the program's curriculum development model would be to incorporate direct PA tuition (whether through Reading Horizons™ or through some other form) as part of the curricula of one or more courses, or throughout the entire program. This would mean future and ongoing assessment efforts could provide more data and insights into the effectiveness of the method, with larger participant numbers and modified methodology intended to address the caveats above.

Future outcomes related to improved text understanding due to direct PA instruction, would certainly be of interest to any institutions or educators serving a group of predominantly Arabic L1 ELLs. Considering the number of IBCs in the Middle East, and academic institutions in other nations which accept and serve students with Arabic language backgrounds, there is clearly a need for methods that can help address the issues encountered by these learners when navigating through English academic text. There may also be implications for assisting those from language backgrounds other than Arabic, but whose L1 writing method similarly leads to the 'skipping' of vowels or other aspects of written English.

Outcomes from the current study contribute to the literature focusing on lower-level aspects of reading (such as vowel recognition, and as opposed to higher-level factors, such as cultural knowledge) in attempting to account for Arabic L1 students' difficulties reading in English. Results would seem to support Hayes-Harb's (2006) contention that lower level processing issues, particularly 'skipping' vowels (Hayes-Harb, 2006; Ryan & Meara, 1991) is a root impediment to understanding academic English text. Not only did direct PA instruction appear to significantly, and substantially, improve students' vowel recognition in English text, it also resulted in improved outcomes on C-tests, an instrument requiring the ability to both understand and reconstruct academic English text. Additionally, this research contributes to a very limited number of studies investigating the effectiveness of PA instruction with adult learners. Results would seem to support findings from previous research that adult ELLs' reading skills are enhanced by direct PA instruction (DelliCarpini, 2011; Durgunoglu & Orney, 2002).

The findings of this investigation indicate that direct instruction in phonemic awareness lead to substantial gains in vowel recognition and a moderate increase in ability to comprehend academic text amongst a sample of predominantly Arabic L1, adult English Language Learners (ELLs). Overall, results of this study suggest that direct instruction in phonemic awareness may be a helpful strategy in initiating a better understanding of university-level texts for learners of English.

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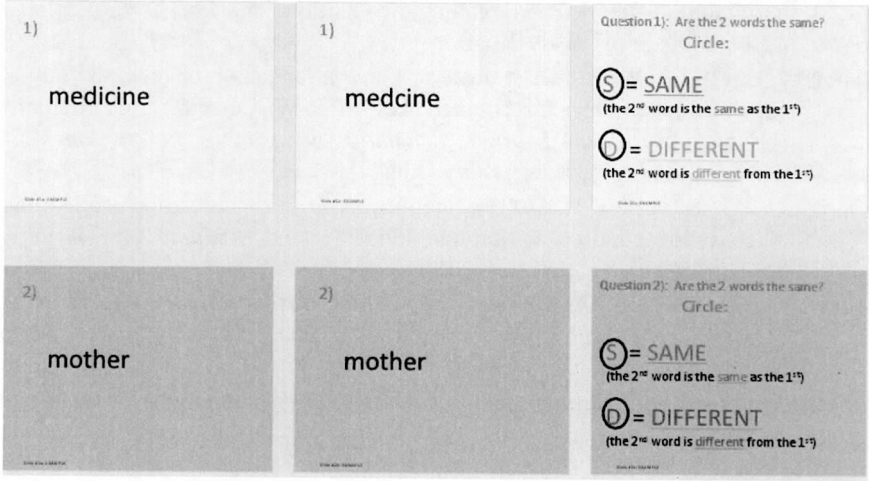
APPENDICES

APPENDIX A: The Invisible Vowel Test

The following screen shots offer proposed student instructions and examples from the invisible vowel test PowerPoint slides:



APPENDIX B: The Standardized C-test

Circle the information that is relevant for you in the box below:

In each reading section of the test, some letters are missing from some of the words. Use the information in the text to help you fill in the missing letters and complete the words. For example:

Male / Female Age range: 17-24 25-35 36-45 46 and over

EAP LEVEL: 1 2 3 4 First language: _____

Your program: BNRT PDBN Other: _____

Number of years in the EAP Program: less than one / one / two / three

There a__ many tr___ in t__ forest.

There are many trees in the forest.

If there is only a blank space (___), the word is one letter long.

If the word is more than one letter long, about half of the letters will be missing. So, the number of letters you add should be about the same as the number of letters you can see. For example, if you see lit___, there are three letters before the blank. Therefore, your answer should be 3 or 4 letters long as well. So:

lit___ could be little, or litter, or litters

but not lite (too short) orliterature (too long).

If you have any questions, ask the instructor.

You have **20 minutes** to complete the test. Make sure you **complete all 4 texts**.

You have **20 minutes** to complete the test. Make sure you **complete all 4 texts**.

Text 1

We are the children of Korphe. We live in a village in the mountains of Pakistan. Our fami____ grow a__ gather t__ food w_ eat. Our moth___ weave a__ sew t__ clothes w_ wear. W_ make o__ own gam__ and to__. We re__ books, a__ we wri__ with o__ pencils. W_

study i_ the sch___ that w_ helped t_ build. Bef___ our sch___ was bu___, we h__ to study outside.

Text 2

There is a constant need for new drugs. This i_ because th___ is _ lot w_ don't kn__ about hu___ biology, th___ are st___ many illn_____ we can___ cure, a__ new illn_____ appear a__ the ti__ while exis____ medicines lo__ their effect_____. New dr___ are tes___ on ani____, but bec____ animals' bod___ work differ_____ from ou__, if _ drug wo___ on a caged rat, it does not mean that it will do the same for a human being.

Text 3

Nurses have a moral and ethical obligation to advocate for health and well-being on behalf of individual clients and for social justice on a broader level. In th___ role a_ advocates, nur___ must add____ systemic iss___ that opp____ marginalized gro___, which incl___ those liv___ in pove___, the elde___,

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Book Review

The Resilient Nurse: Empowering Your Practice

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The authors present an excellent resource for nursing students, nursing educators and nurses in clinical practice to enhance resiliency strategies in preparation for facing challenging situations in the healthcare environment within the context of nursing practice. The purpose of the book is to provide a guide in fostering and building resilience by developing capabilities that promote "strong, determined, enthusiastic, and effective responses when facing adversity, challenges, hardships, and disappointments" (p.xiv). The goal is to help empower nursing students (and nurses) to take decisive action, "...implementing changes that will moderate the impact of stress and adversity on workers' lives" (p.15).

McAllister and Lowe have defined resilience as "a process of adapting to adversity that can be developed and learned" (p. 6) and as such have structured their book in sections to help the reader and nursing student develop and foster resiliency qualities and strategies. There are twelve chapters that utilize case studies, storytelling, analysis of content in relation to the case studies, and reflective learning activities to develop greater insight into the role that resilience plays in our personal and professional experiences. The authors discuss how all of these dimensions are essential to nursing practice. They clearly identify numerous issues affecting workplace culture, satisfaction, and retention in nursing all related to stressors that nurses encounter on a daily basis in the healthcare environment.

Research identified in the text indicates that nursing attrition is significant within the first year of a nurse's career (up to 27% in the US and Australia) related to loss of university/college support networks, lack of workplace support, work pressure, harassment, exposure to violence, traumatic events, interpersonal conflict, bullying, and intimidation. McAllister and Lowe identify that the greatest source of stress comes from the workplace culture and colleagues themselves through horizontal violence rather than the situational or traumatic crises that we may face. Horizontal violence is defined as "nonphysical intra-group conflict that is manifested in overt or covert behaviours of hostility" (p. 169) in response to workplace stress and feelings of powerlessness and perceived inability to resolve tension or problems directly. Reference is made to the nursing literature that corroborates the importance of recognizing and ending horizontal workplace violence and to research that has been and is being conducted to reduce the impact of workplace stressors from a nursing context. The concept of resilience is woven clearly throughout all chapters to allow for integration of strategies that would help alleviate or moderate responses to horizontal conflict/violence. Building professional

relationships, being positive, developing emotional insight, achieving life balance, becoming more reflective, identifying risk factors and protective factors in response to stressors, sharing experiences, praising success, promoting feelings of pride, being a good role model, and utilizing leadership techniques are resilience strategies outlined in chapter one and which remain common themes throughout the book.

The concept of resilience for the new nursing graduate is discussed from a variety of authors' perspectives. A majority of contributors are from Australia while others hail from the UK, Canada, Georgia, and the United States providing a Western perspective related to the concept of resiliency in nursing practice. All 19 authors are scholars from colleges of public health, schools of nursing and midwifery, as well as from faculties of the arts, social sciences, education, sciences, psychology and counselling. Each contributing author (or group of authors) has utilized extensive reference sources in their writing and in their associated chapter reference lists to ensure credibility of the information being shared. It is important to note, the significance of resilience in nursing students and for educators who are in optimal positions to help develop resiliency in nursing students is not clearly identified or discussed.

Throughout the text, the contributors do not make any direct reference to the stressors associated with nursing students' academic or clinical experiences and the importance of developing resilience within those contexts. They only outline the potential stressors and issues nursing students might face in the healthcare environment following graduation. There is no direct reference to nursing student current coping strategies, potentially immature coping abilities, or lack of experience managing conflict situations. The authors have alluded to nursing students being unprepared to deal with the emotional and physical demands of healthcare environments through various vignettes but have only discussed the positive or effective ways of managing these types of situations.

McAllister, Lowe, and the contributing scholars have not clearly identified previous coping strategies, current life stressors, university-based stressors, or cultural-based/values stressors and how to work through those issues in relation to developing resiliency in the nursing student population. According to Jackson, et al. (2011), "relatively little empirical work has examined the experiences of undergraduate nursing students in the context of negative workplace cultures, and even fewer studies have explored how students develop and enact strategies to counter hostile behaviours in the clinical workplace (p. 102)." The authors' of the *Resilient Nurse: Empowering Your Practice* have missed this important concept in their discussions regarding resiliency development for nursing students', instead their main focus is on the new graduate and building resiliency throughout their careers.

Overall, this book provided a background for the importance of resiliency development for nursing graduates and how to foster the continued growth of resilience throughout our careers. Learning activities at the end of each chapter could be used by educators/readers to enhance critical reflections, integrate resiliency strategies, identify protective/adaptive capacities, and to

identify resources or alternatives to ensure ongoing resiliency growth and support for oneself and one's colleagues in relation to nursing workplace challenges and perceived stressors.

As a nursing faculty member and a nursing professional for over 20 years I can relate to the issue of enhancing resiliency in the nursing workforce. Developing teaching and learning strategies in nursing programs that address resiliency strategies will contribute to empowerment, personal satisfaction and self-care, effective leadership, support for colleagues, and hope and vision for the future as we learn from situations and utilize resiliency strategies to manage adverse events in the workplace. The authors indicate that this resiliency may also effectively change current horizontal violence workplace cultures.

After reading this text there are a number of educational interventions that I can utilize in my nursing course offerings to enhance personal resilience in nursing students and potentially reduce the negative effects of future workplace adversity. Having students develop an initial understanding of what resiliency is, how it is impacted by situational stressors, and what resilient behaviours can be utilized to counteract adversity would facilitate personal growth and awareness and provide a solid foundation for future reflection and action. In addition, having students step out of their comfort zone and challenge their ideas is one of the steps involved in fostering resilience (p. 17). Integrating storytelling as a teaching strategy is also encouraged as the editors have clearly indicated that it is the power of storytelling and being able to recall the story and its associated learning that is most important to remembering concepts concerning resiliency.

Case studies and storytelling can be used in an experiential learning format to encourage 1) critical thinking, 2) the freedom to ask questions, 3) the resources on which to search for and utilize evidence-based resources, 4) the confidence to reflect on those enquiries, and 5) the ability to develop plans for action individually and in group formats will also contribute to the building of resiliency strategies in the nursing student population. Continuing to nurture relationships and networks through group based activities while encouraging novice nursing students' interactions with seasoned nurses (in clinical and in theory based courses) should extend the concept of a 'collegial culture' beyond the university environment into the clinical-based environment (p. 117-118). Fostering these relationships should allow for ongoing development of professional networks and support systems to help ease the transition into the workplace environment. I look forward to being a proactive advocate for resiliency in nursing educational settings; the strategies proposed by the authors provide a solid foundation on which to further enhance my academic instruction.

Disclaimer: The author has disclosed that she has no significant relationships with, or financial interest in, any commercial companies pertaining to this review.

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About the Book:
McAllister, M. & Lowe, J.B. (2011). The resilient nurse: Empowering your practice. New York, NY: Springer Publishing Company. ISBN 978-0826105936

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BOOK REVIEW
Teaching and Learning in the Arab World

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The book Teaching and Learning in the Arab World is a compilation of 21 papers representing completed research from the Arab Gulf region. The editor, Christina Gitsaki, was the UNESCO Chair in Applied Research in Education at the Sharjah Colleges of Technology at the time of publication. The book was compiled as an attempt to increase the number of published studies on education, teaching, and learning in the Arab region. This effort was due in part to concerns raised in the 2009 Arab Knowledge Report by the United Nations Development Program (as cited in Gitsaki, 2011) regarding the state of education in Arab countries. The purpose of the book is to provide an overview of some of the challenges and issues that have arisen in the Arab Gulf region as a result of the fast-paced educational reforms that have been implemented.

It is important to note that, while the title refers to "the Arab World", the focus of all but one paper is education in the Gulf Cooperation Council (GCC) Arab counties. This affects the generalizations that can be drawn from the findings as the Arab world is a vast region inclusive of countries in Africa, the Mediterranean, Iran, Iraq, Syria, Yemen, in addition to the GCC countries of the United Arab Emirates, Saudi Arabia, Qatar, Kuwait, Bahrain and Oman. In fact, in chapter 16, "Teaching in the Arabian Gulf: Arguments for the Deconstruction of the Current Educational Model", we learn that, due to different influences, the education model of the GCC countries developed quite differently from the rest of Arab countries from the mid-twentieth century onwards, the post-colonial times for Independent GCC Arab nation states. In short, although the title of the book uses the general title of the Arab World, the papers included in the book reflect a reality specific to teaching and learning in the GCC Arabian region.

The book is divided in three parts entitled "Current Practices and Challenges in Teaching and Learning in the Arab World", "Educational Reforms in the Arabian Gulf", and "New Approaches to Teaching and Learning in the Arab World". Interestingly, the only study conducted in a non-Gulf country, Palestine, is included in the section "Educational Reforms in the Arabian Gulf". Placement of this chapter under this section does not seem fitting. However, the inclusion of this chapter provides a good example of successful novel techniques used in early education teacher training. The book would also be strengthened if the section on educational reforms had been presented first as the chapters in this section provide the necessary background to understand the challenges and the current teaching and learning practices faced in education in the Arabian Gulf region.

Overall, the topics covered in the papers are quite varied and include elementary, secondary and tertiary education. Chapters focused on elementary

and secondary education report on teacher training initiatives, often in a bilingual environment. From these, the reader can acquire an understanding of the heavy reliance on traditional teaching practices in the GCC, and of the clear need for teacher training. At the same time, the importance of reforms dictating that elementary and secondary education should be bilingual and the resulting struggles of L2 teachers (teachers whose first language is not English, but are required to teach in English) are highlighted.

In the chapters related to tertiary education, various themes emphasize the challenges teachers face in this context, including institutional support for implementing new approaches. Some of these challenges are topics of current scholarly debates in the field of international education, such as the suitability of implementing imported curriculum, methods, and materials in an Arab setting. The educational implications of importing a foreign curriculum are potentially related to social, cultural, political, and religion content, or discussions that may not be appropriate or appreciated in the GCC region. Further chapters explore issues related to critical thinking, learning strategies, and motivational issues, especially for male students. Significantly, five chapters in the book are related to teaching English as a Foreign Language (EFL) students. These chapters highlight the fact that students in the region are foreign language learners who continue to face linguistic challenges even after having completed foundational EFL courses. One such challenge mentioned is the ability of students to clearly express themselves in written assignments.

The chapters I found the most interesting were two that gave historical accounts of education in Arab countries. First, chapter 16, "Teaching in the Arabian Gulf: Arguments for the Deconstruction of the Current Educational Model", gave an insightful historical background to Islam and education. The authors also explain some of the socio-political and socio-cultural variables that have influenced the development of education, specifically in the GCC, and how these pose challenges in implementing Western educational models. Second, as I am based in Qatar, I found chapter 11, "The Rush to Educate: A Discussion of the Elephant in the Room", particularly insightful as it explains the educational reforms that have happened here since the implementation of the first Ministry of Education in 1950. The historical perspective demonstrating the impact of religion and culture on teaching and learning provided a framework to understand my students in this context. I have a better understanding of the roles of religion and culture that influence who my students are as higher education learners today.

I recommend this book for teachers who are interested in teaching in the Arabian Gulf or those who are new to the region. I also recommend this book to scholars of international education as this region is underrepresented in the field of published studies. Further research on teaching and learning in the Arab world, including the GCC region, is needed at all levels of education.

After reading the book, I was left contemplating how rapidly education has been evolving in the GCC region. There is, at the same time, a great devotion to teaching, learning, and research in this part of the world. Education is developing as quickly as all other spheres of life here, and students and

teachers alike are adapting to these changes. Teaching and learning in the Gulf region is complex and dynamic, making it an exciting place to teach.

Gitsaki, C. (Ed.). (2011). Teaching and Learning in the Arab World (2011). Bern: Peter Lang.

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MANUSCRIPT GUIDELINES

1. Submissions in either English or French are welcome.
2. Manuscripts should conform to the guidelines set out in the *Publication Manual of the American Psychological Association* (*APA*, 2010, 6th ed.)
3. Manuscripts should not exceed 5,000 words and must include an abstract of 100-150 words.
4. The manuscript title should be shown on the first page only. The name(s) of the author(s), address(es), email(s), and affiliation(s) should be on a separate sheet. Electronic submission is preferred.
5. Manuscripts are accepted for consideration on the understanding that the material is original and is not under consideration for publication elsewhere. All manuscripts will be subject to review by a panel of jurors.
6. If tables or figures are to be included, they must be submitted in electronic copy, formatted with two-inch (2") margins left and right. (For extensive graphics or photographs, camera-ready copy may be required).
7. If notes to the text are required, they must be included as Endnotes, and NOT Footnotes. The use of extensive notes is not encouraged.

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