

EVALUATION OF HIGHER NURSING EDUCATION IN BOSNIA AND
HERZEGOVINA: OPENING A GLOBAL NURSING EDUCATION

By

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Translating Evidence into Nursing Practice Project

Submitted to the Faculty of the

Division of Graduate Nursing in the School of Nursing
and the Graduate School at Indiana Wesleyan University
in partial fulfillment of the requirement for the degree of

Doctor of Nursing Practice

May 2016

Acknowledgements

First and foremost I would like to thank my wonderful, kind, and knowledgeable faculty: Dr. Terry Neal, Dr. Amy Anderson, and Dr. Leanne Hawkins for their support and guidance they provided during my doctoral studies. Your constructive criticism and expert feedback has been greatly appreciated. I would especially like to thank Dr. Leanne Hawkins for her ever-present positive reinforcement, kind remarks, and above all professional expertise she has shared with me. Thank you for letting me vent at times! Furthermore, I would like to thank my academic advisor Dr. Lori Rubio for taking time out of her busy schedule to look at my work.

To my husband, thank you for being there for me, believing in me, and being a pillar I can lean on. This would not have been possible without you. To my sister, for being my children's second mother when I could not be there for them. To my children, thank you for your patience. I hope this experience gives you an understanding of the importance of education.

Lastly, I would like to thank God for putting me on this path. Thank you for believing in me and entrusting me with this enormous responsibility.

Abstract

Baccalaureate and master's nursing education in Bosnia and Herzegovina (BH) is in its infancy. Like many ex-socialist countries BH is struggling to develop and implement nursing programs that are similar to western (primarily European) guidelines. World Health Organization (WHO) developed standards for initial nursing and midwifery nursing education with the intent to streamline and delineate minimal requirements of nursing education that will ensure patient safety and the best possible outcomes. This project compared nursing programs in BH and the Commonwealth of Kentucky (similar in size and population) in order to evaluate the newly designed programs in BH and determine congruency with WHO standards. The project revealed that nursing graduates in BH are clinically strong, but lack nursing theory and management courses. Lack of doctorally-prepared nursing faculty and lack of clinical hours is evident and does not meet with WHO standards.

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Evaluation of Higher Nursing Education in Bosnia and Herzegovina:
Opening a Global Nursing Education Dialogue

Chapter I: Introduction

World Health Organization (WHO) global nursing education standards mandate post-secondary nursing education. Providing international and global support from one nursing milieu to another enriches nursing practice at a global level and streamlines quality of nursing practice provided to the worldwide nursing population. Only 10% of nurses in Bosnia and Herzegovina (BH) have post-secondary education. Baccalaureate nursing education is fairly new, with the first baccalaureate nursing program opening in 2002.

Background

In most European countries, 12 years of education and the minimal age of 18 are necessary for entry into the nursing program. Fleming and Holmes (2005) report that most of the eastern European nations still have nursing programs at the high school level where the age of entry is 14 years and, due to other mandatory high school classes needed, not enough attention is paid to the nursing core curriculum or practicum hours. According to the same report, surveys have been sent to all European countries regarding nursing and midwifery programs available. The survey revealed that eastern European countries responded negatively at 35% when asked if high school education is mandatory for entrance into the nursing program compared to only 13% of the western European countries. This indicates that there are still many countries in Eastern Europe where entry level (novice) nurses can be as young as 18 to 19 years old and there is no college education necessary for the entry position and state board examination (Fleming & Holes,

2005). This fact, however, is changing, based on the WHO push to establish global standards for initial nursing education and the attempt of many eastern European countries to have similar standards as the European Union (EU), thus making their chances for entrance into the European Union higher. BH is one of the eastern European countries that have changed legislation on nursing education in the past decade in an attempt to meet the standards set forth by WHO global standards for the initial education of professional nurses and midwives.

BH is a small country nestled on the west side of the Balkan Peninsula in southeast Europe (Central Intelligence Agency, 2014). It is flanked by Croatia on the west and north and Serbia and Montenegro on the east (Central Intelligence Agency, 2014). The population of this country is 3.8 million, based on the 2013 census; total area is 51,197 square kilometers, which compares to being slightly smaller than West Virginia in the United States (US) (Central Intelligence Agency, 2014). Even though this country is relatively small and is considered by many to be a third-world country, literacy rates are at 98% and a lot of emphasis is placed on education (Central Intelligence Agency, 2014). Although academia in BH has a large number of accredited university programs, higher nursing education on all three levels – baccalaureate, master's and doctorate – is still in its infancy.

Although steps are being made toward strengthening higher nursing education in BH, only 10% of the Bosnian nursing force has post-secondary education (Fondacija Fami, 2014). Fondacija Fami (2014) conducted a survey of eight public universities offering either three or four years of post-secondary nursing education in order to establish what levels of post-secondary nursing education they are offering, what the

length of the study is, the degrees earned after graduation, number of enrolled students, number of graduates, and information regarding faculty qualifications. The first university nursing program was founded in Sarajevo in 2002. Since then, besides these eight public nursing universities, many private universities have started offering baccalaureate nursing degrees (Fondacija Fami, 2014).

WHO global standards for the initial education of professional nurses and midwives recommend: nursing education should be holistic; graduates should have 4,600 hours of education (theory and practice combined); curriculum should meet national and international educational criteria; and academic faculty should consist of nurses who demonstrate knowledge as educators and have a minimum of a baccalaureate degree (Girardet, ed., 2009). Although many of the schools are following the WHO guidelines for necessary contact hours and curriculum design, there are still a lot of disparities regarding the length of studies and the official title that the graduate will obtain at graduation. One of the biggest disparities between WHO global standards and higher nursing education in Bosnia are faculty qualifications. In these areas, there are only a few master's level programs offered and not a single doctoral of nursing program being offered. University faculty are currently required to have a master's and doctoral level of education for the rank of associate professor or professor, respectively. A great majority of higher nursing programs professors are medical doctors and not nurses by practice. Doctors are teaching nurses instead of nurses teaching nurses.

All of the schools have a curriculum based on the Bologna education system, established and approved by the European higher education council in 2003, that streamlines the academic leveling of higher education in Europe, making transfer of

credits from one university to another much easier. The Bologna education system has three cycles: the first cycle has 180-240 European credit transfer and accumulation system (ECTS) points and is the equivalent of the baccalaureate degree with the length of study being three to four years; the second cycle is 90-120 ECTS points and is the equivalent to the master's degree with the length of study being one to two years; and the third cycle which is at the doctoral level can be three to four years long but does not have a determined number of ECTS points (Council of Europe, 2014). One academic year is equivalent to 60 ECTS points or 1,500 – 1,800 hours of study.

This project compared and contrasted higher nursing education between BH and the Commonwealth of Kentucky in the US. Conducting this evaluation attempted to identify gaps and propose areas of improvement for nursing education in BH that could enable local legislature in creating a project or a program for online doctoral nursing programs, and/or cooperation between foreign universities and Bosnian universities in assimilating more nurses into nurse educator roles. Furthermore, this project evaluated congruence of baccalaureate nursing programs in BH to WHO global nursing education standards. The project was conducted over the past 12 months when a comparison between two nursing education platforms was performed. This project also collected data in the form of surveys from the nurse educators in Bosnia regarding their level of education, skill set, continuing education required hours, and their level of satisfaction with the current curriculum available to students in Bosnia. Based on the collected data, this project attempted to determine what the next best steps would be to “bridge the gap” in establishing nursing education on the university level that is taught to nurses by nurses and that will deliver quality nursing graduates at a level satisfactory to WHO guidelines.

SWOT and Gap analysis

Strengths

Strengths of this project are multifaceted. As a graduate of nursing programs in both the US and BH, the investigator of this study has insight into nursing environments in both countries. Furthermore, the investigator is able to speak and read the Bosnian language, making communication with nursing faculty in BH clear and simple without the need for translation of documents written in Bosnian.

Projects like this will benefit both countries: The US will learn about gaps in nursing education abroad and understand the knowledge base of nurses coming to the US who are educated in BH, and BH will have the opportunity to change nursing education guidelines based on the results of the comparative project.

Weaknesses

The main weakness of this project is the fact that the investigator has been out of the country of Bosnia for more than a decade and has not practiced nursing or been involved in nursing education in BH for more than 15 years. Another significant weakness is the distance between the two countries, therefore, there is no direct contact with the nurse educators in BH and all communication has to be conducted through email, Skype™ or phone calls. Furthermore, due to such a stark difference between the two educational systems, creating a clear pathway or plan for goal achievement for this program is difficult at best.

Opportunities

The greatest opportunity for the investigator is the possibility of expanding the network of healthcare professionals and establishing new professional relationships with the

potential for collaboration in the future. The opportunity for reader of this project is the opportunity of expanding the knowledge base in global nursing and issues in global nursing and being exposed to the non-western based nursing approaches.

Threats

Considering that the investigator has not been practicing nursing in BH for more than a decade, the investigator could be perceived as an “outsider” and Bosnian educators may not be willing to share their insight. This project may be perceived as a threat to “their way” of practicing nursing education. Furthermore, physicians that are professors may not accept insight regarding nursing education improvement from a “nurse.” Another very important threat to a project like this one could be financial restraints that are present within state-owned educational institutions in BH.

Gap analysis

Strategic objective	Current standing	Deficiency	Action plan
1. Compare and contrast higher nursing education between Bosnia and Herzegovina (BH) and the United States (US)	Conducted world wide web search for documents regarding higher nursing education in BH	Not enough information on line Did not conduct research on US higher nursing education	<ul style="list-style-type: none"> - Spoke with two nursing educators so far. - Will create a survey regarding nurse educators practice - Print the BH law regarding nursing education
2. Identify gaps and barriers to obtain a higher nursing degree in BH	Some gaps already identified (no Ph.D. or DNP programs, most of professors are MD's, not nurses etc.)	Not all gaps identified and not explored to its extent	<ul style="list-style-type: none"> - Online search of all BH higher education nursing schools to find DNP or Ph.D.-prepared nurses. - Ph.D. Any Doctorate programs in preparation? - Credentialing of these schools?
3. Suggest ways to rectify the gap	Grants for nurses to finish doctorate degrees abroad? Collaborations between US and BH colleges?	Not explored yet	<ul style="list-style-type: none"> - Grant proposals? - Any grants available to these nurses now? - Any collaboration with US colleges now? - If not, why not? - How does one start/suggest collaboration?
4. Lessons learned that could give insight to other programs struggling with similar issues	Not addressed yet – will depend on the findings	Not addressed yet – will depend on the findings	Not addressed yet – will depend on the findings
5. Potential global impact of changes in nursing education in BH	Not addressed yet – will depend on the findings	Not addressed yet – will depend on the findings	Not addressed yet – will depend on the findings

Theoretical Framework

Science council (2009) gives the definition of science as the “pursuit and application of knowledge and understanding of the natural and social world following a systematic methodology based on evidence.” Systematic knowledge is obtained by activities that collect empirical data that generate and/or test theories. According to Fawcett (2013) this same process is applied in nursing science, both in nursing theory development and in nursing research. Even though this particular project will most likely not result in a new theory development, the project will apply previously developed theories to higher nursing education. BH nursing research is still in its infancy. All research conducted by nurses is clinical in nature and theory development is almost non-existent. This researcher, so far, has been unable to locate any theoretical underpinnings or theory research, application or development evidence in online databases. Since the higher nursing education concept is relatively new in BH, all efforts are being made to create programs that follow WHO global standards for the initial education of professional nurses and midwives. According to WHO guidelines, “nursing programs provide core content in nursing theory, practice, interventions, and scope of practice” (Girardet, ed., 2009, p.25). Therefore, nursing theory should be applied and interwoven throughout the nursing program if the nursing educational institution is attempting to comply with WHO guidelines. In contrast, in the US, according to Fawcett (2013), nursing research has increased in quantity and quality, even though Fawcett argues that many nursing research studies submitted have used non-nursing frameworks. Nursing schools have programs that are based on nursing theorists’ underpinnings and science in

nursing and are viewed from more than one worldview. This is obviously not the case in BH.

Considering the cultural differences that exist between the two nations, it is expected that the view on what constitutes nursing science will be different. It is important to note that even in the US, nursing science is viewed differently from different theoretical views. According to Ketefian and Redman (2013), how we develop our knowledge base and how we conduct research is influenced by our cultural background and values. Nursing theory and research coming from the US is generally highly regarded and many countries look at nursing science evolution in the US in the attempt to replicate or develop similar schools of thought within their nursing community. The university in northeast BH is one institution that is successfully applying scientific methods of knowledge into its baccalaureate of nursing curriculum in the very first course “Introduction to Medicine” (Medicinski Fakultet: Odsjek Zdravstvenih Studija, 2013). The course description includes medical ethics, describes what could be translated into ethical principles, deontology, and basic research development in nursing. It is important to note that even though the course discusses ethical principles and research development in nursing, the course is not called “Introduction to Nursing” but “Introduction to Medicine.” Furthermore, when reading their curriculum for baccalaureate level education, it is immediately noted that the curriculum is far more clinical than theoretical, where emphasis is placed on clinical science of internal medicine, emergency medicine, epidemiology, and other clinical courses rather than theoretical nursing courses and nursing research. Since practice, theory and research are all essential to nursing practice and its advancement, all three subjects should be present

equally in the curriculum. This could represent the lack of knowledge related to the importance of a nursing theoretical base or a cultural view on nursing practice. Parse (2013) stated that in many areas of the world, nursing is still under the umbrella of medicine and that many areas of the world still practice nursing as a “medical-model applied science” of nursing rather than a basic-science discipline.

Importing nursing knowledge from countries with an advanced field of nursing science into areas of the world where nursing science is in its beginnings stages can only help the development of nursing as a science globally. However, it is important to note that not all aspects of theory may be culturally acceptable, but could be modified to suit the needs of developing programs. Ketefian and Redman (2013) explain that by importing nursing scientific knowledge from the US, many nurses in Japan did not realize how many differences existed between the two cultures. Ketefian and Redman also place emphasis on ethnocentrism as being present and embedded in nursing research and as such have influenced theory development globally, meaning whatever is viewed as culturally acceptable in the US may not be culturally acceptable in other parts of the world.

Nursing is centered on caring, and based on current research, caring is the predominant focus in both nursing educational platforms being compared. Boykin and Schoenhofer (2013) write about the aspect of transformation to the richer understanding of caring where nurses must have courage to go beyond what is acceptable, which leads to the discovery and development of a higher awareness of caring. The gaps identified while comparing two very different nursing education platforms could call for a reform of nursing education in Bosnia and as such, many nurses will have to find the courage to

re-evaluate current nursing practices and utilize newly acquired knowledge to expand and enhance nursing as a science in BH.

With this type of international project, it is critical to convey the importance of evidence-based practice (EBP) and the incorporation of nursing theory within the nursing curriculum. Pipe (2013) emphasizes that “a professional work environment that engages and optimizes the empirical and theoretical foundations of nursing can advance patient health and safety” (p. 303). In order to establish this, nurses need to receive education regarding evidence-based practice and nursing theory while in nursing programs.

Obviously, as previously stated, change is necessary and not always welcomed among nurses. Rosswurm and Larrabee’s model can guide nurses through a systematic process for the movement of knowledge toward EBP. Unfortunately, this project will not be able to complete the process, but it will closely examine the need for change in practice, link the identified gaps with interventions, and design practice change suggestions, which according to Pipe (2013) represents the first four steps in the change model. Even though Kavanagh, Connolly, and Cohen (2006) applied this model in application of new guidelines for acute stroke treatment in the emergency department, its application proves its versatility and ability to apply this model in any area of nursing requiring change based on EBP. This project will address the first step of Rosswurm and Larrabee’s process by identifying stakeholders and gathering baseline data. International nursing education standards represents external benchmarks for the project and the survey results from the nursing faculty in BH represents internal data about the current practice. Results can then be interpreted and evaluated for gaps and deficiencies. Further progress of the project depended on the results from the data evaluation.

Examining nursing from an environmental paradigm is an important step in identifying the nursing connection with the surrounding environment. According to Kleffel (2013) egocentrism represents the view of the environment from a personal point of reference. Meaning, whatever a nurse, as an individual, perceives as good for the nurse must be good for the society. In the US, according to Kleffel (2013), egocentrism is the most dominant view. With the homocentric view, the common good is more valued and most commonly utilized in epidemiology and community health, furthermore the ecocentric view is rooted more in a holistic manner and is focused on encouraging nurses to address worldwide environmental problems. Even though, Kleffel at first states that egocentric view is the dominant view in Western culture, by reviewing the presentations and reading the material, it can be concluded that the majority of nurses will view the care they provide mainly from the egocentric view. What they perceive is the “right” or “correct” approach to nursing care may be culturally different, their view of “what is good for me must be good for society” will be the same, therefore it would not be applicable to this study.

Nursing Theory

Campinha-Bacote’s “The Process of Cultural Competence in the Delivery of Healthcare Services” is a conceptual and practice model where the “healthcare professional continually strives to achieve the ability to effectively work within the cultural context of a client” (Campinha-Bacote, 2014). The model includes five main concepts: cultural awareness, cultural knowledge, cultural skills, cultural encounter and cultural desire. According to Campinha-Bacote, cultural assessment is needed for every client, because every person’s set of values and beliefs must be considered when a nurse

is delivering healthcare services (Purnell, 2015). Originally developed in 1991, this model identified four essentials of cultural competence: cultural awareness, cultural knowledge, cultural skill, and cultural encounters. The first model was called “Culturally Competent Model of Care.” The first model did not identify competence as a process. The second revision introduced the concept of cultural desire. In 2010, Campinha-Bacote started collecting evidence-based studies using her model and determined that the most important step in developing cultural competence is cultural encounters (Campinha-Bacote, 2014). Development of the complete model took 19 years. Methods used to validate her model include numerous studies conducted in nursing practice, nursing education, and other allied health disciplines using her model of cultural competence. In addition to her ASKED model, many other assessment models confirmed her model’s validity. Some of them are: Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals – Revised (IAPCC-R), Assessment of Awareness and Acceptance of Diversity in Healthcare Institutions (AAAD), Cultural Competence Assessment (CCA), and Cultural Awareness Scale (CAS) (Campinha-Bacote, 2014). Definitions of main concepts of Campinha-Bacote’s theory are: *Cultural awareness* – the nurse becomes sensitive to the beliefs, values, lifestyle and practices of the patient; *Cultural knowledge* – the process through which nurses learn more about other cultures and the different worldviews; *Cultural skill* – a process of performing a cultural assessment; *Cultural encounter* – provides direct and experiential exposure to cross-cultural interactions; and *Cultural desire* – self-motivation of individuals and organizations that encourages them to engage in the process of cultural competence. (Purnell, 2015, p.521-522). The Process of Cultural Competence in the Delivery of

Healthcare Services is a model and not a theory per se. Campinha-Bacote did not develop any of the tools for evaluating her model herself, but borrowed tools from other disciplines because the application of those tools were suitable. It is a simple model that can be easily applied in practice.

Demographics in the US have been rapidly changing in recent years. Diversity among the patient population is growing and nurses must be able to provide culturally appropriate care and be self-confident in their knowledge regarding cultural awareness (Long, 2014). Campinha-Bacote's (2014) Process of Cultural Competence in the Delivery of Healthcare Services model addresses cultural competence from five different aspects. Cultural awareness, cultural skill, cultural knowledge, cultural encounters and cultural desire represent five blocks on which this conceptual model is built. Campinha-Bacote (2014) defines cultural competence as a "process in which the healthcare professional continually strives to achieve the ability and availability to effectively work within the cultural context of the client."

It is important to note that Campinha-Bacote is using the term "healthcare professional" instead of a "nurse" because this conceptual model can be and is utilized in evaluating cultural competence in other allied health disciplines. This cultural awareness model was used as a conceptual framework for a study conducted at the University of Utah in 2010. In order to evaluate cultural competence of the students in programs of medicine, pharmacy, nursing, and physical therapy, Musolino et al. (2010) used Campinha-Bacote's Inventory for Assessing the Process of Cultural Competence-Revised (IAPCC-R[©]). This investigational study confirmed the validity of Campinha-Bacote's conceptual model since they evaluated students' cultural awareness prior to and after the

students took the mandatory cultural awareness class. Results from the three-year study indicate the students were more culturally aware after the class (Musolino et al., 2010).

Mareno and Hart (2014) used Campinha-Bacote's model of cultural competence as a conceptual model as well for their comparative study of the level of cultural competence between the registered nurses with undergraduate and graduate degrees. According to this study, nurses with undergraduate degrees reported lower levels of cultural awareness compared to their graduate degree counterparts (Mareno & Hart, 2014).

Similar studies have been conducted throughout the United States with similar results. However, a study conducted in Sweden by Momeni, Jirwe, and Emami (2008) analyzed cultural competence of nursing students and evaluated current practices in nursing schools as a result of socio-economic and demographic changes in that country. These researchers raise valid questions regarding changes within the nursing curriculum.

This writer's project involved the evaluation and comparison of two distinctly different nursing curriculums between BH and the US. The project evaluated the current practices regarding curriculum, faculty academic preparation and their effect on the students' outcomes. Considering that these two historically and culturally different programs were evaluated, cultural competence and awareness could affect the outcomes of nursing students during these programs. A project like this could raise awareness regarding cultural differences among nurses educated in BH and the cultural competency of nurses in the US. This increased awareness will enhance their ability to recognize and engage in a cultural encounter appropriately.

Professionals at all levels of nursing practice should have a high degree of cultural awareness and cultural competence. This is especially true at the highest level of cognitive and academic achievement; such as in the case of doctoral nursing. Regardless of the area of practice, doctoral prepared nurses should have advanced cultural knowledge and preparation in accordance with their advanced degree. Ndiwane, Miller, Bonner, and Imperio (2004) reinforce the previous statement that demographics in the United States are changing rapidly and that nurses graduating from advance practice levels of education should be adequately prepared to care for this vastly diverse population. The simplicity of Campinha-Bacote's model makes it easy to apply to other areas of allied health which all have to be prepared to deliver culturally competent healthcare to individuals, families, and communities in this changing environment.

Change Theory

This study utilized Kurt Lewin's Theory of Change. Change theory is a model that describes a process of change that will occur due to the influence of dynamic forces within an organizational structure (Bishop, 2015). According to Nick, Sharts-Hopko and Leners (2013) this change is a linear change that occurs through three main stages: unfreezing, changing, and re-freezing. A behavioral psychologist, Kurt Lewin developed a change theory and originally presented it in 1947 (Connelly, 2014). Even though his theory was developed many years ago, it is still widely used in many organizations as their model for change. According to Bishop (2015) this change theory describes two main dynamic forces working against each other, a driving force that is pushing system change and a restraining force for participants that are resisting change.

Barra (2013) uses Lewin's change theory as a theoretical framework for implementing changes in medical mathematics curriculum to implement changes in a community college nursing school. Nick, Sharts-Hopko, and Leners (2013) applied this theory in the development of a certified nurse educator program for the National League for Nursing (NLN) where moving or transition steps were deliberately broken up and explained in detail. Since this theory is more of a model, it does not seek to validate itself as a theory but it seeks to identify and establish proper steps needed for organizational change. According to Barra (2013), unfreezing is the first step of Lewin's change theory; then a change in routine behavior or the habits that contribute to the problem needs to occur. Habits, according to Barra, become old, comfortable ways of conducting everyday business that may no longer be productive.

The second step is a change – a transition or moving – and according to Barra, it occurs with the implementation of the required changes needed to improve the organization or a process at hand. Once necessary changes are made, a refreezing or simply freezing stage captures the changes made and maintains them as a new norm (Barra, 2013). It is important to note that Lewin was concerned about establishing the stability of changes that were made and that changes made need to become a new norm. Otherwise the system will revert to the previous “unproductive” state (Connelly, 2014). The greatest strength of Lewin's change theory is in its versatility and longevity. This change theory has been applied in various professions and organizational structures where changes were needed. It is applied in nursing science and is evident in many nursing journals and research studies that use this theory as its theoretical framework. Barra's (2013) and Nick, Sharts-Hopko, and Leners (2013) are only two examples of

Lewin's theory applied into nursing practice. According to Hannaford (2010), there are many contemporary theorist who criticize Lewin's theory last step; re-freezing because it does not allow flexibility or evolution of the changes made to expand and improve themselves.

The evaluation of nursing education in BH involved exploration of similarities and differences among higher nursing education in the United States compared to the higher nursing education in Bosnia and Herzegovina. As Berra (2013) very eloquently states, no one likes changes even when they may be necessary. McGarry, Cashin and Folwer (2012) explain a change management process that describes three-steps: unfreezing, moving or transitioning, and re-freezing. During the unfreezing of the organizational system, it is extremely important to have participants' motivated to proceed and to obtain buy-in for the proposed changes. This project attempted to identify gaps between current and desired states and reveal possible solutions and benefits for necessary changes. Barra (2013) used Lewin's three- tep change theory as a theoretical framework for her study regarding attrition rates among African American licensed practical nursing students. Berra (2013) explains that habitual repetitive performance becomes a habit that is sometimes hard to break. Certain levels of performance become comfortable and therefore, as humans, we tend to like being comfortable and prefer not stepping out of that comfort zone (Berra, 2013). With the evaluation of nursing programs in Bosnia, gaps that will be identified may result from changes in the curricula that have been in place for decades and would have the potential of radically changing how nurses in Bosnia will view not only their nursing education practices but also their nursing practice as a whole.

It is expected that not every nurse in Bosnia is willing to change practices set forth by Bosnian nursing predecessors, and not every nurse will be in agreement with the proposed changes. This may be due to that comfortable habitual state or because of the discomfort regarding the unknown that may follow. According to Bishop (2015) “participants use a restraining force to push back the change directed at them” (p. 349) and a certain level of “push” will be expected and welcomed. Communication during the unfreezing and transitional steps is extremely important because it will demonstrate to participants the need for change even if the change may be long term (Barron, 2014).

Even though this translation research project only addressed the first step of Lewin’s three-step change theory, McGarry, Cashin and Fowler (2013) support this application with the statement that “the discipline of nursing has increasingly used action research as a methodology well suited to bridging disjunction between practice, theory and research” especially “facilitating uptake of research findings into practice. It has been suggested that a study like this could produce and has the potential to affect nursing education in BH for years to come.

Summary

Evaluating and comparing two vastly different nursing programs and two very different outlooks on the nursing profession was challenging, however the benefits of a project such as this can improve nursing practice in BH and permanently change patient outcomes in the years to come. Even though most European countries require 12 years of education and a minimal age of 18 for entry into the nursing program, many European nations still have nursing programs as vocational high school programs (Fleming &

Holmes, 2005). According to Fleming and Holmes 35% of countries do not require post-secondary education for entry into nursing practice.

Due to the WHO push to establish global standards for initial nursing education, BH has been making changes in their nursing education practices in order to meet these standards. According to WHO standards of nursing education, the care provided should be holistic and not biomedically focused, graduates should have at least 4,800 hours of education and academic faculty should be nurses who demonstrate expertise in the area of practice and have at least a baccalaureate degree in nursing (Girardet, ed., 2009). The current situation, according to correspondence with the nursing faculty in BH, does not reflect these guidelines. Considering the large amount of information on the Internet regarding state and proprietary private nursing schools in Bosnia that contradicts itself, there is a need for evaluation of educational practices in nursing education and its comparison with international standards.

The purpose of this project was to compare and contrast higher nursing education between BH and the US to identify gaps in and barriers to post-secondary nursing education in this developing country. The first goal identified how many post-secondary nursing education programs are present in BH today and what standards for accreditations, if any, these institutions have. In the U.S., accreditation by organizations such as the American Association of Colleges of Nursing (AACN) ensures the quality and integrity of nursing programs and helps the public identify schools that engage in effective nursing education practices (American Association of Colleges of Nursing, 2008). The second goal of this study was to determine the number of nursing faculty in post-secondary education and their educational level. This information was compared to

the educational levels of nursing faculty in the US. According to the Commission on Collegiate Nursing Education (CCNE) (2013) accreditation standards, all faculties teaching at the baccalaureate nursing level have to hold a graduate degree in nursing. Parse (2013) emphasizes that many nursing programs in the world are still more clinically focused than theory focused. The last goal of this study will provide evidence and literature regarding Bosnian nursing program structure, deficiencies, and quality. According to Scanlan and Hernandez (2014) there is little or no evidence regarding nursing educational programs from the host country's perspective and the majority of literature available focuses on experience of western students in the developing country.

Considering that nursing education on a college level in BH is still in its infancy, a systematic review of the nursing education programs such as this provides the opportunity for the Bosnian nurse educators to utilize identified deficiencies and create action plans on how to bridge the gaps and improve the quality of nursing education on a post-secondary level. The intensity of the potential impact will be directly related to the number of identified gaps and deficiencies yielded with this study.

Considering the original nursing diploma of this investigator was obtained in BH, there is a certain level of obligation and need to share the expertise obtained in the US with the native country in order to promote nursing as a science, as a profession, and as a form of improvement of healthcare standards within the local community. Changes that can occur as a result of this project can have a profound impact on nursing practice in BH. Providing international and global support from one nursing milieu to another enriches nursing practice at a global level and streamlines the quality of nursing practice provided to the worldwide patient population.

Chapter II: Literature Review

Introduction

This literature review that was conducted included the search of nursing peer reviewed and scholarly journals through CINAHL and ProQuest online databases, curriculum design articles in ProQuest education journals, and world wide web searches for articles regarding policies, accreditation, and curriculum evaluation of nursing education in Bosnia and Herzegovina (BH). It has been proven to be challenging to find peer-review articles regarding nursing education and curriculum development. This lack of research could possibly be due to the fact that clinical research is mainly conducted and published by nurses in the BH and virtually no curriculum, policy or any other non-clinical research exists. Mostar University and Sarajevo University have their own peer-reviewed journal publications that were also reviewed for any potential articles that could be pertinent to this study, however, none were found. It is important to note that the clinical research published in these journals is of high quantitative quality and represent clinical education and clinical application of learned material by students in higher nursing education in BH.

Nursing Education in the European Union (EU)

Since this study compares two very different educational systems, it is important to shed light on the structural organization of higher education in the European Union (EU). With the creation of the EU, institutions of higher education discovered that educational reform is needed to promote exchange of knowledge, faculty, students, and qualified graduates across its borders. Many articles found during this literature review

explain changes in nursing education due to the implementation of the Bologna declaration.

In 1999, 29 European higher education ministers met in the city of Bologna in order to establish European System of Higher Education, which would establish six main objectives:

1. Adopt a system of academic degrees that are easy to compare
2. Adopt a system of two cycles, undergraduate and post-graduate
3. Establish European Credit Transfer System (ECTS)
4. Promote mobility of students, teachers, and researchers
5. Promote cooperation of quality assurance
6. Promote European dimensions of higher education (Zabelegui et al., 2006; Palese et al., 2014).

Similar to credit hours in the United States (U.S.), ETCS credits are numerical values where one ETCS credit requires between 25 to 45 hours of student work where classroom teaching hours should not be more than 50% of total student learning time (Zabelegui et al., 2006). According to the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) (2012), credit hour in the US represents one hour of lecture and two hours of homework, and traditionally a baccalaureate program is between 110 to 140 credit hours in length. Based on Bologna process, one year of study carries a workload of 60 ETCS (equivalent to 1500 to 2700 hours of student work in total), and a baccalaureate degree is obtained after achieving 180 to 240 ETCS (Zabelegui et al., 2006). Palese et al. (2012) explains that higher education per the Bologna process can be explained as a 3-5-8 model, where baccalaureate level is three years of study,

master's level is a total of five years of study (60-120 ECTS), and doctoral program is a total of eight years of post-secondary education with at least 300 ECTS total obtained prior to the start of the doctoral program. Even though the majority of EU countries, and those non-members with eligibility status, already developed and implemented the Bologna process, amendment of the European directive 2005/36/EU still maintains that nursing degree education is acceptable at the vocational level with only 10 years of prior education (Palese et al., 2012). This legislation is in stark contrast to the Bologna agreement and World Health Organization (WHO) guidelines that state, "admission to nursing and midwifery education must follow successful completion of secondary education" (p.15) and the length of the program should be no less than three years in duration (WHO: Nurses and Midwives for Health, 2001). Therefore, entry to a nursing program should be granted if an applicant has at least 12 years of prior education. Palese et al. (2012) summarizes that many European countries have been changing their nursing programs in order to harmonize nursing education throughout Europe, by either enhancing existing nursing programs or by establishing a university level of education. Furthermore, some countries have created a binary vocational to academic based nursing education programs.

Lahtinen, Leino-Kilpi, and Salminen (2013) delved deeper and explored exactly how many countries implemented the Bologna process for nursing education and in which manner this has been set up and implemented. This particular study has been conducted utilizing a systematic literature review on the implementation of nursing education. Lahtinen, Leino-Kilpi, and Salminen concluded that the majority of nursing education in Europe is offered at a higher educational level, at a level of 68%, whereas

diploma nursing is still offered in 32% of the countries. Comparison in this study was more complicated as the study used different terms to describe the nursing degree obtained upon graduation and the nursing schools that offered each degree. Palese et al. (2012) emphasizes the need for unification of nursing education across Europe and the need for defining a common educational standard for entry-level nurses. Therefore, a single degree term should be used upon graduation from a baccalaureate level. Lahtinen, Leino-Kilpi, and Salminen (2013) conducted a survey of 47 countries that reported on the levels of nursing education they offered and it further showed stark differences between the school names. In the Serbia nursing school, education is provided on the vocational level. However, the school is being called a “medical school,” which, from personal experience, is also the case in BH and Croatia, even though Croatia also reported a “polytechnic school” and a “nursing school,” while BH reported only “university” level education. This raises many questions on the accuracy of reported information and honesty in reporting the levels of education provided. The survey, however, did not ask for the entry level of nursing, but just a level of education. This could explain why BH reported university level, because “medical school” is a vocational program for entry level diploma nurses. After graduation and state board exam, nurses could continue education on a university level for a baccalaureate degree, which is now also offered in the country. In contrast, in the Lahtinen, Leino-Kilpi, and Salminen (2013) study, Ukraine reported having a vocational nursing school and baccalaureate studies “available after graduating from the vocational school” which is probably the most accurate description of nursing education restructuring of the socialist era education.

In their discussion, Lahtinen, Leino-Kilpi, and Salminen cite previous studies that determined only a minority of higher education institutions offer baccalaureate nursing degrees and that the majority of countries (68%) offered baccalaureate nursing degrees. However, these findings are ambiguous at best due to differences in baccalaureate degree nursing titles reported, differences in educational systems and the differences in entry level nursing programs. Lahtinen, Leino-Kilpi, and Salminen (2013) agree that inconsistencies exist and that efforts should be made to align national practices regarding higher nursing education. Palese et al. (2012) support having a common curriculum developed by a collaboration of European academic faculty, which would solidify the consistency of nursing education and quality. Lahtinen, Leino-Kilpi, and Salminen (2013) suggest creating an Internet nursing database that would provide information regarding nursing education programs in Europe which would increase accessibility and reliability of information for nursing education programs.

Studies and reviews have demonstrated that the majority of the European nations do offer some higher nursing degrees. The majority of nurses in Europe are currently at the diploma level (Davies, 2008). Historically in Europe, nurses have been trained at a vocational level and have received that education outside of the university setting. European universities have been traditionally reserved for upper-class academics, which does not include the blue collar nursing trade (Collins & Hower, 2013). Even though many countries have accepted the Bologna process and have made the transition into higher education nursing, some parts of Europe nursing are still considered a practical profession, and the move into the university level of education is seen as unnecessary. This is especially true in European countries of low economic status because of the

significant cost of changing curriculum and the creation of an all-graduate work force (Davies, 2008). Collins and Hewer (2013) support the same statement with examples from Russia and other post-communist countries where the major issue becomes the cost associated with the proposed change as compared to the previous trade school system which has worked in the past. Many students interviewed in Russia had worries regarding the provision of nursing at higher level education as it may become a costly endeavor that could limit their access to the nursing profession (Collins & Hewer, 2013). Davies (2008) goes a step further in examining the country's Gross Domestic Product (GDP) and its impact on the country's wealth due to a low tax income associated with a low GDP. Many countries in Europe have a low GDP, therefore the tax income has to be spent on more pressing mechanisms of government rather than on higher education restructuring efforts (Davies, 2008). From the provided evidence and from Palese et al. (2012), an explanation of the amendment of the European directive 2005/36/EU states that nursing degree education is acceptable at the vocational level with only 10 years of prior education. If this is true, then why engage in restructuring and implementation of the Bologna process and higher nursing education? Collins and Hewer (2013) make a great point in explaining the need for nurses to be educated at the university level. With an increase in the aging population, increases in chronic disease prevalence and demands for its treatment, there is and will be a high demand for nurses that have knowledge, confidence, and the ability to practice independently. Furthermore, it will provide for an active role in application of scientific evidence into practice in order to meet complex patient needs. Davis (2008) supports this initiative by stating that an increase in chronic illness demands more outpatient care and home health management for which nurses

have to have the knowledge and ability to think critically, problem solve, and implement life-long learning. This very skill set can be obtained through learning at the higher educational level. In contrast, vocational training only provides basic knowledge and skills necessary for a clinical setting and for basic nursing care: it does not “develop analytical, research-based thinking required for professional education” (Collins & Hewer, 2013, p. 153). Lahtinen, Leino-Kilpi, and Salminen (2013) also support this statement by stating that higher nursing degrees provide professional autonomy and the ability to practice independently.

Obviously, the cost of higher nursing education program development has not been an issue in developed Western European nations where higher nursing degrees have been flourishing in the past few decades. Macia-Soler, Orts-Cortes, Sanchez and Montenegro (2013) deliver an overview of the simultaneous implementation of the bachelor, master’s and Ph.D. levels of nursing education at the university in Spain. According to Macia-Soler, Orts-Cortes, Sanchez and Montenegro (2013), baccalaureate level education prepares nurses for general care in the EU hospital environment, it is focused on “progressive acquisition of knowledge” (p.3) from basic scientific courses, such as anatomy, to the senior courses focused on development of critical thinking. Furthermore, master’s program education broadens the student’s knowledge base with the acquisition of research skills, and is a blended on-site and on-line program. It is highly rooted in bioethics and English, as it is highly research focused (Macia-Soler, Orts-Cortes, Sanchez and Montenegro, 2013). Doctoral studies focus on research regarding chronic diseases, history and health management. This develops a doctoral prepared nurse that is a master’s researcher to have the ability to create and implement

health policy and promote academic and professional knowledge (Macia-Soler, Orts-Cortes, Sanchez & Montenegro, 2013). Obviously, this integrated, scientific approach to nursing development is not a new concept and has been implemented before. However, the emphasis has to be placed on the faculty available to develop and teach in such programs. Macia-Soler, Orts-Cortes, Sanchez and Montenegro (2013) states that coordination of all three programs is conducted by nursing faculty with doctoral degrees. Collins and Hewer (2013) cited the lack of preparation and professional training of the educators to teach in a higher nursing education setting, especially considering former communist countries of eastern Europe where higher education of nurses were non-existent prior to the Bologna process. Therefore, there is no available faculty with advanced degrees that could hold professor positions at the academic level. Wold, Crawford, and Jashi (2013) describe the program of train-the-trainer funded by the United States Agency for International Development (USAID) that would increase the number of nurse educators in the country of Georgia, former state of the Russian Union. As Wold, Crawford, and Jashi (2013) eloquently stated, nurses in the developed countries are well-educated professionals that provide quality nursing services while decreasing healthcare costs and have overall positive effects on the healthcare system. Georgia inherited a well-developed system of education that not only significantly deteriorated during the 1990s but also lacked the baccalaureate level of education. Furthermore, there are more physicians than nurses in Georgia compared to other European nations. The ratio in Ireland is 7.2 nurses per physician and 1 nurse per physician in Georgia. Georgia also has the lowest ratio of nurses to total population within all post-Soviet Union countries (Wold, Crawford, & Jashi, 2013). Georgia initiated four baccalaureate nursing

programs, with only one following a contemporary model, and the standards of education within these facilities vary widely due to minimal funding provided to these institutions. Wold, Crawford, and Jashi (2013) describe the program with a focus on individuals with medical/surgical knowledge, formal higher education, computer and English proficiency skills. Out of 42 curriculum vitae that were received for the program, only 17 candidates were offered nurse educator trainee positions (9 physicians and 8 nurses). The goal is to eventually provide faculty with contemporary nursing knowledge for implementation in baccalaureate nursing education. However, considering that nurses have not had advanced academic education, vocationally prepared nurses are not able to lecture, but serve as clinical educators after program completion (Wold, Crawford, & Jashi, 2013). Which again brings up the question on where, how, and at what cost will an advanced degree be developed to prepare nurses to serve as faculty in higher nursing education in countries such as Georgia. Unfortunately, issues in Georgia's higher education system are not isolated. Similar issues are problematic for all of eastern Europe within the socialist education platform which has nursing as a vocation and not a profession or scientific field.

Nursing Education in Countries of Former Yugoslavia

Research discovered only a handful of research articles regarding higher nursing education in the countries of ex-Yugoslavia. The most developed, and also considered to be most prominent member of EU of all ex-Yugoslavian states, is Slovenia, which was the country occupying the very northwest point of the Balkan peninsula. Bohinc and Cibic (2005) describe Slovenia and as a small country in central Europe with a nursing

education system that has associate degree and baccalaureate degree education in accordance with European standards of nursing education and the Bologna process.

Slovenia started the move from vocational to a higher level education of nursing with the implementation of a two-year college level nursing degree (the equivalent of the associated degree in the U.S.) until the first baccalaureate program was developed, which started in 1993/1994 school year (Pahor, 1995). Pahor (1995) describes in detail the struggles among nursing professionals and educators regarding the development of baccalaureate level nursing education which would reflect nursing education in the US and Western Europe, both of which have had higher nursing degrees since the 1960's. This information is somewhat confusing, since other authors, such as Savopoulou (2001) have reported that Slovenian nursing education was still in vocational waters in 2001. This could be attributed to the language limitations and differences with terminology used in these surveys. According to Pahor (1995), the first baccalaureate level nursing degree started with the class of 1994. Since the Bologna process implementation, according to Palese et al. (2012), Slovenia not only has baccalaureate degree nursing education but offers a master's degree in nursing as well.

Since research is one of the main components for advance nursing degrees, Dornik, Vidmar and Zumer (2005) conducted a survey of Slovenia's only nursing journal, "Journal of the Slovenian Nursing Association," in order to evaluate whether the changes in nursing education have been reflected in these publications. Survey results established that higher nursing education in Slovenia is still developing, as only 28 articles had authors that had master's degrees in nursing, and only 16 authors of articles possessed academic appointment titles. Strojjan, Zurec, and Savic (2012) conducted a study

within one of the hospitals in Slovenia, which surveyed all nurses with at least a baccalaureate level of education regarding their opinions on the importance of research. The study results show statistical significance in nurses having positive attitudes toward nursing research. Strojanc, Zurc, and Savic (2012) emphasize that nurses with a university level of education were aware of the importance of research in nursing and that more studies should be done to determine the extent of nursing research conducted in Slovenia and whether there are any barriers to the development of nursing research in this country.

Since Slovenia separated from Yugoslavia in 1991, it has not engaged in the Balkan wars that have plagued the region for the majority of the 1990s, which in retrospect, gave Slovenia a head start in the development of higher nursing education and academics. Croatia, BH, and Serbia will not be able to follow suit for almost a decade due to conflicts, instability, and political turmoil. Kalauz (2014) gives a stunning and thorough examination of nursing education in Croatia. Today, nursing in the majority of the developed world has its own identity, autonomy, and is well grounded in research and theory becoming of any other scientific field (Kalauz, 2014). The Bologna process of nursing education in Croatia was implemented in 2005. However, it was not harmonized according to the educational policies that would create the ability of linear advancement among nurses within their field, meaning, the system created a “binary” model of education instead of “single entry” into nursing education. In order to conform to the European directive 2005/36/EU of nursing degree education, the vocational level requires 10 years of prior education. Croatia created a five-year secondary school with a 2+3 model, eight years of primary education plus 2 years at a secondary level, which would meet the European guidelines. According to Kalauz (2014) directives given are widely

left to interpretation of the countries, and thus some countries introduce nursing programs that meet the very minimum of the requirements, which certainly harms the nursing profession in the long run and the level of quality of nursing care delivered. Kalauz went further and compared the European directive 2005/36 to the European directive 2013/55, which stated that nursing competencies have to include independently diagnosing nursing care based on current theoretical and clinical knowledge, which the students will not reach when receiving a vocational level of education. Even though Croatia introduced university undergraduate and graduate levels of education in three different universities, until the need for well-educated nurses holding clearly defined positions at all levels of scientific and health institutions is met, the situation where nurses are viewed as physician aides and have a trade and not a scientific degree will remain the same (Kalauz, 2014).

Even though Kalauz is very critical about the current situation of nursing education in Croatia, the online data base search is showing clinical research conducted by Croatian nurses, either independently or with physicians. Lovric et al. (2014) research study explored nursing students' perception of nursing clinical instructors' competencies. It is important to note that all nurses associated with this study have a doctoral degree or are listed as doctoral degree candidates, which in itself proves the progress Croatia is making toward development of nursing science and professionalism in this country. Lovric et al (2014) examined the specificities and differences between nursing student expectations and their evaluation of clinical nursing instructors. Data was collected through surveys given to students during their 1st, 2nd and 3rd year of undergraduate nursing education. The study used Cronbach's alpha to evaluate reliability of the

questionnaires and the Kruskal-Wallis test was used for statistical analysis. Furthermore, instructors were evaluated on their teaching ability, nursing competence, evaluation practices, student-instructor relations, instructor-patient relations (observed), and clinical instructor personality (Lovric et al., 2014). The study concluded that there are specific and clear differences in clinical instructors' competency expectations and evaluations between first, second, and third year students. Furthermore, all students had high expectations of their clinical instructor prior to the start of the clinical rotation which prompted Lovric et al. (2014) to suggest ongoing monitoring, evaluation, and training of the clinical instructors in order to maintain high quality of education provided.

Serbia has a similar nursing education preparation as Croatia and BH, where the majority of the nursing force, approximately 90%, is vocationally educated and college educated nurses supplied 10% of public healthcare personnel (Santric-Milicevic et al., 2014). Currently, in Serbia, 4,000 students enroll annually in vocational secondary nursing education and about 1,500 enroll in the college nursing programs that, in accordance with Bologna process, offer 180 ETCS credits (Santric-Milicevic et al., 2014). Furthermore, there were 13,000 unemployed nurses in Serbia in 2013, which is a staggering number considering the relatively small size of the country. The Santric-Milicevic et al. (2014) study attempted to evaluate the intent of college-educated nurses to leave the country upon graduation with the hope of finding employment in other European nations. This study concluded that there was a high prevalence of the intention to work abroad upon graduation, which places an emphasis on the socio-economic factors within the country and the risk of stagnation of nursing as a profession within this Balkan country. This study is being implemented to prove that even though the particular nation

can implement the Bologna process, nursing profession advancement within the country is not guaranteed if the majority of the new, highly-educated nurses enter the educational system with the intent of migrating elsewhere.

This brings the country of BH into focus. Even though an extensive research review was conducted on higher nursing education in BH and its curriculum, there is simply not any research conducted or published in nursing journals that evaluates, describes, or mentions the development of nursing curriculum by Bologna standards. Clinical research within academia in BH has been flourishing for many years, predominantly within the physician population, and now nursing clinical research is evident and published within two nursing journals in Bosnia. All information regarding higher nursing education in BH is retrieved from publications and reports rather than nursing research.

The South East European Educational Cooperation Network enlisted Philip Stabback to evaluate the state of the educational system and educational practices in the early 2000. His work very thoroughly examined the complexity of problems in BH at that time. Stabback (2007) first explains that there are 13 educational jurisdictions within three different parts of the country and no responsibility at the state level, which is a large number considering the size of the country. Secondary education (high school level), is a vocational system that was created during socialism to serve the “controlled” or “planned” labor market, however, as such, it cannot meet the workforce needs of the current, free-market economy. There are three different curricula in three parts of the country that are poorly managed, even with a high percentage of GDP that has been allotted to education. Curriculum throughout the educational system is overloaded and

more focused on acquisition of facts and memorization while presented in a rigid environment without much opportunity for local decision-making (Stabback, 2007).

Report from Tempus program, the program for higher education cooperation and modernization of higher education in developing European countries, states that higher education in BH is regulated by the Law of Higher Education in Bosnia and Herzegovina, adopted in July 2007 (Muhibic, 2010). The law describes the implementation of the Bologna process in higher education institutions in three cycles described at the beginning of this chapter. Muhibic (2010) states that in the school year 2008/2009 there were 99,098 students enrolled into 20 universities, 5,083 students enrolled into 15 colleges (equivalent of associate degree in U.S.), and 1,177 students enrolled in religious faculties. Of these students, 79.9% were full time students, and 20.1 % were part time students. The report lists 15,013 students in undergraduate programs, 576 in master's programs, and 178 doctor of science students. The same report explains profound decentralization of the educational system due to three regions and 13 jurisdictions. Therefore, Muhibic (2010) suggests that the report cannot speak about the educational system in BH as one system, but as 12 different systems within the country. The universities are funded through budgets of the canton they belong too, therefore there are 13 separate budgets for higher education. Naturally, it can be presumed that budgets are not the same in size. Therefore, disparities in funding can be found between the cantons and regions.

Ovcina, Svrakic, Dervisevic, and Siercic (2012) conducted a survey regarding nursing opinions on healthcare restructuring. The study included charge nurses in Sarajevo's clinical center: 87.5% were female and 12.5% were male. Surveys revealed

that 48% of nurses were satisfied with the level of nursing care provided, however 58% felt that they met resistance when attempting to give their opinions and suggestions during the nursing care decision process. This finding accurately describes the current situation where physicians traditionally decide on what type of nursing care the patient should receive. Surveys also revealed that 65% of surveyed nurses are using protocols and procedures that are in place. In their conclusion, Ovcina, Svrakic, Dervisevic, and Siercic (2012) emphasize the need for healthcare transformation and change from the hierarchal to a horizontal organizational structure of healthcare, where healthcare workers work in teams contributing together to the welfare of the patient population. This article represents an important aspect of the healthcare structure in BH that will also need to go through a transformation as more and more nurses obtain higher nursing degrees and have the ability to implement, diagnose, and provide advance nursing care.

Accreditation of the programs is conducted through “ The Agency for Development of Higher Education and Quality Assurance” that was established under the Law of Higher Education in 2008 and it is responsible for defining criteria of accreditation, setting norms for minimum standards, performing quality reviews, providing recommendations regarding restructuring, licensing of the institutions, and representing the country in the international organization dealing with the quality assurance in higher education (Muhibic, 2010). The agency for development of higher education and quality assurance is an independent governing agency that evaluates both private and public institutions of higher education. In contrast, in the U.S., the accrediting body for higher education institutions in nursing is a Commission on Collegiate Nursing Education (CCNE), which is an “autonomous accrediting body” that ensures the quality

and integrity of baccalaureate, master's, and doctoral levels of nursing education (American Association of Colleges of Nursing, 2014). Dearmon, Lawson, and Hall (2011) describe the importance of CCNE accreditation, which goes further than meeting the accrediting standards but also accountability to the community and promotion of ongoing development and enhancement of the nursing curriculum. According to the Avdic et al. (2012) report, only two institutions, Zenica and Foca, have reported having accreditation. Zenica states it has "EUA" and Slovenian national accreditation agency accreditation, and Foca has the "The Agency for Development of Higher Education and Quality Assurance" accreditation. The University in Bihac states that the local ministry of education granted temporary (provisional) accreditation. The rest of the universities surveyed reported "no" when asked if they were accredited by accrediting body.

Summary

This literature review reveals an important aspect of the evaluation of higher nursing education in BH, the need for more curricular research and evaluation of higher nursing education that is currently almost non-existent in this country. There were no quantitative or qualitative studies published on the quality of the curriculum, evaluation of student learning, teaching practices, or program mapping. Furthermore, there were no studies published on the faculty-student ratio, faculty continuing education, and student learning preferences, styles, and collaboration. Since deficiencies exist in the peer-reviewed literature regarding these subjects, this project attempted to determine and evaluate the above-mentioned deficiencies.

Chapter III: Method

Introduction

Importing nursing knowledge from countries with an advanced field of nursing science into areas of the world where nursing science is in its beginning stages can help the development of nursing as a science globally. Sigma Theta Tau International (STTI) created Global Advisory Panel on the Future of Nursing (GAPFON) to establish guidelines that will advance global nursing and global health. Global health goals will be established through the exchange of ideas and experiences across the different regions of the world (Klopper & Hill, 2015). In most European countries, 12 years of education and the minimal age of 18 are necessary for entry into the nursing program. Fleming and Holmes (2005) report that most of the eastern European nations still have nursing programs at the high school level where the age of entry is 14 years old and due to other mandatory high school classes needed, not enough attention is paid to the nursing core curriculum or practicum hours. Although steps are being made toward strengthening higher nursing education in Bosnia and Herzegovina (BH), only 10% of the Bosnian nursing force has post-secondary education (Fondacija Fami, 2014).

Purpose

The purpose of this project was to compare and contrast higher nursing education between BH and Commonwealth of Kentucky in the United States. Furthermore, it attempted to identify gaps and barriers to obtaining higher nursing degrees in Bosnia and Herzegovina. Identifying gaps and barriers will enable local legislature in creating a project or a program for online doctoral nursing programs, and/or cooperation between

foreign universities and Bosnian universities in assimilating more nurses into nurse educator roles.

Study Design

This descriptive, quantitative review compared and evaluated the differences between nursing education on a baccalaureate and master's level in BH and the Commonwealth of Kentucky in the United States and evaluated congruence of nursing education in BH with WHO global nursing education standards. This project design was chosen since data was collected systematically through quantitative methods resulting in numerical values. Furthermore, the study has descriptive research connotation because it is aimed to observe, describe, and document findings (Polit & Beck, 2014).

Setting and Population Sample

The setting included selected private and public universities in BH and the Commonwealth of Kentucky in the United States that offer baccalaureate and master's degrees. The study sample was drawn from the following nursing programs based on their funding status as a state or public university. The study selected three baccalaureates and three master's level nursing programs in both countries for comparison. The sample included faculty members from these institutions:

- BSN nursing program, public university in northeast Bosnia and Herzegovina
- BSN nursing program, public university in capital of Bosnia and Herzegovina
- BSN nursing program, private university in northwest Bosnia and Herzegovina
- BSN nursing program, public university in Lexington, Kentucky, United States
- BSN nursing program, private university in Louisville, Kentucky, United States
- BSN nursing program, private university in Louisville, Kentucky, United States

MSN nursing program, private university in northwest Bosnia and Herzegovina
MSN nursing program, public university in central Bosnia and Herzegovina
MSN nursing program, public university in capital of Bosnia and Herzegovina
MSN nursing program, private university in Louisville, Kentucky, United States
MSN nursing program, private university in Louisville, Kentucky, United States
MSN nursing program, public university in Louisville, Kentucky, United States

Human Subjects/Risks/Benefits

Human subject protection guidelines have been instituted in this descriptive quantitative study. This study proposal was submitted to the Institutional Review Board (IRB) at Indiana Wesleyan University (IWU) and approval was obtained (Appendix A). Coding the information protected personal information such as names, titles, birthdays, and addresses. Personal information was not used when combining and analyzing data. Only coded numerical information was used for statistical analysis. Furthermore, majority of information was collected from publicly released websites; therefore, protection of public information was not necessary. However, in order to conform to the human subject protection guidelines, any personal information found on public websites was still coded in order to ensure privacy.

Variables and Instruments

This project's variables were as follows:

- Number of baccalaureate nursing programs in BH and Commonwealth of Kentucky obtained through state board website listings
- Number of master's nursing programs in BH and Commonwealth of Kentucky obtained through state board website listings
- Number of faculty per program obtained through individual school websites

- Faculty educational level obtained through individual school websites
- Length of program obtained through individual school website
- School accreditation obtained through individual school websites.

The project obtained the total number of programs in both BH and Kentucky in order to acquire general demographic data regarding the number of schools compared to the general population of the geographical area. All other variables were collected within selected schools. Data collection was conducted through online data research, online/paper surveys and/or interviews. Public information regarding nursing educational institutions was obtained from their public websites. Congruency with WHO global standards for nursing education was conducted by utilizing a review tool attached in the appendix B.

Inclusion and exclusion criteria

All faculty employed in these institutions were included in the study. Faculty belonging to other institutions were excluded. The study was designed to include only three baccalaureate and three master's nursing programs due to time constraints. Educational institutions chosen provide a wide sampling of the entire nursing educational milieu of the state.

Data Analysis

Data was collected over the six-month period between June and December of 2015 from selected private and public universities. Data collected from BH was directly translated into English and placed on a data collection sheet. All data was collected by the investigator and entered into a secured database. Through website review, 11 nursing programs in BH were identified and each school was contacted via email with the WHO

information collection tool attached (Appendix B) and faculty survey link (Appendix C). Each nursing program was also contacted via phone in order to attempt to encourage survey response. Total of six surveys were received (N=6) (five females and one male). Out of 11 nursing programs, all had curriculum available on websites and only one program had required textbooks listed. All programs in both BH and Kentucky had lists of faculty readily available on their websites. Collected data was statistically analyzed using IBM SPSS v.20 software with selected alpha level of .05. Data was examined with descriptive analysis appropriate for the level of measurement. An independent *t*- test was used to compare faculty number and the educational preparation levels between the two states. Chi-square was utilized to compare the length of nursing programs between the two populations.

Study limitations

Limitations and threats to this study may include:

- Inability to obtain a sample large enough to yield any type of statistical significance
- Lack of sufficient number of survey replies to obtain information needed
- Inability to conduct interviews due to unwillingness of BH nursing faculty to participate
- The evaluation of only one developing European country to only one US state.

Budget Analysis

No funding was needed to conduct this study and the only resource used was IBM SPSS v.20 software already purchased by the investigator. Translation services for this international study were not needed since the investigator is bilingual and fluent in

Bosnian and English. The investigator's time is a resource spent in this project for which investigator did not seek compensation.

Summary

This descriptive quantitative project compared and contrasted the quality of nursing education between two very different systems of nursing education. This project attempted to provide enough information and insight regarding the major differences between the length of programs, accreditation, and faculty preparation that would help draw conclusions regarding its quality, gaps, and pitfalls. Considering that baccalaureate and master's programs in BH are relatively new, scholars in BH could use this project to draw conclusions regarding potentially creating a doctoral level of nursing education in that country.

Furthermore, this project evaluated congruence of BH nursing education with WHO global nursing education guidelines for establishing a quality nursing programs that can be implemented throughout the world. WHO guidelines have been established globally as a standard for nursing education.

Chapter IV: Results

This project compared nursing programs in two international locations, the Commonwealth of Kentucky and the country of Bosnia and Herzegovina (BH). The focus of the project was threefold: to better understand the state of nursing education in an Eastern European country that has recently emerged from the control of a socialist state and thus has had little interaction with the industrialized Western world; to compare nursing education programs in BH with nursing programs in a selected Western site (Kentucky) similar in geographical size and population using WHO criteria as a standard; and to open pathways of communication between nurse educators and researchers in Western world and formerly “hidden” Eastern European countries. Follow-up goals would be to foster an international exchange of information and improve nursing education across the globe.

Comparison of Sites

The two sites were similar in population with 4,413,457 residents in Kentucky as of 2009 (Kentucky Health Facts 2009) and 3 871 643 in BH as of 2014(World Bank, 2016). . According to the Kentucky Board of Nursing registry, there are 14 Baccalaureate of Science in Nursing (BSN) approved programs, 10 Master of Science in Nursing (MSN) approved programs, and three approved Doctor of Nursing Practice approved programs. According to the educational institutions website review, there are 12 registered Baccalaureate of Science in Nursing programs in BH, seven registered Master of Nursing Science (MSN), and only one registered Doctoral Nursing Practice program (DNP).

Overall BH had 20 post-secondary nursing programs: 60% baccalaureate level, 35% master's level, and 5% doctoral level of education. In contrast, Kentucky has 27 post-secondary nursing programs with 51.9% being baccalaureate level, 37% master's level, and 11.1 % doctoral level of education.

Based on these overall numbers, there is one BSN program per 315,246.9 residents in Kentucky, and one BSN program per 351,967.5 residents in BH. Therefore, overall, residents of both states have similar access to the BSN level of nursing education. This is not to be confused with the access to nursing education in general, however, because this study only focused on BSN level of education or higher. Kentucky has 41 Associate Degree in Nursing (ADN) approved programs that greatly increases accessibility to pre-licensure nursing education. Furthermore, currently, all baccalaureate programs in BH are post-licensure programs, meaning pre-licensure nursing programs are diploma programs, and due to each city having one of these programs, the accessibility to pre-licensure education is much higher. This data could be correlated with nurse per capita values for each country. According to World Bank (2016), BH has 5.6 nurses per capita and the US has 9.8 nurses per capita. Kentucky Health Facts (2009) lists 11.2 nurses per capita in Kentucky. Considering that both sites are similar in size and population, and, based on this data collection, also have similar access to BSN level of nursing education, a question could be raised regarding why such a disparity in nurses per capita exists between the two?

Program Faculty

Baccalaureate nursing programs (BSN) chosen for this study are a mix of state and private universities. In BH, state owned universities have an established

infrastructure, strong academic background, and governing hierarchy established during the socialist system. A private university in northwest BH is a fairly new university, established and based on the Bologna System. The number of professors range from 13 to 31 and all professors have a doctoral degree in medicine. In Kentucky, upon review, it is clear that one of the universities stands out with 132 lecturers, however, this university lists all of the nursing department lecturers together regardless of the program level in which they teach. Even though some faculty members listed the subjects they teach, making it easier to distinguish whether or not they teach on a BSN, MSN, or DNP level, the majority of faculty had their curriculum vitae posted without indication of the subjects or classes they teach. One of the private universities in Louisville was the only university that listed faculty members according to each level of nursing education and their credentials. All faculty members in Kentucky's universities had doctoral or master's level education in nursing.

BSN programs compared

Descriptive statistics below demonstrate a disparity in the baccalaureate level education overall faculty counts. According to data collection, there are 168 faculty members listed in three selected BSN programs in Kentucky versus only 81 faculty members in three selected BSN programs in BH. However, during data collection, it was noted that one particular university has all of their faculty members listed together. Therefore, this particular data set may not represent a true count of faculty that only teaches at the baccalaureate level. In Kentucky, 51.5%, or 86 faculty members teaching at the three selected BSN programs, have a doctoral degree; 38.9%, or 66 faculty members, have a master's degree; and 9.6%, or 16 faculty members, have a baccalaureate

degree. In contrast, in BH, 96%, or 78 faculty members teaching in the three selected BSN programs, have a doctoral level of education; and 3.7%, or three faculty members, have a master's level of education. There are no baccalaureate prepared nurses listed as faculty for BH universities.

An independent-samples *t*-test was calculated comparing the mean score of faculty level of education in three selected BSN nursing programs in BH to faculty level of education in three selected BSN nursing programs in Kentucky. No significant difference was found ($t(358)=0.481, p>.05$). The mean of doctoral prepared faculty ($M=2.29, sd = 1.06$) was not significantly different from mean of master's prepared faculty ($M= 2.23, sd =0.66$).

Master's programs in nursing in BH, although relatively new, show evidence of more faculty with nursing degree preparation compared to BSN programs. The number of faculty members range between 23 and 45, however, again, many universities list the faculty members employed within the division of nursing without separating faculty based on the level of nursing in which they lecture. A private university in northwest BH was the best example of this practice. However, it is refreshing to see that state-owned university in central BH has four assistant professors with MSN degrees within their program.

In Kentucky, the number of faculty ranges between 10 to 32 per educational institution. However, it was difficult to determine which faculty members teach specifically within the MSN program, with the exception of a private university in Louisville being the only one that clearly designates faculty members teaching

specifically within the master's program. All faculty members for Kentucky programs have doctoral or master's degrees in nursing.

MSN programs compared

The descriptive statistics above also demonstrate overall faculty numbers and their level of education that teach in the master's level education. According to data collection, there are 56 faculty members teaching in three selected MSN programs in Kentucky versus 71 faculty members teaching in three selected MSN programs in BH. In Kentucky, 85 % of faculty teaching in three selected MSN programs have a doctoral degree, and 14% have a master's degree. Compared to BH, where 90 % of faculty teaching in three selected programs have a doctoral level of education, and 9.8 % have a master's level of education. Considering that BH is considered to be a third world country, nursing education programs do not significantly differ in the number of faculty per program or their education level. However, all doctoral prepared professors in BH do not hold a terminal degree in nursing, but in medicine.

Length of program

Prior to the data collection process, it was expected to see some difference between the length of program in BH and Kentucky, however, even though programs in BH are based on ECTS points and Kentucky's BSN programs are based on credit hours, the length of each program is eight semesters. The only exception is a private university in Banja Luka, BH, with a BSN program that is seven semesters in length.

The largest diversity is seen in master's programs. Based on the Bologna system, the second cycle of education (master's level of education) is 60 ECTS in length (two semesters), whereas in Kentucky, master's programs are four to five or six to eight

semesters, depending on full-time versus part-time program study. Therefore, it could be concluded that master's levels of nursing education in Kentucky are at least two semesters longer, compared to BH universities. However, considering BH programs are aligned with the Bologna system, it can be determined that the same length of study can be expected throughout the European Union (EU) as well. Currently, two of the universities reviewed for this study are revising the curriculum to be in congruence with EU educational guidelines. This could be the reason for the exact semester length for all BSN and MSN level programs in Bosnia. A chi-square test of independence was calculated comparing the length of semesters between three selected BSN and MSN programs in Kentucky and BH. A significant interaction was found ($X^2(12) = 827$, $p < 0.05$).

World Health Organization (WHO) Global Standards for Nursing Education

One of the important aspects of this descriptive study was to evaluate the congruency of newly created BSN and MSN programs in BH with WHO global standards for nursing education. Even though there is a plethora of information posted on each educational institutions' website, not all of the information from each five standards was available through the Internet. A short faculty survey was created in order to reach out to BH faculty members and obtain information and opinions on the curriculum and overall nursing program quality. Surveys were sent in June of 2015, shortly after receiving Institutional Board Review approval for the project. In the forward letter, the investigator explained the focus of the study as well as the benefits of possible international collaboration that can result from this study. All information was delivered in both English and Bosnian language. Despite listing many benefits of collaboration,

survey response was disappointing. After initially sending requests to three selected universities, and getting no response from them, it was felt beneficial to send requests to all registered nursing programs. Even after expanding the population sample, the return rate of surveys was minimal (N=6). These surveys are the results of numerous attempts to reach the schools' administrative office and/or office of international collaboration via phone and email. Almost all surveys returned were the direct result of collaboration with one particular assistant professor that was willing to not only collaborate on the project but also attempted to gain more faculty willing to collaborate on this study. The effort of this faculty member to recruit her colleagues from other universities is commendable and greatly appreciated.

Despite the fact that statistically N=6 does not provide enough data to determine statistical significance, investigator felt compelled to publish the result of the survey because the efforts of these faculty members should be recognized. Short survey had 10 questions.

Table 1
Nursing Faculty Survey

1. What is your current position within the educational organization?	
Professor	20%
Assistant professor	80%
Faculty/Instructor	0%
Clinical Faculty/Instructor	0%
Other (please specify in comment section)	
2. What is your highest degree obtained?	
Baccalaureate degree	33.33%
Master's degree	50%
Doctorate	16.67%
Other (please specify in comment section)	
3. Your degree is in what scientific field?	
Nursing	50%
Medicine	16.67%
Biology	0%
Physics	0%
Chemistry	0%
Other (please specify in comment section)	33.33% (Law, Management)
4. How long have you been in current position?	
0-2 years	0%
3-5 years	66.67%
6-10 years	33.33%
>10 years	0%
5. What is the faculty to student ration for your facility?	
1:5	16.67%
1:10	0%
1:20	50%
1:30	0%
>30	33.33%
6. How do you evaluate student knowledge?	
Multiple choice test	16.67%
Essay	0%
Verbal presentation	0%
Other	83.33% (MCT, verbal, practicum, essay, papers)
7. How do you evaluate the quality of provided education for your educational institution?	
Standardized testing	33.33%
Board examination	16.67%
Employer report	33.33%
Other	16.67% (feedback from student evaluations)
8. Can you identify strengths and weaknesses of your nursing education institution?	
Strengths	<p>“Graduates have strong knowledge of medical and clinical subjects (anatomy, physiology, pathophysiology).”</p> <p>“Solid program curriculum that provides clinical and scientific education.”</p> <p>“Have many students seeking our educational institution.”</p> <p>“Have great support by the dean.”</p> <p>“Curriculum is congruent with EU guidelines.”</p>
Weaknesses	<p>“Lack of faculty to teach nursing subjects.”</p> <p>“Not enough clinical time/practicum.”</p> <p>“Not enough nursing faculty in order to separate from medical school.”</p> <p>“Not enough resources to improve quality of program delivery.”</p> <p>“More theory and not enough practical education. Currently no skill lab available.”</p> <p>“Not enough nursing faculty to teach majority of nursing subjects/classes.”</p>
9. Does your nursing education institution have accreditation by a governing body?	
Yes	50%
No	16.67%
Other	33.3% (licensed, initial accreditation only)
10. Comments	
Open Comment section	<p>“I would like to see more practical hours in the curriculum.”</p> <p>“Currently updating curriculum to be in congruence with EU guidelines.”</p>

These surveys provided insight in the nursing faculty's level of education, years of experience, and their overall opinion of nursing program quality. Interestingly, two of the faculty surveyed reported having baccalaureate degrees, which would indicate that they are faculty in educational institutions that were not selected for survey. Another significant difference between reported practice and Kentucky nursing programs is evaluation of student knowledge. According to survey results, only 1 person (16.67%) reported using multiple-choice testing (MCT) as a means of evaluation of nursing knowledge. All others, 83.33%, reported using MCT, verbal examination, practicum, essays, and papers as means of student evaluation of knowledge. The literature does support using different means of evaluation because students have a different learning styles, however, the verbal examination is not as popular in the US due to its subjectivity.

The survey question "Can you identify strengths and weaknesses of your nursing educational institution?" delivers most likely the largest obstacle evident in data collection and that is lack of doctoral prepared nursing faculty. Statistical analysis provides a clear picture of equality in the level of education among professors between BH and Kentucky. However, on examination of what doctoral degree baccalaureate and master's professors in BH have, it is exclusively a doctoral degree in medicine, not nursing. Furthermore, faculty members reveal the need for more clinical and practical hours within the program, such as pathophysiology, for example – more than only theoretical preparation in medical subjects.

World Health Organization (WHO) Global Standards for Nursing Education

Main intent of WHO global standards is to "serve as a benchmark for moving education and learning systems forward to produce a common competency-based

outcome in an age of increasing globalization” (Girardet, 2009, p.12). Standard I addresses the quality of graduates from nursing programs, specifically, the demonstration of competencies in nursing, understanding of the determinants of health, eligibility to entry in advanced education, and that graduates are awarded a professional degree. According to the BH baccalaureate nursing programs websites, all graduates obtain the baccalaureate degree in nursing upon graduation and are eligible to enter a master’s program. Furthermore, considering that curriculum is clinically focused, graduates are able to think critically and analytically. However, if the students are not receiving a sufficient amount of practical time, their ability to apply theory into practice may be impaired. Considering that survey return was poor, there is not enough information to be able to determine if the nursing programs are meeting this specific part of standard I and future research may be necessary to effectively determine this outcome.

Standard II of WHO global standards addresses program development that is separated in two main determinants: governance and accreditation. The governance standard requires nursing programs to have a clearly stated mission, vision, and objectives and to have a system of formative and summative assessment of the programs’ educational and clinical objectives and outcomes. All nursing schools in BH have a clearly displayed mission and vision statement in the home page of each website and outcomes are attached to each class if the class schedule is posted. Even though returned surveys demonstrate formative and summative student knowledge assessment of outcomes, the number of the returned survey is not large enough to substantiate such claim throughout BH. The accreditation standard requires higher education institutions to meet internal standards, and recognized accreditation and /or governing body

requirements. During data collection and website review, it was noted that only one educational institution has accreditation by an independent accrediting agency. However, all educational institutions have governing body (government accreditation) licensure, which is in accordance with WHO standards.

Standard III address curriculum design and establishes that nursing program plan and design provides classroom and clinical learning opportunities that deliver the knowledge and skills required to meet the needs of the population, has established balance between theory and practice, that the material presented is evidence based, and that the program has established way of curriculum evaluation. Again, based on survey responses, there is definitely a lack of clinical learning in comparison to classroom/theory material delivery. However, lack of greater survey response does not validate this statement and further research would be necessary to substantiate such claim.

Standard IV delineates requirements for academic and clinical faculty appointment. According to the standards, the head of the nursing program is a nurse with a graduate degree and core academic faculty are nurses who demonstrate knowledge as educators and have a minimum of a baccalaureate degree; preferably a graduate degree. Clinical faculty are nurses and other healthcare professionals who hold a minimum of a university degree and possess clinical and educational expertise in their specialty. According to the data collected relating to faculty educational level, it is immediately noted that professors in BH baccalaureate programs, despite of having a doctoral degree, do not hold the degree in nursing, but in medicine. During data collection, it was discovered that out of selected nursing programs, there were only four assistant

professors that have a master's degree in nursing. Therefore, it can be concluded that BH nursing schools do not meet this particular WHO standard.

Standard V address admission policy and selection, which states that nursing programs are required to have a transparent admission policy that delineates the minimum requirements for program admission. Every BH nursing program surveyed had posted a list of requirements for entry into the nursing program and the time frame in which the educational institution will notify students regarding their admission status.

Review of Core Curriculum

Core curriculum between BH and Kentucky differs greatly in content and focus. In Kentucky nursing programs, as demonstrated in appendix D, the first year to two years of study is devoted to general education classes (such as math, English, history, biology, and chemistry) and pre-requisites classes required for entry into nursing program (such as anatomy and physiology, nutrition, statistics, sociology, and psychology). General education classes, also referred to as core curriculum classes, are placed in baccalaureate programs with an intent to broaden the student's knowledge base, develop their critical thinking skills, and ensure that they understand material they may have missed during high school education (Seraphin, 2016). Even though many students in the United States may feel that taking math or English writing class may not directly contribute to their nursing degree, the purpose of these classes is to establish a well-rounded nurse graduate prepared for any type of niche in the nursing profession. English writing class is essential for anyone who may consider an academic career in nursing, whereas math and statistics may be beneficial to those who may pursue a nursing leadership career.

In contrast, the first year of study in baccalaureate programs in BH are more focused on scientific requirements needed for the medical field. Even though this project reviewed and compared three curriculums, it was noted that other nursing programs follow similar practice. All three curriculums listed in appendix E have a requirement of statistics, informatics, anatomy with histology, biochemistry, microbiology, pathology, and ethics. Two universities have intro to medicine and intro to medicine and nursing, which clearly depicts focus on medical (clinical) content. All three programs have nursing care principles or concept classes introduced in the first two years of study, which this investigator would attribute to the attempt to emphasize and delineate that this is a nursing program and not a medical program of study. Interestingly, one program has foreign language 1 and 2 in their program curriculum, which could be attributed to the need of foreign language knowledge to access international organizations' research databases. This could definitely be a factor in developing the nursing research aspect of the nursing profession in that country considering that majority of research is still conducted by physicians.

Nursing core curriculum however differs in focus of the courses. Whereas in Kentucky, nursing courses are mostly focused on nursing care of patients in medical/surgical, maternity, pediatrics, mental health, community nursing, leadership, and research areas of nursing, BH program are heavily saturated by medical courses such as internal medicine, epidemiology, pediatrics, oncology, transfusiology, dermatovenerology, infectious diseases among many others. It is clear that the focus in BH is mostly medical.

Chapter V: Conclusions

Introduction

This project attempted to shed light on baccalaureate nursing education in Bosnia and Herzegovina (BH), its quality, and congruence with WHO global nursing education standards. Furthermore, the project attempted to compare the baccalaureate nursing education curriculum to the baccalaureate nursing education curriculum of the Commonwealth of Kentucky. One may ask why conduct such a review; the answer is simple – the nursing profession, like any other profession, is becoming a part of the global village alliance and as such, American nursing organizations should be informed about the quality aspects of foreign baccalaureate nursing programs and its graduates. Having a basic understanding of baccalaureate nursing program curricula requirements and congruence with WHO guidelines enables the exchange of talent globally.

Barriers

The investigator of this project faced many barriers while collecting data for this project. The inquiries regarding the nursing school curricula have been sent via emails to the respected academic institutions in hope that the institution would be willing to share information about their curriculum while learning and exchanging the information the investigator had regarding baccalaureate nursing education in the United States (US). To the investigator, this seemed like a win-win situation, where the project will gather information about newly established baccalaureate nursing curricula in BH and the BH academic institutions would learn more about established baccalaureate nursing curricula in the US. However, the investigator found an overall unwillingness to share information. This became evident through unanswered email inquiries sent to schools or unreturned

phone calls to individuals listed as the point of contact for academic institutions' foreign relations office.

One first must consider the cultural underpinnings of the “foreign relations” that schools may have. This project was attempting to gain information from academic institutions that were established during the socialist era in the Balkans, and have been operating in the same fashion, primarily unchanged since then. Therefore, one could draw the conclusion that the academic institutions may not be open to show their “inside formation” to outsiders. Even though socialism is a “thing of the past” in the Balkans today, the socialist mentality is still present within the government and many institutions.

Considering that the project investigator is bilingual and of Bosnian ancestry, the investigator attempted to reach academic institutions by establishing mutual background as well as attempting to “bring the researcher and the academic institution” closer relationally. One of the university's foreign relations office had reached out and forwarded the survey request to the nursing division chair for distribution to faculty. However, it seems that either the faculty was unwilling to fill out surveys or the division chair chose not to disseminate surveys to the faculty. Many academic institutions simply did not reply to requests for cooperation and information, or were not willing to participate.

It was disappointing to see that many academic institutions pride themselves in international cooperation by posting information regarding foreign dignitary's visits, international summit participation, and local development program participation but then ignore request to give program information to an investigator with local roots who is

willing to exchange ideas and knowledge and help with further development of post-secondary nursing education in BH.

This lack of participation and response could also stem from the fact that the researcher is a nurse pursuing a doctoral level of education. Through conversations with nursing faculty serving as assistants to professors in BH, the unwillingness to cooperate could be due to a perceived threat to their job security. As in any academic setting in BH, one must hold a doctoral degree to obtain a professor position. Currently, with only one doctoral program in its infancy in BH, all professors of nursing hold a doctoral degree in a field other than nursing, primarily medicine. Two master's -prepared faculty revealed they felt "held back" in their education efforts because of the current professors' unwillingness to give up their positions. However, are there efforts for strengthening nursing education in BH? Absolutely! Fami foundation has been a catalyst for evaluation and aligning of nursing education with the EU standards and is creating steps to increase nursing faculty members within its rank.

Project results

Through the data analysis, it was revealed that BH, when compared to Commonwealth of Kentucky, does provide enough baccalaureate level nursing educational institutions per capita. BH has 12 baccalaureate nursing programs versus 14 in Kentucky. However, when it comes to master's and doctoral levels of education, Kentucky has 10 MSN and 3 DNP programs whereas BH has seven MSN and only one DNP program. Perhaps these numbers do indicate a move in the right direction for the post-secondary nursing education in BH that may result in more than 10% of workforce having post-secondary nursing education. It would be interesting to conduct an analysis

of registered nurse (RN) education level in BH in 10 years and determine if there has been a rise in educational preparation among RNs in that country. Furthermore, it would be interesting to see if there is a difference in patient outcomes with the increase in nurses' educational preparation.

The largest discrepancy is evident in faculty educational preparation. Even though an independent t-test does not indicate a significantly different mean between two country's professors' education, meaning the number of doctoral prepared faculty is similar, the scientific field in which doctoral education is obtained is the main difference. Almost all professors listed on educational institution websites are doctors of medicine, with the few exceptions of those that have doctoral degrees in other fields, such as chemistry, for example. This fact could also explain why baccalaureate nursing programs are so "medicine theory heavy." Furthermore, it is noted that Kentucky universities employ many more MSN and BSN prepared faculty in their programs (BH does not have any BSN prepared faculty listed) which is a rational decision considering clinical hour requirements in BSN nursing programs and the need for clinical instructors that, according to accrediting agencies, can be BSN prepared.

Through evaluation of WHO global standards for initial education of professional nurses, this particular discrepancy is the only discrepancy that does not meet WHO global standards under standard IV: Faculty. Even though WHO guidelines require a minimum of baccalaureate level of education, with the graduate degree being preferred, it is the state and accreditation requirements that mandate doctoral level of education for university professors. Therefore, even though professors hold terminal degrees, the fact that the degree is not in nursing but another scientific field is what makes the academic

institutions not meet this standard. Nurse educators' surveys also indicated the lack of nursing faculty with appropriate degrees to teach at university level. One must ask why this push to create post-secondary nursing education was conducted without ensuring that adequate faculty is available. Perhaps the government was attempting to prove that nursing education is and can be aligned with the EU requirements because the country has been focusing on applying to the EU member status and for such it would have to have all aspects of education aligned as well. Through review of the curricula of the academic institutions, one could make an assumption that this haste in creating programs at university level affected the nursing education in BH. The curriculum created by physicians for nurses is obviously laden with medical school classes such as basics of surgery, internal medicine, radiology with imaging in healthcare, human genetics, and basics of pathology. Granted, the efforts have been made to present these subjects with the focus on nursing care by adding "and associated nursing care" to these classes, but the investigator could not find any evidence that knowledge of basic pathology would help a graduate be a stronger nurse.

Surveys also revealed a lack of clinical (practical) hours in the curriculum. Through the review of curriculum, the investigator was unable to find any classes with the practicum hours attached, however, lack of communication with the academic institutions may have caused the lack of information regarding their practicum hours. The course simply may have practicum hours included within the course but it may not be stated in the course name. Future research and better communication with the academic institutions is needed to determine if there are any clinical hours and if accrediting agencies in Europe mandates clinical hours.

Recruitment

The US has been recruiting nurses educated abroad for many years. What does this project mean to the recruiting agencies in the United States? First and foremost, nurse graduates from BH academic institutions are strong in medical theory knowledge and therefore could almost rival nurse practitioners in their knowledge of pathological and pathophysiological processes within the body. Therefore, recognizing changes in patients' condition and acting accordingly is definitely an aspect of nursing care that these nurses can deliver. The rigor of testing is similar to medical school students because the majority of professors teach in both programs. Therefore, the level of medical knowledge will surpass the level of knowledge nursing graduates in US obtain during their baccalaureate program. However, these nurses may struggle with aspects of patient care that are strictly nursing focused such as nursing care planning, nursing theory, research, and nursing leadership and management strategies. Having National Council for Licensure Examination for Registered Nurses (NCLEX-RN) preparation classes that would focus on aspects of nursing practice these nurses did not receive through their education could rectify this problem and successfully integrate these nurses into American nursing force.

Lessons learned

Conducting an evaluation of baccalaureate nursing curricula in BH and the US has its challenges. The first is the obvious one: they are essentially different. One is medically-focused whereas other one is more focused on nursing practice as a whole. Finding similarities and differences while trying to establish working relationships with academic institutions across the world presents an additional stressor on the project. The

investigator would suggest to others attempting similar global projects to start the investigation with the department of education or professional nursing organization of the host country. Establishing a solid point of contact within the nursing profession provides the investigator with the direct source of information regarding legislative and practical aspects of nursing and healthcare in the particular country. The point of contact can also provide the investigator with additional contacts within academic institutions, be the investigator's advocate within the country, and establish the investigator's validity to the host institutions.

In addition, it would be optimal if the investigator were able to see and experience the academic institutions first-hand by visiting them personally. Face-to-face contact may form stronger ties and establish long-term cooperation. Funding for such projects can be obtained through various grants, such as the Sigma Theta Thau International (STTI) global research grant, among others. Having to conduct data collection via websites, phone, and Skype[®] creates an additional barrier to the success of the project. This barrier becomes larger if the language is a factor as well. Even though the majority of academics speak at least one foreign language, a professors' English proficiency, or the lack of one, requires hiring interpretation services which, in addition to being costly, also may cause difficulty in determining the accuracy of reported data due to facts being "lost in translation." This investigator has bilingual abilities which made the translation of documents much easier and accurate.

Data collection on academic institutions' curriculum can be obtained from the school websites and the information is easily accessible due to the lack of student privacy laws. In the US, the Family Educational Rights and Privacy Act (FERPA) limits the

amount and type of information shared publicly whereas in BH and many other Balkan countries there are no such limitations. Information regarding student tests and test grades can be found on the students' results pages. Furthermore, there is detailed information regarding course requirements, course descriptions, and course evaluations publicly posted on the websites. This makes data collection regarding certain aspects of curriculum much easier to obtain without contacting the academic institutions. However, some information regarding infrastructure, program evaluation methods, accreditation, number of students per course, and practicum hour requirements is not posted and appeared to be closely guarded. Cooperation from the academic institution is crucial in obtaining that information.

Recommendations

Considering that the project was compromised by the lack of academic institutions' involvement and their willingness to share information, the recommendation is to continue working on developing a solid relationship with the nursing faculty contacts in BH. The investigator will continue to collect data through online surveys and attempt to have a more complete data base with information regarding student-to-faculty ratios, practicum hour requirements, textbook currency, and lack of infrastructure. As the investigator continues to work on finding other contacts in other universities, the hope is to spread the survey to schools originally not chosen for review. This will result in a more complete database ensuring more accurate statistical analysis and resulting recommendations.

This project is limited to only one country in the Balkans, and as such provides information only about baccalaureate nursing program issues in BH. Through the

literature review, with the exception of Slovenia, all other Balkan countries reported similar problems. Expanding or replicating this project in other Balkan countries could benefit the entire region and thus should be recommended and encouraged.

Upon doctoral program graduation, the ultimate goal is to travel to BH and help nursing faculty in the process of aligning the curriculum to EU guidelines and help faculty in creating contacts and collaboration with international organizations offering grants and other financial support for faculty development, particularly faculty members hoping to obtain doctoral degrees.

References

- American Association of Colleges of Nursing. (2014). CCNE Accreditation. Retrieved from <http://www.aacn.nche.edu/ccne-accreditation>
- American Association of Colleges of Nursing. (2008). Mission, Values, & History. Retrieved from <http://www.aacn.nche.edu/ccne-accreditation/about/mission-values-history>
- Avdic, M., Jovic, D., Dropic, E., Van Malderen, G., & Schwendimann, R. (2012). *Formalno visoko obrazovanje medicinskih sestara/tehnicara u Bosni i Hercegovini* [PDF]. Bazel: Swiss Agency for Development and Cooperation SDC.
- Barra, M. (2013). The effect of medical mathematics retention strategies in decreasing attrition rate among African American licensed practical nursing students in a community college. *Journal of Cultural Diversity, 20*(3), 125-133.
- Barron, P. (2014). The Kurt Lewin 3 phases change theory. Retrieved November 3, 2014, from <http://www.change-management-consultant.com/kurt-lewin.html>
- Bishop, S. (2015). Theories of organizational behavior and leadership. In J. B. Butts & K. L. Rich (Authors), *Philosophies and theories for advanced nursing practice* (2nd ed., pp. 349-350). Burlington, MA: Jones & Bartlett Learning.
- Bohinc, M., & Cibic, D. (2005). Country Profile: Slovenia. *Nursing Ethics, 12*(3), 317-322. doi:10.1191/0969733005ne793oa
- Boykin, A., & Schoenhofer, S. (2013). Reframing outcomes: Enhancing personhood. In W. K. Cody (Author), *Philosophical and theoretical perspectives for advanced*

nursing practice (5th ed., pp. 95-103). Burlington, MA: Jones & Bartlett Learning.

Campinha-Bacote, J. (2014). Cultural assessment tools. Retrieved from <http://www.transculturalcare.net/assessment-tools.htm>

Campinha-Bacote, J. (2014). The process of cultural competence in the delivery of healthcare services. Retrieved from <http://www.transculturalcare.net/>

Central Intelligence Agency. (2014). The world fact book: Bosnia and Herzegovina. Retrieved from <http://www.cia.gov/library/publications/the-world-factbook/geos/bk.html>

Collins, S., & Hewer, I. (2014). The impact of the Bologna process on nursing higher education in Europe: A review. *International Journal of Nursing Studies*, 51(1), 150-156. doi:10.1016/j.ijnurstu.2013.07.005

Commission on collegiate nursing education. (2013). *Standards for accreditation of baccalaureate and graduate nursing programs* (Publication). Retrieved November 15, 2014, from Commission on collegiate nursing education website: <http://www.aacn.nche.edu/ccne-accreditation/Standards-Amended-2013.pdf>

Connelly, M. (2014). The Kurt Lewin Change Management model. Retrieved November 3, 2014, from http://www.chnge-management-coach.com/kurt_lewin.html

Council of Europe. (2014). What is bologna process? Retrieved from http://www.coe.int/t/dg4/highereducation/ehea2010/bolognapedestrians_en.asp#P15_226

- Davies, R. (2008). The Bologna process: The quiet revolution in nursing higher education. *Nurse Education Today*, 28(8), 935-942.
doi:10.1016/j.nedt.2008.05.008
- Dearmon, V., Lawson, R., & Hall, H. R. (2011). Concept mapping a baccalaureate nursing program: A method for success. *Journal of Nursing Education*, 50(11), 656-659. doi:10.3928/01484834-20110817-01
- Dornik, E., Vidmar, G., & Žumer, M. (2005). Nursing education in Slovenia and its impact on nurses publishing in their professional journal. *Nurse Education Today*, 25(3), 197-203. doi:10.1016/j.nedt.2005.01.005
- Fleming, V., & Holmes, A. (2005). *Basic nursing and midwifery education programs in Europe: A report to the World Health Organization Regional Office for Europe* (Rep.). Copenhagen, Denmark.
- Fawcett, J. (2013). The state of nursing science: Hallmarks of the 20th and 21st centuries. In W. K. Cody (Author), *Philosophical and theoretical perspectives for advanced nursing practice* (5th ed., pp. 35-42). Burlington, MA: Jones & Bartlett Learning.
- Fondacija Fami. (2014). Formal university-level nurse education. Retrieved from http://www.fondacijafami.org/Component_3_.html
- Fondacija Fami. (2014). Unapređenje formalnog visokoškolskog obrazovanja medicinskih sestara i tehničara. Retrieved from http://www.fondacijafami.org/ProSes_C3_baseline_working_groups_BHS_.html
- Girardet, E. (Ed.). (2009). *Global standards for the initial education of professional nurses and midwives* (World Health Organization).

- Hannaford, G. (2010). Analysis of change management theory. Retrieved November 3, 2014, from www.academia.com
- Kalauz, S. (2014). Critical issues in nursing education in Croatia. *Obzornik Zdravstvene Njege*, 48(2), 76-77. <http://dx.doi.org.10.14528/snr.2014.48.2.15>
- Kavanagh, D., Connolly, P., & Cohen, J. (2006). Promoting Evidence-based Practice Implementing the American Stroke Association's Acute Stroke Program. *Journal of Nursing Care Quality*, 21(2), 135-142.
- Ketefian, S., & Redman, R. W. (2013). Nursing science in the global community. In W. K. Cody (Author), *Philosophical and theoretical perspectives for advanced nursing practice* (5th ed., pp. 279-289). Burlington, MA: Jones & Bartlett Learning.
- Kleffel, D. (2013). Environmental paradigms: Moving toward an ecocentric perspective. In W. K. Cody (Author), *Philosophical and theoretical perspectives for advanced nursing practice* (5th ed., pp. 149-160). Burlington, MA: Jones & Bartlett Learning.
- Klopper, H. C., & Hill, M. (2015). Global advisory panel on the future of nursing and global health. *Journal of Nursing Scholarship*, 47(1), 3-4.
- Lahtinen, P., Leino-Kilpi, H., & Salminen, L. (2013). Nursing education in the European higher education area — Variations in implementation. *Nurse Education Today*. doi:10.1016/j.nedt.2013.09.011
- Long, T. (2014). Influence of international service-learning on nursing student self-efficacy toward cultural competence. *Journal of Nursing Education*, 53(8), 474-478.

- Lovrić, R., Prlić, N., Barać, I., Plužarić, J., Pušeljić, S., Berecki, I., & Radić, R. (2014). Specificities and Differences in Nursing Students' Perceptions of Nursing Clinical Faculties' Competences. *Journal of Professional Nursing, 30*(5), 406-417. doi:10.1016/j.profnurs.2014.03.005
- Macia-Soler, L., Orts-Cortes, M. I., Sanchez, M. E., & Montenegro, A. O. (2013). Simultaneous implementation of the bachelor, master's, and Ph.D. degrees in nursing in the Universidad Jaume I. Castellon de la Plana. *Investigacion Y Educacion En Enfermeria, 31*(2), 305-314.
- Mareno, N., & Hart, P. L. (2014). Cultural competency among nurses with undergraduate and graduate degrees: Implication for nursing education
- McGarry, D., Cashin, A., & Fowler, C. (2012). Child and adolescent psychiatric nursing and the 'plastic man': Reflections on the implementation of change drawing insights from Lewin's theory of planned change. *Contemporary Nurse: A Journal for the Australian Nursing Profession, 41*(2), 263-270.
- Medicinski Fakultet: Odsjek Zdravstvenih Studija. (2013). Uvod u Medicinu. Retrieved October 19, 2014, from http://www.untz.ba/uploads/file/nastava/studijski_prog_I_ciklusa/2013-14/MedF/Odsjek_zdravstvenih_studija_I%20ciklus.pdf
- Momeni, P., Jirwe, M., & Emami, A. (2008). Enabling nursing students to become culturally competent - a documentary analysis of curricula in all Swedish nursing programs. *Scandinavian Journal of Caring Sciences, 22*(4), 499-506. <http://dx.doi.org/10.1111/j.1471-6712.2007.00554.x>

- Muhibic, S. (2010). Higher education in Bosnia and Herzegovina. *European Commission TEMPUS*. Retrieved from http://eacea.ec.europa.eu/tempus/participating_countries/overview/bosnia_and_herzegovina_country_fiche_final.pdf
- Musolino, G. M., Burkhalter, S. T., Shontol, T., Crookston, B., Ward, R. S., & Harris, R. M. (2010). Understanding and eliminating disparities in health care: Development and assessment of cultural competence for interdisciplinary health professionals at the University of Utah-A 3-year investigation. *Journal of Physical Therapy Education, 24*(1), 25-36.
- Ndiwane, A., Miller, K. H., Bonner, A., & Imperio, K. (2004). Enhancing cultural competencies of advanced practice nurses: Healthcare challenges in the twenty first century. *Journal of Cultural Diversity, 11*(3), 118-121.
- Nick, J. M., Sharts-Hopko, N. C., & Leners, D. W. (2013). From Committee to Commission: The History of the NLN's Academic Certified Nurse Educator Program. *Nursing Education Perspectives, 34*(5), 298-302.
<http://dx.doi.org/10.5480/1536-5026-34.5.298>
- Ovcina, A., Svrakic, S., Dervisevic, E., & Siercic, A. (2012, March 16). Sestrinska profesija u svjetlu zdravstvenog reinzenjeringa. Retrieved from <http://www.rauche.net/izdanja/broj-1/sestrinska-profesija-u-svijetlu-zdravstvenog-reinzenjeringa/#more-437>
- Pahor, M. (1995). The first BSc nursing curriculum in Slovenia: Its development and characteristics. *Obzornik Zdravstvene Njege*.

- Palese, A., Zabalegui, A., Sigurdardottir, A. K., Bergin, M., Dobrowolska, B., Gasser, C., . . . Jackson, C. (2014). Bologna Process, More or Less: Nursing Education in the European Economic Area: A Discussion Paper. *International Journal of Nursing Education Scholarship*, 11(1). doi:10.1515/ijnes-2013-0022
- Parse, R. R. (2013). Nursing science: The transformation of practice. In W. K. Cody (Author), *Philosophical and theoretical perspectives for advanced nursing practice* (5th ed., pp. 161-168). Burlington, MA: Jones & Bartlett Learning.
- Pipe, T. B. (2013). Optimizing nursing care by integrating theory-driven evidence based practice. In W. K. Cody (Author), *Philosophical and theoretical perspectives for advanced nursing practice* (5th ed., pp. 303 -308). Burlington, MA: Jones & Bartlett Learning.
- Polit, D. F., and C. T. Beck. *Essentials of Nursing Research: Appraising Evidence for Nursing Practice*. 8th ed. Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins, 2014. Print.
- Purnell, L. (2015). Models and theories focused on culture. In J. B. Butts & K. L. Rich (Authors), *Philosophies and theories for advanced nursing practice* (2nd ed., pp. 521-522). Burlington, MA: Jones & Bartlett Learning.
- Santric-Milicevic, M., Matejic, B., Terzic-Supic, Z., Vasic, V., Babic, U., & Vukovic, V. (2014). Determinants of intention to work abroad of college and specialist nursing graduates in Serbia. *Nurse Education Today*, 12(22). doi:http://dx.doi.org/10.1016/j.nedt.2014.12.022

- Savopoulou, G. (2001). Undergraduate oncology nursing education in the Balkans and the Middle East. *Journal of Cancer Education*, 16, 139-141. Retrieved from www.elsevier.com/nedt.
- Scanlan, J. M., & Hernandez, C. A. (2014). Challenges of implementing a doctoral program in an international exchange in Cuba through the lens of Kanter's empowerment theory. *Nurse Education in Practice*, 14, 357-362. Retrieved from www.elsevier.com/nepr.
- Science Council. (2009). What is science? Retrieved from <http://www.sciencecouncil.org/definition>
- Seraphin, C. (2016). General education requirements: What's the point? Retrieved from <http://www.collegexpress.com/articles-and-advice/majors-and-academics/articles/college-academics/general-education-requirements-whats-point/>
- Stabback, P. (2007). Bosnia and Herzegovina: Synopsis of the case study. Retrieved from http://www.see-educoop.net/education_in/pdf/case_study_bih-bih_enl_t05.pdf
- Strojan, N., Zorc, J., & Savic, B. S. (2012). Nurses' attitudes towards research in nursing. *Obzornik Zdravstvene Njege*, 46(1), 47-55.
- Wold, J. L., Crawford, K., & Jashi, M. (2013). Preparing Nurse Educators in the Country of Georgia. *The Journal of Continuing Education in Nursing*, 44(4), 179-185. doi:10.3928/00220124-20130201-47
- Zabalegui, A., Macia, L., Marquez, J., Ricoma, R., Nuin, C., Mariscal, I., . . . Moncho, J. (2006). Changes in Nursing Education in the European Union. *Journal of Nursing Scholarship*, 38(2), 114-118. doi:10.1111/j.1547-5069.2006.00087.x

Appendix A



Institutional Review Board
4201 South Washington Street
Marion, IN 46953

Tel: 765-677-2090
Fax: 765-677-6647

NOTIFICATION OF APPROVAL TO CONDUCT RESEARCH

NAME OF INVESTIGATOR: Svjetlana Watson

TITLE OF INVESTIGATION: Evaluation of Higher Nursing Education
in Bosnia and Herzegovina

IRB ID NUMBER: 866.15

The Institutional Review Board of Indiana Wesleyan University reviewed your proposal and has reached the following decision.

The proposal has been:

X **APPROVED**

This approval is valid for one year from the date of this notice. If there are any changes in the project during the year or if the project extends beyond the one year period, a new proposal must be submitted to the IRB for review.

**APPROVED PENDING SUBMISSION OF REVISIONS
(See below)**

ALL REVISIONS MADE MUST BE HIGHLIGHTED UPON
RESUBMISSION

NOT APPROVED (See below)

Comments/modifications required:

During the Expedited review process a note inquiring about the details on how the data from your study would be destroyed was made. Your research has been approved as submitted to the IWU IRB, but it is suggested that you update your final proposal to include the information on data protection.

Signature:  **Date:** June 15, 2015
Chair, Institutional Review Board

Reviewed by: Expedited

Appendix B

World Health Organization standards for nursing education evaluation tool:

Evaluacijski upitnik za standarde edukacije sestrištva Svjetske Zdravstvene Organizacije

1. Program graduates/ Maturanti programa:

- a. Do program graduates receive professional licensure? Yes/no Da li maturanti programa dobijaju dozovolu za rad/drzavni ispit? DA/NE
- b. Do program graduates receive a professional degree? Yes/no Da li maturanti programa dobijaju profesionalno zvanje? DA/NE
- c. Are program graduates eligible for entry into advance programs? Yes/ no Da li maturanti mogu nastaviti obrazovanje u struci? Da/NE
- d. Does the school employ methods to track professional success? Yes/no Da li skola primjenjuje metodu pracenja profesionalnog uspjeha nakon maturiranja? DA/NE

2. Mission/ Vision Misija/Vizija

- a. School has a mission/vision statement? Yes/no Skolska ustanova ima ustanovljenu misiju/viziju? DA/NE
- b. School has a summative and formative assessment tools? Yes/no Skolska ustanova primjenjuje sumativne i formativne metode ocjene znanja? DA/NE
- c. School has appropriate facilities? Yes/no Skolska ustanova ima odgovarajuci prostor/ucionice? DA/NE

3. Curriculum Nastavni plan/Program

- a. Curriculum meets national and international standards? Yes/no Nastavni plan/program je u skladu za drzavnih i medjunarodnim standardima? DA/NE

- b. Curriculum uses e-learning Yes/no Nastavni plan primjenjuje učenje na daljinu?
DA/NE
- c. Curriculum uses self-directed learning? Yes/no Nastavni plan promjenjuje
samostalno učenje? DA/NE
- d. Curriculum uses clinical simulation? Yes/no Nastavni plan primjenjuje kliničku
simulaciju? DA/NE
- e. Curriculum requires 4600 hrs of study for completion of program? Yes/no Nastavni
plan zahtjeva 4600 sati naučnog rada kao uslov za maturiranje? DA/NE
- f. Curriculum utilizes current evidence based practice? Yes/no Nastavni plan
primjenjuje savremeni naučno-dokazani rad? DA/NE

4. Age of textbooks (year published) ? Koliko su stari udžbenici (god izdanja)?

- a. <2 years/god
- b. 2-5 years/god
- c. 5-7years/god
- d. 7-10 years/god
- e. >10 years /god

5. Faculty/ Nastavni kadar

- a. Head of nursing program is a nurse with a graduate degree? Yes/no Dekan sestrištva
je med. Sestra za visokom diplomom? DA/NE
- b. Faculty has a minimum of baccalaureate degree in nursing? Yes/no Nastavni kadar
ima minimum bakalaureate diploma sestrištva? DA/NE
- c. Nursing guest lecturers have graduate degrees (master's / doctorate)? Yes/no

Gostujući predavaci imaju visoke diplome (magistrate/doktorat)? DA/NE

d. Clinical faculty has a minimum of university degree? Yes/no Klinički nastavni kadar imam minimum univerzitetsku diplomu (Baccalaurate/Diplomirana Med Ses.)? DA/NE

6. Policy/Zakonsko-upravni dokumenti

a. School has a policy and system in place that validates updated clinical and educational expertise? Yes/no Školska ustanova ima plan i sistem za validaciju tekućeg/savremenog kliničkog i edukacijskog znanja nastavnog kadra? DA/NE

b. School has a policy in place to increase student retention? Yes/no Školska ustanova ima plan i sistem za zadržavanje studenata (studentski uspjeh)? DA/NE

c. State examination success tracked? Yes/no Školska ustanova prati uspjeh na državnom ispitu svih maturanata? DA/NE Comments/ Additional information: Komentari/Dodatne informacije:

Appendix C

Nursing Faculty Survey

1. What is your current position within the educational organization?

- a. Professor
- b. Assistant Professor
- c. Faculty/Instructor
- d. Clinical faculty/Instructor
- e. other (please specify in comments section)

2. What is your highest degree obtained?

- a. Baccalaureate degree
- b. Master's degree
- c. Doctorate
- d. Other (Please specify in comments section)

3. Your degree is in what scientific field?

- a. Nursing
- b. Medicine
- c. Biology
- d. Physics
- e. Chemistry
- f. Other (Please specify in comments section)

4. How long have you been in current position?

a. 0-2 years

b. 3-5 years

c. 6-10 years

d. more than 10 years

5. What is the faculty to student ration for your facility?

a. 1:5

b. 1:10

c. 1:20

d. 1: 30

e. 1:40

6. How do you evaluate student knowledge?

a. Multiple choice test

b. Essay

c. Verbal presentation

d. Verbal question-answer examination

7. How do you evaluate the quality of provided education for your educational institution?

a. Standardized testing

b. Board examination

c. Employer report

d. Accreditation compliance

8. Can you identify strengths and weaknesses of your nursing education institution?

Open comment section

9. Does your nursing education institution have accreditation by a governing body?

a. yes

b. no

10. Comments:

Open comment section

Appendix D

Table 2
KY Curriculum

Program 1	Program 2	Program 3
English 1	Campus culture	Biology
Chemistry	English 1	English 1
History	Philosophy	History
College Math	Medical Ethics	Psychology
Foreign language	Intro to psychology	Fine arts elective
		Interdisciplinary program
English 2	Lifespan Development (psychology 2)	
Microbiology	Sociology	Fundamentals of nursing
Introduction to Nursing	College math	Nutrition
Fundamentals of Speaking (Communications)	Statistics	Biology
Arts and Humanities exploration course	Intro to Biology	Philosophy
		Interdisciplinary program
English 3	Chemistry for health professions	
Anatomy and physiology 1	Microbiology with lab	Nursing process
Nutrition	Anatomy and Physiology	Global nursing
Statistics	Human Nutrition	Nursing health assessment
	Lifespan Pathophysiology	Biology
Developmental psychology		
Anatomy and physiology 2	Nursing pharmacotherapeutics	Pharmacology with pathophysiology 1
Social and cultural connections	History 1	Medical surgical nursing 1
Local to global connections	Arts and humanities elective	Math
	Oral communications	Laboratory science
Pathology	Understanding cultural diversity	Interdisciplinary program
Nursing assessment		
Nursing assessment lab	Community health nursing	Medical surgical nursing 2
Fundamentals of Nursing	Health Assessment	Nursing research
		Pharmacology with pathophysiology 2
Fundamentals of nursing clinical	Therapeutic nursing interventions	
	Foundations for professional nursing practice	English 2
Pharmacology 1		Theology
Health promotions	Adult health nursing	
		Healthcare of women thru lifespan
Medical-surgical care 1	Psychiatric mental health nursing	
	Nursing research for evidence based practice	Mental health nursing
Medical-surgical care clinical		Psychology thru lifespan
Psychiatric nursng		

Psychiatric nursng clinical	Childbearing family nursing	Pediatrics
Pharmacology 2	Leadership and management	Public health
Evidence based practice	Child health nursing	Interdisciplinary program
Medical-surgical care 2	Global health care issues and policies	Philosophy 2
Medical-surgical care 2 clinical	Synthesis of complex health needs	Theology elective
Obstetrics and pediatrics	Transition to nursing practice	Complex nursing care
Obstetrics and pediatrics clinical	Community leadership practicum	Healthcare management
Professional issues in nursing and leadership	Capstone professional nursing practicum	Critical thinking skills
Complex nursing		
Senior practicum		
Community health		
Community Health clinical		

Appendix E

Table 3

BH Curriculum

Program 1	Program 2	Program 3
Health Sociology with public health systems	Medical Physiology	Microbiology with parasitology
Basic Research in Healthcare	Anatomy and Histology	Biochemistry
Statistical Methods	Medical Biochemistry	Intro to medicine
Informatics	Medical Sociology	Healthcare ethics
Medical Deontology (ethics and socio-health policy)	Nursing care concepts with history	General principles of nursing care
Foreign Language	Medical psychology and psychopathology	
		Anatomy
Basics if Anatomy and Histology	Medical ethics	Histology
Medical Biochemistry	Social medicine, organization and economy of healthcare	Physiology
Intro to medicine and nursing	Medical Informatics	Legal and medical ethics of healthcare workers
Foreign language II	Microbiology and immunology	Medical Psychology
	Pathology	Physical and health development
Human Genetics	Pathophysiology	
Microbiology with parasitology		Medical statistics
Basics of Pathology	Internal medicine with nursing care	Epidemiology
Urgent medicine, reanimation, and intensive nursing care	Pediatrics with nursing care	Communication psychology
Nursing care in clinical-hospital environment	Neurology with nursing care	Medical nutrition
	Urgent medicine	Medical Informatics
Epidemiology	Pharmacology with toxicology	
Basics of pharmacology with toxicology		Pathology
Care of patients with infective diseases	Family medicine with care	Pathophysiology
Internal diseases basics and nursing care	Surgery with nursing care	Pharmacology
Psychology in Healthcare	Gynecology and obstetrics with nursing care	Health promotion
	Psychiatry with nursing care	Health ecology and hygiene
Pediatrics nursing care		
Nursing care of surgical patients and basics of surgery	Infectious diseases with nursing care	Internal medicine with nursing care
Nursing care of neuropsychiatric patients and basics of neuropsychiatry	Medical rehabilitation	Infectology and nursing care
Geriatric nursing care and basics of geriatrics	Epidemiology	
Women nursing care with basics of gynecology and obstetrics	Healthcare Management	Otorhinolaryngology

	Health ecology and hygiene	Surgery with nursing care Gynecology, obstetrics and neonatology
Basics of transfusiology		Nursing care of gynecological patients
Prevention care in family medicine and primary healthcare	Geriatrics with nursing care	Geriatrics
Oncology and palliative nursing care	Palliative care	
Nutrition and dietetics	Intensive care	
	Radiotherapy and oncology nursing care	Pediatrics with nursing care
Radiology and Imaging in healthcare	Capstone project	Ophthalmology
Basics of surgery instrumentation (assisting)		Dermatovenerology
Nursing care of cardio-pulmonary patients and intensive care of cardiology patients		Rehabilitation and physical therapy
Ophthalmology and associated care		Family medicine
Pedagogy, didactics, and methodology of health education		Social medicine
		Neurology with nursing care
Ergonoloics and health in workplace		Urgent medicine
Dermatovenerology and associated care		Psychiatry with nursing care
Anesthesia technology and procedures		
Organization and administration of healthcare and Healthcare systems		Oncology
		Methods of scientific research
Long-term nursing care		