

2017

Impact of Hospital Closures on Families in Rural Communities

Onetha Dickerson
Walden University

Follow this and additional works at: <https://scholarworks.waldenu.edu/dissertations>

 Part of the [Public Health Education and Promotion Commons](#)

This Dissertation is brought to you for free and open access by the Walden Dissertations and Doctoral Studies Collection at ScholarWorks. It has been accepted for inclusion in Walden Dissertations and Doctoral Studies by an authorized administrator of ScholarWorks. For more information, please contact ScholarWorks@waldenu.edu.

Walden University

College of Health Sciences

This is to certify that the doctoral study by

Onetha Dickerson

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee

Dr. Janice Long, Committee Chairperson, Nursing Faculty
Dr. Robert McWhirt, Committee Member, Nursing Faculty
Dr. Casey Cole, University Reviewer, Nursing Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University
2017

Abstract

Impact of Hospital Closures on Families in Rural Communities

by

Onetha Dickerson

MS, Walden University, 2014

BS, Indiana Wesleyan, 2011

Project Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Nursing Practice

Walden University

August 2017

Abstract

Closure of community hospitals directly impacts the health of rural populations and indirectly affects economic growth and access to medical services. The purpose of this doctoral project was to assess the causes and impacts of hospital closures on rural communities. The practice-focused question addressed the implications of hospital closures on individuals and families in rural communities. A systematic review of the literature, based on conflict theory, addressed populations that lack health care facility resources. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses guided the selection of 8 journal articles for review. The inclusion criteria for articles encompassed the impact of closure of health care facilities on the rural community and if the information about the causes of closure of health care facilities provided recommendations about hospital closure. The John Hopkins Nursing Evidence-Based Practice Rating Scale framework was used to determine the level and quality of evidence of the journal articles selected for review. Findings indicated that hospital closure has a negative effect on rural residents' health due to prolonged travel time for patients to access care, deterioration of health when access is not possible and increased expenses for services from remote locations. Loss of jobs due to hospital closure results in loss of income and decreased access to affordable care for community members. Findings from this project may be used to promote social change for regional and national stakeholders as the project raises awareness of the need to be diligent in preserving and enhancing health services in rural areas.

Impact of Hospital Closures on Families in Rural Communities

by

Onetha Dickerson

MS, Walden University, 2014

BS, Indiana Wesleyan, 2011

Project Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Nursing Practice

Walden University

August 2017

Acknowledgments

I would like to extend my deepest appreciation to Dr. David Lachman for his support, guidance, and encouragement throughout my practicum. Without his knowledge and insight, the work for this project could have proved a challenging experience. Dr. Lachman provided continual feedback and recommendations surrounding my coursework and how to improve my doctoral project. His assistance in navigating the doctoral program was instrumental.

Table of Contents

List of Tables	iii
List of Figures	iv
Section 1: Overview of the Evidence-Based Project	1
Problem Statement	2
Purpose Statement.....	3
Nature of the Doctoral Project	4
Significance.....	5
Summary.....	5
Section 2: Background and Context	7
Concepts, Models, and Theories	7
Definition of Terms.....	8
Relevance to Nursing Practice	8
Local Background and Context	10
Role of DNP Student	11
Summary.....	12
Section 3: Collection and Analysis of Evidence.....	14
Practice-Focused Question.....	15
Sources of Evidence.....	16

Data Analysis	17
Summary	18
Section 4: Findings and Recommendations	19
Sources of Evidence.....	19
Findings and Implications.....	32
Levels of Evidence.....	32
Practice-Focused Question.....	32
Unanticipated Limitations.....	35
Implications of the Findings	36
Implications for Positive Social Change.....	36
Recommendations.....	37
Strength and Limitations of the Project	38
Summary	39
Section 5: Dissemination Plan	40
Dissemination Plan	40
Analysis of Self.....	42
Summary	43
References.....	44

List of Tables

Table 1: Articles of Inclusion..... 22

Table 2: Articles of Exclusion23

Table 3: Summary of Reviewed Journal Articles24

List of Figures

Figure 1. Process followed in selecting journal articles used in the study21

Section 1: Overview of the Evidence-Based Project

Most hospitals that undergo closure are located in rural areas (Hung, Kozhimannil, Casey, & Moscovice 2016). As a result of hospital closure, patients who have limited access to care due to distance from the facility are in an even more vulnerable position. Many reasons have been identified for why hospitals close. One reason for rural hospital closure is the low population in the area, which affects the number of patients that hospitals receive (Hung et al., 2016; Matsumoto, Ogawa, Kashima, & Takeuchi, 2012). The low turnout of patients reduces revenue for a rural hospital leading to subsequent closure (Bloom, Propper, Seiler, & Van Reenen, 2015). Additionally, the low turnout of patients may cause practitioners to search for jobs in areas that can enable them to practice their professions and produce a sustainable personal income. Another reason for closure of hospitals is the lack of expansion of Medicaid and Medicare (Hsia, Srebotnjak, Kanzaria, McCulloch, & Auerbach, 2012). Most rural hospitals serve people with low incomes and older adults who are insured by the government. Therefore, as governmental reductions in Medicaid and Medicare occur, hospitals that rely on government funding become financially unsustainable resulting in closure (Hsia et al., 2012).

Closure of hospitals affects the health of the community because it is the locus of health care in the area it is located. The sickness of family members worsens and diseases may spread within the community after a hospital in their locality is closed. Patients may seek medical services in hospitals located in other areas, but traveling to the distant places causes their illnesses to worsen (Matsumoto et al., 2012). According to Kashima, Matsumoto, Ogawa, Eboshida, and Takeuchi (2012), hospitals are important during

emergency cases; therefore, closure of a hospital in an area may contribute to members of families losing their lives because of delayed access to medical attention. Besides affecting the health of families in an area, closure of a hospital also impacts the economy of the community. Hospitals are sources of employment for many people in an area, and closure of hospitals affects incomes of families (Henry, 2015).

The Doctor of Nursing Practice (DNP) program requires students to initiate practice change or policy change in their workplaces through evidence-based research (Lloyd, D'Errico, & Bristol, 2016). This DNP project included a systematic review of studies conducted on the impact of hospital closure in rural communities. Various studies provided information for this project, and findings will be useful in making credible, evidence-based practice change that enhances existence of community hospitals. This section includes the problem statement, purpose statement and nature of the project.

Problem Statement

Health care is a basic need for everyone, and the government has striven to ensure that all citizens have access to health care services by instituting the Medicaid and Medicare programs (Hsia et al., 2012). Although health care services can be provided in other institutions, hospitals are the main places where residents in rural communities receive medical attention (Henry, 2015). Hospitals also employ many residents directly or indirectly and are a source of income to most families in an area. As a result, hospitals influence the economy of the area where they are located. Hospitals are undergoing closure at a fast rate despite their importance in an area (Henry, 2015). According to Henry (2015), about 20 hospitals have been closed in New York since 2003, and it is projected that more hospitals will close across the United States. The closure of a hospital

has implications for families in the community regarding access to health care services, the economy, and family incomes. This capstone project is important in the field of nursing practice because the findings may be used to initiate efforts to ensure that communities receive uninterrupted care as a result of continuous existence of hospitals.

Purpose Statement

The purpose of this systematic review project was to assess the impact of hospital closure on families in rural communities. The basic function of hospitals in a community is to offer health care services; however, hospitals do not satisfy their function when closed, which causes a gap in practice and a gap in services to the community. The closure of a hospital may result from financial unsustainability, lack of personnel, ineffective management, and poor government policies (Henry, 2015). Hospitals provide health care services to people and are also a source of employment and income to families. The impact of hospital closure on the families in the community is multifaceted. Most studies on the impact of hospital closure on the community have focused on a single aspect of the problem such as effects on older patients, individuals with kidney failure, and pregnant women (Kashima et al., 2012; Lorch, Srinivas, Ahlberg, & Small, 2013; Matsumoto et al., 2012; Zimmermann, Carnahan, Paulsey, & Molina, 2016). The systematic review in the current study involved synthesizing information from a variety of published studies. The findings may be useful in developing interventions to reduce hospital closures. This project was guided by the following question to meet its purpose and objectives: What implications occur on families in the community after closure of a hospital in their locality?

Nature of the Doctoral Project

The sources of evidence used in developing the project included academic journal articles related to the impact on families in the community during hospital closure. The journal articles were obtained online from academic databases including ProQuest, EBSCOhost, PubMed, and PMC. Search terms included *impact of hospital closure* and *families in the community*.

This systematic review was guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement (Liberati et al., 2009). The PRISMA statement is a widely accepted approach for systematic reviews by scholars. The methodology enabled credible analysis of journal articles addressing the impact on families in the community during hospital closure. The main sections contained in the PRISMA statement include the title, abstract, introduction, methods, results, discussion, and findings. Each section contains a particular number of items that total up to 27 (Liberati et al., 2009).

Important elements in the methodology section of the PRISMA included eligibility criteria, information sources, search criteria, data collection procedure, risk of bias in individual studies, synthesis of results, and risk of bias across studies. These elements constituted the checklist used in this study in selecting the reviewed journal articles. I also followed the items in the PRISMA statement such as study selection, study characteristics, risk of bias within studies, results of individual studies, and synthesis of results. The current study contains a summary of evidence as indicated in the discussion section of the PRISMA statement (Liberati et al., 2009).

The findings of the capstone project may be useful in creating awareness about

the need for stakeholders in the health care sector to develop interventions that promote access to care for communities left without health care services after hospital closure. Nurses may receive employment opportunities to practice in hospitals in rural areas. Findings may also create motivation among local residents to seek knowledge about medical services in their community. Additionally, findings may provide guidance during the process of hospital closure. The study may impact professional practice and social change.

Significance

The findings of the capstone project may impact stakeholders including families in rural communities, hospital managers, local organizations, and government leaders. The purpose of the capstone involved identifying the causes and impacts of hospital closure on families in rural communities. Findings of the capstone project may initiate interventions to prevent hospital closure and avoid related problems in the community. The findings of the project may promote positive social change through creating awareness among health care providers, administrators, and policymakers who may promote alternative programs for access to health care services in the communities affected.

Summary

The basic role of a hospital in a community is to provide health care services to families. In addition, hospitals are a source of employment to members of families and are important in stabilizing the economy of an area. Despite the benefits created by hospitals to the community, closure of hospitals has been on the rise especially in rural areas. Some of the factors that lead to closure of hospitals include financial

unsustainability, poor management, inadequate qualified personnel, and ineffective government policies. Though the reasons for closure of a hospital may be genuine, it has several implications for the families that depend on it for income and health care services. The gap in practice that the capstone project addressed is that hospitals in the communities do not meet the intended purpose of delivering medical services due to closure.

The purpose of conducting this project was to assess the implications of hospital closure on families in rural communities. The objectives that ensured the purpose of the project was met included identification and evaluation of the impacts of hospital closure on families in rural communities. The project was a systematic review of scholarly journal articles; therefore, it was evidence based and offered credible findings that can be generalized or transferred to similar areas of practice. Stakeholders who may be impacted by the findings of the capstone project include families in rural communities, managers of hospitals in the communities, local organizations in the communities, and government leaders. Stakeholders may better appreciate the importance of hospitals after learning about the impact of hospital closure on communities.

Section 2: Background and Context

Hospitals are the main facilities in which families in the community get medical services and employment. Many hospitals in rural communities are being closed, which is affecting the health of the family members in the communities as well as their economic well-being. The purpose of this capstone project was to assess the impact of hospital closure on families in rural communities. To meet the purpose, the capstone project was guided by the following practice-focused question: What implications occur on families in the community after closure of a hospital in their locality? The second section of this capstone project contains the following topics: concepts, models, and theories; relevance of nursing practice; local background and context; role of the DNP student; and the summary.

Concepts, Models, and Theories

The project was based on conflict theory. According to Bertram and Celikates (2015), conflict theory is based on the assumption that groupings in the society occur because of differences in power, political representation, resource allocation, and access to services. From the perspective of health care delivery, the conflict theory is demonstrated by the inequalities that exist in providing health care services (Bertram & Celikates, 2015). People in urban areas who are mostly wealthier get a higher quality of health care services compared to poor families in rural areas (Bazzoli, Lee, Hsieh, & Mobley, 2012). In addition, people living in rural areas in most cases are adults age 65 and older, have low socioeconomic status, and are more likely to become ill (Ulrich-Schad, Henly, & Safford, 2013). The low economic growth in rural areas affects affordability of medical services, leading to closure of hospitals. Hospital closures affect

families who may not have access to health care causing their sicknesses to worsen (Chen, Xi, Bennett, & Hibbert, 2015; Hsia et al., 2012).

Definition of Terms

The following terms used in the capstone project may have different meanings in other contexts:

Community: A social unit that comprises several families who share the same cultures, identity, or religion and are living in the same geographical area (Skinner & Ichii, 2015). In the context of this capstone project, community referred to families located in rural areas.

Family: A group of people including parents or guardians and children who live together in a household (Skinner & Ichii, 2015).

Hospital: An institution that offers health care services to the community. Hospitals have specialized medical personnel such as nurses and physicians and medical equipment (Bloom et al., 2015).

Hospital closure: An event that occurs when a hospital ceases offering health care services to the community. During hospital closure, the personnel seek job opportunities elsewhere and the equipment is transferred to other hospitals leaving the structures only (SteelFisher, Martin, Dowal, & Inouye, 2013).

Relevance to Nursing Practice

Henry (2015) stated the reasons for closure of rural hospitals in the United States include bankruptcy, poor management, changes in Medicaid and Medicare payment procedures, court decisions, and failure to meet state requirements. According to Henry, hospital closure in rural areas was most prevalent during the 1980s. Henry argued that

most hospitals were closed in the 1980s because of the impact of changes in methodologies for Medicare payment, rural migration, and shifting demographics. Hospitals are among the leading employers in rural communities; therefore, closure of hospitals creates an economic gap and the effects may be difficult to reverse by initiating federal government projects (Countouris, Gilmore, & Yonas, 2014). Most of the states affected by hospital closure have many counties in rural areas (Bazzoli et al., 2012). According to Henry, by 2015 at least 20 hospitals had been closed in New York since 2003. Other states affected by hospital closure included California, Alabama, Georgia, Texas, and Mississippi (Henry, 2015). In addition, the rural areas have low populations are not viable for investing, which reduces the number of hospitals being established (Bloom et al., 2015; Henry, 2015).

Closure of hospitals not affects the health of families in the community, but also nursing practice. Hospital closure leads to nurses and other personnel losing jobs. The nurses also lose experience if they endure long periods without practicing. The nursing profession requires that practitioners offer continuous services to enable nurses to maintain competency to practice (Cagliuso, 2014). The loss of experience can lead to poor delivery of services and loss of ability to practice. To provide the opportunity to practice, hospitals in rural areas need to remain functional and new facilities need to be established. To ensure sustainability in care delivery in rural areas, hospitals can partner with other health care facilities or hired healthcare service providers. Community organizations can also partner with the local government to establish not-for-profit nurse-run clinics in rural areas (Bright, Felix, Kuper, & Polack, 2017). The existence of health care institutions in the rural areas will also ensure nurses get opportunities to practice

theoretical knowledge (Cagliuso, 2014).

One of the reasons for closure of hospitals is bankruptcy due to the government reducing funding by minimizing expenditure on Medicaid and Medicare (Zimmermann et al., 2016). To prevent closure of hospitals in rural communities, some states are increasing Medicaid and Medicare funds to the hospitals (Henry, 2016). In other communities, local organizations are negotiating with hospital managers about healthcare services that the population can afford. As a result, hospitals are transitioning from a cost-based reimbursement model to a value-based reimbursement model to be financially sustainable in rural areas (Thomas, DiClemente, & Snella, 2014).

This doctoral project focused on assessing the impact of hospital closure, but it also involved identifying the causes and effects of closure. Nursing practice requires making evidence-based decisions by gathering all information related to the problem being investigated. This capstone project was useful in advancing nursing practice because it involved identifying the causes of hospital closure in addition to assessing the impact of the problem.

Local Background and Context

The basic function of hospitals in a community is to offer medical services to the people; however, hospitals are also a source of employment to local residents. According to Thomas et al. (2014), hospitals are important in enhancing the economy of a community because people from other regions come for medical services, thereby creating revenue in the area of location of the hospital. Hospitals are also important in causing other businesses to be developed in an area because industries interdepend for various services (Thomas et al., 2014). Hospital closure has a multifaceted impact on

families in the community. The practice-focused question of the capstone project involved identifying the impact of hospital closure on families in the community.

The context in which the problem exists is rural communities. Most literature indicated that the problem of hospital closure is prevalent among rural communities (Henry, 2015; Hung et al., 2016; Bloom et al., 2015). In addition, most rural families contain poor and older adults who are in need of medical attention (Matsumoto et al., 2012). The state and federal context in which the problem exists includes leadership at the county levels because most hospitals in rural communities are owned by counties (Henry, 2015).

Important terms used in this doctoral project included hospital closure, systematic review, community, families, and impacts. Systematic review means analyzing information contained in journal articles related to the topic of the capstone project (Liberati et al., 2009). The term impact refers to the effects that hospital closure have on the families who depend on it.

Role of DNP Student

I am a nurse who is charged with offering care under the supervision of a physician. My objective is to practice independently in offering primary care, and that is the reason for my enrollment in the DNP program. The degree program prepares students for system leadership, quality improvement, and evidence-based practice. My capstone project met the objectives of the DNP program because it was evidence based involving systematic analysis of documented research.

One of my roles in the DNP project involved suggesting the capstone topic to the supervisory committee. After its approval, I developed the capstone through stages

including writing the proposal and conducting the project. The capstone, which is based on systematic review, required me to search online for journal articles that were the source of information for the project.

The health needs of rural populations have not been addressed as well as those in urban areas, yet most of the facilities in the underdeveloped areas are being closed (Henry, 2016). The closure of rural hospitals has direct implications for the community, and the indirect effects may contribute to the worsening of the health status of families. An intervention for the problem is needed, and that is why I conducted an assessment on the impact of closure of hospitals on communities. Leaders and stakeholders will realize the extent of effects of hospital closures after reading my project and will realize the urgency of intervening in hospital closures.

While conducting the project, I could have been biased by focusing on studies conducted in particular countries or by particular authors. Also, I could have been biased by avoiding studies with titles that may not have been pleasing to me. To avoid these biases, I followed the PRISMA statement while choosing the journals to be used in developing the project.

Summary

The subtopics in this section included concepts, models, and theories; relevance to nursing practice; local background and context; and role of the DNP student. The capstone project was based on conflict theory. The perspective of conflict theory is that poor people are not sufficiently provided with important resources such as hospitals. The findings from the reviewed literature are consistent with conflict theory because hospital closure has been prevalent in rural areas. The motivation for conducting the capstone

project was to create awareness among health care stakeholders about the need for interventions to address the problem.

Section 3: Collection and Analysis of Evidence

Health care is among the universal basic needs to which everyone is entitled (Wan Puteh, Akma Ahmad, Aizuddin, Zainal, & Ismail, 2017). Medicaid and Medicare programs instituted by the government help in covering the costs of health care services for the poor, disabled, and older populations in the United States. Hospitals are the main centers from which rural populations access medical services (Thomas et al., 2014). Hospitals also enhance the livelihood of rural populations by creating both direct and indirect employment from which families get income. Despite the significance of hospitals, facilities are closing especially in rural communities that are in most need. According to Henry (2016), operation in most hospitals is expected to be shut down if the present conditions causing closure are not addressed. The closure of hospitals in rural communities may have additional implications for families besides reduced access to health care. The purpose of this capstone project was to assess the impact of hospital closure on rural communities. The project involved identifying the impact of hospital closure and evaluating the extent to which the communities are affected by the problem.

This project was based on conflict theory. According to the theory, different categories of people exist in society based on differences in resource allocation, power, and political representation, and those who are disadvantaged get poor services. In the context of this capstone project, the rural population comprising poor and older people does not have adequate access to quality health care services. In addition, most hospitals that have been closed are located in the rural areas of Texas, California, Alabama, Georgia, and Mississippi. States have addressed hospital closure by increasing Medicaid and Medicare funds. Also, local organizations and leaders in hospitals have jointly

decided affordable charges for medical services to enhance the sustainability of the hospitals.

The main focus of the capstone project was to assess the impact of hospital closure on families in rural communities. However, the project also involved identifying the causes of hospital closure. The findings of the project may cause leaders and stakeholders in the health sector to initiate interventions to mitigate hospital closure. This section of the capstone project includes the practice-focused question, sources of evidence, analysis, and summary.

Practice-Focused Question

Rural populations mainly consist of older adults and poor people who are vulnerable to diseases and require health care services. Rural populations rely on hospitals for medical services as well as for direct and indirect employment opportunities (Matsumoto et al., 2012). Hospitals are undergoing closure in rural areas despite the benefits for families in rural communities. The closure of hospitals directly affects the health status of families in the community. In addition, loss of employment reduces income of families and impairs their ability to pay for medical services. The gap in practice is that hospitals are closing in rural communities, yet the families need the facilities for medical services and employment opportunities. The practice-focused question for the capstone project was the following: What implications occur on families in the community after closure of a hospital in their locality?

The purpose of the capstone project was to assess the impact of hospital closure on families in rural communities. Families depend on hospitals for medical services and employment opportunities. Therefore, closure not only affects the health of families, but

also their living standards. The methodology of the capstone project, systematic analysis, was appropriate in addressing the practice-focused question because impacts of hospital closure on families could be identified from journal articles. In addition, the extent of the impacts could be evaluated from the journal articles through systematic review.

Sources of Evidence

Upon receiving Walden University's institutional review board's approval (Walden IRB number, 04-18-17-0397529.), I began a review of the literature to obtain a comprehensive understanding of the data. The data collection process was based on Items 10 and 18 of the PRISMA statement about data extraction and study characteristics (Liberati et al., 2009). Data were collected from journal articles that were located through systematic searches of scholarly databases using search words. The capstone project included journal articles published after January 1, 2012. The terms *impact of hospital closure* and *families in the community* were used to search for articles. The purpose of this project was to assess the impacts of hospital closure on families in rural communities. Therefore, only journal articles related to the purpose of the project were used. The databases included EBSCOhost, ProQuest, PubMed, and PMC. The search settings were adjusted to ensure that only journal articles published after January 1, 2012 were included. After the articles were identified and retrieved, they were read to determine their relevance for the project and to extract pertinent data. The articles included in the review had the same objectives as this project. The extraction of pertinent data was based on a standardized data extraction form used for a literature review. The form in this project contained items such as the authors, study design, duration of the study, interventions, outcomes measured, population, method of data analysis, and results

(Liberati et al., 2009).

A systematic review involves summarizing evidence that can be used by policymakers in making decisions. Therefore, a systematic review requires gathering of different literature and choosing the best for use in developing evidence. According to Liberati et al. (2009), systematic reviews may not be reliable if the process is not optimized to ensure transparency and clarity. Therefore, this systematic review process was guided by the checklist on the PRISMA statement. The PRISMA statement is an advancement of the Quality of Reporting of Meta-Analysis (QUOROM) statement that was published in 1999. Liberati et al. (2009) stated that methodological, practical, and conceptual advances related to conducting and reporting systematic reviews and meta-analyses led to the evolution from QUOROM to PRISMA. PRISMA has a checklist of 27 items that guide reporting of a systematic review. Based on the PRISMA statement, different journal articles related to the practice-based question were obtained, from which different impacts of hospital closure on communities were identified and assessed.

Data Analysis

The project was a systematic review; therefore, I followed the PRISMA statement by using a summary table prepared during data collection to record, track, organize, and analyze the evidence. Analysis included the authors, study design, duration of the study, interventions, outcomes measured, population, method of data analysis, and results to ensure heterogeneity (see Liberati et al., 2009). The analysis also involved identification of factors that explain heterogeneity. In addition, I analyzed biases in studies to establish validity and reliability of the collected information. Each article was scrutinized with the intent of identifying whether the methodology used supported the results found (see

Liberati et al., 2009). During analysis, related information summarized in the table was assigned the same codes.

Summary

The areas covered in this section included the practice-focused question, sources of evidence, analysis, and synthesis. The gap in practice addressed in this capstone projects was that hospitals in rural areas are undergoing closure, and the purpose of these facilities is to offer health care services to the communities. The practice-focused question addressed the impacts of hospital closure on rural communities. Journal articles located in scholarly databases were used to answer the practice-focused question. The PRISMA statement was used in searching for evidence and conducting analysis. The PRISMA statement is widely accepted by scholars for use in a systematic review.

Section 4: Findings and Recommendations

The main purpose of this capstone project was to assess the impact of hospital closure on the families in rural communities. In this section, I present the findings, recommendations, strengths, and limitations of the project as well as the strategy used to select and analyze the current literature. According to Hogg, Mays, and Mamaril (2015) and Pennel, McLeroy, Burdine, and Matarrita-Cascant (2015), the main function of hospitals is to offer medical services to the population. Matsumoto et al. (2012) argued that the facilities are also sources of direct and indirect employment to families in an area, and are important in stabilizing the economy of a locality. Despite the many benefits of hospitals for families in rural communities, the facilities are undergoing closure especially in the rural areas (Henry, 2015).

At least 20 hospitals have been closed in New York since 2003 and more are expected to be closed. Some of the reasons that cause hospital closure include mismanagement, lack of clients, bankruptcy, and poor government policies (Henry, 2015). The gap in practice was that hospitals need to exist to deliver health care services to families in rural communities, but in many cases are undergoing closure and depriving families of a basic need. Therefore, the main purpose of this capstone project was to assess the impact of hospital closure on the families in rural communities. The practice-focused question for the capstone project was the following: What implications occur on families in the community after closure of a hospital in their locality?

Sources of Evidence

The systematic review of the literature for this project involved summarizing evidence that can be used by policymakers in decision-making (Bero, 2017) and by

health care providers in the development of evidence-based practice guidelines (Gopalakrishnan & Ganeshkumar, 2013). This systematic review is also important in identification of knowledge gaps, which may initiate more research (Langlois et al., 2015). The project included an exhaustive search of the literature using systematic criteria to select the studies that provided evidence for the analysis. According to Liberati et al. (2009), systematic reviews may not be reliable if the process is not optimized to ensure transparency and clarity. The data collection process for this study was based on Items 10 and 18 of the PRISMA statement (Liberati et al., 2009) to ensure clarity and transparency of the studies included. Journal articles that addressed the practice-based question were identified and assessed following the guidelines of the PRISMA statement.

The data were gathered using journal articles obtained from scholarly databases using the search words *impact of hospital closure* and *families in the community*. Boswell and Cannon (2012) stated that it is critical to refer to multiple databases to address a research problem from various directions and to improve the strength of the study. According to Akobeng (2005), relying on a single electronic database may result in relevant articles being missed. Databases from which articles were obtained included EBSCOhost, ProQuest, PubMed, and PMC. The search was narrowed to include only articles published after January 1, 2012.

An article was included in the systematic review if: (a) it focused on the impact of closure of health care facilities on the rural community; (b) it contained information about the causes of closure of health care facilities; (c) it provided recommendations about hospital closure; (d) the strength of evidence was from an experimental study, quasi-experimental study, nonexperimental study, nationally recognized expert opinion,

or individual expert opinion; and (e) the quality of evidence was good or high. An article was excluded if (a) it did not contain information about the causes of closure of health care facilities; (b) it did not provide recommendations about impacts of hospital closure; (c) its strength of evidence was not from an experimental study, quasi-experimental study, nonexperimental study, nationally recognized expert opinion, or individual expert opinion; and (d) if the quality of evidence was low. The following numbers of journal articles were found in each database search: 5,192 in EBSCOhost, 384 in ProQuest, 366 in PMC, and one in PubMed. Eleven articles were obtained from the databases, but only 8 articles met the inclusion criteria as shown in Figure 1. Tables 1 and 2 contain a summary of the included and excluded articles, respectively. Table 3 shows a detailed analysis of the articles included in the systematic review.

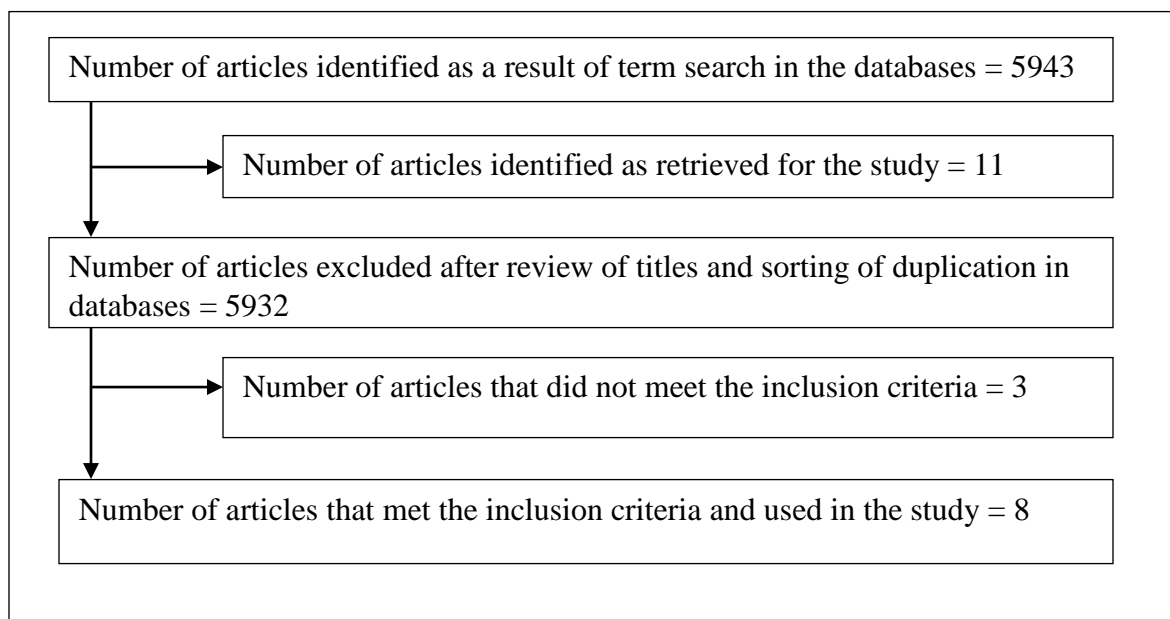


Figure 1: Process followed in selecting journal articles used in the study.

Table 1

Articles of Inclusion

Author, Year	Article of Inclusion: Titles	Rationale for Inclusion
Matsumoto et al. (2012).	The impact of rural hospital closures on equity of commuting time for haemodialysis patients: Simulation analysis using the capacity-distance model	The article focuses on impacts on commuting time to nearby rural hospitals after closure of a local facility.
Hsia et al. (2012).	System level health disparities in California emergency departments: Minorities and Medicaid patients are at higher risk of losing their EDs	The main purpose of the study is to evaluate factors related to hospital closure.
Countouris et al. (2014).	Exploring the impact of a community hospital closure on older adults: A focus group study.	The focus of the study is on the health needs of older patients resulting from closure of local hospitals.
Chen et al. (2015).	Travel distances, socioeconomic characteristics, and health disparities in nonurgent and frequent use of hospital emergency departments in South Carolina: a population-based observational study	The article involves implications of lack of access to ED services in a locality.
Hung et al. (2016).	Why are obstetric units in rural hospitals closing their doors?	The objective is to understand hospital and country level factors leading to closure of rural obstetric units.
Robinson et al. (2013).	'It ain't what you do it's the way that you do it': Lessons for health care from decommissioning of older people's services	Recommendations about the process of hospital closure process have been provided.
Grytten et al. (2014).	Regionalization and local hospital closure in Norwegian maternity care: The effect on neonatal and infant mortality	The objective is to determine whether infant and neonatal mortality are influenced by the type of hospital in which delivery occurs. Some local hospitals are closed and central and regional facilities are opened.
Henry, C. (2015)	Hospital closures: The sociospatial restructuring of labor and health care	The article contains information about the causes of hospital closure.

Table 2

Articles of Exclusion

Author, Year	Article of Exclusion: Titles	Rationale for Exclusion
Noles, Reiter, Boortz-Marx, & Pink, (2015).	Involvement of the family rural hospital mergers and acquisitions: Which hospitals are being acquired and how are they performing afterward?	The main purpose is related to merging and acquisition process of rural hospitals. The focus of the article is not related to the purpose of this study
Mein Goh, Gao, & Agarwal (2016)	The creation of social value: Can an online health community reduce rural–urban health disparities?	The focus of the article is on utilization of online communities in reducing rural-urban health disparities. The article does not contain causes or recommendations for rural hospital closure.
Nedelea, & Fannin (2017)	Testing for cost efficiency differences between two groups of rural hospital	The study focuses on the differences between two models of payment in rural hospitals: cost-based reimbursement model and prospective payment system. The objectives of study are not related to the causes and impacts of rural hospital closure and the recommendation measures.

Table 3

Summary of Reviewed Journal Articles

Author/ Date	Theoretical/ Conceptual Framework	Research Question(s) / Hypotheses	Strength of the Evidence	Quality of the Evidence	Methodology	Analysis & Results	Conclusions	Implications for Future research	Implications For practice
Matsumoto et al. (2012).	Not indicated.	Not indicated.	Level 2/ Quasi experimental study	A/ High. The sample size is sufficient, extensive literature review has been conducted, and methodology is described. The results and conclusion are consistent with the methodology utilized.	The facilities and patients' locations were geocoded and travel times by car were calculated based on two models: Capacity-distance model and distance model.	Patient commuting time calculated using Geographic Information System (GIS) softwares called ArcGIS Data Collection Road Network 2011 (ESRI Japan Inc.) and ArcGIS version 10.0 (ESRI Japan Inc.). All the statistics analyses were performed using SPSS version 19. One of the statistical analyses included examining the travel difference in travel times for the patients between rural	The closure of a dialysis facility in the rural areas has a significant impact on commuting times among the patients compared to closure of the facility in the urban centers.	The use of GIS in determining the distance and travel time of patient is based on simulation. Other factors that may not be captured in GIS simulation such as ruggedness of the roads which affect travel time needed to be considered. Future research need to use more accurate approaches to determine the real travel times.	Practitioners can use the concept of determining the travel distance of patients using GIS to establish the quality of care to be offered.

						and urban areas using Mann-Whitney test. The other analysis involved evaluating equity of travel times among patients using Gini coefficient. The median commuting time of rural patients was determined to be twice longer than that of the urban patients.			
Hsia et al. (2012).	Not indicated.	Not indicated.	Level 3/ Retrospective cohort study	A/ High. The methodology is explained. The results and conclusion are consistent with the methodology used. The study used a sufficient sample size and the level of expertise is evident.	Retrospective cohort study in which recorded data was used in examining the effects of patient and hospital factors on the likelihood of ED closure based on Cox proportional hazards models.	Data was first characterized using bivariate and univariate comparisons. Cox proportional hazard models were used in examining the effects of the predictors. Multivariate regression was also performed. All the analyses were conducted using Statistical	The communities being served by hospitals that are based on making profits are associated with higher rates of ED closure.	Future research need to investigate whether poor reimbursement puts EDs at higher risk of closure.	Patients coming from poor communities need to be prioritized in delivery of care.

						Analysis System (SAS) 9.2 and R version. Twenty nine of the 401 EDs were closed in the 4,411 hospital-years of observation. The results indicate that more of the EDs for hospitals receiving Medicare recipients and black patients were closed compared to for profit-institutions.			
Countouris et al. (2014).	Not indicated.	Not indicated.	Level 3/ Non experimental study	A/ High. The sample size is sufficient and the sampling method is described. The method of conducting the focus groups and data analysis are elaborated.	Focus groups were used to assess progress and health needs.	Qualitative data analysis software called NVivo 9 was used for organizing and analyzing the data. Transcribed data was coded for analysis. The dominant themes identified from the focus groups relating to hospital closure	Community members need to be involved in decision making during hospital closure in order to prevent negative emotions and healthcare disparities from occurring and to promote community engagement.	Future research should be quantitative in design and should involve the whole community to enable generalizability of information.	The study has espoused the need for involving residents in matters that relate with healthcare.

						included: feelings of social isolation and abandonment, lack of knowledge about obtaining healthcare services, and inaccessibility of healthcare facilities.			
Chen et al. (2015).	Not indicated.	Not indicated.	Level 3/ Non-experimental correlational study	A/ High. The data utilized in the study is elaborated. The approach followed in conducting the study has been extensively described.	Correlations between (1) measures of nonurgent ED use and (2) travel distance and observable socio-demographic features were determined using the collected data.	Data analysis was done through multivariable linear regressions in order to estimate correlations between variables. Patients with private insurance and self-pay patients show lower measures of visiting EDs compared to individuals from poor populations that depend on Medicaid and Medicare such	Convenient access to the ED is associated with less-urgent ED use among self-pay patients and privately insured patients, but not patients that are publicly insured. The results also indicate that unequal access to primary care continues existing.	The study provides the basis for future research to investigate the preventable measures for healthcare disparities among the poor populations.	The research has revealed important information that poor populations are more in need of ED services. Therefore, efforts to enhance accessibility of healthcare services to the poor need to be initiated.

						as the African Americas.			
Hung et al. (2016).	Not indicated.	Not indicated.	Level 3/ Non-experimental study.	A/ High. The sources of data are clearly defined. The methodology followed in data analysis, the principle findings and conclusion have explicitly been elaborated.	Multivariate logistic regression/ telephone survey.	Qualitative analysis of the collected data was done. The responses were categorized into themes and coded. Quantitative analysis using Fisher tests and t-tests was also utilized in analyzing the collected data. Additionally, descriptive analysis using SAS version 9.3 was conducted. The principle findings are that 7.2% of the rural hospitals closed obstetric units. Prenatal care was available in about 18 communities but women still needed to travel for about 29 more miles to access	Closure of rural obstetric units is more prevalent in smaller hospitals located with communities that have limited workforce.	Future research need to focus on methods of increasing obstetric workforce in order to intervene closure of the units.	The findings of the study indicate that rural populations need prenatal care, therefore, more hospitals should be established in the areas.

						intrapartum care.			
Robinson et al. (2013).	Not indicated.	Not indicated.	Level 3/ Non-experimental study	B/ Good. The study involved a small sample size of 12 respondents. The approach for conducting the study is elaborated and the results and conclusion have been explained.	Semi structured telephone interviews involving directors of care homes.	Qualitative analysis of the collected data was done. Verbatim of the responses were categorized into themes and coded in order to create conceptual links and to test emerging hypotheses. The major themes that emerged from the interviews relating proper closure of care homes are as follows: Decision making procedures and policies, information and communication, involvement of stakeholders, and leadership.	The closure care homes reveals some of the challenges faced by decision makers while undertaking decommissioning activity including the need: to work with authorizing organizations; to develop and adopt fair decision making processes; and to have a leadership capable of building coalitions and negotiating political hazards that may result in withdrawal of services.	The study has espoused the challenges faced in making decommissioning decisions, therefore, future research should investigate the intervention measures.	The study has revealed the importance of involving different stakeholders in the process of making hospital closure decisions.
Grytten et al. (2014).	Not indicated.	Not indicated.	Level 3/ Non-experimental study	A/ High. The source of data and study design are	Cohort study in which hospitals were categorized	Data analysis involved the use of propensity score weighting	A regionalized maternity service does not cause	According to the authors, poor quality of the local	Maternity hospitals need to be distributed

				defined. The conclusion and recommendations are based on the reviewed literature. The methods of data analysis yielding the results and leading to the conclusion are valid and reliable.	into 2 groups: Central/regional hospitals and local hospitals/maternity clinics.	in making adjustments for the differences in case mix between the local and central hospitals. The main finding is that infant and neonatal mortalities are not influenced by the type of hospital in which a delivery takes place.	increased infant and neonatal mortality because high-risk deliveries are identified in advance before birth and referred to larger hospitals that have adequate perinatal resources.	maternity units should not justify the closure of the facilities. Therefore, future research need to identify methods of increasing local maternity units to assist with minor maternity services.	to all communities and major cases referred to regionalized facilities that offer more specialized care.
Henry, C. (2015)	Harvey's theory on investment and urbanization helped in explaining hospital closures in the built environment. The study is also based on the feminist theory which helps in understanding the relationship between feminization of healthcare	Not indicated.	Level 3/ Non-experimental study	A/ High. The study involved extensive review of literature. The study also involved a sufficient sample of 20 for interviews. The conclusion and recommendations are consistent with the reviewed literature.	Retrospective study in which the author tracked the closure of hospitals since 2003. The author also interviewed nurses.	Qualitative data analysis involved assigning codes to the identified emerging themes. The main finding is that hospital closure is part of the restructuring process of the continued devolution.	The process of devolution that results in closure of hospitals causes the unavailability of goods jobs and health in the community.	Future research need to determine approaches that ensure existence of hospitals during continued devolution.	The study indicates that closure of hospitals reduces employment opportunities for nurses, thus affecting their chances to gain skills.

	work and shortage of nurses.								
--	------------------------------	--	--	--	--	--	--	--	--

Findings and Implications

In this section, I discuss the results of the systematic review of the literature in terms of the levels of evidence that were identified and to answer the practice-focused question.

Levels of Evidence

The search for sources of evidence to be used in this project yielded 11 articles. Eight out of eleven articles met the inclusion criteria. The John Hopkins Nursing Evidence-Based Practice (JHNEBP) Rating Scale was followed in grading the literature with regard to the strength of evidence and the quality of evidence (Newhouse, Dearholt, Poe, Pugh, & White, 2005). Out of the eight sources used in the systematic review, the strength of evidence in one article was Level II (quasi-experimental study) while in the others it was Level III (nonexperimental study). Although the selected eight articles did not contain Level I evidence, the studies were consistent with the purpose of this study because information related to hospital closure in rural communities was sufficiently addressed. In addition, the quality of evidence was high in seven articles and good in one. The quality of evidence of an article is rated high, good, or low based on factors such as research process, summative reviews, organization, and expert opinion. For instance, a study with well-defined methodology, evident expertise, reproducible search strategies, sufficient sample size, and exhaustive literature review is graded A/ high quality of evidence (Newhouse et al., 2005).

Practice-Focused Question

What implications occur on families in the community after closure of a hospital in their locality? Hung et al. (2016) focused on the reasons for closure of obstetric units

and found that the problem is partially caused by the limited number of service providers. According to Henry (2015) and Grytten, Monkerud, Skau, and Sørensen (2014), hospitals undergo closure because of the continuous devolution and restructuring processes that are conducted by the government. Countouris, Gilmore, and Yonas (2014) found that decreased population, reduced number of patients seeking medical services, and bankruptcy were important determinants of hospital closure.

According to Chen et al. (2015), nonurgent ED cases included care that could have been effectively and safely provided in a primary care setting, and care that did not require treatment within 12 hours. Chen et al. stated the reason for more nonurgent ED use among the poor residents of communities was lack of availability of facilities in their areas. Chen et al.'s findings are consistent with those of Hsia et al. (2012). Hsia et al. observed that EDs at high risk of closure serve patients covered through Medicaid and populations consisting of African Americans and immigrants.

Matsumoto et al. (2012) investigated the impact of rural hospital closure on equity of commuting time for haemodialysis patients. Matsumoto et al. included patients with third-grade renal disability in their study. Third-grade patients need to visit the dialysis facility at least three times a week. According to Matsumoto et al., rural haemodialysis patients spend twice the median commuting time than patients in urban centers. Besides the closure of rural hospitals, the other contributing factors for lengthened travel time for rural patients are inaccessibility due to poor infrastructure and lack of locomotives. According to Matsumoto et al., accessibility of health care facilities has a greater impact on haemodialysis patients compared to patients with other chronic illnesses. As a result, the mortality rate among haemodialysis patients in rural areas increases due to

inaccessibility to facilities.

Hung et al. (2016) also found that patients experience prolonged travel time after their local health care facilities are closed. According to Hung et al., women need to travel approximately 29 more miles to get intrapartum care after their local hospital is closed. The other implications of hospital closure according to Hung et al. include increased risk of becoming more ill, longer length of stay in hospitals, higher medical costs, and increased psychological stress among patients and caregivers. According to Countouris et al. (2014), some patients may choose to avoid seeking medical services due to inconvenience of traveling to reach a medical facility after closure of a local one. Unlike other researchers who found out that lack of hospitals causes deterioration of health of people in the community, Grytten et al. (2014) concluded that regionalization of maternity services does not result in increased infant and neonatal mortality because pregnant mothers that may have complication during delivery are identified in advance and referred to facilities that have appropriate resources.

Most studies indicated that closure of hospitals in an area causes increased travel distance for patients (Countouris et al., 2014; Hung et al., 2016; Matsumoto et al., 2012). Chen et al. (2015) did not focus their research on closure of hospitals but studied the travel distances, socioeconomic characteristics, and health disparities in nonurgent and frequent use of emergency departments (EDs). According to Chen et al., most of the patients visiting EDs because of nonurgent cases included the poor who depend on Medicaid and Medicare and African Americans. Chen et al. found that patients with private insurance live farther from the ED facilities and do not frequently utilize EDs for nonurgent needs.

Countouris et al. (2014) explored the impact of closure of a community hospital on older adults using focus groups. According to Countouris et al., hospital closure leaves the community feeling isolated and abandoned. Countouris et al. found that community members may fail to seek health care services because of illiteracy and lack of knowledge in addition to inaccessibility of facilities.

To reduce the impact of hospital closure, local residents need to be involved in decision-making during hospital closure (Countouris et al., 2014). Participation in decision-making promotes community engagement and prevents negative emotions and health care disparities from occurring. Robinson, Glasby, and Allen (2013) focused their study on the approach involved in closing of hospitals and identified similar themes to the research by Countouris et al. (2014). Government institutions that authorize establishment of healthcare facilities need be involved and fair decision-making process should be developed during hospital closure (Robinson et al., 2013).

Unanticipated Limitations

The unanticipated outcome from the reviewed literature is that regionalization of maternity services does not influence infant and neonatal mortality. According to Grytten et al. (2014), the regional hospitals are located far away from the families, probably because of closure of the local hospitals. The findings from other studies indicate that the health of families is affected if they are located far away from healthcare facilities (Countouris et al., 2014; Hung et al., 2016; Matsumoto et al., 2012). However, Grytten et al. stated that neonatal and infant mortality are not influenced by regionalization of maternity services because cases that require specialized attention are identified in advance and transferred to facilities that have sufficient resources.

Implications of the Findings

The findings of this literature review have implications on individuals, institutions, communities, and healthcare systems. For instance, individual patients living in the rural areas will become aware that they need to travel longer distances and incur more transport costs after closure of hospitals in their locality (Matsumoto et al., 2012). Therefore, haemodialysis patients who require to frequently visit dialysis centers will need to migrate from rural to urban areas that have adequate dialysis facilities. The findings of the research are also useful to government, hospitals, and non-governmental institutions related to health care. The leaders of the institutions will become aware about the impacts of hospital closure, therefore, develop intervention measures in advance (Henry, 2015). According to Countouris et al. (2014), members of the community feel socially isolated and abandoned after closure of their local hospitals. As a result, the community will become involved in decision making during hospital closure within their locality. The findings of the study also show that healthcare systems involving Medicare and Medicaid should be restructured to enhance existence of hospitals that depend on the funds (Hsia et al., 2012).

Implications for Positive Social Change

The study has potential impact to positive social change. According to Wahie, Sinha, and Sinha (2016), social change is the significant alteration of norms, cultural values, and behavior pattern of a group of people over a period of time. Countouris et al. (2014) stated that rural populations may not access medical services because of lack of knowledge, causing in worsening of their illnesses. According to Chen et al. (2015), some of the nonurgent cases received at EDs result from illnesses that could have been

effectively handled at primary care setting if diagnosis and treatment is done promptly. Therefore, the findings of this study will ensure that local populations become motivated to seek basic knowledge about health care and services offered by medical facilities in their locality. Additionally, the findings of this study will change the process of hospital closure. Henry (2015) stated that closure of hospitals may continue because of devolution and the need to restructure institutions by the government. However, in the past community members have not been involved in the process of decision making during hospital closure. The findings of the study espouse that feelings of abandonment and isolation among community members will be avoided if they are consulted during hospital closure (Countouris et al., 2014).

Recommendations

The main purpose of this project was to assess the impact of hospital closure on families in the community. Some of the effects of hospital closure on families include: (a) increased travel distance and time to the next available facilities, (b) increased stressed and exacerbation of illness among the patients, (c) increased costs of travelling, and (d) feeling of isolations and abandonment among people. The recommended solution to closure of hospitals identified in the reviewed literature is that community members need to be involved in decision making during the process of hospital closure (Countouris et al., 2014). The involvement of community members ensures that negative emotions among people are avoided after hospital closure. Leaders of dialysis facilities need to create policies that enhance continuity of the institutions and increase capacity in order to accommodate more patients. Prevention of closure of dialysis facilities and increasing capacity significantly contributes to reduction in travel time for the patients (Matsumoto

et al., 2012). Most of the rural hospitals serve poor populations that depend on Medicare and Medicaid (Chen et al., 2015). Therefore, policy makers in the healthcare sector should increase Medicare and Medicaid reimbursement in order to avoid closure of rural hospitals (Chen et al., 2015).

Strength and Limitations of the Project

The strength of the project is that the PRISMA statement for conducting systematic reviews has been followed which ensured that accurate results were determined in the end. Liberati, (2009) stated that the PRISMA statement is a standard approach that was developed by expert researchers and authors and it has been improved over time. In addition the PRISMA statement ensures that bias is avoided in the whole process of systematic review. As a result, the findings of a research that uses the approach are reliable in making an evidence-based clinical decision. The research involved studies from various countries such as Japan, Norway, and United States, making the finding transferable to most parts of the world. Transferability of findings is possible if the participants are selected randomly from diverse settings but are in the same timeframe (Hays, Wood, Dahl, & Kirk-Jenkins, 2016).

One of the limitations of the project is that a small sample size of 8 journal articles was used. According to Tong, Flemming, McInnes, Oliver, and Craig (2012), more heterogeneous results are achieved if a larger sample size is used in a qualitative research. Therefore, though the systematic review based on PRISMA statement provides reliable evidence, utilization of more journal articles could have produced more diversified findings. The other limitation is that the study utilized a qualitative methodology involving a systematic review of journal articles. Therefore, the results are

based on the findings and interpretations of other authors, if compared to quantitative studies in which hypotheses are verified mathematically (Park and Park, 2016). The study focused on the impacts of hospital closure on families in the community, thus future studies need to investigate intervention measures for the problem. For instance, future studies need to investigate the implications of increasing reimbursement or more medical personnel in intervening hospital closure.

Summary

The objective of this systematic review was to assess the evidence available on the impact of closure of hospitals. The gap-in-practice is that hospitals need to exist in order to constantly deliver healthcare services to families in the communities, but the institutions are undergoing closure thus depriving the families a basic need. The findings and recommendations highlight the following important thematic areas regarding the impact of hospital closure on families and communities: source of evidence, finding and implications, level of evidence as well as the practiced focused question and limitations. Based on studies with a relatively good methodological rigor hospital closure negatively affected health outcomes, the conclusions of this study will change the course of hospital closure. Henry (2015) states that closure of hospitals may last because of decentralization and the need to reorganize institutions.

Section 5: Dissemination Plan

Dissemination Plan

A dissemination plan helps in translating the research findings into practice (Minkler & Salvatore, 2012). The dissemination plan for this capstone project will involve six stages. The following items are needed in the dissemination plan: (a) research products and findings to be disseminated, (b) end users, (c) dissemination process, (d) communication, (e) evaluation, and (f) dissemination work plan (Carpenter, Nieva, Albaghal, & Sorra, 2014; Carter, 2013).

The first stage in the dissemination plan of research findings involves specifying the information to be disseminated (Carpenter et al., 2014; Carter, 2013). In this stage, I will list the major findings of the capstone project that need to be disseminated. The information to be disseminated in this project is the impacts of hospital closure on families in rural communities. The information is important because it creates awareness of the impacts of hospital closure and initiates efforts to mitigate the problem.

I will identify the end users in the second stage of the dissemination plan. The end users are the target audiences for the information to be disseminated (Carpenter et al., 2014; Carter, 2013). The end users for this capstone project include the national and federal governments, governmental institutions, nongovernmental institution, medical schools, health care professionals, students pursuing professions, and families in rural communities. The findings of this capstone project may enable end users to realize the importance of hospitals in rural communities. As a result, end users may initiate intervention measures for hospital closure in rural communities.

The third stage of the dissemination process involves working with partners to

distribute the findings (Carpenter et al., 2014; Carter, 2013). According to Fouché (2015), the process of information dissemination will be effective if the project leaders work with opinion leaders who are influential in the field to spread the research findings. Therefore, I will collaborate with the organizations to which the end users belong. For example, I will partner with the organizations and individuals in workshops and ask them to include my findings in their newsletters, website, or other articles (see Fouché, 2015).

The fourth stage of the dissemination process involves communication of the findings (Carpenter et al., 2014; Carter, 2013). The stage also involves dissemination tools, activities, responsibilities of team members, and timing. According to Fouché (2015), effective communication of findings involves taking into account various preferences, habits, and attitudes of end users to ensure that most get the information. Therefore, I will use scholarly journals and websites in disseminating the findings to end users who are not reachable physically (Fouché, 2015). Additionally, in workshops I will facilitate face-to-face communication with the target audience using PowerPoint presentations.

The fifth stage in the dissemination plan involves developing a work plan that contains the action items, time frame, and the people responsible (Carpenter et al., 2014). I will also establish the budget for the dissemination process in the fifth stage. I will evaluate the success of the dissemination efforts in the sixth stage of the dissemination plan. The dissemination process involves a long-term relationship between the project leader and the end users that requires ongoing feedback to continuously improve the process (Carter, 2013). As a result, the dissemination plan needs to be evaluated iteratively. The evaluation process can be done by providing questionnaires to the end

users to provide feedback about the findings and the process of dissemination. In the sixth stage, I will also set targets for the dissemination plan that are measurable to be evaluated against the achievements (Carter, 2013).

Analysis of Self

The DNP project enabled me to appreciate the importance of hospitals in rural communities. As a practitioner stationed in an urban area, I was not fully aware of the impacts of hospital closure on rural families, but through the results of the project, I am now aware of the specific impacts and the extent of the effects on rural families. I conducted a systemic review of eight scholarly journal articles, which has increased my knowledge about the topic.

Prior to this study, I had not managed a research project on my own but had been assigned sections of projects managed by other people. The completion of this capstone project enabled me to acquire firsthand experience with managing a DNP project from start to finish. I am now confident about my skills in developing a project, conducting it, and implementing it.

One of my long-term professional goals is to effect change in the health care sector. The experience that I have gained through conducting this project will be significant in helping me achieve my goals. The project enabled me to acquire theoretical knowledge and skills relating to project development, implementation, and dissemination of information to end users.

I encountered a few challenges through various stages of the project. The main challenge was identifying the suitable journal articles for review because the databases provided many sources that contained related information. I overcame the challenge by using the

topics and abstracts of the articles to identify the most appropriate sources.

The capstone project enabled me to realize the significance of hospitals in rural communities. I also learned that the PRISMA statement is the best approach in conducting systematic reviews because it has been designed by expert researchers and authors. The PRISMA statement has a checklist of 26 items that ensure systematic reviews are standardized and that another person conducting the same research will get the same results. Additionally, I learned that dissemination of the findings of a project requires assistance from opinion leaders, and the process needs to be evaluated regularly.

Summary

The capstone project addressed the impact of hospital closure on families in rural communities. Some of the impacts include lengthened travel time and distance, increased travel costs, increased stress among patients, and worsening of their conditions. The patients and their families also incur more medical expenses due to worsening of their illnesses and increased length of stay at the hospitals. The systematic review process was based on the PRISMA statement; therefore, the results are reliable for use in evidence-based decisions. The causes of hospital closure include mismanagement, poor government policies with regard to disbursement of Medicare and Medicaid funds, and lack of clients and workforce in rural areas. The suggested solution to mitigate the problem of hospital closure is to review the government policy regarding disbursement of Medicare and Medicaid funds. In addition, community members should be involved in decisions related to closure of their local hospitals. The findings of this project may initiate changes in policy to ensure hospitals continue operating in rural areas.

References

- Akobeng, A. (2005). Understanding systematic reviews and meta-analysis. *Archives of Disease in Childhood, 90*, 845-848. Retrieved from <http://adc.bmj.com/content/90/8/845>
- Bazzoli, G. J., Lee, W., Hsieh, H., & Mobley, L. R. (2012). The Effects of Safety Net Hospital Closures and Conversions on Patient Travel Distance to Hospital Services. *Health Services Research, 47*(1pt1), 129-150. doi:10.1111/j.1475-6773.2011.01318.x
- Bero, L. (2017). Systematic review: A method at risk for being corrupted. *American Journal of Public Health, 107*(1), 93-96. doi:10.2105/AJPH.2016.303518
- Bertram, G. W., & Celikates, R. (2015). Towards a conflict theory of recognition: On the constitution of relations of recognition in conflict. *European Journal of Philosophy, 23*(4), 838-861. doi:10.1111/ejop.12016
- Bloom, N., Propper, C., Seiler, S., & Van Reenen, J. (2015). The impact of competition on management quality: Evidence from public hospitals. *Review of Economic Studies, 82*(2), 457-489. doi:10.1093/restud/rdu045
- Boswell, C. & Cannon, S. (2012). Connection between research and evidence-based practice. In C. Bowell & S. Cannon (eds.), *Introduction to nursing research* (pp. 1-32). Massachusetts, MA: Jones & Bartlett Learning. Retrieved from https://books.google.com/books?id=uzMTKEazwekC&printsec=frontcover&dq=Introduction+to+Nursing+Research&hl=en&sa=X&redir_esc=y#v=onepage&q=Introduction%20to%20Nursing%20Research&f=false
- Bright, T., Felix, L., Kuper, H., & Polack, S. (2017). A systematic review of strategies to

increase access to health services among children in low and middle income countries. *BMC Health Services Research*, 171-19. doi:10.1186/s12913-017-2180-9

Cagliuso, N. V. (2014). Stakeholders' experiences with US hospital emergency preparedness: Part 1. *Journal of Business Continuity & Emergency Planning*, 8(2), 156-168.

<http://eds.a.ebscohost.com/eds/pdfviewer/pdfviewer?sid=1db09eca-4115-44ac-81a3-22235fc15d3d%40sessionmgr4008&vid=0&hid=4208>

Carpenter, D., Nieva, V., Albaghal, T., & Sorra, J. (2014). Dissemination planning tool: Exhibit A. *Agency for Healthcare Research and Quality*, 4. Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK20584/#A6520>

Carter, C. C. (2013). Using and communicating findings. In R. Reviere (ed.). *Needs assessment: A creative and practical guide for social scientists* (pp. 185-202). New York, NY: Routledge. Retrieved from https://books.google.com/books?id=ICsVAgAAQBAJ&pg=PA193&dq=dissemination+plan+for+findings&hl=en&sa=X&redir_esc=y#v=onepage&q=dissemination%20plan%20for%20findings&f=false

Chen, B. K., Xi, C., Bennett, K., & Hibbert, J. (2015). Travel distances, socioeconomic characteristics, and health disparities in nonurgent and frequent use of hospital emergency departments in South Carolina: A population-based observational study. *BMC Health Services Research*, 15(1), 1-12. doi:10.1186/s12913-015-0864-6

Countouris, M., Gilmore, S., & Yonas, M. (2014). Exploring the impact of a community

hospital closure on older adults: A focus group study. *Health & Place*, 26, 143-148. doi:10.1016/j.healthplace.2013.11.008

Fouché, C. (2015). *Practice research partnerships in social work: Making a difference*. Bristol, United Kingdom: Policy Press. Retrieved from https://books.google.com/books?id=QN0aBwAAQBAJ&pg=PA140&dq=dissemination+plan+for+findings&hl=en&sa=X&redir_esc=y#v=onepage&q=dissemination%20plan%20for%20findings&f=false

Gopalakrishnan, S., & Ganeshkumar, P. (2013). Systematic reviews and meta-analysis: Understanding the best evidence in primary healthcare. *Journal of Family Medicine and Primary Care*, 2(1), 9-14. doi:10.4103/2249-4863.109934

Grytten, J., Monkerud, L., Skau, I., & Sørensen, R. (2014). Regionalization and local hospital closure in Norwegian maternity care: The effect on neonatal and infant mortality. *Health Services Research*, 49(4), 1184-1204. doi:10.1111/1475-6773.12153

Hays, D. G., Wood, C., Dahl, H., & Kirk-Jenkins, A. (2016). Methodological rigor in journal of counseling & development qualitative research articles: A 15-year review. *Journal of Counseling & Development*, 94(2), 172-183. Retrieved from https://www.researchgate.net/publication/297650134_Methodological_Rigor_in_Journal_of_Counseling_Development_Qualitative_Research_Articles_A_15-Year_Review

Henry, C. (2015). Hospital closures: The sociospatial restructuring of labor and health care. *Annals of the Association of American Geographers*, 105(5), 1094-1110. doi:10.1080/00045608.2015.1059169

- Hogg, R. A., Mays, G. P., & Mamaril, C. B. (2015). Hospital contributions to the delivery of public health activities in US metropolitan areas: National and longitudinal trends. *American Journal of Public Health, 105*(8), 1646-1652. Retrieved from <https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&cad=rja&uact=8&ved=0ahUKEwjppq-PK0KTTAhVKB8AKHavIDvMQFgg1MAE&url=http%3A%2F%2Fconnection.ebscohost.com%2F%2Farticles%2F108279144%2Fhospital-contributions-delivery-public-health-activities-us-metropolitan-areas-national-longitudinal-trends&usg=AFQjCNEtIBhngdGH-iiGDIcEA7AMx14ZJQ&sig2=m0zt1dA-QPw0EappC1XQog>
- Hsia, R. Y., Srebotnjak, T., Kanzaria, H. K., McCulloch, C., & Auerbach, A. D. (2012). System level health disparities in California emergency departments: Minorities and Medicaid patients are at higher risk of losing their EDs. *Annals of Emergency Medicine, 59*(5), 358–365. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4636219/>
- Hung, P., Kozhimannil, K. B., Casey, M. M., & Moscovice, I. S. (2016). Why are obstetric units in rural hospitals closing their doors? *Health Services Research, 51*(4), 1546-1560. doi:10.1111/1475-6773.12441
- Kashima, S., Matsumoto, M., Ogawa, T., Eboshida, A., & Takeuchi, K. (2012). The impact of travel time on geographic distribution of dialysis patients. *Plos ONE, 7*(10), 1-8. doi:10.1371/journal.pone.0047753
- Langlois, E. V., Ranson, M. K., Bärnighausen, T., Bosch-Capblanch, S., Daniels, K., El-

- Jardali, F., ...Røttingen, J. (2015). Advancing the field of health systems research synthesis. *Systematic Reviews*, 4, 90. doi: 10.1186/s13643-015-0080-9
- Liberati, A., Altman, D. G., Tetzlaff, J., Mulrow, J., Gøtzsche, P. C., Ioannidis, J. P. A., ... Moher, D. (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: Explanation and elaboration. *PLoS Medicine*, 6(7), e1000100.
doi:10.1371/journal.pmed.1000100
- Lloyd, S. T., D'Errico, E., & Bristol, S. T. (2016). Use of the Iowa Model of Research in Practice as a curriculum framework for Doctor of Nursing Practice (DNP) project completion. *Nursing Education Perspectives (National League for Nursing)*, 37(1), 51-53. doi:10.5480/14-1364
- Lorch, S. A., Srinivas, S. K., Ahlberg, C., & Small, D. S. (2013). The impact of obstetric unit closures on maternal and infant pregnancy outcomes. *Health Services Research*, 48(2pt1), 455-475. doi:10.1111/j.1475-6773.2012.01455.x
- Matsumoto, M., Ogawa, T., Kashima, S., & Takeuchi, K. (2012). The impact of rural hospital closures on equity of commuting time for haemodialysis patients: Simulation analysis using the capacity-distance model. *International Journal of Health Geographics*, 11(1), 28-37. doi:10.1186/1476-072X-11-28
- Mein Goh, J., Gao, G., & Agarwal, R. (2016). The creation of social value: Can an online health community reduce rural–urban health disparities? *MIS Quarterly*, 40(1), 247-263. Retrieved from
<http://aisel.aisnet.org/cgi/viewcontent.cgi?article=3281&context=misq>
- Minkler, M. & Salvatore, A. L. (2012). Participatory approaches for study design and

analysis in dissemination and implementation research. In R. C. Brownson, G. A. Colditz, & E. K. Proctor (eds.), *Dissemination and implementation research in health: Translating science to practice* (pp. 192-212). New York, NY: Oxford University Press. Retrieved from https://books.google.com/books?id=pLf127FRhRUC&pg=PA203&dq=dissemination+plan+for+findings&hl=en&sa=X&redir_esc=y#v=onepage&q=dissemination%20plan%20for%20findings&f=false

Nedelea, I. C., & Fannin, J. M. (2017). Testing for cost efficiency differences between two groups of rural hospitals. *International Journal of Healthcare Management*, *10*(1), 57-65. doi:10.1080/20479700.2016.1259146

Newhouse, R., Dearholt, S., Poe, S., Pugh, L. C., & White, K. (2005). *The Johns Hopkins Nursing Evidence-based Practice Rating Scale*. Baltimore, Maryland, MD: Johns Hopkins University School of Nursing. Retrieved from <http://www.mc.vanderbilt.edu/documents/CAPNAH/files/Mentoring/Section%206/JHNEBP%20Evidence%20Rating%20Scale.pdf>

Noles, M. J., Reiter, K. L., Boortz-Marx, J., & Pink, G. (2015). Rural hospital mergers and acquisitions: Which hospitals are being acquired and how are they performing afterward? *Journal of Healthcare Management*, *60*(6), 395-408. Retrieved from <http://www.whartonwrds.com/wp-content/uploads/2016/05/Levin-research-paper.pdf>

Park, J., & Park, M. (2016). Qualitative versus quantitative research methods: Discovery or justification? *Journal of Marketing Thought*, *3*(1), 1-7. doi:10.15577/jmt.2016.03.01.1

- Pennel, C. L., McLeroy, K. R., Burdine, J. N., & Matarrita-Cascant, D. (2015). Nonprofit hospitals' approach to community health needs assessment. *American Journal of Public Health, 105*(3), e103-e113. doi:10.2105/AJPH.2014.302286
- Robinson, S., Glasby, J., & Allen, K. (2013). 'It ain't what you do it's the way that you do it': lessons for health care from decommissioning of older people's services. *Health & Social Care in the Community, 21*(6), 614-622. doi:10.1111/hsc.12046
- Skinner, N., & Ichii, R. (2015). Exploring a family, work, and community model of work-family gains and strains. *Community, Work & Family, 18*(1), 79-99. doi:10.1080/13668803.2014.981507
- SteelFisher, G. K., Martin, L. A., Dowal, S. L., & Inouye, S. K. (2013). Learning from the closure of clinical programs: A case series from the hospital elder life program. *Journal of the American Geriatrics Society, 61*(6), 999-1004. doi:10.1111/jgs.12274
- Thomas, T. L., DiClemente, R., & Snella, S. (2014). Overcoming the triad of rural health disparities: How local culture, lack of economic opportunity, and geographic location instigate health disparities. *Health Education Journal, 73*(3): 285-294. doi:10.1177/0017896912471049
- Tong, A., Flemming, K., McInnes, E., Oliver, S., & Craig, J. (2012). Enhancing transparency in reporting the synthesis of qualitative research: ENTREQ. *BMC Medical Research Methodology, 12*(1), 181-188. doi:10.1186/1471-2288-12-181
- Ulrich-Schad, J. D., Henly, M., & Safford, T. G. (2013). The role of community assessments, place, and the great recession in the migration intentions of rural Americans. *Rural Sociology, 78*(3), 371-398. doi: 10.1111/ruso.12016

- Wahie, A., Sinha, C., & Sinha, R. (2016). Social movements as methods of social change: A study on the Delhi experiment. *Amity Business Review*, 17(2), 89-95.
Retrieved from
<http://eds.a.ebscohost.com/eds/pdfviewer/pdfviewer?sid=48e192e7-46cb-4d81-b31f-1c9aba05c230%40sessionmgr4009&vid=1&hid=4211>
- Wan Puteh, S. E., Akma Ahmad, S. N., Aizuddin, A. N., Zainal, R., & Ismail, R. (2017). Patients' willingness to pay for their drugs in primary care clinics in an urbanized setting in Malaysia: a guide on drug charges implementation. *Asia Pacific Family Medicine*, 161-8. doi:10.1186/s12930-017-0035-5
- Zimmermann, K., Carnahan, L., Paulsey, E., & Molina, Y. (2016). Healthcare eligibility and availability and healthcare reform: Are we addressing rural women's barriers to accessing care? *Journal of Health Care Poor Underserved*, 27(4A), 204–219. doi:10.1353/hpu.2016.0177