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On the Road to Accreditation for Ambulatory Health Care-A College Health Center
Quality Assurance and Improvement Program

Kathleen Hynes-Lifland

DNP Scholarly Project Committee

Dr. Mary Ellen Roberts

Dr. Patricia Pappas

Dr. Teresa Conklin

Submitted in partial fulfillment of the Requirements for the degree of

Doctor of Nursing Practice

Seton Hall University

2021

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College of Nursing
Graduate Department

APPROVAL FOR SUCCESSFUL DEFENSE

Kathleen Hynes-Lifland has successfully defended and made the required modifications to the text of the DNP Final Scholarly Project for the Doctor of Nursing Practice during this Fall, 2021

Final Scholarly Project COMMITTEE

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Date

Dedication

This paper is first and foremost dedicated to my family. Thank you, Larry, Rich, Jennifer, and Maggie for your continuous support and encouragement. This journey required my time, patience, and commitment, and without your love and nurturance, it would not have been possible. I also want to thank my 90 plus year old parents. Because of their perseverance to raise me as a self-directed and independent person, I am who I am today. What started as a process filled with hesitations and insecurities, I have emerged stronger and more confident in my ability to serve others. Although this process has been overwhelming at times, my family and friends encouraged me to push forward, and for that I am eternally grateful. There will be life changes for me this year, but I am confident that there are great things to come.

To all my friends and co-workers, whom I have had the pleasure to know and work with, thank-you for your solace and reassurance. I love you all for being there for me through all my life challenges, losses, misfortunes, and joys. I wish you only the best.

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I also want to recognize my mentor and reader, Dr. Teresa Conklin. Her knowledge, support and kindness helped to pave the way towards the achievement of this goal. Many thanks to Dr. Patricia Pappas for reading my paper and to Dr. Rod Hicks for his exceptional editorial assistance.

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Abstract

The time has come for figureheads in higher education to address and strengthen Quality Assurance (QA) and Quality Improvement (QI) in college health. Goals and objectives should be designed to pursue better care and health. Quality Assurance (QA) strives to guarantee that health care providers are adhering to their policies, procedures, and protocols. Compliance may be monitored by intermittent audits, peer review activities, and inspections. QA answers the question, “are we meeting the standards?” This project attempted to provide these standards through the development of a QA/QI policy and procedure which reflects ideologies set forth by the Accreditation Association for Ambulatory Health Care (AAAHC). Quality Improvement (QI) focuses on systems and measures current processes with the intent to make things better. It relies on teamwork, committed leadership, and system wide goal setting. QI asks the question, “why didn’t we meet the standards?” This project aims to create and implement a QA/QI program in a University Health Center located in a suburb of New Jersey. The program was designed to create high-quality care with an emphasis on patient-centered requirements and management. The project involves both prospective and retrospective review and is aimed at measuring current practices and creating systems to make things better. This on-going process monitors improvements through continuous examination. The initiative incorporates evidence-based care and utilizes tools and data analysis to demonstrate improvements and areas that require enhancement. Improvement practices and methods are important in college health to achieve greater accountability and national accreditation by AAAHC.

Keywords - Quality Improvement (QI), college health, AAAHC, university.

Background

Most universities offer health centers. In fact, the first college health center dates back more than 150 years. While it has become standard for universities to offer health centers, there lacks a standardization in how the centers operate and the services provided. Compounding this diversity is the fact that national standards exist for university health centers, just as standards exist for hospitals, long term care settings, and other locations. Universities that meet the published standards can be accredited. Yet, while there is strong commitment to meeting the standards, as reflected in the goal of increasing standards of care needed across the field of college health, a truth remains. Many factors influence the meeting of standards. Even before a health center can seek accreditation, there is a need for a formal self-evaluation. In this current project, the self-evaluation identified the need for a quality assurance/quality improvement (QA/QI) program. Such a program would ensure that policies, procedures, and protocols meet the needs of the student population. College students are a large, distinctive population. Committed attention to QA/QI practices is as important in college health as it is in other healthcare domains. The following components include the definition of terms, a description of the project, and significance of the project for nursing.

Definition of Terms

Recurrent terms employed throughout this project include the following:

- 1) Quality Assurance (QA): QA is the process of providing evidence that the outcome meets the established standards (Siegl, et al., 2014).
- 2) Quality Improvement (QI): QI is the act of methodically developing ways to meet acceptable quality standards and evaluating current processes to improve overall performance (Siegl, et al., 2014).

- 3) College Health: College students learn about health problems, healthcare, and caring for their own health through the services they receive from institutions of higher education (Ciotoli, et al., 2018).
- 4) Accreditation Association for Ambulatory Health Care (AAAHC): Through its accreditation programs, AAHC promotes safe, high quality patient care and performance measurement in organizations providing health care services in ambulatory care (Accreditation handbook for Ambulatory Health Care, 05.2018 update).
- 5) University: A University is an educational institution designed to instruct students in many areas of advanced learning. Universities are larger than colleges and offer a variety of both undergraduate and graduate degree programs. Miriam-webster (2021) [Miriam-webster.com/dictionary/university](https://www.merriam-webster.com/dictionary/university).
- 6) Leadership: Leadership is an exercise of influence, which maximizes the efforts of others towards the acquirement of a desired goal or outcome. Miriam-webster (2021). [Miriam-webster.com/dictionary/leadership](https://www.merriam-webster.com/dictionary/leadership).
- 7) System: A system is an organized assembly of parts that is highly unified to accomplish an overall goal. Miriam-webster (2021). [Miriam-webster.com/dictionary/system](https://www.merriam-webster.com/dictionary/system).
- 8) Standard: A standard is something established by an authority to serve as a point of reference and or a level of quality or attainment. Miriam-webster (2021). [Miriam-webster.com/dictionary/standard](https://www.merriam-webster.com/dictionary/standard).
- 9) Program: A program is a set of related measures or undertakings with a specific long-term aim or goal. Miriam-webster (2021). [Miriam-webster.com/dictionary/program](https://www.merriam-webster.com/dictionary/program).
- 10) Practice: Practice refers to the application or use of an idea, belief, or method. Miriam-webster (2021). [Miriam-webster.com/dictionary/practice](https://www.merriam-webster.com/dictionary/practice).

11) Ongoing: On-going refers to a continual, never-ending process. Miriam-webster (2021).

[Miriam-webster.com/dictionary/ongoing](https://www.merriam-webster.com/dictionary/ongoing)

12) Quality: Quality is defined as being of superior caliber. One adheres to an excellent standard or measure. Miriam-webster (2021). [Miriam-webster.com/dictionary/quality](https://www.merriam-webster.com/dictionary/quality).

13) Evidence-Based Care: Evidence-based care refers to those practices that reflect a problem-solving approach to care and the utilization of the best available evidence and standards evaluated in experimental appraisals. Miriam-webster (2021) [Miriam-webster.com/dictionary/best practices](https://www.merriam-webster.com/dictionary/best%20practices).

14) College Students: A student enrolled in a college or university. Miriam-webster (2021). [Miriam-webster.com/dictionary/student](https://www.merriam-webster.com/dictionary/student).

15) QA/QI Committee/team: A team that includes representation from all areas of practice charged with carrying out improvement efforts. Miriam-webster (2021). [Miriam-webster.com/dictionary/student](https://www.merriam-webster.com/dictionary/student).

Description of the Project

This project embodies the development and implementation of a Quality Assurance and Quality Improvement program (QA/QI) in a college health center as an early step to considering health center accreditation. The need for upgraded standards and greater accountability warrants a commitment to building expanded capacity and proficiency for QA/QI in college health.

Quality Assurance (QA) is the process of furnishing evidence that the end-product meets the established standards. Quality Improvement (QI), in contrast, is the act of methodically creating ways to meet satisfactory standards and evaluating existing processes to improve general performance.

A formal quality improvement process uses a variety of scientific methods and tools to implement continuous improvement. The peer review process and the measurement of patients' perceptions of the quality of care and services received are examples of actions which will be utilized to monitor quality of care through continuous review. With the data, small-scale tests of change will be assessed and implemented while identifying those that work well and applying them more broadly to improve widespread excellence.

Purpose of the Project

Conscientious attention to improvement practices and methods is as important in college health as it is in other areas of healthcare. The principal purpose of this project was to develop and strengthen the utilization of QA/QI activities in college health. Having the QA/QI plan is necessary as for national accreditation. All college health centers should strive for national accreditation in ambulatory healthcare to demonstrate the organization's commitment to provide high quality and safe care to its patients. Engagement in QI ventures will inspire and empower staff to solve problems that affect their daily work and help position the organization to future accreditation. Once the QA/QI plan is established, the plan will be tested using two approaches.

Goals and Objectives

QI is a systematic approach to making changes that lead to better outcomes, stronger system performance, and enhanced professional development. Ciotoli et al, (2018). The following objectives were required to implement this project successfully:

- 1) The establishment of a QA/QI program that was highly fact-based and accordant with applicable standards.
- 2) The development and implementation of ongoing monitoring systems and surveying tools for the identification of strengths, weaknesses, and circumstances to improve services.

- 3) The establishment of a framework that demonstrates accountability that will be valued and utilized by the health center staff.
- 4) The creation of policies and procedures to set standards and uncover problem areas.
- 5) The identification of all key stakeholders potentially involved in the project and the establishment of their commitment to the aspect of a robust QI/QA plan.
- 6) The commitment to sustain communication and collaboration with the staff to bring QA/QI to the forefront of college health practice.
- 7) The evaluation of completed surveys and peer review activities with essential stakeholders.
- 8) The identification and provision of supplemental training, time, and education required by the staff to implement changes.
- 9) The assurance that all services comply with the accreditation requirements as per the Accreditation Association for Ambulatory Health Care (AAAHC).

Significance of the Project for Nursing

The purpose of a QI plan is to identify quality indicators and metrics. Process measures are scored against the indicator and metric to identify deficiencies. Based on data, clinicians then deploy appropriate interventions to remedy the deficiency. The plan is cyclical in that the cycle repeats itself to plan, measure, and correct as needed.

QI is a process that involves all levels of an organization's staff, regardless of discipline, to work together to produce better services for health care clients. Nurse managers must provide a work setting that encourages and facilitates a staff nurse's ability to undertake action for improving care. A health care service can claim an impressive quality record by pursuing the newest and best technologies, keeping a highly skilled staff, and promoting a culture of safety

and quality. QI committees/teams focus on ways to improve nursing and health care in a facility. These committees strive to reduce harm, decrease variation in care, and enhance the patient experience.

Achieving QI in college health requires leaders from colleges and universities to promote and sustain high levels of commitment and collaboration among the programs and services to support the general health and wellbeing of the students. College students represent a large and key population/community on each campus. Leaders from colleges and university should expect outcomes-based data on students that identify the most crucial health issues. Indicators can be designed around such health issues. Once indicators are identified, leaders can compare trends through a national focus on QI in college health.

QI committees/teams can perform either internal or external benchmarking to determine whether the observed data are desirable or not. Reinforcing QI to improve student's health and mental wellbeing must be an institutional precedence that receives strong support, resources, and commitment of leaders in the division of student affairs, academic programs, and administration.

Theoretical Foundation

W. Edwards Deming often deemed the father of continuous improvement provided key principles for management to follow to improve the effectiveness of a business organization. These key elements can also be applied to the practice of medicine and other health care disciplines. Deming's philosophy of quality and requirements for quality improvement are summarized in his "system of profound knowledge" which is composed of four key points and his "fourteen points for management." The 14 points apply anywhere, to small organizations as well as to large ones, to the service industry as well as to manufacturing. (Deming,1986). The 14

points emphasize constancy of purpose, continual improvement, the institution of education and self-improvement, and leadership.

Deming developed Plan, Do, Study, Act (PDSA) cycles for generating new organizational knowledge. To “plan” refers to the development of goals and gathering data, “do” involves the documentation of problems and carrying out the plan, “study” is the summation of what was learned and the final analysis of data, and “act” points out what changes are to be made. Every activity, every job is a part of a process. Each stage works with the next stage and with the preceding state toward optimum accommodation, all stages work together toward quality that the ultimate customer will boast about. (Deming, 1986). Leadership, learning, cooperation, and systems thinking are important components to Deming’s message. He taught that meeting customer (and patient) needs without variation requires constancy of purpose and joy in everyday work life. This QA/QI program strives to improve health services by measuring quality, defining quality, and improving quality. PDSA is a model for carrying out change to improve quality. Deming emphasized that patients treated outside of best practice guidelines receive unacceptable variation in care.

This project attempts to reduce variation in care by implementing a policy/model that contains high-quality practice standards and performance measurements. This project incorporates shared decision-making which is a fundamental factor in Deming’s appreciation for a system. When a department or service implements a QA/QI program, they are demonstrating their mission to provide the best healthcare for their patients. The program exemplifies education, self-improvement, and hands-on leadership. Deming has provided principles that can help guide medical personnel with leadership skills that will increase the skills of healthcare practices, and ultimately, provide better care for patients. Experience alone, without theory,

teaches management nothing about what to do to improve quality, and competitive position, nor how to do it. (Deming, 1986). This project strives to improve health services by incorporating Deming's theory of quality and strategies for improvement.

Literature Review

Search Methods

Multiple data bases were employed via the Seton Hall University Library Resources as well as Google searches for peer reviewed articles on the presented topic. Databases included CINAHL, ProQuest Central, and Pub-med. The time span for publication dates was primarily within the last 10 years. Peer reviewed articles were chosen from other health care domains since there was limited publications specific to college health. Articles were chosen if they supported the importance of QA programs, patient satisfaction surveying, and the peer review process. Papers on depression and screening were included to reinforce the need for depression screening in this vulnerable population. Key words included in the search were "Quality Assurance", "Quality Improvement", "college health", "college students", "high-quality", "standards", and "evidence-based care".

Themes from the Literature Review

Studies selected for review included a variety of study designs. A limited number of studies on QA/QI in college health led to an expansion in the search with the inclusion of papers from other disciplines. This project spans 4 areas of focus: 1) the development of a QA program (primary focus) and the implementation of additional QI initiatives: 2) depression screening 3) patient satisfaction survey and 4) peer review. The completed review included twenty-two papers which concentrated on these areas.

Development of a QA Program

Shah (2020) explores and describes the difference between QI and a quality management system, by defining QI and describing how to best use QI alongside control, assurance, and planning as part of a more holistic management system focused on quality. The author goes on to say that QI is a systematic approach to solve a complex issue. QI involves testing, measuring, and involving those close to the issue in the improvement process. Shah (2020) points out that QI is best done as a team and or committee. QI is part of a quality management system that employs planning or redesign, quality assurance, and quality control. Assurance involves checking that we are meeting a particular standard. Audits, accreditation, and inspection are common mechanisms of assurance in healthcare. Quality control embodies good operational management, monitoring performance, and taking some action when needed. Planning should be an annual activity, improvement should be used to execute new levels of performance, assurance maintains standards and control should be the way daily work is managed by a team. Just the same as other articles about QI, this article is descriptive and explanatory and attempts to contribute to the body of knowledge surrounding QI.

Byrnes (2012) attempted to identify attributes and failures of quality programs in a periodical. He maintains that a highly effective, well-organized quality program can increase the value healthcare organizations deliver to their communities. However, ineffective, poorly led quality programs can lead to failure and more problems. The author visited more than a dozen hospitals where programs were failing. He attested that four lessons illustrate the stumbling blocks organizations should avoid: 1) do not alienate important stakeholders; 2) do not underestimate the power of support and direction-unfocused and unsupported directors will cost your organization a price; 3) implementing too many projects at once; and 4) avoiding important

projects—a well-organized department/committee, led by knowledgeable quality chairs, can tackle multiple projects of concern while preventing complications before they arise. This peer reviewed periodical offered insight into why one quality program succeeds and why others fail.

Ciotoli et al. (2018) implemented a qualitative research report for the purpose of advocating for quality improvement (QI) in college health. The New York University (NYU) Student Health Center, with support from the Agency for Health Care Research and Quality, held a Symposium on QI in college health in New York City on October 2-3, 2015. The Symposium brought together 170 colleagues from 88 colleges and universities in 34 states, across many disciplines for two days of learning, connecting, and preparing for leadership in promoting QI methods. They maintain that campuses with admirable QI capability exhibit commendable characteristics for others to strive for: dedicated leadership, an involved work force, extensive professional development, committed resources, consistent data collection and decision making, and the achievement and sustainability of improved results.

Ahn et al. (2017) used a quantitative and qualitative study design to review a state's development and implementation of a 2012 updates CQI model and its contribution to measuring the quality of child welfare. The authors utilized case reviews and interviews to collect data. Findings were presented to local and state leaders for policy changes and practices. Revised CQI indicators were developed and implemented. Although there were limitations of available data and sample size, findings supported that the revised model was able to identify factors that contributed to improved outcomes, subsequently, supporting quality assurance endeavors.

Zimmer et al. (2003) utilized a qualitative study design to identify and create standards of practice for health promotion in higher education. A task force was created to analyze and initiate a data-driven framework for the 2001 standards of practice for health promotion in young

adults. This was adapted from the findings of 452 survey responders from a stratified random sample of 600 American College Health Association members. These health promotion standards must be met for national accreditation of college health services. The authors concluded that the qualitative responses were inadequate for meaningful quantitative summaries.

Siegl et al. (2014) synthesized and described the development and use of indicators for QI in the National Breast and Cervical Cancer Early Detection Program (NBCCEDP) and the professional development activities implemented to improve clinical outcomes. Like Pincus et al. (2016) the authors agree that using QA improves the quality of service and improves patient outcomes. Performance standards developed by the Centers for Disease Control and Prevention (CDC) are utilized to assess performance and areas that need improvement. Performance standards are used for prospective and retrospective program evaluation. A growing body of evidence indicates that certain QI processes are associated with better clinical outcomes. NBCCEDP grantees will be challenged to implement improvement processes that balance the effective and efficient delivery of quality care within cost confinements. The CDC will continue to support and encourage QI activities by grantees as part of their QA.

Jalili et al. (2013) reviewed relevant literature regarding the significance of accreditation standards by basic medical science council, while scrutinizing standards published by World Federation for Medical Education (WFME) global standards. One of the notable ways to guarantee universities quality performance is accreditation and the establishment of standards for higher education. The authors claimed that WHO/WFME guidelines recommend establishing accreditation that is effective, transparent, and based on criteria distinct to medical education. Standards tell students what is expected of them to succeed in school and their professional life. As in most organizations and services, without standards, things become chaotic without goals

and purpose. The authors contend that the literature supports the need to create an effective and reliable instrument for QA in medical education. QI of education directly affects QI of health care.

Boyle et al. (2012) implemented a qualitative study designed to identify the initial challenges of implementing a standardized QI program in community pharmacies and how such challenges were addressed by pharmacy staff. Much the same as Ahn et al. (2017), the authors utilized qualitative interviews to determine challenges related to implementing a QI program. Interviews were conducted with the QI facilitator, (pharmacists or technicians) in 55 community pharmacies that adapted the Safety NET-Rx program. Safety NET-Rx is a QI program designed to improve quality related events (QRE) reporting and learning in community pharmacies. Results of the content analysis revealed early challenges faced by pharmacies when implementing a standardized QI program. These challenges included finding time to report QRE's, acceptance of online technology, having all staff involved, changing staff relationships, and meeting to discuss QREs. The authors described observable solutions to the challenges they identified. These include 1) allotting time to complete reports; 2) the development of a manual-online hybrid reporting system; 3) reinforcing the value of the program and how information reported is used; 4) highlighting the need for open communication and a blame-free environment; and 5) meetings were scheduled near the end of the day with monetary incentives to attend the meetings and training sessions. Limitations of the study included the lack of stakeholders being interviewed (managers) and the utilization of only one specific QI program. Future studies need to generalize the findings, address the limitations, and analyze the differences between programs.

Unlike the qualitative studies already presented, Janowski et al. (2014) distributed an electronic survey to assess the quality of STI care and treatment outcomes. This quantitative study implemented multivariate analysis to identify whether organizational characteristics were associated with survey findings. There were 256 facility respondents in NYS hospitals. 95% of the 256 facilities completed the survey. Most facilities reported STI cases but did not measure infection rates, assess the quality of STI care, or coordinate its work throughout the facility. The authors of this study pointed out that because all data was self-reported, some answers may have been inaccurate due to incomprehension, but concluded that the implementation of QI methods and programs will improve health outcomes for STI care and services.

Essential Newborn Care (ENG) is an evidence-based and effective measure to prevent newborn deaths and is recommended globally (Horiuchi et al. 2018). Early Essential Newborn Care (EENC) aims to prevent early neonatal deaths by implementing specific simple actions in birth assistance. Lao Peoples Democratic Republic had the highest rate (27.2 deaths per 1000 births in 2012). Adaptation of EENC was seen as a priority. The authors contended that this project proposal for the implementation of a cluster randomized trial will set out to test whether in Lao Peoples Democratic Republic, a resource lacking country, whether EENC helps to increase knowledge and skills in health workers. Fifteen district hospitals will be randomly allocated into the self-managed continuous monitoring (intervention) and the supervision (control group). Data will be collected 6 times from both groups during the study period. Determinants of EENC performance by health workers will be qualified by using a questionnaire. The primary endpoint will be a change in determinants of EENC performance (behavior change) from baseline to one year after randomization. Being the first cluster randomized trial to evaluate the quality monitoring system for newborn care, the authors were

hopeful that if this project is effective, this intervention could be applied in larger areas of the country and region. This project proposal exemplifies a quality improvement study design of groups and manipulation of the independent variable, which meet the criterion for an experimental design to improve policies and clinical outcomes.

Allison (2016) reviewed the literature to identify approaches and indicators customary to the services and operations of an ambulatory surgery center, going beyond reviewing data from routine outcome measures and explaining the effect these ideas can have on improving quality of care. The Centers for Medicare and Medicaid centers (CMS) require ambulatory centers (ASCs) to create, carry out, and sustain a continuing data driven quality-assessment and performance-improvement (QAPI) program. Every ASC must undertake one or more projects per year to correct quality deficiencies. Allison (2016) points out that when data from monitoring outcome measures do not reflect a problem, the measure can be addressed through a QAPI project when it is anticipated that there may be a potential need for change. She proceeds to point out specific sections that can be addressed by QAPI projects, including outcome measures, using a proactive approach. Some of the areas she identified included burns, falls, normothermia, surgical site infections, medication errors, same day cancellations, occupational safety and health administration compliance, and deep vein thrombosis. Evaluation of programs is annual and includes a written report. The author points out that identifying a QAPI project can be as simple as investigating a casual comment made by a staff member or physician. This systematic review of the literature provides an explanation of the relationship between quality improvement and positive health care outcomes.

Shah (2020) explores and describes the difference between QI and a quality management system, by defining QI and describing how to best use QI alongside control,

assurance, and planning as part of a more holistic management system focused on quality. The author goes on to say that QI is a systematic approach to solve a complex issue. It involves testing, measuring, and involving those close to the issue in the improvement process. Shah (2020) points out that QI is best done as a team and or committee. QI is part of a quality management system that employs planning or redesign, quality assurance, and quality control. Assurance involves checking that we are meeting a particular standard. Audits, accreditation, and inspection are common mechanisms of assurance in healthcare. Quality control embodies good operational management, monitoring performance, and taking some action when needed. Planning should be an annual activity, improvement should be used to execute new levels of performance, assurance maintains standards and control should be the way daily work is managed by a team. Just the same as other articles about QI, this article is descriptive and explanatory and attempts to contribute to the body of knowledge surrounding QI.

Underwood et al. (2020) attempted to provide insight into the QA process and how revisions to already in place accreditation programs may be needed. A senior nursing leadership team at a hospital in England raised concerns about a ward accreditation program regarding the level of quality assurance it provided. Therefore, the program was revised with the edition of five new elements including direct registered nurse time and ward climate. The ward accreditation program known as the ASPIRE program was piloted on one ward and the evaluation was positive. In the first year of the program, all 24 inpatient wards underwent the accreditation process. Two wards obtained the highest rating, gold, while 22 received silver or bronze ratings. Several wards improved their rating through shared learning and improvement activities. Based on the feedback from team leaders, it was found that teams felt positive about the revised changes to the program. Although the authors of this article provided detailed information

supporting the on-going process of QA, they failed to suggest any recommendations for future research such as benchmarking their accreditation process in other hospital QA programs.

Henker et al. (2018) implemented a qualitative study intended to evaluate healthcare workers perceptions of the organization quality assurance program (OQA) at Angkor Hospital for Children (AHC), Cambodia. The OQA implements regular data collection and quality indicators to assess whether agreed upon quality standards are being met. The authors used four focus group discussions (FGDs) with 29 hospital staff (convenience sampling) from medical, nursing, and non-medical departments to collect their data using a qualitative approach. Staff member's understanding of QA and perceptions of the strengths and weaknesses of the OQA were explored. The participants highlighted that quality indicators must include physical and psychological well-being. Participants agreed that the OQA provided a means for standardizing hospital practices and maintaining them at an agreed high standard. However, they reported the difficulty in measuring compassionate care and the hardship of coordinating their activities. The authors pointed out that using a single site was a limitation of the study as well as utilizing a convenience sample. The article strengthens the argument for the importance of peer perception and evaluation of a program.

Phillips et al. (2017) developed a mixed-method study design to focus on new graduate nurses and their transition to practice. The study investigated how satisfaction levels with transition may improve during their first year, using a unique approach of continuous quality assurance feedback loop. This loop assurance framework was externally benchmarked from other disciplines as well as health. Graduate nurses from two health services completed a short survey questionnaire every 4 weeks for 12 months. Quantitative findings showed no statistical difference of satisfaction scores between the services, although, one service consistently

outperformed the other. Qualitative findings from interviews confirmed that one health service took a more proactive approach with month reports and better communication. Monthly response rates averaged between 20% and 25%. Participants identified the need for intensive orientation programs and suitable matches between a graduate nurse and preceptor. Feedback from this continuous quality assurance feedback loop can be utilized to improve overall satisfaction with transition and can be used to improve retention. Just the same as Ahn et al. (2017), these authors selected a mixed study design to collect their data.

W. Edwards Deming's theoretical framework for quality supports the implementation of this project. QA/QI is designed to increase patient satisfaction, improve employee morale, improve work processes, and to eliminate defects and waste as per Deming's Total Quality Management (TQM). Deming's Plan-Do-Study-Act (PDSA) mirrors the process of QA/QI. In QA/QI, we plan for change, execute the plan, study the results, and take action to standardize or improve the process. Best et al. (2005) attempted to make known Deming's contribution to quality and safety. The four key elements of his theoretical framework include: 1) appreciation for a system; 2) understanding variation; 3) a theory of knowledge; and 4) understanding psychology and human behavior. The authors point out that leadership, organizational learning cooperation and systems thinking are critical to his message. Deming's indoctrinated that meeting customer (and patient) service needs without variation takes leadership, systems thinking, steadfastness of purpose, and joy in daily work life. He adheres to the facts that leaders must have a vision and managers must fulfill the steps required for rehabilitating the system to improve quality, job satisfaction, and reduce waste.

Giel et al (2012) employed a literature review-based article to demonstrate how Deming's total quality management (TQM) is an approach at providing quality service and

products to achieve customer satisfaction. The authors explored practices to help managers implement TQM practices. Deming's work was instrumental in developing a framework that emphasized continual improvement, accountability, and employer empowerment. QI in healthcare is consistent with the TQM philosophy since it emphasized the development of policies and procedures that promote best possible outcomes. Current TQM practices include surveying to check customer needs and satisfaction and continual training and development of employees. Although this article provided literature support for the TQM modes, it did not demonstrate any specific cause and effect. This could be accomplished by using this model with one service and comparing quality outcome with another that does not use this model.

Application of QA Program with Depression

Kecojevic et al. (2020) set out to assess factors associated with heightened levels of mental health problems among undergraduate college students in Northern New Jersey due to COVID-19. This cross-sectional study employed a survey to assess academic and everyday difficulties as well as mental health measurements in 162 college students due to COVID-19. At the time of writing, the authors noted that they were unable to identify published research on the impact of COVID-19 on the mental health of undergraduate college students in the U.S. Close to two-thirds of the students answered questions correctly about knowledge regarding the virus. They cited the government (77.8%) followed by medical professionals (58.0%) to be the most trusted sources of information. Many students reported experiencing academic difficulties since the start of the pandemic. Difficulty focusing and online learning were commonly cited issues. Depression, anxiety, and somatization issues were recognized as mental health burdens related to the pandemic. Although this study is among the first to examine the impact of COVID-19 on the mental health of college students, the authors mentioned several limitations to the study. The

cross-sectional design cannot establish causality and the sample size and characteristics of the study limits generalization. Kecojevic et al. (2020) recommended that future studies should capture whether exposure to the virus added to mental health distress. This writer recommends that more studies address the impact of isolation and quarantine on the mental health of college students and suggest and implement proactive measures and services to alleviate the mental health burden. This article supports the need for depression screening in this vulnerable population.

Pincus et al. (2016) set out to demonstrate that there is little evidence to support that behavioral health care quality has improved significantly over the past ten years. Few indicators have been implemented at the national level that assess the quality of behavioral and general health care integration. The authors reported that there is a wide variety of evidence-based psychosocial interventions. Comparable to Batbaatar et al. (2017) these authors also reviewed the literature to provide an overview of the current state of quality measurement in behavioral health and to identify key priorities for measure development and change. Based on their findings, the authors concluded that improving quality of care for behavioral health conditions requires coordinated leadership, evidence-based treatments, more detailed and integrated data systems, and the meaningful collaboration of the clinical workforce and consumers. Quality metrics should be developed for each measure and analyzed for its contribution to high-quality care.

Application of QA Program with Patient Satisfaction

Batbaatar, et al. (2017) employed a systematic review which concentrated on identifying and reviewing determinants of patient satisfaction between 1980 and 2014. These authors included 109 articles in their review. Most of the articles were cross-sectional studies with only one

randomized controlled trial and one retrospective cohort study. Batbaatar et al. (2017) concluded that the strongest determinants of patient satisfaction were perceptions of health service quality characteristics. Health care providers interpersonal skills, competence, accessibility, continuity of care and outcome of care were all associated with positive patient experiences. Their results supported other theories and models on determinants of positive patient encounters. The authors concluded that there is a need for more studies to address how culture, behavior, and socio-economic differences affect patient satisfaction and a demand for more longitudinal or experimental study designs to discover true causal associations.

Boiko et al (2014) set out to explore the views of primary care practice staff regarding the utility of patient experience surveys. This qualitative study focused on groups (staff) from 14 English General Practices. Participants identified surveys as a way for patients to get their voices heard and for staff as a way of identifying areas of improvement. Although practice staff struggled to identify action changes based on survey feedback alone. Drawing on the Utility Index Framework model, the authors identified concerns related to reliability and validity, cost, and feasibility accept ability which combine to limit the utility of survey feedback. The authors concluded that where surveys highlight the need for change, formal processes for planning and delivering change are required. Future research should explore approaches to the more immediate feedback, determining the extent of bias, and exploring motivations associated with changing practice in response to survey feedback.

Application of QA program with Peer Review

According to the Centers for Disease Control and Prevention (CDC) Sexually Transmitted Disease Surveillance 2018 report, Sexually Transmitted Infections (STIs) are a significant health challenge facing the United States. Sexually active college students between the ages of 18 and

24 are at higher risk of acquiring these infections. The authors of this quality improvement project assessed the use of a STI assessment tool by Nurse Practitioners after an educational webinar vs. a group receiving an email reminder only. The tool used was the 5P's: partners, practices, prevention of pregnancy, protection from STIs, and reported infections from the past. Although this tool was embedded within the electronic medical record (EMR), it was used in only 11% of STI visits between 2017-2018 in a retail health environment. Of the 15 Nurse Practitioners in the webinar group, 11 participated in it. The risk survey tool was completed on only 2 of 116 STI visits at 3 months after the webinar class so no statistical analysis was conducted. The email group included 18 Nurse Practitioners who completed 33 risk assessments of 237 visits (14%). This was considered statistically significant (14%) from three months before the emails were sent when 10 were completed during 251 visits (4%). Sheddian et al. (2021) propose that this quality improvement initiative, periodic reminders, may improve STI health assessment rates. Limitations to provider engagement may have been related to the impending closure of the clinic in 2 months and data collection had to be completed quickly. This writer concludes that the study design may be improved by random assignment of participants to each group. The authors did not specify how the participants were chosen or assigned to each group. The study should be replicated in other practice environments including college health where the prevalence is higher.

Sheahaul et al. (2017) set forth to describe the initiation and evaluation of a Nurse Practitioner (NP) peer review program for a group of 15 NPs. Practicing at a Veteran Affairs Medical Center. The authors systematic review of the literature demonstrated a lack of literature on the peer review process. NP's practicing at the center implemented a peer review process to comply with their QA/QI program. The authors conducted this descriptive, correlational study to

examine the degree of congruence among the NP reviewers. 15 NPs evaluated 163 medical records. All 15 NPs had 12 charts reviewed and were to review 12 others. The results indicated a relatively low level of reviewer congruence and the NPs tended to review their peers in a similar fashion. A strength of the study is the authors attempt to reduce bias by having the 3 NP's review every chart. Limitations included a relatively small number of charts and convenience sample, which was also cited as a limitation by Henker et al. (2018) in their study. The authors post-study survey revealed that 70% of the 15 NP's found the review process to be valuable. The authors cited the need for replication in other settings.

Project Methodology

Approval Process

The approval process began after the need for a Quality Assurance/Quality Improvement (QA/QI) program was identified at the Health Center. A QA/QI program strives to guarantee that individuals are following their policies, procedures, and protocols. A written QA/QI program defines the rules and policies of the organization to meet the standards required by accrediting bodies. Multiple encounters with the Director and Assistant Director of the health center disclosed the desire for accreditation in the future which requires a written and active QA/QI program. The Accreditation Association for Ambulatory Health Care (AAAHC) provides standards to facilitate an organization's dedication to provide safe, high-quality services to its patients. It is recognized by third party payers, professional associations, liability insurance organizations, state and federal services, and the public. Because this is a voluntary QA/QI project and did not meet the criteria for human subject's research, this project did not require Institutional Review Board (IRB) surveillance. Once the demand for Quality Improvement (QI) capability and capacity in college health was identified, a meeting and the formation of a QI

committee was established. The committee includes administrative, clinical, and secretarial representation. All the members of the QI team and other Health Center staff endorsed this project.

QA/QI is a systematic process for making changes that lead to greater outcomes, stronger system/team performance, and strengthened professional development. The advancement of a QA program is an activity that is part of QI and is needed to demonstrate that performance is set at a high standard. Confidential chart audits were performed to assess current practices and documentation. Areas of needed improvement were identified, and measures were implemented to make things better. Recognized evidence-based improvements included the implementation of depression screening, patient satisfaction surveying, and the increased utilization of the Electronic Medical Record (EMR). All information collected from these improvement actions were and will be kept confidential. Enhancements in quality of care will be monitored through continuous review. Owing to the pandemic, the initial sample population was limited to those students in isolation or quarantine due to COVID-19 and allowed for data collection through the EMR. The goal was to start collecting data in the Spring semester of 2021 and continue each semester. By establishing a benchmark or baseline, one can see whether improvements and change have occurred. Best practices can be identified and become the “benchmarks” against which others are measured. QI studies will be developed based on peer review data and clinical guidelines.

The Assistant Director of the Health Center served as a primary point of contact and fully endorsed development and completion of this project. She believes QI should no longer be seen as optional, but rather as a crucial pathway to achieving the University mission and accreditation.

In addition, she realized that consumer expectations are increasing; students and their families are pressing for not only more, but higher quality and greater benefit from services.

Risks and Benefits

The SWOT- analysis is a tool developed for strategic analysis. It consists of a confrontation between external developments and internal capabilities (Van Wijngaarden et al. 2012). A strengths, weakness, opportunities, and threats (SWOT) analysis was completed to decide whether the project objectives were realistic and achievable. Each part of the SWOT analysis required the Advanced Practice Nurse (APN) to answer some serious questions. Strengths and weaknesses are components internal to the proposed practice and may change over time. Inversely, opportunities and threats are external to the practice and may fall beyond the practitioner's dominion.

Strengths are factors internal to the proposed practice and may evolve over time. An identified strength was the program facilitators competency in developing and implementing QA/QI measures and guiding others in the process. The QA/QI project was supported by clinically adept providers who value quality care and the accreditation process. This is an additional strength since there is an alignment with stakeholder values and objectives. Additional complementary strengths include the identified need for superior depression screening due to the rise of mental illness challenges in young adults and the desire to consult with other universities who have attained accreditation.

The SWOT analysis exposed several weaknesses in the provision of QA/QI at the Health Center. An analysis of weaknesses are those internal factors to the proposed practice change. Foremost, the Health Center did not have a policy/procedure that addressed Quality Assurance (QA) standards and individual goal setting. The QA policy/procedure explains how

services will operate to deliver high quality care. Another identified weakness was the underutilization of the Electronic Medical Record (EMR) system and lack of previous administrative support for such an initiative. EMRS improve quality of care, reduce practitioner variation in care, and improve communication among providers and patients. Electronic prescriptions reduce medication errors and improve patient safety and outcomes.

Patient satisfaction is a driving influence when patients have a choice of providers or the occasion to recommend a provider to others. The Health Center did not provide a means to determine whether they were meeting the needs and expectations of their patients. Conducting patient satisfaction surveys allows providers to learn if they are meeting these needs and expectancies. Patient satisfaction decreases urgent care and ER visits on college campuses. To compete with other medical services, college health center providers must utilize patient input to set evidence-based standards

Peer review functions as a form of self-monitoring by members of a profession within the appropriate field. Direct observation for clinical competency by a similar licensed peer and retrospective chart audits function as common peer review practices in college health. The peer review process is valuable for exposing deficiencies in quality. The lack of depression screening in this vulnerable population was identified as a weakness in performance. If rendered at all, it was not supported by using an evidence-based tool such as the PHQ-2 and 9 questionnaires. It is important to evaluate current practice risks and expected practice outcomes to develop QI initiatives.

Supplementary weaknesses included lack of organizational knowledge regarding QA/QI standards, time to implement the program, and the ability to monitor improvements through continuous review.

Opportunities are external to the practice and exist in the market. An opportunity for this project includes the reconfiguration of practice patterns that may enable an increase in health center utilization and patient satisfaction. QA/QI is interconnected with patient satisfaction and the enhancement of patient care outcomes. Additional opportunities include: the possibility to increase open communication and collaboration, the introduction of benchmarking and the peer review process, and the attainment of national accreditation.

Threats are external to the organization and often fall beyond the practitioner's control. The threats to this process include negative customer attitudes regarding the care they receive at the college health center versus other medical services, lack of upper management support, insufficient funding to support the accreditation process, and the COVID-19 pandemic, which has had a major impact on the delivery of care.

Summary

My literature review for this project revealed articles related to general QI/QA development as well as demonstrating the role of QI in other sectors of healthcare; the review found only a few relevant articles pertaining to college health care specifically. Most articles in general were case studies or systematic reviews of the literature. Some employed a mixed method study design with the distribution of surveys and qualitative interviews. Perhaps part of the reason that few articles are published on this topic rests with the fact that QI/QA has matured since the 1950's. While the topic is not new, the fact remains that organizations still utilize such plans as part of normal operations. The literature review was help in identification of topics that should be considered as part of any robust plan in college health.

Phases of the Project

Phase I- Needs Assessment Process

This project was executed in several phases, the first being the identification of the need for the program which began during the fall semester of 2020. The demand for improvement practices and methods was recognized by the Director and the Assistant Director at the Health Center. The staff identified that Quality Assurance/Quality Improvement (QA/QI) should be an integral part of their everyday work. The desire to develop a QA/QI program represented the staff's aspiration to support student health and wellbeing. The program would introduce the development of standardized, action-able quality metrics, data collection methods, and analysis.

Phase II- Obtaining Support from Stakeholder's Process

QA/QI is designed to increase patient satisfaction, improve employee morale, improve work processes, and eliminate defects and waste. These concepts are consistent with Deming's philosophy of Total Quality Management (TQM). The success of this project was enhanced by the recent change in leadership that values quality initiatives. Clearly defined improvement leadership roles were established and support for the program was welcomed and encouraged. Stakeholders at the Health Center were willing to set the expectation that improvement of student health and wellness should be everyone's concern including the engagement of students in improvement efforts.

Phase III- Initial Implementation Steps

The initial implementation involved the formation of a QI committee and the development of specific goals and objectives. A diverse group of committee members were selected to ensure comprehensive representation and inclusion of roles. A project purpose statement was developed to answer questions regarding the purpose of the committee and the

specific roles of each team member. A written QA/QI program was developed to set policies and standards. The program reflects the standards required by the Accreditation Association for Ambulatory Health Care (AAAHC). This program strives to ensure that staff are following their policies, procedures, and protocols. Actions that support the program include chart auditing, staff and patient satisfaction surveying, peer review activities, and incident reporting. A chart audit was completed to identify clear measures of quality for service and those that were lacking. This resulted in the identification of the need for continual depression screening, patient satisfaction surveying, and improved chart documentation. The staff was introduced to QA/QI concepts and the difference between the two was highlighted.

Project Budget

This project execution was voluntary and did not provoke any additional expenses to the Health Center. However, without the program facilitator, the Health Center may have been pressured to hire or contract additional staff or a QI consultant to develop and oversee the program. A QI consultant provides independent, non-biased advice to organizations on strategies to improve the quality of their services. Fees that consultants receive for services may be due to many factors such as skill and level of experience. Most small centers may hire an outside contractor, but since QA/QI is an on-going process, there may be a need to an additional employee to oversee the program. Both have advantages and disadvantages and incur added expenses. QA/QI on-line training courses can help educate staff on the principles of QA/QI and how to avoid problems when delivering services to patients. An on-line training course helps employees develop a systematic process to determine whether they are providing high quality care to satisfied patients. The consummate goal of achieving national recognition by AAAHC

necessitates a registration and surveyor fee. The survey fee is based on information acquired from the center's application for survey and supporting documentation.

Marketing Plan

A comprehensive QA/QI program in college health is required to ensure quality and safety in all patient care processes. Risk management incentives are addressed in the QA/QI program. QA and accreditation are processes that establish standards and monitor performance. QI utilizes measures to plan and evaluate improvement in a program or procedure.

When executing a market plan for this project, it was essential that key stakeholders were involved and engaged in the undertaking. The right team culture was a key element for success of the program. The QA/QI committee includes a diversified group of professionals. Representation includes provider, nursing, and office staff participants. This approach emphasizes a peer-driven approach for the development of a culture of quality and capitalizes on collective pride. The key stakeholders include the Director and Assistant Director of the Health Center, a Nurse Practitioner, a staff nurse, and a front desk representative. Counseling services was invited and encouraged to participate in the process, but there was no response to the request. Health Center staff were included in activities designed to improve and maintain an atmosphere of quality. Such activities included depression screening, peer review, and the development of a patient satisfaction tool and implementation of patient satisfaction surveying. Communication between the staff and program facilitator was accomplished through virtual meetings, emails, phone calls, and in-person meetings. Depression screening was implemented through the Electronic Medical Record (EMR) and a peer review chart audit was conducted. It is agreed by all that the utilization of the EMR will improve encounter documentation, patient safety, staff communication, and data analysis. The QA/QI program was designed and written

according to the established standards designated by AAAHC. This QA/QI program will be made use of by the Health Center and will conceivably be benchmarked by other University Health Centers who are striving for national recognition and accreditation.

Phase IV- Ongoing implementation process

The implementation phase involves putting the project plan into place. Implementation teams remain essential supporters to the ongoing success of using the evidence-based program. Teams/committees help to develop staff adeptness required by the evidence-based program, help administrators to align with the program, and help leaders in the organization to fully support the process of using the program. This program facilitator developed a written QA/QI program that outlines the rules and policies of the organization to meet the standards required by accrediting bodies. The QA/QI Health Center committee strives to ensure that policies, procedures, and protocols are coherent and address the evolving needs of the patient. QI initiatives are identified and implemented to make things better and increase patient satisfaction.

Depression screening and patient satisfaction surveying were both piloted for two weeks during the Spring semester of April 2021. QI monitors improvements in quality of care through continuous review. These QI undertakings introduced the staff to the QA/QI process and will ultimately prove to be valued and recurring.

Peer Review as a QA Component

Chart audits can also be conducted to discover variation in performance among providers. This internal benchmarking activity compares providers to one another and can discern the need for a provider-specific intervention. After a review of the literature and benchmarking other university peer review tools, a 10-item Likert scale questionnaire was designed to identify provider-specific documentation practices. This questionnaire incorporates a question specific to

the inclusion of depression screening during the encounter. This QI activity will be introduced once documentation is electronic making chart audits of encounters more accessible.

Application of QA for Depression Screening

Peer review entails ongoing monitoring/measuring of important features of the care provided by an organization's health care professionals. A chart audit of 20 charts was conducted and an organization-wide performance problem was identified. The chart audit uncovered that all providers were not meeting guidelines regarding screening for depression in young adults. This QI activity ascertained a performance problem that required the need for an overall intervention. Screening tools encourage routine and systematic surveillance of a milestone or concern. Screening, in medicine, is a strategy to detect unrecognized conditions or risk matters. The Patient Health Questionnaire (PHQ)-2 and (PHQ)-9 are frequently used and validated screening tools for depression. The PHQ-2 and 9 are both publicly available, and no permission is required to use, reproduce, or distribute the tools (New York Department of Health, 2016). The PHQ-2 has sensitivity comparable with the PHQ-9 in most populations; however, the specificity of the PHQ-9 ranges from 91% to 94%, compared with 78% to 92% for the PHQ-2 (Maurer et al. 2018). The PHQ-2 addresses the degree to which an individual has experienced a depressed mood or anhedonia over a 2-week period. Its purpose is to screen for depression but not to establish a final diagnosis. The PHQ-9 scores each of the nine DSM-1V criteria as "0" (not at all) to "3" (nearly every day). The tool identifies and monitors the severity of the depression. Actions are based on the severity of the depression and response to treatment moving forward. The Health Center QA/QI committee chose this tool to screen for depression within this population to uncover those students who warrant an intervention. Detecting a diagnosis can result in a

counseling referral and pharmacotherapy management when needed. Depression screening serves as a pilot to test the Quality Assurance plan.

Application of QA for Patient Satisfaction

Patient satisfaction is a measure of the degree to which a patient is content with the healthcare they have received from a health care provider. Patient satisfaction exerts an influence on clinical outcomes, patient retention, and malpractice claims. It is a performance indicator that measures the success of providers and health care institutions. The QA/QI committee at the Health Center designed a 9-item Likert scale questionnaire with one additional area for comments or suggestions to be piloted and distributed for 2 weeks in April 2021. As a result of the COVID-19 pandemic, patient encounters were limited to telehealth visits during the implementation process. The committee concluded that surveying those students in quarantine/isolation would replace general surveying during the Spring semester of 2021. This sample population was more provider accessible during the Spring semester. A 9-item Likert scale questionnaire was created to evaluate the students experience in quarantine/isolation. An open-ended question was included to determine what actions could have made the experience better.

Project Outcomes

Phase V – Project Evaluation Process

A Quality Assurance Program is formulated to monitor and evaluate the quality and suitability of health care services, pursue opportunities to enhance patient care, and resolve identified problems. Policies, procedures, and protocols are important components of the program. This Quality Assurance project includes a written QA/QI program which strives to ensure that health care providers are following evidence-based practices and guidelines. It was

developed after a systematic review of the literature and the analysis of other university health center programs. The program also reflects standards required by the Accreditation Association for Ambulatory Health Care (AAAHC) for obtaining accreditation. AAAHC leads accreditation for ambulatory health care through nationally recognized quality improvement standards. Accreditation is a distinguishing accomplishment and differentiates your organization with ongoing quality improvement benchmarks.

A major component of a QA/QI program is the recognition of identified problems that require an action plan. Screening for depression is the cornerstone of early recognition, diagnosis, and treatment. An initial chart audit was executed prior to implementing the screening in the Spring. Twenty of 20 charts revealed no depression screening or mental health assessment. Depression screening was implemented at the health center during the Spring semester of 2021. Due to the COVID-19 pandemic, patient encounters remained virtual throughout the Spring 2021 semester. A chart audit was executed from 4/12/21-4/23/21 to ensure that providers were including screening with each telehealth visit. A total of 25 telehealth visits occurred during this timeframe. Six encounters included documentation of PHQ-2 questionnaire screening with 11 female students and 5 male students completing the questionnaire. Based on the results, 12 students required no further assessment or intervention while 4 students (3 female and 1 male) were instructed to answer the PHQ-9 questionnaire. The additional screening resulted in two referrals for counseling of students who were mildly depressed. Two other students did not accept counseling. Continuous monitoring will be implemented in the Fall with the goal of identifying and supporting those early on. Periodic auditing will ensure that health care professionals are conforming with this much needed QI activity.

Measuring patient's perceptions of the quality of care can provide practices with valuable information and data on which to build QI initiatives. One common method for assessing patient impressions is through patient satisfaction surveying. The health center QI committee developed and administered an internal originated instrument. The questionnaire was deemed valid and reliable since it was benchmarked from other university centers and adapted through a review of the literature. The survey utilizes a mixed strategy methodology with 9 quantitative Likert scale questions and one open ended qualitative inquiry. The population included a representative sample of the general population. This paper formed questionnaire was developed and administered to those students requiring isolation/quarantine due to COVID-19. The paper form survey was delivered to 15 students, and they were instructed to complete it and place it in a drop box. The survey was administered between 4/19/21 and 4/30/21. Five students completed and returned the survey, signifying a 33% response rate. All students somewhat or strongly agreed that their health care needs, accommodations, and staff support was satisfactory. One student felt that the emotional support provided was not satisfactory, while another felt that he/she did not have the tools and resources to complete his/her schoolwork. Open ended responses to things that could have been done better were the ability to go outside for a couple of minutes each day, and to be able to see each other since they were already all infected. Although there was not enough data to draw any meaningful conclusions during this timeframe, the survey should be repeated in the Fall to benchmark survey results over time. A survey was also developed for the university population for all encounters and will be distributed as students return to campus and in-person visits increase.

Summary

Employee participation in the assurance of quality, and the sustained improvement process is achieved by taking ownership of actions, and actively seeking measures to improve those processes. The QI committee/team approach is one tool employed to enhance productivity and continuity. Although adequate research has been published on QI in other disciplines, few QI improvements in college health have been published in peer-reviewed journals or presented at national meetings. It is time for leaders in higher education to fortify and support QI initiatives in college health. Rigorous attention to improvement practices and methods is as important in college health as it is in any other area of healthcare. Outcomes-based data on student's most crucial health issues are needed and can be developed through a national emphasis on QI in college health. Every university health center should formulate a QA/QI program that utilizes system-wide goal setting to address improvement within its processes.

This quality improvement project sought to develop a QA/QI program in a college health center which will create and monitor improvements in quality of care through continuous review. With the input of the newly formed QI committee, the goal is that staff will support student health and wellbeing and view QI as an essential component of their everyday work. Active participation in improvement will be encouraged and recognized, and job descriptions will include a component related to improvement initiatives. This will ultimately lead to accreditation by AAAHC, the leader in ambulatory health care accreditation.

Conclusions

This Doctor of Nursing practice scholarly project was executed to fulfill the requirements for the Doctoral of Nursing practice degree. This project was implemented to elevate the standard of practice for this college health center and to improve the quality of care available to

college students. Despite the barriers attributed to the COVID-19 pandemic, this project was completed. The QA/QI program was developed and written, a QI committee was formed, and 2 QI activities were initiated.

Consistent with other university health center QA/QI programs, this project will bring quality improvement to the forefront of practice, and will advance care, health, and value across the discipline of college health. It will also act as a pathway to advancing student learning and achievement. QI activities in college health should be considered for publication in peer-reviewed journals and benchmarked at other university health centers. Many college health innovations have failed to produce widespread benefit because they are not implemented appropriately in practice. Standardized, action-able quality metrics and data collection/analysis methods need to be developed and communicated to key stakeholders.

The major limitations of this project lie in the limited sample sizes in both QI activities which narrows the scope of these improvement strategies. Therefore, there is not enough data to draw meaningful conclusions and the margin of error becomes unacceptable. The COVID-19 pandemic led to a limited number of virtual encounters and no in-person visits to obtain adequate depression screening and patient satisfaction surveying response rates. Another limitation is the change in staff focus and work responsibilities from usual young adult health issues to contact tracing, COVID-19 testing, and isolating and quarantining students due to the virus. The finite use of the EMR is also a limitation to data collection and analysis, although utilization of the EMR has increased since the beginning of this project. The health center has begun to use the EMR for documentation for a select amount of patient encounters and uploaded vaccination information through the student health portal.

Regardless of these restraints, this project has served as a vehicle for making better outcomes, stronger system performance, and professional development.

Sustainability

Despite a project's subject or extensiveness, thought must be given to the project's sustainability. The success of the QA/QI program at the health center will depend on teamwork, system-wide goal setting, and leadership to improve quality. A top-down commitment to quality has shown to generate the best outcomes. Staff should be encouraged to measure current processes and to create systems to make things better. Focus should be on breaking down barriers to improve constantly. The QI committee will be the functional component of the QA/QI program. This committee is designed to encourage others to aim to improve care and coordinate QI activities. The goal of the program is the establishment of evidence-based standards. Different from research, QA/QI follows the plan, do, study, act cycle. This cycle is repeated, and new changes are made to keep improving the outcome.

Recommendations

QA/QI strives to improve a program, process or system and encourages practitioners to share the systematic communication of insights. The program encourages QI studies based on peer review data. Interventions are evidence-based and reported in the literature as well as being used in other health care settings. The development and implementation of a QA/QI program in college health encourages QI improvement projects that reduce clinical variation, prevent medical errors, and improve care. Future QI activities should focus on internal and external benchmarks. Internal and/or external benchmarking is optimal for setting a performance goal. Performance goals can focus on overall performance or provider-specific performance. Benchmarking establishes best practices which become standards against which others are

measured. A culture focused on QI must continually reevaluate initiatives and approach to ensure measures are doing what they set out to do. The intent should be to share data from an internal QI project with other university health centers. Other centers may benefit from learning how one service addressed a specific organizational problem. QI activities may be published and presented to other centers without the requirement of initial IRB approval and oversight. Future QI activities at the health center may include increasing staff efficiency, reducing medical errors, decreasing alcohol consumption, and increasing safe sex practices within the college population. Regardless of future QI projects, this project has introduced the health center staff to a culture of QA/QI and the need for a shared vision of QI.

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Appendix A: UHS Quality Management and Improvement Program

POLICY

The University Health Center (UHC) Quality assurance and Quality Improvement program (QA/QIP) has been formulated to examine and evaluate the quality and appropriateness of health services delivered to students. This systematic and objective program will pursue situations to improve patient care and will establish action plans to resolve identified problems. The QA/QIP is enacted in accordance with the philosophy, mission, and goals of the University. Quality Improvement (QI) is a systematic methodology for making changes that lead to higher quality outcomes, stronger system executions, and enhanced professional development.

PROCEDURE

Objectives/Goals:

- 1) The health care providers and staff will have the necessary proper training, credentials, and abilities to deliver the services outlined in their job descriptions and skills checklist in their individualized file. The skills list will be updated and evaluated annually and as needed.
- 2) Health care providers will practice their professional activities in accordance with local, state, and federal laws.
- 3) The UHC staff will conduct on-going, all-inclusive self-assessments of the quality of care provided by the peer review process with full participation by the UHC staff.
- 4) The QA/QIP will be maintained as a cyclical, repetitive process that must be applied flexibly to meet the needs of the program.
- 5) The provision of high-quality care will be demonstrated by the following:
 - a) Health care provided will be congruent with evidence-based standards of care and knowledge.
 - b) Diagnoses and treatment will be consistent and based on clinical impressions and assessments.
 - c) Diagnoses and treatment plans will be communicated in an effective manner and patients will receive education regarding their diagnoses, treatment, and referrals/consultations.
 - d) Past medical/surgical histories, allergies, and medications will be reviewed and reconciliated at each patient encounter.
 - e) Appropriate diagnostic procedures/consultations will be obtained relative to a patient's condition.
 - f) Referrals and consultations will be relevant and timely.
 - g) Follow-up of findings and tests will be prompt and delivered in a manner that is understood by the patient.
 - h) Patients will be encouraged to participate in their plan of care. This will be documented in their encounter as a verbalization of their understanding and agreement with the plan.

- i) On-going data collection will be obtained to measure quality and to identify quality-related problems or concerns. Such measures may include record audits, peer review activities, internal and external benchmarking, and patient satisfaction surveys.
 - j) The program will be evaluated at least once a year and a written report will be generated to determine if the programs purposes and goals are being met.
 - k) Continuity of care and follow-up will be encouraged and sustained by the UHC staff.
- 6) Role of the QA/QI committee: this committee shall be the functional component of the QA/QI program, and shall be comprised of the following members:
 - a) One (1) collaborative physician.
 - b) The Associate Director of the health services will chair the committee and will be responsible for the agendas and minutes.
 - c) One (1) member of the provider staff, nursing staff, and secretarial staff.
 - d) The Director of the UHC.
 - e) The committee will meet at the minimum of once a semester and as needed.
 - f) Quality improvement activities will be communicated in written via minutes and will be discussed at monthly staff meetings.
- 7) The UHC provides accessible and available health services while providing for risk management and patient safety by furnishing the following:
 - a) Provisions for referrals and alternative health care services when the center is closed.
 - b) Satisfactory transfer of information when patients are transferred to and from other health care providers.
 - c) Arrangements for accessibility and availability of emergency services.
 - d) Accommodations for those with disabilities.
 - e) A high commitment to the participation in quality improvement programs and services that support the overall health and well-being of students.
 - f) An adverse incident reporting system.
 - g) An action plan for notifying public health authorities of reportable conditions.
- 8) The UHC will maintain appropriate procedures to obtain, identify, store, and transport laboratory specimens or biological products as described in their laboratory policy/procedures manual.
- 9) Patients may be transferred from the care of one health care practitioner to another with the following considerations:
 - a) The UHC will ensure that adequate specialty consultation services are available. Referral to that provider will be explained and understood, and the names, addresses, and phone numbers will be made available.
 - b) A detailed procedural plan will be developed and available for handling medical emergencies.
- 10) Concern for cost, if applicable, will be demonstrated by the following:
 - a) The provision of relevant health care services.
 - b) The delivery of appropriate treatment frequency and diagnostic procedures.
 - c) Use of the least expensive alternate resources and ancillary services.
- 11) Allocations are made for health care providers and staff to communicate with clients in the language primarily used by them

- 12) Problem Identification: identification of known or suspected problems in the health center system is the foundation of the QA/QI program. Problems or topics for QI studies may be on-covered by, but not limited to, the following methods:
- a) Compliance with the rules/regulations governing health service organizations.
 - b) Encouragement of reporting near-miss risk events.
 - c) The identification of known or potential problem areas as determined by such activities as record audits, peer review activities, and patient/employee satisfaction surveys.
 - d) Participation in internal/external benchmarking activities that compare key evidence-based performance measures with other health centers with recognized best practices.
 - e) A written risk management program and/or policies that may address problematic areas and assure patient safety and quality of care. Elements of compliance are as follows:
 - 1) Methods by which a patient may refused care.
 - 2) Documentation of clinical guidance after normal working hours.
 - 3) Requirements for observers in patient care areas and those permitted in patient care areas who are not staff.
 - 4) Patient complaints and grievances that includes defined response times, as required by law and regulation.
 - 5) Periodic review of clinical records and policies.
- 13) Correction of Problems: once problem areas have been identified and results assessed, appropriate interventions will be taken to solve the problem. Corrective actions may include, but are not restricted to the following:
- a) Revision of a policy or procedure specific to problem resolution.
 - b) Improvements that reduce the likelihood of future adverse incidents are implemented.
 - c) Continual staff education and training within his/her area of service to enhance quality of care.
 - d) Education of office staff regarding policies and procedures to improve delivery of care.
 - e) Implementation of clinical guidelines to ensure standardization of care rendered.
- 14) Follow-up Monitoring: follow-up monitoring shall be performed to assure that the corrective measure/measures taken did resolve the problem.
- a) The QA/QI committee will discuss all identified problems, action plans, and monitoring processes with the governing body. Minutes of QA/QI meetings will be recorded and communicated with the governing body and staff as meeting minutes.
 - b) One (1) follow up study will be performed relative to each study that required corrective action.
 - c) The Director of Health Services will assure that adequate and required staff is provided to carry out the measures outlined in the plan.

- d) The Director of Health Services will grant sufficient time and communication if new policies/procedures are required to improve the quality of services.
- e) The Director of Health Services will provide input when establishing criteria and standards based on audits and health care evaluations implemented by the committee. The Director of Health Services will also be responsible for reporting QA/QI program activities to upper management

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Appendix B: Patient Health Questionnaire PHQ-2 and PHQ-9

Name: _____ Student ID# _____

Date _____

During the past two weeks, have you often been bothered by of the following problems? Feeling down, depressed, irritable, or hopeless? Yes No

Little interest or pleasure in doing things? Yes No

If you answered “Yes” to either question above, please answer all questions below.

During the past two weeks, how often have you been bothered by of the following problems?

	0- Not At All	1- Several Days	2- More than Half the Days	3- Nearly Every Day
Feeling down, depressed, irritable, or hopeless				
Little interest or pleasure in doing things				
Trouble falling or staying asleep or sleeping too much				
Poor appetite, weight loss, or overeating				
Feeling tired or having little energy				
Feeling bad about yourself-or feeling that you are a failure, or have let yourself or your family down				
Trouble concentrating on things, such as reading the newspaper or watching TV				
Moving or speaking so slowly that other people could have noticed? Or the opposite-being so fidgety or restless that you were moving around a lot more than usual				

Thoughts that you would be better off dead, or of hurting yourself in some way				
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If you are experiencing any problems on this form, how difficult have these problems made it for you to do your work, take care of things at home or get along with other people?

Not difficult at all Somewhat difficult Very difficult Extremely difficult

PHQ-9 score	Depression Severity	Proposed Treatment Actions (clinical judgement supersedes score)
0-4	None-minimal	No referral unless clinically indicated, offer education/guidance
5-9	Mild	Referral to mental health (appointment)
10-14	Moderate	Referral to mental health-consider same day appt.
15-19	Moderately Severe	Consultation with director and counseling
20-27	Severe	Consultation with director and counseling
#9 Positive response (Suicide alert)	Severe	Immediate referral to counseling service, consultation with director, activate emergency protocol as necessary

References for PHQ 2 and PHQ 9

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Appendix C: University Health Service Patient Satisfaction Survey

Please help us to improve our services and quality of care you receive by answering the following questions. Your thoughts and opinions are valued and greatly appreciated. Please read each item carefully because not all items are worded in the same direction.

	Strongly disagree	Disagree	Agree	Strongly Agree	N/A
I had issues arranging and booking an appointment.					
The front staff was efficient and courteous.					
I had to wait longer than expected to see a health care provider.					
The nurse was professional and courteous.					
The health care provider I saw listened to me.					
The health care provider I saw answered all my questions.					
My emotional well-being was addressed during my visit.					
Based on my experience with the health center, I would					

recommend it to a friend.					
Overall, I was satisfied with my visit to the health service.					

Please provide any additional comments or suggestions.

This tool was developed in conjunction with Kathleen Hynes Lifland while a student in the DNP Program at Seton Hall University.

Appendix D: Patient Satisfaction Survey

For those students requiring Isolation due to COVID-19

	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
I was aware of emotional, physical, and academic resources and how to contact them before isolating.				
I did not have enough time to gather necessary items prior to checking into my isolation space.				
Emotional support was provided while in isolation.				
My healthcare needs and questions were addressed while being isolated.				
I had the tools and resources I needed to complete my coursework during isolation.				
I was satisfied with the overall quality and quantity of food				

delivered each day.				
Meal delivery times were communicated, and meals were delivered on time.				
The room was clean and comfortable.				
The staff was helpful and responded quickly to my needs while in isolation.				

Please list things we could have done to make your isolation experience better.

Appendix E: UHS Provider Peer Review Form

CHART ID #		ENTRY DATE		
Item	Yes	No	N/A	Comments
Past medical/surgical history is recorded and updated?				
Presence or absence of allergies with any untoward reactions is noted?				
Current medications are identified and recorded?				
A presenting problem is clearly identified with a history of that complaint?				
The physical exam is appropriately focused and based on the presenting problem?				
The assessment/diagnoses are supported by the history and physical exam?				
A depression screening was conducted?				
The treatment plan is congruent with the diagnosis?				
Patient education and follow up				

instructions are documented?				
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Patient understanding of the treatment plan and any follow up is documented?				
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REVIEWER'S SIGNATURE:

REVIEWER'S PRINTED NAME:

REVIEWEE'S SIGNATURE:

REVIEWEE'S PRINTED NAME:

DATE OF REVIEW:

Appendix F: QI Meeting Agenda Template

Meeting Date:

Meeting Time:

1. Introduction:
2. Practice relevant issues:
3. Long term goal:
4. Progress toward improving outcomes:
5. Recommendations for any additions or changes by meeting participants.
6. Next meeting time and date.

Appendix G: QA/QI Committee Meeting Minutes

Project Name:		QA/QI program
Meeting Title:		QA/QI committee meeting
Meeting Date: 2/16/21 10:00am		
Objectives:		<ol style="list-style-type: none"> 1) To introduce the importance of a Quality assurance in College Health and what the committee does. 2) To discuss relevant clinical issues. 3) To discuss short term and intermediate goals. 4) To address the long-term goal of national accreditation.
Participants:		Staff members of the Health Services
Item	Subject	Discussion
#1	Implementation of the depression screening tool.	How and when depression screening will begin.
#2	Implementation of the peer review.	Peer review activities will be included in the program.
#3	Implementation of patient satisfaction surveying.	How will this be Administered.
#4	National Accreditation.	Will need administrative support to achieve this goal.

#1	Action Item
#2	The depression screening will be administered during telehealth visits and with those students in isolation and quarantine due to COVID-19.
#3	A chart audit will be done prior to implementing the depression screening. A peer review process tool will be utilized to evaluate standards of care. 20 random picked charts will be reviewed with post audit feedback given to providers of care.
#4	The patient satisfaction survey tool will be reviewed by the appropriate stake holders and will be administered over a 2-week period in April.
	The QA/QI committee will market the idea of accreditation and how it assures high quality of care to upper management.
	The execution of all items will require staff training and support. The committee will meet formally near the end of the semester and will meet informally as needed.

This tool was developed in conjunction with Kathleen Hynes Lifland while a student in the DNP Program at Seton Hall University.

Appendix H: QA/QI Committee Meeting Minutes

Project Name:		QA/QI program
Meeting Title:		QA/QI committee meeting
Meeting Date: 5/7/21 2:00pm		
Objectives:		<ol style="list-style-type: none"> 1) To discuss identified needed areas of improvement based on peer review findings. 2) To discuss the implementation and progress of the depression screening. 3) To examine the execution and unfolding of the patient satisfaction survey administered this Spring. 4) To revisit QI activities including the peer review process and benchmarking. 5) To address the components of the QA/QI policy/procedure.
Participants:		Staff Members of the Health Service
Item	Subject	Discussion
#1	Implementation of depression Screening.	Although the sample size was small due to the pandemic, we are pleased with the progress.
#2	Execution and progress of patient satisfaction surveying.	The sample size was small but should increase in the Fall.

#3	Peer review process and benchmarking are essential to the program.	We discussed different peer review initiatives.
#4	Components of the QA/QI policy/procedure.	Will be in accordance with accreditation standards.
Action Item		
#1	The depression screening will continue to be administered with follow up and suggestions for performance improvements.	
#2	The patient satisfaction survey will be repeated in the fall with follow up and suggestions for performance improvements.	
#3	Peer review activities and benchmarking will be executed in the Fall.	
#4	The QA/QI policy/procedure will be developed this summer in accordance with accreditation standards and criteria.	

This tool was developed in conjunction with Kathleen Hynes Lifland while a student in the DNP Program at Seton Hall University.

Appendix I: Annual Evaluation Template

Annual Evaluation of the QA/QI Program 2021-2022 Template

Health Services has implemented a QA/QI program for the 2021-2022 which addresses the scope of the organization’s services.

Listed below are the completed initiatives:

- 1) The completion of a written QA/QI policy and procedure.
- 2) The distribution of the depression screening tools.
- 3) The allocation of patient satisfaction surveying.
- 4) The utilization the Electronic Medical Record (EMR) for most student/patient applications.
- 5) The formation of the QA/QI committee. The QA/QI committee consists of members of the FDU Health Center who are responsible for the development, implementation, and oversight of the program. FDU Health Center functions as a team and all clinical/staff personnel are invited to participate in the program. Open communication is utilized and encouraged to establish QA/QI goals at the beginning of each academic year. These are based on the needs and objectives of the practice.

The following tables demonstrate the effectiveness of each QA/QI activity implemented during the 2021-2022 academic year.

Structure	Process	Outcome

This tool was developed in conjunction with Kathleen Hynes Lifland while a student in the DNP Program at Seton Hall University.