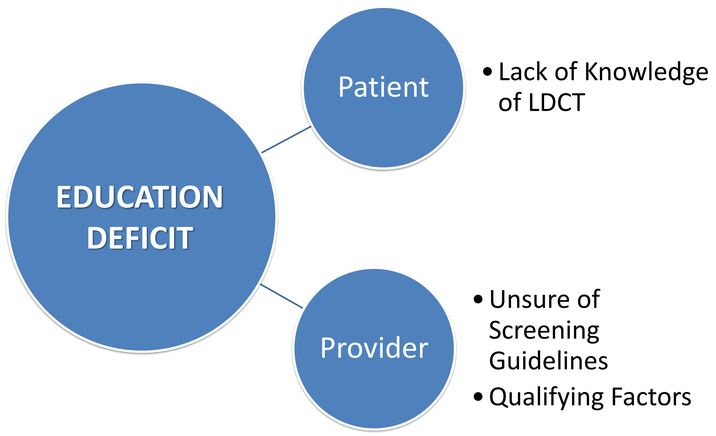
Improving Low-Dose CT Screening in Primary Care

Bethany Huelskoetter, APRN, FNP-BC
Southern Illinois University Edwardsville

PROBLEM INTRODUCTION

- The LDCT lung cancer screening tool under-utilization
- The NELSON trial showed a 24% reduction of mortality in men and 33% in women (Koning, et al., 2020)
- Only 2% of qualifying patients had an order placed for an LDCT prior to implementation
- Failed attempts to increase order placements previously

LITERATURE REVIEW

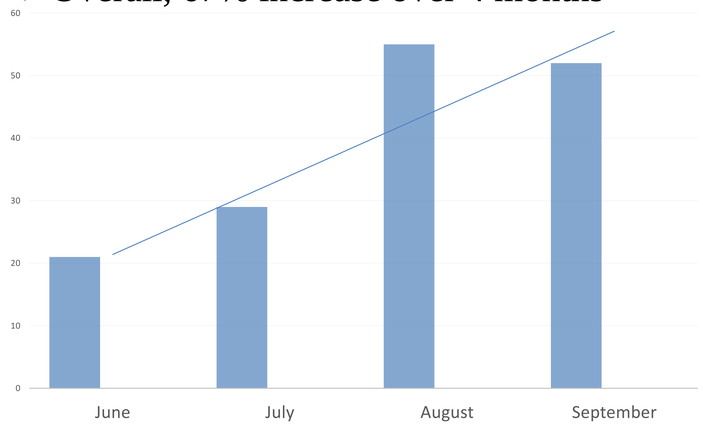


PROJECT METHODS

- Lunch & Learn CME Sessions with Pre and Post Likert Scale Evaluations
- Questionnaires given to patients during rooming process
- Mailed Fliers
- Best Practice Alert (BPA) integrated into EHR

EVALUATION

- Increased LDCT orders
- Likert scales revealed increase for all questions
- BPA prevailed to be most successful (August)
- Overall, 67% increase over 4 months



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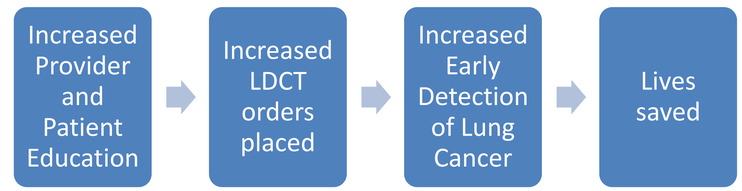
IMPACT ON PRACTICE

- 4 LDCT positives for lung cancer
- 32 cases of lung nodules detected that needed close follow up for stability
- 13 incidental findings that required additional workups
- Increased provider and patient education

Limitations

- Mailed Flyer
  - Time
  - Analytic Dept
  - Marketing Approval
- Small Setting
  - 13 providers

CONCLUSIONS

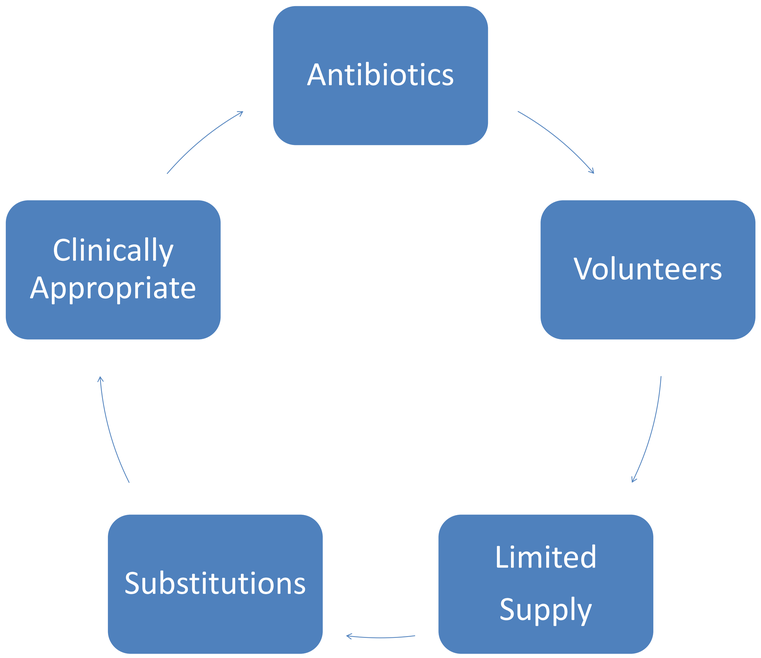


Koning, H. J., van der Aalst, C. M., de Jong, P. A., Scholten, E. T., Nackaerts, K., Heuvelmans, M. A… Oudkerk, M. (2020). Reduced Lung-Cancer Mortality with Volume CT Screening in a Randomized Trial. *The New England journal of medicine*, *382*(6), 503–513. https://doi.org/10.1056/NEJMoa1911793

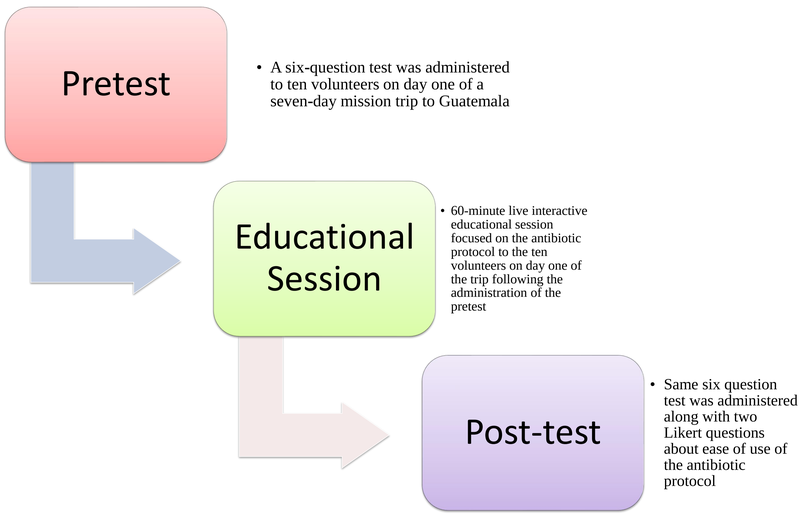
Short Term Medical Mission Antibiotic Protocol

Greg Jennings, MS, APRN, FNP-C
Southern Illinois University Edwardsville

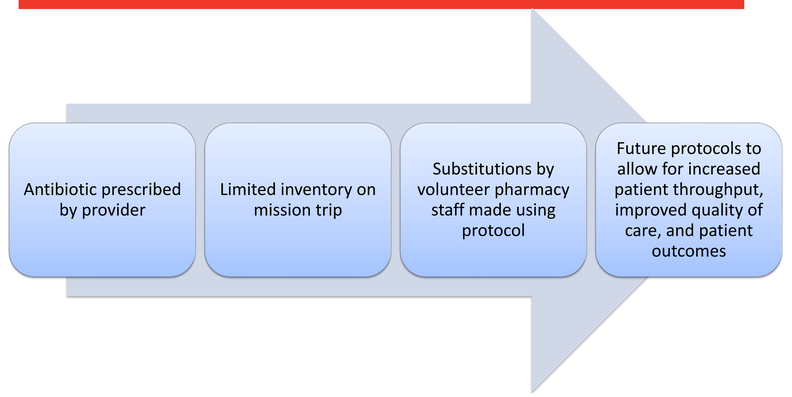
PROBLEM INTRODUCTION



PROJECT METHODS



IMPACT ON PRACTICE



- By using an approved protocol volunteers, and registered nurses can make appropriate substitutions to provider orders based on inventory
  - This allows increased patient throughput
  - More families to be evaluated because of the decreased interruptions to providers
  - Pharmacy volunteers do not need to leave pharmacy and can continue to care for patients in that area
  - Better patient outcomes because they are being treated by evidence-based practice

LITERATURE REVIEW

- Short term medical mission trips (STTM) have grown in popularity over the last 20 years gathering many diverse volunteers, some medical and some nonmedical (Lasker et al., 2018).
- Clinical protocols set up by mission trip leaders help to ensure that the standard of care is maintained (Lasker et al., 2018).
- Cultural aspects need to be considered when creating protocols to ensure that the treatment is appropriate and sustainable (Dainton, Chu, Lin & Loh, 2016).
- Prescription's need be able to be refilled by the patients in the country (Dainton, Chu, Lin, Cherniak, & Loh, 2016).
- Skin infection and women's health protocols have already been implemented and shown to work well (Dainton & Chu, 2017).

EVALUATION

- There were 15 mission trip members with 10 (67%) completing the pre and post-tests
- The average pretest score was low at 35%
- After the educational session and practice utilizing the protocol post-test score average increased to 98%
- 60% of participants rated the protocol very easy to use and 40% rated it as extremely easy to use.
- 10% of participants rated their comfort with making substitutions as slightly comfortable, 20% as moderately comfortable, 50% as very comfortable and 20% as extremely comfortable.

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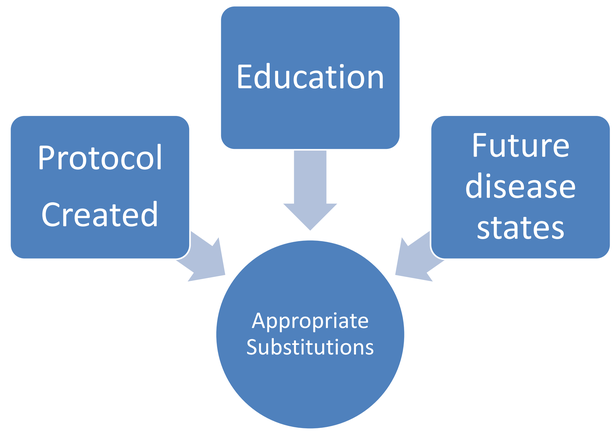
CONCLUSIONS

- Education and medication protocols on STMM trips increase pharmacy team comfort and self efficacy with medication substitutions
- This antibiotic protocol helped nurses to make appropriate antibiotic substitutions based on supply
- Further studies are needed to determine if protocol improves safety and efficiency on STMM trips



Inpatient Observation Safety Assistant Practices

Jennifer A. Knight, MHA, BSN, RN
Southern Illinois University Edwardsville School of Nursing

Introduction

- Sitter usage is a patient safety practice used across healthcare organizations and the world. Sitters go by many other names, such as patient safety assistants, patient care assistants, care partners, and observation partners.
- There is literature that supports different variations of practices in healthcare facilities. A scoping review of the literature revealed multiple initiatives to reduce sitter cost and observation through nurse empowerment.

Supporting Evidence

- The literature search revealed five concepts related to patient sitter observation that warrant further review:
- Sitter job titles within acute healthcare settings.
- Sitter roles.
- Sitter training and education
- Potential implications of an inadequate patient sitter policy, and strategies for the standardization of sitter procedures.

Purpose and Objectives

- The purpose of this root cause analysis is to determine why staff inconsistently use the sitter policy,
- Compare best practices in the healthcare industry to current practices at a suburban hospital in the Midwest as it pertains to using the organizations policy and algorithm in a consistent manner. Janofsky (2009)
- Understanding a wide variety of terminology is used across facilities for different levels of observation.
- Reviewing the existing agency policy and algorithm which is a nurse-driven protocol that is straightforward, feasible, and seamlessly integrated into the daily workflow. This scoping review will help to identify and inform others of any future proposed changes in practice.

Theoretical Framework

- Joanne Duffy's Quality Caring Model guides professional practices related to research and nursing interventions.
- This theory will simultaneously guide nursing interventions, relationships, and quality of care (Duffy, 2014; Duffy & Hoskins, 2003).
- Through collaboration and interactive relationships, this root cause analysis will allow us to better understand the patient sitter process.

Methods

- Participants in this study, were charge nurses, primary nurses, and the House Supervisors.
- A letter was drafted and sent to all potential participants requesting them to participate in the study. Staff will have access to a QR code to participate in an online survey questionnaire with 11 Likert-scale and open-ended questions.
- In addition to the recruitment letter, a brief presentation about the purpose of the study and how to participate was given during morning huddles. Participants will give an implied consent by scanning the available QR code to begin participation. Data was collection from June-August 2021.

Results

- 45.7% of the staff feel that the sitter policy is hard to locate on the Intranet, 88% of the staff shared that it would be easier to have the sitter policy/algorithm built into Epic.
- 40% of the staff would feel more comfortable if they had additional training using the sitter policy/algorithm.
- 53% of the survey respondents shared unfamiliarity with the current sitter policy/algorithm.
- While 54.3% of staff believe that the interventions recommended on the policy/algorithm are unrealistic.

Conclusions

- The sitter policy/algorithm process is not hardwired in the nursing practices
- Future efforts should include education and tools that will make it easier for the staff to utilize the sitter policy and conduct a follow-up survey to evaluate if there are improvements related

References

Cox, A., Hayter, M., & Ruane, J. (2010). Alternative approaches to 'enhanced 'observations' in acute inpatient mental health care: A review of the literature. *Journal of Psychiatric and Mental Health Nursing*, *17*(2), 162–171. https://doi.org/10.1111/j.1365-2850.2009.01507.x

Duffy, J. R. (2014). Joanne Duffy's Quality-Caring Model©. In M. C. Smith & M. E. Parker (Eds.), *Nursing theories and nursing practice* (4th ed., pp. 393–419). F.A. Davis Company.

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Janofsky, J. S. (2009). Reducing inpatient suicide risk: Using human factors analysis to improve observation practices. *Journal of the American Academy of Psychiatry and the Law,37*(1), 15–24. http://www.jaapl.org/content/37/1/15.lon

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Discharge Process Optimization

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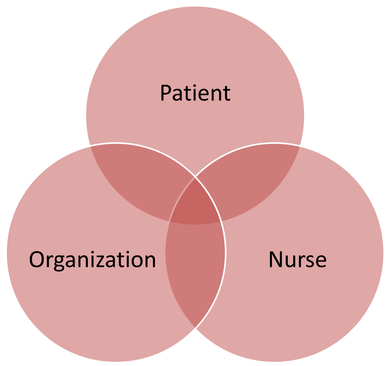
PROBLEM INTRODUCTION

- Create better discharge instructions for patient
- Integrate smoothly into nursing workflow
- Standardize process across organization



LITERATURE REVIEW

Health Literacy
- When patients do not comprehend, increased risk of readmission or complications
- (Alper & Hernandez, 2014) (Okrainec et al., 2017)

Visual Presentation
- Increased understanding and retention
- (Kourbelis et al., 2020) (Okrainec et al., 2017)

Technology
- Using technology & note-taking shows some benefit to patient
- (Bui, Myerson, & Hale, 2012) (Mueller & Oppenheimer, 2015)

Caregiver Inclusion
- Including patient-caregiver dyad decreases readmission and complications
- (McLeod-Sordian et al., 2011)

Gap in Literature: Effectiveness of specific interventions due to multiple interventions utilized

PROJECT METHODS

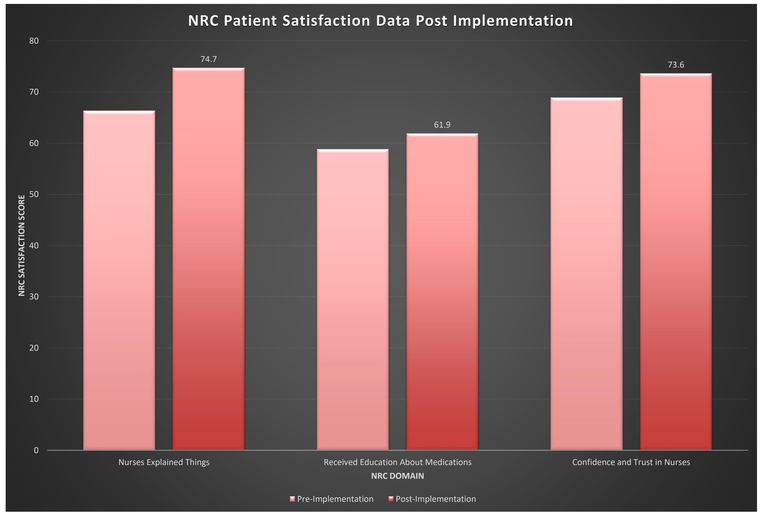
Quality Improvement Project

433 – bed regional care hospital in Central Illinois – medical/surgical patient population

- Interdisciplinary teamwork
- Workflow Design integrated into Epic
- Staff Education & Resources
- Leadership Education & Resources

NRC Patient Satisfaction Data Evaluated at 60 days (30 days post completion of education

EVALUATION



Overall Patient Satisfaction decrease from 68.3 to 62

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IMPACT ON PRACTICE

- Patient – increased satisfaction, potential for decreased readmissions and/or complications
- Nurse – potential for increased satisfaction and efficiency
- Organization – standardization of process for better accountability, potential for decreased cost

CONCLUSIONS

Multiple factors affecting patient Satisfaction related to discharge process

Healthcare must keep adapting to meet patient needs

A standardize process may increase aspects of patient satisfaction, however will likely not drive overall satisfaction of the organization

Limitations

Data
- Not 'discharge' specific
- Isolating Interventions

Impact on Nursing Staff
- COVID-19 pandemic
- Process/Workflow Change

References

- Alper, J. & Hernandez, L. M. (2014). *Facilitating patient understanding of discharge instructions: Workshop summary.* Institute of Medicine. The National Academies Press: Washington, D.C.

- Bui, D. C., Myerson, J., & Hale, S. (2012). Note-taking with computers: Exploring alternative strategies for improved recall. *Journal of Educational Psychology, 105*(2): 299-309.

- Kourbelis, C. M., Marin, T. S., Foote, J., Brown, A., Daniel, M. Coffee, N. T., Newman, P., Beks, H., Ganesan, A., Versace, V. L., Nicholls, S., & Clark, R. A. (2020). Effectiveness of discharge education strategies versus usual care on clinical outcomes in acute coronary syndrome patients: A systematic review. *Joanna Briggs Institute [JBI] Evidence Synthesis,* 309-331.

- McLeod-Sordjan, R., Krajewski, B., Jean-Baptiste, p., Barone, J., & Worral, P. (2011). Effectiveness of patient-caregiver dyad discharge interventions on hospital readmissions of elderly patients with community acquired pneumonia: A systematic review. *JBI Library of Systematic Reviews, 9*(14): 437-463.

- Mueller, P. A. & Oppenheimer, D. M. (2015). The pen is mightier than the keyboard: Advantages of longhand over laptop notetaking. *Association for Psychological Science, 25*(6): 1159-1168.

- Okrainec, K., Lau, D., Abrams, H. B., Hahn-Goldberg, S., Brahmbhatt, R., Huynh, T., Lam, K., & Bell, C. M. (2017). Impact of patient-centered discharge tools: A systematic review. *Journal of Hospital Medicine, 12*(2): 110-117.

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Mindfulness and Meditation to Reduce Test and Evaluation Anxiety in Doctoral Nurse Anesthesia Students

Jenna L. Tebbenkamp, APRN, CRNA, MSN
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PROBLEM INTRODUCTION

Test Anxiety

- High levels of anxiety in the presence of an exam or performance evaluation in an educational setting is referred to as test anxiety in current literature.
- Approximately 15-40% of university students report experiencing test anxiety. Of those students, 15-29% reported extreme anxiety as the reason for withdrawal from their program of study (Gerwing, et al., 2015).

Nursing School Attrition Rates

- Throughout the nursing curriculum, students are continually asked to perform to high expectations.
- As demonstrated by written, verbal, and skills performance evaluations.
- Gibson (2014) describes nursing students to be under more stress than other disciplines related to the various forms of evaluation within the curriculum.
- It was also noted that the strict nature in which attrition rates are related to academic success led to increased anxiety.

DNP Anesthesia Students

- Certified Registered Nurse Anesthetists (CRNAs) are required to complete either a Master's in Science of Nursing or a Doctoral of Nursing Practice (DNP) prior to passing a national board certification exam. This curriculum is intense over approximately three years and consists of several evaluation methods through written and skill performance evaluations.

LITERATURE REVIEW

Databases Subjects Timeframe

- CINHAL, ERIC, and PsychInfo
- Mindfulness, meditation, and Mindfulness Based Stress Reduction (MBSR) techniques utilized to address anxiety in higher education nursing students
- 2005-2020

Mindfulness Meditation MBSR

- A correlation in decreased anxiety levels following MBSR interventions is supported in recent literature.
- Following the guided-imagery practice, students reported increased self-confidence and decreased anxiety and reported using the intervention for other classes and other exams. (Dundas et al, 2016).

Implementation Length of Practice

- To establish neuroplastic changes in the brain that resulted in greater physical and mental health, meditation interventions could be short in individual practice but required practice over a duration of time.
- This length of time varied from weeks to years.
- Brief practices resulted in beneficial changes both mentally and physically, but prolonged practices resulted in adaptive emotional regulation to stress and anxiety.

PROJECT METHODS

Evaluate SIUE DNP anesthesia student test and evaluation anxiety levels, existing knowledge on mindfulness/meditation practices, and desire for program implementation of a practice.

Present SIUE DNP anesthesia students with education and demonstration of mindfulness/meditation practice and the impact on alleviating test and evaluation anxiety levels

Following presentation, re-assess the students desire for a mindfulness/meditation practice implementation to assist in alleviating anxiety while in the DNP anesthesia program

EVALUATION

- Students listed multiple sources of anxiety and stress while in the program
- Almost all third- and second-year students reported having prior knowledge of mindfulness/meditation practices
- A few students reported having a daily mindfulness/meditation practice in place.
- Both cohorts expressed an increase interest in a mindfulness/meditation practice to alleviate their anxiety
- Both cohorts also expressed a higher likelihood of utilizing a mindfulness meditation practice following the presentation.

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IMPACT ON PRACTICE

- Benefits to mindfulness occurred following brief but consistent practices.
- DNP students have limited time and varied schedules based on clinical and didactic responsibilities. Utilization of a virtual tool that is easily accessible when the student desires mindfulness practices would be the most beneficial.
- Supplying students with a wellness presentation that discusses the physiological and mental implications of stress and anxiety, followed by access to a brief (less than 10 minute) guided meditation may result in positive implications.

CONCLUSIONS

- The evidence presented in the literature review and data obtained from this project implementation supports the use of mindfulness meditation practices to alleviate anxiety in students.
- Managing anxiety results in better examination performance and better overall mental health.
- Mindfulness meditation practices are not financially draining to educational institutions and the cost to benefit ratio supports the use of practices at the university
- Developing a mindfulness meditation program within the DNP curriculum, given the expressed student interest, could allow for a reduction in anxiety for the students, improved exam scores, increased student satisfaction, and improved mental health for the students.

Acknowledgements and References

Thank you to Dr. Baecht for her resources and help guiding this project.

References available upon request

References

References

American Psychological Association. (n.d.). *Anxiety.* https://www.apa.org/topics/anxiety

American Psychological Association. (n.d.). *Facilitative Anxiety.* https://dictionary.apa.org/facilitative-anxiety

Beggs, C., Shields, D., & Goodin, H.J. (2011). Using guided reflection to reduce test anxiety in nursing students. *Education, 29(2),* 140-147.

Collard, P. & McMahon, G. (2012). Mindfulness based cognitive behavioural coaching. *Cognitive Behavioural Coaching in Practice: An Evidence Based Approach,* 170-201.

Desousa, A., Acharya, A., & Vankar, G. (2016). Test anxiety amongst medical and nursing students: An exploratory study. *Journal of Research in Medical Education and Ethics, 6(2),* 59-62.

Dos Santos, T.M., Kozasa, E.M., Carmagnani, I.S., Tanaka, L.H., Lacerda, S.S., & Nogueria,-Martins, L.A. (2016). Positive effects of a stress reduction program based on mindfulness meditation in Brazilian nursing professionals: Qualitative and quantitative evaluation. *Explore, 12(2),* 90-99.

Dundas, I., Thorsheim, T., Hjeltnes, A., & Binder, P.E. (2016). Mindfulness based stress reduction for academic evaluation anxiety: A naturalistic longitudinal study. *Journal of College Student Psychotherapy, 30(2),* 114-131.

Edwards, M.K., Rosenbaum, S., & Loprinzi, P.D. (2018). Differential experimental effects of a short bout of walking, meditation, or combination of walking and meditation on state anxiety among young adults. *American Journal of Health Promotion, 32(4),* 949-958.

Erickson, H., Tomlin, E., & Swain, M. A. (1983). Modelling and Role-Modelling: A Theory and Paradigm for Nursing. Prentice-Hall: Englewood Cliffs, NJ, United States.

Gerwing, T.G., Rash, J.A., Allen-Gerwing, A.M., Bramble, B., & Landine, J. (2015). Perceptions and incidence of test anxiety. *The Canadian Journal for the Scholarship of Teaching and Learning, 6(3),* 1-17.

Gibson, H.A. (2014). A conceptual view of test anxiety. *An Independent Voice in Nursing, 49(4),* 267-277.

Gonzalez-Valero, G., Zurita-Ortega, F., Ubago-Jimenez, J.L., & Puertas-Molero, P. (2019). Use of meditation and cognitive behavioral therapies for the treatment of stress, depression, and anxiety in students. A systematic review. *International Journal of Environmental Research and Public Health, 16,* 1-23.

Hoge, E.A., Bui, E., Marques, L., Metcalf, C. A., Morris, L.K., Robinaugh, D.J.,…Simon, N.M. (2013). Randomized control trial of mindfulness meditation for generalized anxiety disorder: Effects on anxiety and stress reactivity. *Journal of Clinical Psychiatry, 74(8),* 786-792.

Hoge, E.A., Bui, E., Palitz, S.A., Schwarz, N.R., Owens, M.E., Johnston, J.M., …Simon, N.M. (2017). The effect of mindfulness meditation training on biological acute stress responses in generalized anxiety disorder. *Psychiatry Research, 262(2018),* 328-332.

Hudlicka, E. (2017). Enhancing mindfulness-based cognitive therapy with a virtual mindfulness coach. In M.M. Maheu, K.P. Drude, & S.D. Wright (Eds.), *Career Paths in Telemental Health* (1st ed., pp. 117-182). Springer.

Hull, K., Lawford, H., Hood, S., Oliveira, V., Murary, M., Trempe, M.,…Jensen, M. (2020). Student anxiety and evaluation. *Collected Essays on Learning and Teaching, 12,* 23-35.

Kacakci, D., Semiz, M., Kartal, A., Dikici, A., & Kugu, N. (2014). Test anxiety prevalence and related variables in the students who are going to take the university entrance exam. *The Journal of Psychiatry and Neurologic Sciences, 27,* 301-307.

Kavakci, D., Semiz, M., Kartal, A., Dikici, A., & Kugu, N. (2014). Test anxiety prevalence and related variables in the students who are going to take the university entrance exam. *The Journal of Psychiatry and Neurologic Sciences, 27,* 301-307.

Koren, M.E. (2017). Mindfulness interventions for nursing students: Application of modelling and role modelling theory. *International Journal of Caring Sciences, 10(3), 1710-1716.*

Meditation. (2021). *Merriam-Webster Dictionary online.* Retrieved from https://www.merriam-webster.com/dictionary/meditate

Menezes, C.B., & Bizarro, L. (2015). Effects of a brief meditation training on negative affect, trait anxiety, and concentrated attention. *Paideia, 25(62),* 393-401.

Mindfulness. (2021). *Merriam-Webster Dictionary online.* Retrieved from https://www.merriam-webster.com/dictionary/mindfulness

Paul, G., Elam, B., & Verhulst, S.J. (2007). A longitudinal study of students' perceptions of using deep breathing meditation to reduce testing stresses. *Teaching and Learning in Medicine, 19(3),* 287-292.

Prinz, J.N., Bar-Kalifa, E., Rafaeli, E., Sened, H., & Lutz, W. (2019). Imagery-based treatment for test anxiety: A multiple-baseline open trial. *Journal of Affective Disorders, 244,* 187-195.

Quinn, B.L. & Peters, A. (2017). Strategies to reduce nursing student test anxiety: A literature review. *Journal of Nursing Education, 65(3),* 145-151.

Song, Y., & Lindquist, R. (2015). Effects of mindfulness-based stress reduction on depression, anxiety, and stress and mindfulness in Korean nursing students. *Nurse Education Today, 35,* 86-90.

Spence, G.B., Cavanagh, M.J., & Grant, A.M. (2008). The integration of mindfulness and health coaching: An exploratory study. *Coaching: An International Journal of Theory, Research, and Practice, 1(2),* 145-163.

Turner, T., Tee, Q.X., Hasimoglu, G., Hewitt, J., Trinh, D., Shachar, J.,…Green, S. (2020). Mindfulness-based psychological interventions for improving mental well-being in medical students and junior doctors. *Cochrane Database of Systemic Reviews, 9, 1-10.* doi: 10.1002/14651858.CD013740

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Implementation of a Risk Assessment Tool to Increase Screening for Extragenital Gonorrhea and Chlamydia in Men Who Have Sex with Men

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PROBLEM INTRODUCTION

- In the United States, gonorrhea and chlamydia account for the majority of sexually transmitted infections (STI) and are estimated to cost almost $1 billion in direct medical expenses annually (Centers for Disease Control and Prevention, 2018).
- Gonorrhea and chlamydia are often thought to infect only the urogenital tract but can be found at extragenital sites, including the rectum and oropharynx.
- Routine extragenital screening recommendations exist for populations deemed higher risk, such as men who have sex with men (MSM) but screening does not appear to be completed consistently.
- MSM may be at higher risk of undiagnosed extragenital gonorrhea and chlamydia infections.

LITERATURE REVIEW

Certain sexual behaviors in MSM, such as condomless receptive anal intercourse and oral sex, can increase the likelihood of infection at extragenital locations (Kumar et al., 2020).

Prevalence ranges for rectal gonorrhea were 0.2-24% (median 5.9%) and for rectal chlamydia were 2.1-23% (median 8.9%). For oropharyngeal gonorrhea prevalence ranges were 0.5-16.5% (median 4.6%) and for oropharyngeal chlamydia were 0-3.6% (median 1.7%) (Chan et al., 2016).

High percentages of gonorrhea and chlamydia cases would have been missed if only urogenital screenings were completed (Anschuetz et al., 2020; Abara et al., 2016; Chan et al., 2016).

Guidelines for STI screening in sexually active MSM include at least annual screening at all exposed anatomic sites (Johnson Jones et al., 2019). More frequent screening (every 3-6 months) is recommended for MSM at elevated risk for STIs and for those MSM taking pre-exposure prophylaxis medication (PrEP) (Centers for Disease Control and Prevention, 2017).

Only 42% of American MSM reported any STI screening tests within the past 12 months, and only 16% reported any extragenital screening (de Voux, Bernstein, Kirkcaldy, Zlotorzynska, & Sanchez, 2019).

Infections at extragenital sites can increase susceptibility to other more serious diseases such as human immunodeficiency virus (HIV) (Barbee et al., 2017; Katz, Dombrowski, Bell, Kerani, & Golden, 2016).

***List of references available upon request**

IMPACT ON PRACTICE

- The implementation of a risk assessment tool has allowed clinicians to better identify MSM at high risk of extragenital gonorrhea and chlamydia.
- Clinicians are better able to offer screening to their patients when appropriate and feel more comfortable discussing the risks and benefits of routine screening.
- On a larger scale, performing more frequent extragenital gonorrhea and chlamydia screening in MSM will help reduce the transmission burden, especially in asymptomatic carriers.
- Providing more comprehensive STI screening through this process may reduce susceptibility to HIV and create opportunities to more consistently discuss and offer HIV prevention options such as PrEP.

CONCLUSIONS

- Implementation of a risk assessment tool was shown to increase the likelihood that clinicians would routinely offer extragenital screening for gonorrhea and chlamydia in MSM.
- Risk assessment tools like the one used in this project may be beneficial in addressing many of the barriers which currently prevent screening rates from meeting CDC recommendations for screening.
- With increased screening rates for extragenital STIs in MSM, population health will be improved through reduced transmission rates of gonorrhea and chlamydia as well as the possibility of decreasing susceptibility to HIV infection.
- In the future, this project can be expanded beyond the MSM population to include others who might be susceptible to extragenital infection.
- Other screenings with poor compliance, such as rectal HPV, which is known to contribute to the development of rectal cancer, could be improved by using this project as a model.

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PROJECT METHODS

Baseline
- 11 clinicians
- Internal Medicine office
- STI Knowledge Survey

Intervention
- Educational session
- Implementation of risk assessment tool

Follow-up
- 7 weeks post intervention
- STI Knowledge Survey – Follow-up

EVALUATION

Pre-intervention

73% reported no knowledge or slight knowledge of extragenital STI screening recommendations for MSM

82% reported no knowledge or slight knowledge of subsequent health risks after extragenital STI

91% reported slight or moderate comfort taking detailed sexual history with MSM patients

82% reported slight or moderate comfort explaining the importance of extragenital STI screening

For preventative exams: 73% rarely offered or never offered extragenital screening; 18% sometimes offered

For STI screening visits: 64% rarely offered or never offered extragenital screening; 18% sometimes offered

With STI exposure: 55% rarely offered or never offered extragenital screening; 18% sometimes offered

Post-intervention

82% reported being moderately or very knowledgeable regarding extragenital STI screening recommendations for MSM

82% reported being moderately or very knowledgeable regarding subsequent health risks after extragenital STI

82% reported being moderately or very comfortable taking a detailed sexual history with MSM patients

82% reported being moderately or very comfortable explaining the importance of extragenital STI screening

For preventative exams: 55% reported sometimes or frequently offering extragenital screening

For STI screening visits and STI exposure visits: 64% now reported sometimes or frequently offering extragenital screening

With use of the risk assessment tool in practice, 45% reported being moderately or very likely to offer extragenital screening for gonorrhea and chlamydia when appropriate; an additional 45% reported being extremely likely

Diabetic Education in an Uninsured Patient Population

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Southern Illinois University Edwardsville

PROBLEM INTRODUCTION

- Role of health care providers in chronic disease management
- Educational need of patients
- Prevention of complications and improved outcomes

PROJECT METHODS

- Spreadsheet
- Power point presentation
- Recording data
- Evaluation

IMPACT ON PRACTICE

- Immediate impact in a rural care clinic
- Predicted long-term impact
- Importance of patient education

LITERATURE REVIEW

- Improvement in quality of life
- Decrease complications
- Focus of health care providers

LIMITATIONS

- Demographic
- Financial
- Literacy

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CONCLUSIONS

- A1c reduction of 2.1
- Patient education importance
- Prevention and improvement in Diabetes

Improving Access to Reproductive Life Planning Following Implementation of One Key Question® in Practice

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Problem Introduction

- 80 million unintended pregnancies occur worldwide each year (Hanson, Nothwehr, Yang, & Romitti, 2014).
- A great portion of these pregnancies **occur within 12 months** of a previous pregnancy and are called short-interval pregnancies (Bigelow & Bryant, 2015).
- There were over 2346 short-interval pregnancy occurrences between 2015-2020 at this clinic, averaging to almost **470 unintended pregnancies per year.** Short-interval pregnancies accounted for 10% of all initial obstetrical visits in the past five years.

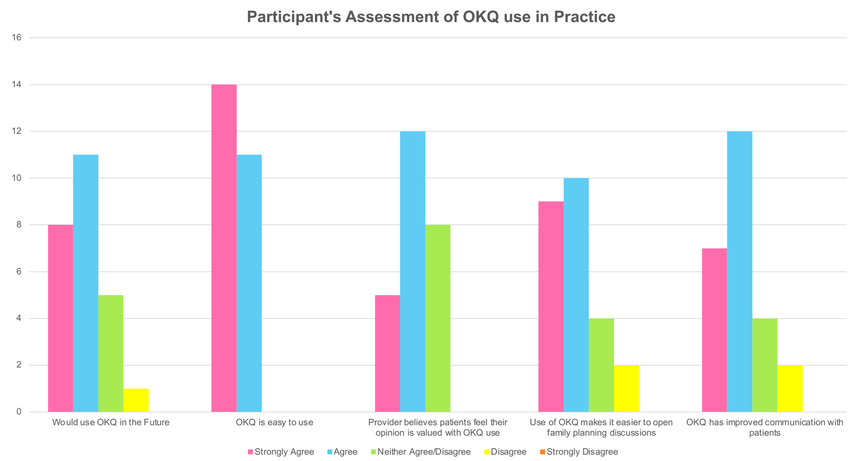
Literature Review

- Almost ½ of women in the United States use an unreliable birth control method (White, Teal, & Potter , 2015).
- The lifetime risk of unintended pregnancy for women in the United States is 45% as a result of missed or delayed care (Mulligan, 2015).
- The CDC and ACOG support the use of reproductive life planning tools in practice to circumnavigate the growing epidemic of unintended pregnancy (Edmonds & Ayres, 2017).
- One Key Question® is an evidence-based reproductive life planning intervention that "focuses on what women desire, not what they plan" (Hipp, Carlson, & McFarlane, 2017, p. 262).
- One Key Question® is a singular question regarding pregnancy intention which is stated "Would you like to become pregnant in the next year?" (Hipp, Carlson, & McFarlane, 2017).
- This educational tool provides an algorithm which opens the dialogue regarding reproductive needs and intentions based on the patient's response (Hipp, Carlson, & McFarlane, 2017).

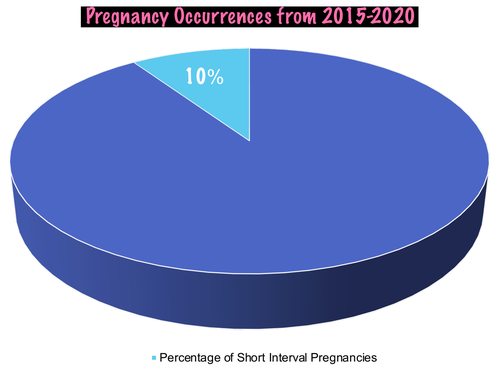
Project Methods

- Obtained approval from the Chief Innovative Officer at Power to Decide® and completed training on One Key Question®.
- IRB and Stakeholder approval obtained.
- Guiding coalition for change was composed of the stakeholder, an IT representative, the office manager, a physician, and the project investigator.
- The participating staff were oriented to the tool and a mock CPT code was developed to track the use of One Key Question® in practice over a period of 90 days.
- Participating staff members were given anonymous Likert-scale questionnaire after one month and three months of use to evaluate the impact of One Key Question®.

Evaluation



- n = 26 participants, 14 providers & 12 medical assistants
- Frequency of Tool Usage = 2,819 encounters
- Questionnaire Response Rate = 52%
- 100% said it was easy to use, 75% agreed it benefitted patient interaction, & 80% agreed will continue to use in practice.



Impact on Practice

- There was little hesitation from the staff members regarding the practice change.
- Use of One Key Question® was a relatively simple change in daily practice.
- Benefits of using reproductive life planning tools are not exclusive to obstetric and gynecological patients.
- It could easily be implemented in primary care settings.

Conclusions

- The intervention was overwhelmingly accepted by the staff as evidence by the high volume of tool use in practice.
- With a response rate over 50%, the results emphasize the ease of use and the ability to improve patient-provider interactions concerning family planning education.
- The use of One Key Question® as a reproductive life planning tool introduces the discussion of family planning goals in an unbiased and positive way that is readily accepted by patients.

References Available Upon Request

Utilization of Telephone Outreach and Telemedicine to Improve Diabetic Outcomes

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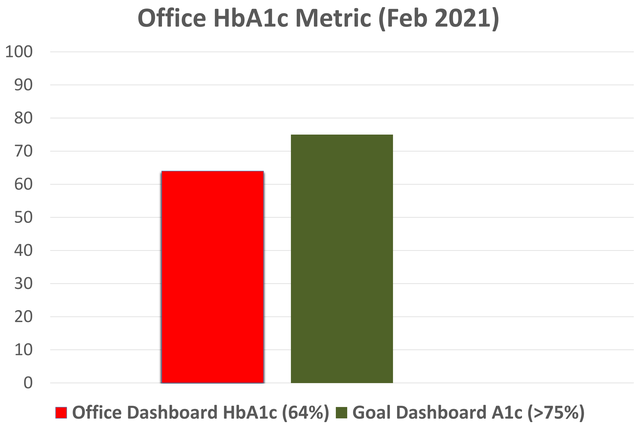
PROBLEM INTRODUCTION

- Diabetes is the most expensive chronic condition in the United States annually with more than $240 billion spent on direct medical costs (CDC, 2020).
- The most common predictors of poor glycemic control are poor medication adherence, low health literacy, lack of transportation, low socioeconomic status, cost of medication (i.e. insulin, glucometer), lack of health insurance, and missed follow-up (Eid, 2016).
- The staff at the IM office believed telephone outreach to offer a convenient option for an office visit through telemedicine could improve diabetic outcomes and the office HbA1c metric.



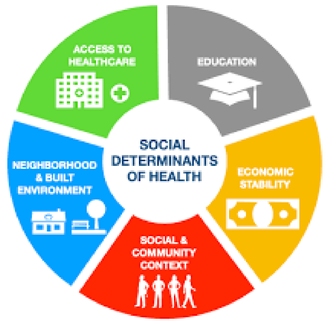
LITERATURE REVIEW

- Telephone outreach programs for diabetes management was a low-cost intervention that may result in considerable cost-savings to the health care system (Gordon et al., 2014).
- Over a two-year period, telemedicine in between face-to-face contacts was not only sustainable, but improved diabetic glycemic control (Buysse et al., 2020).
- When telemedicine is accessible, benefits of utilization include improved diabetic management, patient self-management skills, enhanced efficiency and clinical decision-making, and more patient-centered care (Appuswamy & Desimone, 2020).
- Telemedicine visits for diabetes management that are supported with evidenced-based interventions are a safe and efficient way to provide care (Kiran et al., 2020).

PROJECT METHODS

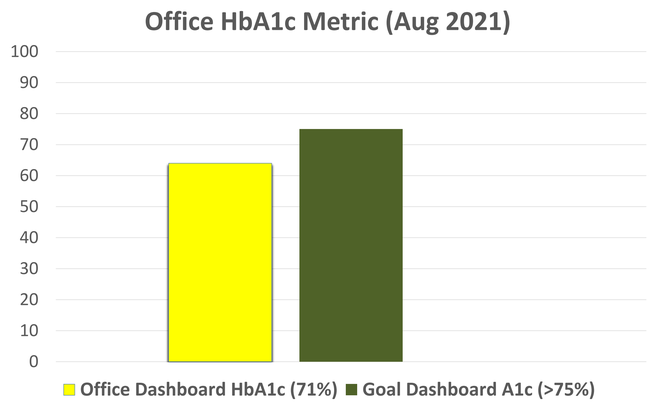
- Performed telephone outreach for patients with uncontrolled diabetes (HbA1c >8%) to offer telemedicine visit.
- Recommend 3-month telemedicine follow up and HbA1c every 3 months until HbA1c <8%.
- Secondary goals:

1. Using care manager referrals to continue outreach and follow-up to ensure care plan adherence.
2. Identify social determinants that create barriers to care.



EVALUATION

- The project found an overall improvement of the HbA1c metric from the “Red Threshold” to the “Yellow Threshold”.



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Limitations

- Short implementation window (6-8 weeks).
- No clear process to assess whether project methods and recommendations were being followed.
- Staff engagement.
- Internet bandwidth and technology literacy.

IMPACT ON PRACTICE

- Roughly 75% of providers reported improved patient care plan adherence and greater efficiency of care delivery.
- Staffing shortages can complicate long-term implementation.
- May need to imbed project methods into required job responsibilities of MOA/CMA.
- Diabetes educators may enhance telephone outreach.

CONCLUSIONS

- Telephone outreach and utilization of telemedicine can be useful tools to remove barriers to care and improve diabetic outcomes.
- Utilizing care management and identifying social determinants can improve adherence to diabetic care plans.
- May need technology advancements to truly see benefits (i.e. 5G, universal bandwidth) of telemedicine.

References Available Upon Request

References

Appuswamy, A. V., & Desimone, M. E. (2020). Managing Diabetes in Hard to Reach Populations: A Review of Telehealth Interventions. *Current Diabetes Reports*, *20*(7), 1–10. https://doi-org.libproxy.siue.edu/10.1007/s11892-020-01310-2

Buysse, H., Coremans, P., Pouwer, F., & Ruige, J. (2020). Sustainable improvement of HbA1c and satisfaction with diabetes care after adding telemedicine in patients on adaptable insulin regimens: Results of the TeleDiabetes randomized controlled trial. *Health Informatics Journal*, *26*(1), 628–641. https://doi-org.libproxy.siue.edu/10.1177/1460458219844369

Centers for Disease Control and Prevention. (2020). Diabetes: Information for professionals. Retrieved from https://www.cdc.gov/diabetes/professional-info/index.html

Gordon, L.G., Bird, D., Oldenburg, B., Friedman, R.H., Russell, A.W., Scuffham, P.A. (2014). A cost-effectiveness analysis of a telephone-linked care intervention for individuals with Type 2 diabetes. *Diabetes Research & Clinical Practice*, 104(1):103-111. doi:10.1016/j.diabres.2013.12.032

Eid, W. E., Shehata, S.F., Cole, D.A., Doerman, K. L. (2016). Predictors of nonattendance at an endocrinology outpatient clinic. *Endocrine Practice,* 22(8):983-989. doi:10.4158/EP161198.OR

Kiran, T., Moonen, G., Bhattacharyya, O. K., Agarwal, P., Bajaj, H. S., Kim, J., & Ivers, N. (2020). Managing type 2 diabetes in primary care during COVID-19. *Canadian Family Physician*, *66*(10), 745–747.

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