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Enhancing Nurses' Self-Efficacy in Smoking Cessation Counseling to Improve Patient-Centered Care at a Federally Funded Urgent Care Center: A Quality Improvement Initiative

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Table of Contents

Abstract.....	4
Introduction.....	5
Problem Description	5
Available Knowledge.....	6
Rationale	19
Specific Aim	20
Methods.....	20
Context.....	20
Interventions	22
Study of the Intervention	24
Measures	24
Analysis.....	25
Ethical Considerations	26
Results.....	26
Results.....	26
Discussion.....	33
Summary.....	33
Interpretation.....	36
Limitations	38
Conclusion	39
Usefulness of the Work.....	39
Potential for Spread to Other Contexts	40
Implications for Practice and For Further Study.....	40

Suggested Next Steps..... 41

References..... 42

Appendix A..... 45

Appendix B..... 46

Abstract

Background: It is well documented that there is a high prevalence of Veteran tobacco use in the United States. Additionally, providing smoking cessation counseling in an emergency setting is beneficial. The broader Veteran Affairs (VA) macrosystem has a plethora of smoking cessation resources available for Veterans. Within a VA Urgent Care Center (UCC) a quality improvement initiative was conducted that focused on increasing registered nurses (RNs) self-efficacy in providing smoking cessation counseling. Prior to this quality improvement (QI) project, smoking cessation did not occur in this UCC. If RNs have higher self-efficacy more smoking cessation counseling will occur.

Methods: A pre-assessment was administered to RNs in the UCC (n=8) to assess their self-efficacy in providing smoking cessation counseling. Following the pre-assessment an educational PowerPoint™ was delivered to staff via their institutional email, that covered best practice and a review of the VAs resources. Following the educational PowerPoint™, participants completed a post-assessment. Educational materials were made easily accessible for RN distribution following the intervention.

Results: There was a 20% increase in RNs self-reported efficacy in providing smoking cessation following the intervention. RNs reported via free-text answers that they believed the educational handouts were beneficial and that smoking cessation is important.

Conclusion: This QI project increased RNs self-efficacy in providing smoking cessation and increased the availability of smoking cessation resources for Veterans. Future, Plan-Do-Study-Act (PDSA) cycles are necessary to further understand the benefit of providing smoking cessation for this population in this type of unit.

Keywords: smoking, smoking cessation, Veterans, Veteran Affairs, VA, RN education, Nurse self-efficacy, Nurse-confidence, cigarette, Urgent Care Center, Urgent Care, Emergency Room, Registered Nurse, Tobacco, Tobacco Use, Registered Nurse

Introduction

Problem Description

This quality-improvement project took place in a federally funded urgent care center (UCC) in the northeast. The UCC is a 10-bed microsystem that provides non-emergent care to Veterans. However, Veterans occasionally present to the UCC with medical emergencies. The UCC at the VA functions as a “soft Emergency Department” (ED). Meaning it provides more care than what a typical UCC would provide. For example, there is an in-house radiology department and lab. The VA does not delineate between ED and UCC directives; hence, both fall under the same. Smoking prevalence among those who served in the U.S. military has historically been higher than civilians. Consequently, the prevalence among Veterans is much higher and, at times, has been as high as 30% (Nieh et al., 2021). Tobacco cessation counseling for Veterans is essential to prevent excess morbidity and mortality among this vulnerable population.

Tobacco use, and in particular tobacco that is smoked leads to numerous adverse health impacts on all consumers. These health effects can include cardiovascular disease, respiratory disease, impaired wound healing, dental issues, and cancer. Many Veterans who present to the UCC have a chief complaint of an upper respiratory infection or an exacerbation of a respiratory condition. The Veterans who smoke may face a poorer outcome and take longer to recover. It is well documented in the literature that an ED can serve as a teachable moment, and patients are more willing to partake in smoking cessation after a visit that provides a “scare.” Implementing a quality improvement (QI) initiative that address smoking cessation at the UCC would be effective and potentially reduce the number of Veterans who use tobacco.

At the time of this QI initiative, there was no established protocol for screening for tobacco consumers who presented to the UCC. Through observation and nurse report, Veterans who are tobacco users did not receive any cessation counseling, nor did they receive any informational handouts encouraging them to quit. Increasing the number of Veterans who receive smoking cessation counseling would be beneficial for Veterans and the broader VA Macrosystem. Smoking is a modifiable risk factor and patients may be more receptive to counseling when in an UCC for a health problem exacerbated by smoking. Va.gov provides several resources for smoking cessation. However, the UCC did not currently utilize them. The ED has been shown to be an effective area to initiate the discussion about tobacco cessation. Thus, it was expected that starting the conversation in the UCC would allow for more patients to get access to these resources that were already created. It was also believed that UCC Nurses would benefit from education about smoking cessation techniques and the smoking cessation services available for Veterans at the VA. In addition, ensuring that education was provided to nurses about a “teachable moment” in this setting was crucial. If these interventions were conducted, it was suspected that nurses’ self-efficacy in smoking cessation counseling would increase and thus the number of Veterans who receive counseling would also increase. Starting the conversation about smoking cessation would save time and money. Additionally, more Veterans would receive available resources such as those that list the services offered to tobacco users, leading to an improvement in their quality of life.

Available Knowledge

Two databases and Google Scholar were utilized during the literature review. University of New Hampshire’s online portal through Ebscohost was used to access the databases. Cumulative Index to Nursing and Allied Health Literature (CINAHL) and Medline (through

EBSCO) were the two databases used. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were followed during this literature review (Appendix A). The Boolean operators used were: “OR” and “AND.” Keywords used in the search included: nurses, nursing, staff, smoking cessation, smoking, tobacco use, self-efficacy, self-confidence, emergency department, and urgent care. Keywords and Boolean operators were the same across Google Scholar, CINAHL, and Medline. Limitations were set to exclude any article not open access or peer-reviewed or from the past 10 years. A total of 336 studies were retrieved across all databases. Forty duplicate records were removed. Most records were excluded initially after screening titles and abstracts due to indirect relation to nurses and smoking cessation. After the initial exclusion, 25 articles were read, and seven were included in the review. After completion of the literature review, two more articles were identified and included in this review bringing the total to nine articles.

A Systematic Review

Pelletier et al. (2014) conducted a systematic review of smoking cessation interventions that were utilized in the emergency setting. They searched MEDLINE and CINAHL for articles up until February 2014 and utilized PRISMA guidelines. In their review, 17 studies were included and 13 had qualitative synthesis. Pelletier et al. (2014) found that ED-based cessation interventions may be effective although there is limited data on them. The most promising strategy is motivational interviewing. In addition, in their review it was found that smoking cessation interventions were effective even if they were brief due to time constraints. Pelletier et al. (2014) suggest that there is no harm and in fact there is some benefit to providing ED-based smoking cessation interventions. A limitation of this review by Pelletier et al. (2014) is that there is a lack of randomized control trials (RCTs) that evaluate an intervention group to a control

group. They report that evaluating time-effectiveness of interventions is a necessary area of research going forward. This review has implications for the student led QI project, including the use of education on the importance of providing smoking cessation counseling in an emergency setting.

A Systematic Review and Meta-Analysis

Lemhoefer et al. (2017) conducted a systematic review and meta-analysis of randomized control trials that examined the efficacy of emergency-department initiated tobacco control. Their review followed PRISMA guidelines and analyzed RCTs that were published up until 2015. The authors included a total of 4 reviews in their analysis which can be considered a limitation, this aligns with the findings of Pelletier et al. (2014) who found limited RCTs on this topic. The outcome Lemhoefer et al. (2017) were interested in were the point prevalence of tobacco-use abstinence at 1-month, 3-month, 6-month, and 12-months follow up. They then calculated the relative risk of tobacco-use abstinence after emergency room intervention. These results were then compared by follow-up time. It was found that the 1-month follow-up point prevalence of tobacco-use abstinence after emergency smoking cessation Emergency department tobacco cessation counseling resulted in a relative risk (RR) of 1.49 (95% CI, 1.08-2.05). Combined point prevalence of abstinence had a RR of 1.4 (95% CI, 1.06-1.87) ($P=0.02$). This has strong implications for the student-led project and supports the use of providing tobacco-cessation counseling in an emergency setting. These findings support that cessation counseling in the emergency setting support tobacco abstinence up to 12 months after the intervention. Lemhoefer et al. (2017) contribute this to the teachable moment of the emergency setting.

A QI Project by González et al.

The first article in this review is by González et al. (2018), published in the *Advanced Emergency Nursing Journal*. González et al. (2018) aimed to educate RNs in the ED to provide smoking cessation education and referral for patients who used tobacco. In addition, the authors examined if an educational program on smoking cessation was valuable. The authors conducted this QI project in a 19-bed emergency department in South Florida. Allied health members were excluded from this study, as well as travel RNs. González et al. (2018) administered a pre- and post-survey to assess the impact the educational intervention had. The educational presentation was two hours that, utilized a PowerPoint™ and included strategies to counsel patients on smoking cessation, Quitline™ numbers, and referrals. There was a total of eight educational sessions conducted, and this implementation occurred over four weeks. This serves as a good example that may be replicated in the student-led QI project. However, two-hour presentation has many potential downsides. Conducting a shorter presentation may be more beneficial and increase staff participation. The authors used descriptive and inferential statistics to analyze the data. The sample size was N=52. Statistically significant findings from this QI project were that after the educational intervention, 21% of RNs reported rarely advising patients most of this ($p<0.001$), RNs assisted patients who use tobacco use to quit smoking ($p=0.008$), and RNs utilized the 5As approach when treating a patient with tobacco use ($p<0.001$). On Melnyk's Levels of Evidence, this article is a Level six, which is a limitation. However, as noted, the author's interventions and QI project are like the one implemented in the UCC and thus provide important insights. Another weakness of this study is that the data was collected through self-reported surveys, thus resulting in lower reliability, which the authors acknowledge in their article. Another weakness is that there was no control group for this study, and a retrospective chart review was not done to establish the frequency of nurses who perform smoking cessation

education. The authors also acknowledge this as a weakness. This article has several strengths, such as using evidence-based interventions such as the 5 As and SBIRT in the educational program. In addition, another strength of this study is that it can be easily replicated and applicable to similar settings. This article has significant implications for the QI project occurring at a UCC, and many of its findings apply to this project. For example, González et al. (2018) educational intervention was statistically effective in increasing nurses who provided smoking cessation counseling. While this does not directly address nurses' self-efficacy, there may be a relation between receiving education on cessation techniques and self-efficacy. This article serves as a piece of evidence that emphasizes the importance of providing education to nurses on smoking cessation and techniques that they can utilize.

Qualitative Study

Katz et al. (2014) aimed to conduct a qualitative study in an ED that characterized nurses' and physicians' attitudes and perceptions of smoking cessation counseling and perceived barriers. The authors focused on addressing barriers to implementing the 5As framework. Katz et al. (2014) used a sequential explanatory mixed methods design and, in total, used two hospital sites. A total of 19 nurses and 11 physicians were interviewed. During the pre-interview, the interviewer asked the interviewee about their usual smoking cessation practices. Katz et al. (2014) found three themes from the pre-interview: reactions to the intervention, perceptions of patients' receptivity to cessation counseling, and perspective on ED cessation counseling and preventive care. The authors found that the many demands and limited time are perceived barriers to cessation. In addition, nurses and physicians believed the 5As framework would be a systematic approach to assessing and advising. The authors discuss another barrier they found is nurses in the interview believed that attempting to provide smoking cessation to a patient who

came in for abdominal pain would not be urgent due to the more pressing chief complaint. Both nurses and physicians did agree that the ED serves as an environment where a teachable moment can be had. This, of course, has implications for the QI project in the UCC, supporting the belief that patients may be more receptive to counseling when there for an exacerbation of a condition from tobacco use. Nurses also agreed that they have an important role in education and agreed that providing educational pamphlets would be worthwhile. In the UCC utilizing the already pre-existing educational pamphlets is one of the goals of this project, and this finding by Katz et al. (2014) supports that this may be well received. There was a disconnect between the physician and nurse on who should begin the counseling. Nurses believe that physicians should take the lead because they can prescribe medication, whereas physicians think nurses should take the lead due to having more time with the patient. Due to the time constraints of the student-led QI project, providers will not be involved; however, this finding by Katz et al. (2014) is important to remember for future Plan-Do-Study-Act (PDSA) cycles. This article is a level six on Melnyk's Levels of Evidence, which again is a lower tier of evidence but provides many helpful insights into the QI project. The strengths of this study were that it is peer-reviewed, and the authors have no competing interests. Another strength is that the study utilizes the 5As, which is an evidence-based tool. A weakness of this study was that the authors discussed that participants often had limited time for an interview. In addition, an inherent weakness of this study is that it is qualitative, and the findings may not be generalizable. However, the hospitals were in the upper Midwest, and the staff and patients were predominantly Caucasian, which aligns with the demographic in which the QI project is being conducted. This study has major implications for the QI project. The authors mention the importance of ensuring the self-efficacy of nurses to provide smoking cessation is high, which aligns with the goal of the QI project. In addition, the

authors discussed barriers that may be faced while conducting the QI project at the UCC. As noted, this article has several implications and is strong evidence.

A Randomized Clinical Trial

This article by Bernstein et al. (2015) is a randomized trial that examined the efficacy of motivational interviewing, nicotine replacement, and Quitline™ referral for adult patients in the ED. The authors included smokers if they were age 18 or older, spoke English, had Medicaid or no insurance, could provide written informed consent, smoked at least 100 cigarettes in their lifetime, and were daily smokers. The control group only received a brochure, whereas the experimental group received motivational interviewing, six weeks' worth of nicotine patches and gum, a faxed referral to the smoking Quitline™, a booster call, and a brochure. The endpoint was tobacco abstinence at three months, which was confirmed biochemically. Bernstein et al. (2015) powered the study to allow for more inclusion of covariates. The authors found that the intervention group had a quit rate of 12.2% compared to the control group of 4.9%, with a difference in quit rates being 7.3%. (95% CI 3.2%-11.5%). This finding highly suggests that providing multiple modalities and tools when counseling is more effective. The authors attribute the difference to being due to combination therapy that is evidenced based. Another key finding from this article is that there was no difference in quit rates among smokers who self-identified as having a tobacco-related reason for the ED versus those who did not. This has implications for this project, suggesting that all patients should receive smoking cessation counseling whether they are at the UCC for a chief complaint related to smoking. Weaknesses of this study were that it was performed at one location and was only assessed low-income patients. A potential bias is that the persons administering the intervention were a part of the research team and were not nursing staff. The authors acknowledge this and note that if it were to be done by clinical staff,

the counseling would be brief advice and a passive Quitline™ referral. The authors suggest this and is very similar to what could be done in the UCC center. A strength of this study is that it is a level two on Melnyk's Levels of Evidence. In addition, this study is peer-reviewed and has practical application. This study provides benefits to the student-led QI project. These include the importance of providing counseling when providing patients with smoking cessation materials. This study should be generalizable to the population being studied in the QI setting, as many of the Veterans who utilize UCC are considered low-income (Meffert et al., 2019).

A Practice Improvement Project

Simerson & Hackbarth (2018) published an article in the Journal of Emergency Nursing that examined the effect of training nurses on brief smoking-cessation interventions. It is important to note that this was a practice improvement project and thus falls under QI. A chart audit was conducted for 12 months that found 17.6% of smokers did not receive smoking-cessation information. The authors utilized a convenience sample that consisted of 93 emergency nurses. The nurses completed a needs-assessment survey, training module, and evaluation. Simerson & Hackbarth (2018) designed the online smoking-cessation intervention training module, including how to motivationally interview and evidence on the effectiveness of a brief intervention. The authors used the Ask, Advise, Refer protocol developed at the University of California San Francisco Smoking Cessation Leadership Center. It was chosen because it takes less than three minutes to complete. Thus, the authors decided this would be ideal for the ED setting. The authors found that there was a statistically significant change in nurses' self-reported efficacy of being able to provide smoking cessation following the intervention ($p < 0.001$). This serves as a piece of evidence that supports the goal of the student-led QI project. Simerson & Hackbarth (2018) also found that barriers to this implementation were perceived lack of time and

competing priorities. This finding is a barrier that is expected to be encountered in the UCC when implementing this project. Weaknesses of this study include only occurring for 12 weeks, lack of EHR documentation that was specific, and is a level six on Melynk Level of Evidence. The strengths of this article are the application to the student-led QI project, its use of evidence-based interventions and that it is peer-reviewed. There are several implications this article has for the QI project. The method utilized to provide smoking cessation counseling would be helpful in the student-led QI project because an expected barrier will be perceived lack of time. This method the authors found to be quick and take up less time than the traditional 5As. In addition, this study supports using education as a tool to increase nurses' self-efficacy in smoking cessation.

A Case Series Review

Ng et al. (2022) aimed to evaluate the effects of a pilot smoking cessation service in an ED clinical observation unit. This case series review examined the results of a bedside counseling session by a pharmacist and a follow-up appointment at an outpatient smoking cessation clinic. The authors followed up at one, six and twelve months. Upon admission, nurses screen all patients about smoking, and if patients are a smoker, then a 10-minute advice session is provided by an ED nurse. In the UCC, a 10-minute counseling session by the nurse could be done, as workflow typically sees patients waiting for lab results. While the patient waits for lab results, the nurse could provide counseling. In the author's study, if the patient were in the contemplation or preparation stage of quitting, the intervention was initiated. A session with a pharmacist was then arranged that consisted of education on the harmful effects of smoking and recommendation of behavioral modifications. Outpatient follow-up appointments were then arranged where a smoker's smoking status would be verified using a smokerlyzer ® test. The

authors found that at 12 months, there was a point-prevalence abstinence rate of 31.3% (95% CI, 16.1%-50.0%). The first major weakness of this study is that it was conducted in Singapore, and thus the translation to the microsystem in which the student-led QI project is being conducted may not be as applicable. The study may not be as applicable to the UCC microsystem because it was conducted in Singapore and the population demographics may differ. A strength of this article was that it followed up with patients who received counseling. This follow-up provides insight into what the expected abstinence rate could be in this project.

A Quasi-Experimental Study

Katz et al. (2012) found that emergency department nurses and physicians can effectively deliver smoking cessation and counseling to smokers in a timely manner. Katz et al. (2012) cite that nursing-delivered cessation counseling has been associated with higher quit rates. In addition, they cite that in the ED, nurses have access to many different patients and have sufficient training. A pre-post quasi-experimental design was utilized at two different emergency departments. No control site was utilized, with the authors acknowledging this as a weakness of their study. The author's exclusion criteria were smokers who smoked five or fewer cigarettes daily, acute medical decompensation, altered mental status, language barrier, incarceration, or inability to be followed up with. The authors conducted training for nurses, advanced practice providers, and physicians in the ED. The authors instructed the nurses to deliver the counseling in two to three minutes and document the counseling in the EMR. The research team also trained staff in motivational interviewing, citing that it positively benefits smoking cessation. Each training session was conducted with a nurse that lasted for 20 minutes. Katz et al. (2012) also worked with each facility to get charting/reminder tools into the EHR. The authors had strong stakeholder support when conducting this project. A survey that assessed attitudes towards

smoking cessation was delivered to ED nurses and physicians to gain insight. The authors found that after the training was implemented, 68% of smokers versus 53% had been asked about smoking by an ER nurse (adjusted OR=4.9, 95% CI=1.3 to 2.9). In addition, nurses' self-efficacy also improved following the intervention. This finding supports that education can increase nurses' self-efficacy in providing cessation counseling. This study is a level three on Melynk's Levels of Evidence and thus can be considered a strength. In addition, this study assessed patients' responses about smoking cessation counseling which helps to highlight the importance of nurse-led smoking cessation counseling. A weakness of this study is that it is 11 years old. While this may not be considered current, the framework used by the authors is still used by other authors. For example, González et al. (2018) used the 5A's in their QI project. This study was included due to its large sample size of 650 smokers and being done across two hospitals. ED nurses can report greater self-efficacy in cessation counseling with the right training. This is a major implication for the student-led QI project, serving as another piece of evidence to support the project.

A Doctorate of Nursing Practice Scholarly Project

Affentranger & Mulkey, (2023) studied the use of the 5As framework in an outpatient cardiology clinic to implement tobacco cessation counseling. A total of 629 patients were included in the study. RNs implemented the first steps of the 5As to ask and advise when rooming patients and providers completed the three steps of assess, assist, and arrange. The authors ran three PDSA cycles. Key takeaways from the PDSA cycles applicable to the student-led QI project are the use of hanging posters in clinic rooms. Education was presented to staff via a 10-minute presentation and each team member's role in providing tobacco cessation counseling. By the end of the third PDSA cycle, the authors found that there was an overall

increase in tobacco cessation counseling by 27.5% ($p=0.001$). The limitations of this QI project were that it was conducted during the COVID-19 pandemic, and thus there was a high amount of staff turnover during the project. In addition, many patients were unwilling to quit tobacco during this period due to higher stress levels and the project used bias sampling. A limitation of this project is that it was done in an outpatient cardiology clinic. However, this article was included in the review because of its evidence that supports the use of the 5As and insights gained from multiple PDSA cycles. A strength of this article is that it utilizes the 5As and evidence-based tools and is published in a peer-reviewed journal.

Evidence Synthesis

The literature supported that an educational intervention could increase nurses' self-efficacy and the subsequent amount of smoking cessation they provided to patients in the ED setting. It also supported that bundling interventions together in conjunction with the 5As approach was beneficial in reducing tobacco cessation of patients who visit the ED.

Multiple authors found that following an educational intervention, nurses assessed and advised patients to quit tobacco use. González et al. (2018) had many statistically significant findings, such as 21% ($p<0.001$) of RNs reporting rarely advising their patients to quit smoking following the educational intervention. This aligns with Simerson & Hackbarth's (2018) findings that after the educational intervention 100% of smokers had documentation of smoking cessation counseling given. However, Simerson & Hackbarth (2018) did not have a control group to compare this to. Thus, this finding should be interpreted cautiously. Katz et al. (2012) also found that after educational training, 68% of smokers had been asked about their usage ($OR=4.9$, 95% $CI=1.3$ to 2.9). In addition, in Katz et al. 2014 qualitative study, nurses reported that they have an

important role in providing education and believed that providing smoking cessation and advice would be worthwhile.

Nurses-self reported efficacy in providing smoking cessation also increased following an educational intervention and was noted to be of importance in several of the articles. Katz et al. (2014) explicitly state that ensuring high self-efficacy of nurses to provide smoking cessation is important. Simerson & Hackbarth (2018) also state that there was a statistically significant change in nurses' self-confidence following an educational intervention ($p < 0.001$). Katz et al. (2012) noted in their article that nurses' self-efficacy improved following the educational intervention.

Another important theme that came up frequently in the review was the perceived barriers that nurses had when providing cessation counseling in an ED setting. Katz et al. (2014) found that many nurses reported that competing demands make smoking cessation counseling a lower priority. In addition, in that study, the authors found that nurses reported that providing smoking cessation to patients who do not have a chief complaint related to smoking would be pointless. This was an interesting remark by the nurses in this study and differed from what was found by Bernstein et al. (2015). Bernstein et al. (2015) note in their article that there was no difference in quit rate between smokers who were in the ED for a chief complaint related to smoking and those who were. This implies that potential smoking cessation should be applied to every patient who is a smoker in the UCC. Simerson & Hackbarth (2018) also reported that a perceived lack of time and multiple priorities in the ED made implementation difficult.

Furthermore, a consistent theme during the literature review was the use of educating nurses in the 5As. This evidence-based tool was utilized by Simerson & Hackbarth (2018), Affentranger & Mulkey (2023), Katz et al. (2012), and González et al. (2018). Affentranger &

Muleky (2023) found by the end of their third PDSA cycle that, smoking cessation counseling increased by 27.5% ($p=0.001$). The ease and timeliness of using the 5As framework can be attributed to this increase.

Affentranger & Muleky (2023) also incorporated educational posters in patient rooms. Using multiple methods of cessation counseling was also done by Bernstein et al. (2015). There was a 7.3% (95% CI 3.2%-11.5%) difference in quit rate between the intervention group and the control group, with the intervention group having the higher quit rate. This is strong evidence to support using multiple cessation modalities in the student-led QI project. In addition, providing patients with a Quitline™ was shown to have strong efficacy in smoking abstinence. Bernstein et al. (2015), along González et al. (2018), and Lemhoefer et al. (2017) cite the use of providing a Quitline™ as an important tool in smoking cessation initiated in the emergency setting.

Rationale

The Plan-Do-Study-Act (PDSA) Framework was utilized to implement this quality improvement project. The planning phase consisted of identifying the current state of what the current process was and assembling stakeholders. In this phase it was discovered that smoking cessation seldomly occurred, based on project lead direct observation and nurse report. In the Do phase a pre-assessment was administered to nurses to understand their baseline efficacy in providing smoking cessation counseling. After this data was gathered an educational intervention that consisted of a PowerPoint™ was administered to the staff. After staff received the education, the same post-assessment was administered again with an additional opened-ended question. In the Study phase, pre- and post-survey data were analyzed to determine if the educational module had an increase on nurses-self efficacy in providing smoking cessation counseling. The Act phase consisted of recommending changes based on the findings. For example: *Are the nurses*

handing out smoking cessation information to smokers after the intervention? Are nurses counseling patients after the invention more? Potential changes may be implemented depending on the VA leadership needs. All findings were reported to relevant stakeholders.

Specific Aim

The global aim of this quality improvement project was to increase the number of patients who receive smoking cessation counseling at the UCC. This process began when a Veteran was identified as a tobacco user and ended when they were discharged from UCC. By completing this project, more veterans were expected to receive materials about the VA's smoking cessation programs. The specific aim of the improvement project was to increase VA UCC nurse's perceived self-efficacy in smoking cessation counseling by 50% within two weeks.

Methods

Context

The macrosystem's aim is to “offer options to timely, quality services for Veterans through care and respect for one's physical, psychological, and spiritual health (*Mission and Vision*, 2022).” The vision of the macrosystem is to “empower Veterans through partnership, moving beyond simply treating illness, by striving for optimal health and a positive healthcare experience.”

This QI project was conducted in a VA UCC. In the fiscal year of 2022, the census was 8,842 patients (K. Keenan, personal communication, February 15th, 2023). The age of Veterans seeking care varies; however, most are over 50 years of age. Older Veterans utilize the microsystem more which is likely due to increased coverage within their insurance plan. In addition, the Veteran population in this region is aging with an even more significant shift to a geriatric population. By 2050, the majority of the healthcare systems' Veterans are expected to

be in the 70-74 age group (Planning, n.d.). This may have implications for staff working at the UCC as staff will take care of patients with many chronic conditions. Veterans present to the UCC for a variety of urgent medical conditions, including respiratory infections, wounds, and exacerbation of chronic conditions.

Tobacco use has been identified as a risk factor for these conditions and current evidence supports smoking cessation education. Historically, the smoking rate of Veterans has been higher than the civilian population. From 2010-2015, 21.6% of Veterans were smokers (CDC Tobacco Free, 2023). In 2020, the VA reported that the number had decreased to 13.3%, which is slightly lower than the civilian population usage at 14.2%. This can be attributed to the strong use of smoking-cessation materials the VA offers. The National Smoking and Tobacco Use Cessation program, which originated February 10th, 2014, ensures Veterans have access to treatment and consultation for tobacco use cessation in the clinical setting. However, in the UCC, patients are not routinely asked about their tobacco use, and when they report tobacco use, no materials are provided to them.

Cost Benefit Analysis

This QI project to improve nurses-self efficacy in providing smoking cessation could produce financial gains for the VA if implemented long-term. For the VA, healthcare costs nationally attributable to cigarette smoking in the ambulatory care setting have been estimated to be \$999,000,000 annually (Barnett et al., 2015). In total, the estimated cost was calculated to be \$2.7 billion for the entire VA health system (Barnett et al., 2015). This is a tremendous cost and burden for the VA health system that could be reduced by increasing the amount of Veterans who quit smoking.

The greatest cost to stakeholders in this project was time due to nurses spending time in the training session, completing the survey, and then providing subsequent smoking cessation counseling. The time estimate for completing the pre- and post-survey in this QI intervention was five minutes in total. It was expected that RNs would spend 25 minutes completing the educational intervention, including verbal discussion with the project lead. It was estimated that RNs would spend three to 10 minutes counseling patients (Affentranger & Mulkey, 2023; Katz et al., 2014; Simerson & Hackbarth, 2018). The opportunity cost of this project was that nurses have a reduction in time available to spend on other tasks. However, there was typically ample time available for nurses in between patients. Thus, the cost was offset by the impact of the intervention and the surplus time nurses typically have. It is expected that after completion of the QI project, nurses would spend more time with patients consulting them on smoking cessation practices.

The actual fiscal cost of this project was very low and exclusively related to printing the pre-existing VA materials. The estimated printing cost was approximately \$100 and based on pricing found online for professional printing of 100 8.5” x 11” brochures. While the direct costs are minimal, the chance to reduce future costly ambulatory care encounters was high, which strongly supported completing this project.

Interventions

Barriers to providing smoking cessation in the literature have been attributed to a lack of perceived self-efficacy (González et al., 2018). Nurses in the VA UCC would benefit from an educational initiative to improve their self-efficacy and knowledge of the VA’s smoking cessation materials. Many patients who present to the UCC are there for an exacerbation of a chronic condition or an upper respiratory infection, and smoking worsens the condition.

Increasing the number of patients who receive cessation counseling and information about cessation would be beneficial to the macrosystem.

The VA UCC unit culture were positive for this QI project. The VA promotes continuous QI, and the staff in the microsystem were receptive to new ideas if presented with evidence. In addition, management in the microsystem was very supportive of ways to improve care for Veterans. However, one barrier that was expected was that some nurses in the microsystem may believe they have a perceived lack of time to counsel patients on smoking cessation in the UCC environment. The project lead presented evidence-based data that showed nurses in emergency departments (EDs) have successfully completed smoking cessation counseling.

The proposed intervention was to provide an educational presentation to the staff nurses at the UCC. This educational presentation was offered in multiple modalities. The first was a PowerPoint™ that provided information on strategies to counsel patients on smoking cessation and information about the VA resources available. This PowerPoint™ was sent to all staff via their VA email addresses so that it could be referred with open access. The educational presentation was sent following the conclusion of the pre-survey. Refer to Appendix B for a preview of the survey; details are included under the section “**Study of the Intervention.**” The educational material also addressed the expected barriers the staff may have to providing smoking cessation counseling. A focus of the education discussed the 5A’s method (Affentranger & Mulkey, 2023). In the literature review, this was a method that was commonly mentioned and proved beneficial. In addition, the material included the benefits of smoking cessation counseling in the UCC environment. The project lead was also available on-site on

multiple occasions to answer staff concerns or questions and was available to discuss the benefits of counseling patients on smoking cessation.

The team involved in this intervention included the project lead, nurse manager, and stakeholders. The stakeholders were comprised of the 11 staff nurses on the unit who received the education and conducted the counseling for patients. The nurse manager served as a resource and received a report of the findings from the project lead.

Study of the Intervention

The intervention's success was gauged based on the change in staff response from survey data. A pre-survey was planned to be available from June 4th, - June 11th, 2023, with a response rate goal of 40%. The educational intervention was implemented on June 14th, 2023, to allow time for any changes to the presentation based on initial pre-survey data. The post-survey was available for staff to complete from June 14th-June 21st, 2023, with a response rate goal of 40%. Both surveys were optional for staff to complete and were delivered via institutional email addresses. The surveys were created using *Qualtrics*TM. The pre- and post-surveys contained the same questions, apart from the post-survey which included the following two open-ended response questions: *"How did the educational intervention change your behaviors, and why or why not do you plan to continue providing cessation counseling?"* These questions were used to assist the project lead in understanding if the results were due to the intervention or other factors.

Measures

The instrument chosen to study the intervention is the Nurses Self-Efficacy Scale (NSES) by (Barta SK & Stacy RD, 2005). This is a seven-question survey that utilizes a five-point Likert scale, with answers ranging from "not confident" to "very confident." The NSES authors granted permission to use this scale and to modify some of the survey questions due to their irrelevance

to this project. In addition, the content validity of this survey was ensured by experts in tobacco cessation (Preechawong et al., 2011). This instrument was chosen due to its content and relevance to the QI project. The questions on this survey relate to nurses' confidence in providing smoking cessation. An example of a question on this survey is: "*I can be effective in changing a smoker's behavior.*". The operational definition of self-efficacy for the QI project in the UCC is the nurse's belief in their ability to effectively provide smoking cessation counseling to patients, including their confidence in their knowledge of smoking cessation techniques and their ability to communicate these techniques to patients in a way that motivates them to quit smoking. The operational definition of a smoker for this QI project is a patient who self-identifies tobacco use. The NSES has a Cronbach's alpha coefficient of 0.93 which indicates acceptable reliability. The success of this measure relied on nurses' completion of the survey accuracy and completeness of the measure was determined based on the number of nurses who complete both the pre-survey and post-survey.

Analysis

The data was analyzed following completion of the surveys to see if the intervention was successful in changing the nurse's self-efficacy. Quantitatively, the data from the Likert Scale was analyzed using descriptive statistics. The mean, mode, and median of response were compared from the pre-survey and post-survey. A frequency table was used to show the change in response values for each survey questions. Qualitatively, responses were analyzed to see if the education changed nurses' behaviors and if they plan to continue providing cessation counseling. All findings from the data were reported to the nurse manager and stakeholders at the VA via a video presentation.

Ethical Considerations

The project lead had no personal biases or affiliations to disclose. Response biases were a variable that needed to be considered, and so the Hawthorne effect was accounted for in the interpretation of data. The project lead had completed 300 hours of clinical time in the UCC prior to implementation of the survey. Thus, the nurses may have felt intrinsic pressure to complete the survey and answer a certain way. A description of the project and consent form was provided to participants. All nurses consented to participate in this project. Due to the small sample size and to ensure participant anonymity, demographic data was not collected. The proposal was reviewed by the UNH Department of Nursing Quality Review Committee to ensure that the project met exemption from full IRB review.

Results

Results

RNs self-efficacy in providing tobacco cessation counseling was assessed prior to the intervention via Barta SK & Stacy RD's Nurses Self-Efficacy Scale (2005). This assessment was delivered to all 10 RNs' VA email. In addition, QR codes that linked to the pre-assessment were strategically placed in the break room. The pre-assessment was available for one week. The project lead made effort to inform every nurse about the availability of the pre-assessment. Additionally, the nurse manager informed the staff via face-to-face communication about the pre-assessment. Of the 10 RNs the assessment was distributed to, eight started and completed it.

Initially, the pre-assessment was planned to be administered from May 26th-June 5th. However, this date was pushed back due to meetings with stakeholders to receive feedback. The pre-survey was available from June 6th- June 13th. Additionally, the educational intervention was distributed to staff on June 15th instead of the original proposed date of June 9th. Initially,

the PowerPoint™ was planned to have a voiceover done. However, after meeting with the smoking cessation coordinator, nurse manager, and other stakeholders on site, it was decided that the staff engagement of the resource would be better if the PowerPoint™ were created as a referable resource. This resulted in the creation of a PowerPoint™ that served as a reference. The project lead sent this PowerPoint™ to all staff via their VA email on June 15th. The PowerPoint™ was also printed out and placed in the breakroom, along with QR codes linked to it. The project lead was available onsite on multiple occasions and met with RNs individually to discuss the new resources and to promote the PowerPoint™. The post-assessment was made available immediately after the completion of viewing the PowerPoint™.

Pre-Intervention: Nurses Self-Efficacy Scale

The pre-assessment consisted of seven questions that used a Likert scale that ranged from one (Not at All Confident) to five (Extremely Confident). For the pre-intervention assessment, N=8. The first question on the pre-assessment asked *How confident are you right now that you would be able to: Ask your patients if they smoke?* The majority of respondents (62.50%) were very confident that they could ask their patients if they smoked, with a mean of 4.38 and a standard deviation of 0.99. Respondents had slightly less confidence in advising their patients to quit smoking. 37.50% of respondents stated they were moderately confident, with a mean of 4 (SD 0.87). Participants had the least amount of confidence in assessing patients' readiness to quit smoking in the next 30 days (question), with a mean of 2.53 (SD 1.11). Out of the respondents 50% were moderately confident that they could assist their patient in setting a quit date in the next 30 days, with a mean of 3.25 (SD 1.09).

The majority of participants were very confident in providing smoking cessation literature to their patients. The mean was 3.63 (SD 1.32) when asked about confidence in

encouraging a patient to arrange follow-up support regarding smoking cessation. Half of the respondents were extremely confident they could identify a teachable moment to provide cessation counseling, with a mean of 4.38 (*SD* 0.7).

Overall, respondents were already very confident in asking patients if they smoke, advising patients who smoke to quit, utilizing VA handouts about smoking cessation, and identifying a teachable moment. The aggregate mean for all questions on the survey was 3.75, which falls between moderately confident and very confident. Respondents were likely to report being at least moderately confident in all questions except assessing a patient's readiness to quit smoking in the next 30 days.

Table 1

Pre-Assessment Results

<u>Variable</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>Range</u>
How confident are you right now that you would be able to: Ask your patients if they smoke.	4.38	0.99	3
How confident are you right now that you would be able to: Advise your patient who smokes to quit.	4	0.87	2
How confident are you right now that you would be able to: Assess your patient who smokes readiness to quit smoking in the next 30 days.	2.63	1.11	3
How confident are you right now that you would be able to: Assist your patient who is ready to stop smoking set a quit date in the next 30 days.	3.25	1.09	4

How confident are you right now that you would be able to: Assist your patient who smokes by providing smoking cessation literature. Including information about the VA Quitline or VA handouts.	4	1	3
How confident are you right now that you would be able to: Encourage your patient who has set a smoking quit date to arrange follow-up support with a friend, family member, or healthcare provider.	3.63	1.32	4
How confident are you right now that you would be able to: Educate your patient about the harmful effects of smoking and identify a “teachable moment” to provide cessation counseling.	4.38	0.7	2

Post-Intervention: Nurses Self-Efficacy Scale

The post-intervention assessment was sent out to nurses via their VA email. All seven questions were the same, with the addition of two open-ended questions that asked: *How will the educational PowerPoint™ change your behaviors regarding tobacco cessation counseling; Why or why not do you plan to provide tobacco cessation counseling in the Urgent Care Setting?* All respondents consented to participate in the post-assessment. The post-assessment was available from June 15th to June 23rd. The total number of respondents for the post-assessment was six (N=6).

There was an increase in confidence following the educational intervention with 100% of participants responding as “extremely confident” that they could ask their patients if they smoke and advise their patients who smoke to quit. There was also a notable increase in confidence in assessing your patient's readiness to quit smoking in the next 30 days, with the post-assessment mean being 4.17 (*SD 0.90*) and the pre-assessment mean being 2.63 (*SD 1.11*). However, this was still the area in which participants were the least confident. 83.33% of respondents were extremely confident in their ability to provide information about cessation literature and encourage tobacco users to arrange follow-up support, with a mean of 4.83 (*SD 0.37*).

Participant confidence increased from the pre-assessment, with a new aggregate mean of 4.71, an increase from the pre-assessment aggregate mean of 3.75. After viewing the educational PowerPoint™ and discussing resources with the project lead, participants were overall more confident in tobacco cessation.

When asked *Why or why not do you plan to provide tobacco cessation counseling in the Urgent Care Setting?* A reoccurring theme was the plan to offer it because it helps improves patients' health. One participant replied to the question “I plan to do it if my patient is high risk or has a lot of morbidities.” Another participant responded similarly, writing “Excellent idea of giving information, especially if the Veteran has an illness secondary to smoking.” Only one participant expressed doubt about providing cessation counseling writing. “I will when I have time, although if we are busy, I don't see myself spending time on it.”

The other free text response asked: *How will the educational PowerPoint™ change your behaviors regarding tobacco cessation counseling?* There was a reoccurring theme that participants would utilize the VA approved tobacco cessation resources more. With one respondent writing, “I feel more confident giving patients VA resources to help.” Similarly, to

that, another respondent wrote “educational handouts are very helpful.” Only one participant wrote that the educational PowerPoint™ will not change their behaviors regarding tobacco cessation, replying to this question with “It won’t.”

Participants who answered the free-text responses were likely to believe that providing tobacco cessation was beneficial and that the VA-approved resources were important to utilize. However, out of the six respondents who answered the post-assessment, only five completed the free-text questions. It is important to note that five still represents 50% of the RNs working in urgent care at the time of writing this paper.

Table 2

Post-Assessment Results

<u>Variable</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>Range</u>
How confident are you right now that you would be able to: Ask your patients if they smoke.	5.00	0.00	0
How confident are you right now that you would be able to: Advise your patient who smokes to quit.	5.00	0.00	0
How confident are you right now that you would be able to: Assess your patient who smokes readiness to quit smoking in the next 30 days.	4.17	0.90	2
How confident are you right now that you would be able to: Assist your patient who is ready to stop smoking set a quit date in the next 30 days.	4.50	0.50	1

How confident are you right now that you would be able to: Assist your patient who smokes by providing smoking cessation literature. Including information about the VA Quitline or VA handouts.	4.83	0.37	1
How confident are you right now that you would be able to: Encourage your patient who has set a smoking quit date to arrange follow-up support with a friend, family member, or healthcare provider.	4.83	0.37	1
How confident are you right now that you would be able to: Educate your patient about the harmful effects of smoking and identify a “teachable moment” to provide cessation counseling.	4.67	0.47	1

Unintended Consequences

While completing the intervention, several unexpected benefits occurred. This included connecting with key stakeholders, such as the local smoking cessation coordinator which afforded the project lead to receive additional resources for urgent care. This stakeholder was invaluable in reviewing the educational PowerPoint™ before distribution to nurses. A difficulty the project lead faced when completing the intervention was ensuring nurses viewed the educational PowerPoint™. As mentioned previously, after discussion with several stakeholders, it was determined that the nurses were unlikely to watch an educational video due to other priorities. Urgent care does not have a daily staff meeting of RNs, so presenting the

PowerPoint™ at this type of meeting was not an option. After careful deliberation, it was decided that making the PowerPoint™ in a resource format would be highly beneficial. The Project Lead also tried to speak with each nurse about the available PowerPoint™ and smoking cessation resources. This was a challenge and required the project lead to be onsite on nine occasions. Ultimately, most nurses were made aware of the PowerPoint™ and subsequent resources. However, having a better way to present the PowerPoint™ would have been beneficial. The cost to print resources totaled \$40 USD, a \$60 USD decrease from original estimate due to the availability of pre-printed resources made available by the smoking cessation coordinator.

Missing Data

On the pre-assessment, 80% of the RNs completed the assessment. While this was well over the majority of nurses in the UCC, the ones who did not complete the assessment may have been more likely to view cessation counseling as not beneficial. On the post-assessment, 60% of RNs completed the assessment, with 5/6 completing both the free text, and Likert-Scale questions. Nurses may have been less likely to complete the post-assessment due to survey fatigue and competing priorities. Additionally, the requirement of having to look through the PowerPoint™ may have deterred some nurses from completing the post-assessment.

Discussion

Summary

Key Findings

The specific aim of this improvement project was to increase nurses reported self-efficacy in smoking cessation counseling by 50% within two weeks. With a global aim of increasing the number of patients who receive smoking cessation counseling at the UCC. When comparing the percentage of change in confidence based on the aggregate means of the pre-and

post-assessment, there was an increase in nurse's self-efficacy by 20%. While the specific aim of improving self-efficacy by 50% was not met, nurses' self-efficacy still increased. It is necessary to note that RNs in the UCC already had a high level of perceived self-efficacy before implementing this QI project. On four of the seven pre-assessment questions the mean was four or higher which correlates to "very confident."

Prior to the intervention, RN were already "very confident" in several aspects of providing cessation counseling. This was not surprising because an essential part of a RNs job is to provide patient teaching and education. However, it was surprising to see that the mean was four when asked about RN confidence in providing smoking cessation literature and information about the VA QuitLine™. While RNs reported confidence in this, the project lead never observed the practice of handing out this information while present in the microsystem. The observation occurred while the project lead was working at the bedside and was informal and there were no structured shadow days.

After the intervention, nurses were more confident in all categories relating to smoking cessation. With an aggregate mean on the pre-survey being 3.75 and the post-survey aggregate mean being 4.71. On the post-assessment, RNs were still the least confident in assessing a person who smokes readiness to quit within the next 30 days. However, it is important to note that the mean was still 4.17, which is above the "very confident" level.

The participants in this QI project were all "very confident" in asking their patients if they smoke, advising their patients to quit, and assisting in providing tobacco cessation literature to their patients before the intervention. After the intervention, these scores all increased to being "extremely confident." As stated previously, the assessment score of respondents all moved to the "very confident" category at a minimum. For one participant, this change in score can be

directly attributed to the intervention as reflected by their free-text response regarding the effect of the educational PowerPoint™ :“I feel more confident giving patients VA resources to help.” However, as noted previously, one participant replied that the educational PowerPoint™ would not change their behaviors regarding tobacco cessation. Although, there was an increase in pre- and post-assessment scores of that participant.

Several RNs also stated that they plan to provide cessation counseling if they have time or if the patient is deemed high-risk. This was expected as time is a limited resource in this environment, and some patient encounters are not optimal for providing cessation. Based on the responses of RNs in the UCC, more patients are likely to receive handouts and counseling.

Relevance to the QI Model

This QI project has several important aspects that will be useful for future or additional smoking cessation projects at the VA UCCs. One cycle of the PDSA framework was conducted to examine change in nurses' self-efficacy in providing smoking cessation. Education on charting smoking cessation was covered in the educational PowerPoint™, however, this was not the primary focus of the current PDSA cycle. Future PDSA cycles should study the number of patients receiving cessation handouts and address potential barriers to why cessation counseling is not occurring. This would include, chart audits, and focused education on charting cessation counseling. Conducting a chart audit and tracking the number of Veterans that receive tobacco cessation counseling would ensure the longevity of this project and potentially make tobacco cessation a standardized clinical practice in UC.

Strengths

Strengths of this project include buy-in from stakeholders. The management of UCC was very supportive of conducting the project. Management reviewed the educational PowerPoint™

before it was administered staff. Another key stakeholder was the lead smoking cessation clinician for the macrosystem. This stakeholder was able to provide helpful resources for the UCC, along with a content expert who could review all material to ensure it reflected current VA guidelines and best practices. Additionally, assessment completion by RNs is a strength of this project. A completion rate of 80% and 50% was higher than the expected goal of 40%.

Interpretation

The global aim of this project was to increase the number of Veterans who received cessation materials, and many participants noted in the free text response that they would utilize the handouts more. Additionally, RNs felt more confident giving the resources to Veterans. There was a substantial increase in the aggregate mean following the intervention, suggesting that the intervention played some role in increasing the participant's self-efficacy in providing smoking cessation. The intervention resulted in this increase and subsequent handout of more cessation materials.

Overall, the findings of this QI project mirror many of those found in the literature. The use of an educational PowerPoint™ as a modality was effective in presenting the material. In González et al. (2018) QI project, they also utilized an educational PowerPoint™ presentation. However, they presented their PowerPoint™ over two hours in person, whereas in this project, the presentation was emailed to participants, which was self-paced. Additionally, the results of González et al. (2018) were similar to this project as well. Their educational intervention increased the number of nurses who provided cessation counseling. This is similar to the results of the findings in the project completed at the UCC, that the educational intervention increased confidence, and subsequently, nurses reported they would provide cessation counseling more. In Katz et al. (2014) qualitative study, nurses expressed concern about barriers to smoking cessation

being time and certain patient encounters. In UCC time and providing cessation counseling were also barriers expressed by staff in the free text responses. This QI project also considered findings from Bernstein et al. (2015) RCT when developing the intervention. As noted in the literature review section, multiple modalities were found to be more effective. In this QI project, the use of VA smoking cessation materials were given to staff and was discussed in the PowerPoint™. The project lead explained in the PowerPoint™ the importance of providing multiple resources when providing cessation counseling. Simerson & Hackerbarth (2018) found that education was important for increasing nurses' self-efficacy in smoking cessation. This showed similar results to what was found in the QI project done in the UCC.

RNs in the UCC may continue to provide cessation counseling after the educational PowerPoint™ and the availability of more resources. The intervention increased their self-efficacy, and with this reminder, the participants may be more likely to provide cessation counseling. If an increase in tobacco cessation were to occur in the UCC, this would reduce the workload of other systems in the macrosystem. Typically, primary care is where cessation counseling occurs, with UCC now providing resources, more patients may quit using tobacco. Patients may be more willing to quit in UCC when cessation materials are presented to them versus in primary care due to the circumstances around the visit.

If cessation counseling were to be successful in this UCC, the VA may consider expanding counseling to other UCCs in its network. For this to be done the intervention would need to be validated via chart audits and continuation of the intervention. That is why this QI project aimed to increase self-efficacy and not just the rate of tobacco cessation counseling. With increased self-efficacy RNs will be more likely to continue to provide cessation counseling rather than only while the project is occurring.

One difference in observed versus anticipated outcomes was in the pre-assessment results. Initially, it was not expected that RNs in the UCC would already be at least “moderately confident” in most of the survey areas. RN workflow did not typically include smoking cessation; thus it was expected that the confidence would have been lower. Additionally, this resulted in the specific aim not being met because the baseline self-efficacy was already higher than expected. This difference in findings could have been due to the survey that was chosen to assess their confidence. The wording of the survey may have resulted in data capture that did not best reflect the specific aim. Lastly, the project lead should have captured the smoking cessation rate provided prior to the intervention and then post. However, it was not typically charted in the EHR in the UCC, so this would have required observing nurses to gather the data, which would have taken more time than was allotted for this project.

As mentioned in the cost-benefit analysis, the opportunity cost of this project was time. This was also specifically mentioned as a concern by some respondents with some responses reflecting that there would be a higher likelihood of participation when workload allotted for it. If tobacco cessation were to regularly occur in the VA UCC, eventually, fewer Veterans would seek healthcare related to tobacco-related complications which could save the macrosystem a great deal of money. As cited previously, ambulatory VA care settings spent an estimated \$999,000,000 annually on tobacco-related costs (Barnett et al., 2015).

Limitations

Survey validity may have been affected by the number of respondents in this quality improvement project. Due to the staffing of the microsystem, the respondent pool was small for this project with a total of eight respondents. Demographic data was not collected because of this small sample size. Furthermore, no inferential statistical analysis was done, limiting data

interpretation and generalizability to larger populations. RNs in the microsystem were aware that this QI project was student led and thus may have felt intrinsic pressure to respond to the survey with bias. The project lead also completed a 300-hour immersion experience prior to this that results in familiarity bias. Additionally, this QI project's generalizability is limited due to occurring in a VA facility. The culture of a VA facility differs from that of a private microsystem, and the protocols and patient populations are much different. Thus, the benefit of conducting this QI project in a private UCC may not be as high.

Another limitation of this quality improvement project was the length of time and scope of it. This was due to it being a student led-QI project with semester deadlines. Ideally, this project would have benefited from implementation over the course of a few months and having in person educational sessions about tobacco cessation. Reinforcing the education and tailoring education to barriers staff experienced in real time would have been beneficial and may have prolonged the practice of providing tobacco cessation. Additionally, with more time, chart audits could have been completed in addition to the pre- and post-assessment. However, as noted previously, the UC does not always chart tobacco cessation counseling.

To negate the factors that impacted validity, the chosen assessment tool had proven statistical validity and reliability. The project lead also was on site for real-time data capture and to support staff via face-to-face.

Conclusion

Usefulness of the Work

While this QI work does increase patient-centered care, it also increases the workload for RNs who have many competing priorities. There is a benefit for any Veterans who receive tobacco cessation handouts and subsequently quit or follow up with their PCP. However, this QI

project did not have any new findings that were not already present in the literature.

Sustainability

For tobacco cessation counseling to continue to occur in the UCC RNs need to believe it is worthwhile and Veteran need to be receptive to it. Additionally, there needs to be an RN in the UCC who wants to serve as a “tobacco cessation champion.” This person would ideally, be able to answer their peers’ questions about VA resources and have a good working relationship with the Smoking Cessation Coordinator at the facility. Without a champion this project most likely will not be self-sustaining, as it takes continued reminders to staff to provide cessation counseling. Originally, it was believed that cessation counseling did not occur because of a lack of RN self-efficacy, however, this QI project revealed this was not the reason.

Potential for Spread to Other Contexts

This QI project may be replicable in other VA UCCs, however, in a private UCC, visits are not as long as those in VA UCCs. It is important to remember that VA UCCs function like a “soft-ED.” Additionally, in private UCCs the prevalence of smoking may not be as high. The spread of this QI project to other microsystems within the VA macrosystem is still fairly limited as well. Tobacco-cessation already occurs in primary care and the mental health clinical. However, having handouts readily available about the resources may be beneficial. The educational PowerPoint™ that reviews the VA resources is a reference that staff may continue to find helpful.

Implications for Practice and For Further Study

The findings of this project serve as evidence that RNs in the UCC have a high-level of self-efficacy in providing tobacco cessation. An important role of the RN is to be an educator and this project supports that. Nurses in the UCC generally believe that the availability of

resources to distribute is helpful. Future PDSA cycles in this microsystem, should follow up with Veterans after they receive the tobacco cessation counseling. Following up with the Veteran after they receive counseling in the UCC would provide insight into if Veterans quit or at attempted to quit.

Suggested Next Steps

The UCC should continue to provide cessation counseling and distribute resources. As mentioned, future PDSA cycles should be conducted to further examine the impact that this QI project has on Veterans. Nurses already have a high self-efficacy in providing tobacco cessation, incorporating counseling to more patients is recommended. If future PDSA cycles find this initiative beneficial then it is encouraged that these findings be shared with other VA UCCs.

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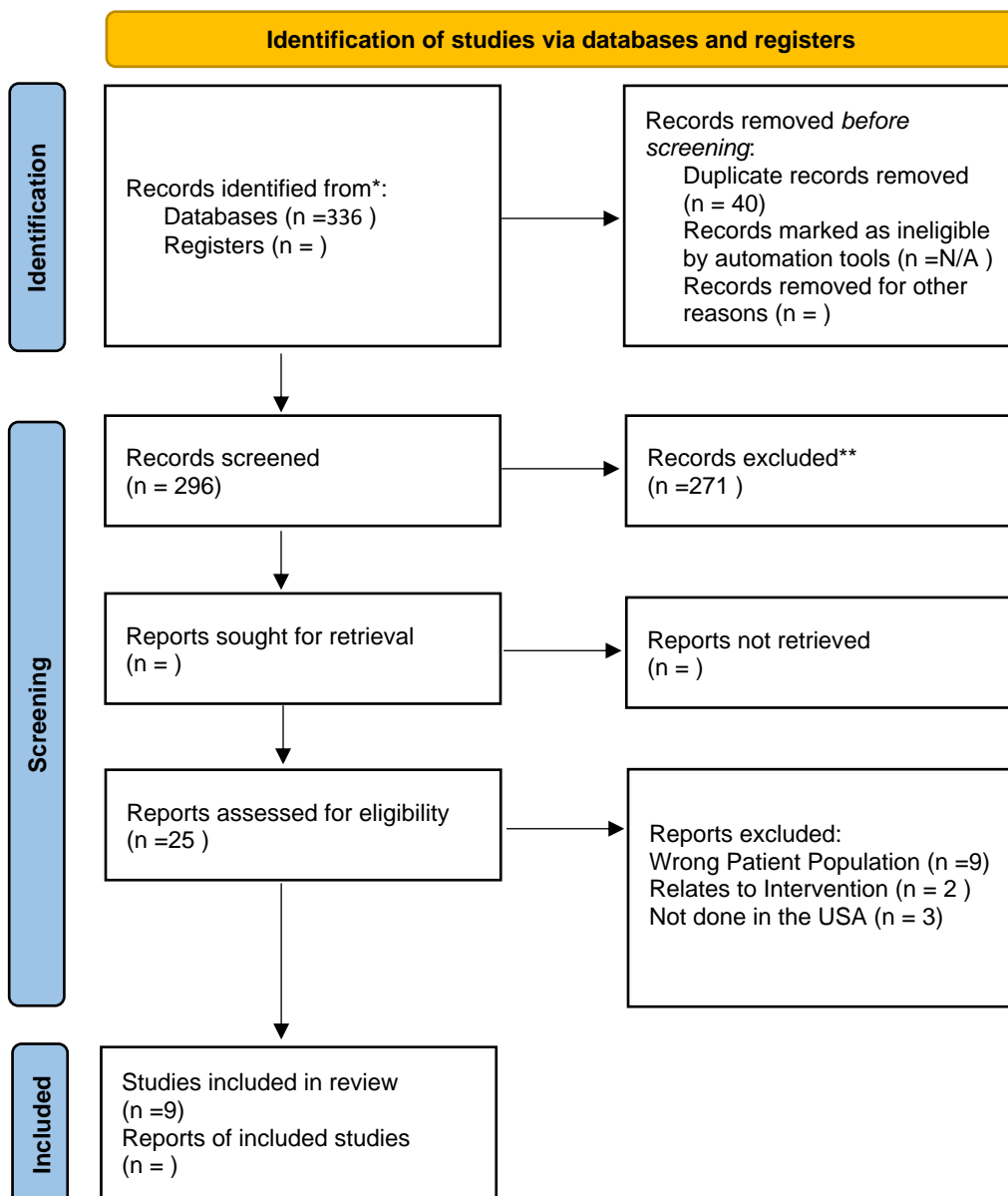
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Appendix A

PRISMA Flowsheet



Appendix B

Post-Assessment



How confident are you right now that you would be able to:

	1 Not at All Confident	2 Somewhat Confident	3 Moderately Confident	4 Very Confident	5 Extremely Confident
Ask your patients if they smoke.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Advise your patient who smokes to quit.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assess your patient who smokes readiness to quit smoking in the next 30 days.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assist your patient who is ready to stop smoking set a quit date in the next 30 days.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assist your patient who smokes by providing smoking cessation literature. Including information about the VA Quitline or VA handouts.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Encourage your patient who has set a smoking quit date to arrange follow-up support with a friend, family member, or healthcare provider.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Educate your patient about the harmful effects of smoking and identify a "teachable moment" to provide cessation counseling.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How will the educational PowerPoint change your behaviors regarding tobacco cessation counseling?

Why or why not do you plan to provide tobacco cessation counseling or materials in the Urgent Care Setting?