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Tobacco Use Screening and Cessation Counseling in Primary Care

Submitted in Partial Fulfillment of the Requirements for the Degree of
Doctor in Nursing Practice at the University of Kentucky

By

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Abstract

BACKGROUND: Primary care providers (PCPs) are poised across healthcare settings to reduce the leading cause of preventable morbidity and mortality, cigarette smoking. However, their patients may not be screened for tobacco use and miss cessation counseling, thus increasing tobacco-related diseases, and incurring costs to healthcare payers.

PURPOSE: This project seeks to identify the documentation process in a new electronic health record (EHR), communicate efficacy barriers, administer an educational intervention regarding the new process for PCPs, and measure its impact on performance of tobacco use screening and cessation counseling.

METHODS: This project was a quasi-experimental, single center, pre- and post-interventional design quality improvement study conducted from June 2021 to March 2022. Five PCPs participated in the chart review, academic detailing intervention, and follow-up reporting. Fifty patient encounters were randomly selected for evaluation.

RESULTS: There was no statistically significant difference in tobacco use screening after the intervention.

DISCUSSION/CONCLUSION: This project determined the optimal documentation process in the new EHR and measured performance of tobacco use screening in an outreach clinic without previous benchmarks. These baseline datapoints are useful to trend future performance reporting and frame expectations for further documentation improvement.

Acknowledgements

I truly cannot imagine completing this academic and clinical program without my faculty advisor's perceptive encouragement and refreshing candor. Dr. Ossege, thank you for being steadfast throughout these past five years, and many excellent challenges. In addition, the support of Dr. Patricia K. Howard, Director of Emergency Services, administering my professional responsibilities to complement the rigor and requirements of this DNP Program, has been crucial.

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Dedication

To my friends, brothers, and family, when this was just a hope and a prayer, and who have stuck close thru adversity: Your encouragement and intercession has comforted me more than you may know, as I will remind you in years to come. Finally, to my beloved wife and best friend, Laura Allison Heil, who always stands with me, has carried every same stress, called forth my best, and given sacrificially as we live many lessons of “family practice” raising our three young sons amid unforeseen circumstances. She is more valuable than gold and must be praised with this dedication. What we thought impossible fifteen years ago is now nearing completion. In this journey, and beyond, we will say, ‘I know my Redeemer lives, and at the end he will stand on the dust.’

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Background and Significance

Cigarette smoking continues to be the leading cause of preventable morbidity and mortality in the United States, responsible for over 480,000 deaths every year, or approximately 1 in every 5 deaths (Centers for Disease Control and Prevention, 2020). An estimated 34.1 million adults in the United States currently smoke cigarettes (CDC, 2019), comprising 14.0 percent of the eighteen and older population. In the state of Kentucky, that number jumps to 23.4 percent of all adults. Over 16 million Americans still alive have a smoking-related disease, even as smoking rates have declined nationally since 2005. In the past year \$1.9 billion dollars were spent on healthcare needs due to smoking (CDC, 2019).

In January 2021, the most relevant health guidelines maintained by the United States Preventative Services Task Force ([USPTF], 2021), recommends all primary care providers screen all adults for tobacco use, advise cessation, and refer to treatment, whether providing behavioral interventions or approved pharmacotherapy for cessation. This critical level 'A' recommendation can be completed in five major steps to successful intervention, publicized by the Agency for Healthcare Research and Quality (AHRQ, 2012) as the "5 A's": Ask, Advise, Assess, Assist, and Arrange. In fact, performing this evidence-based service has as much or more clinical impact measured in quality-adjusted life years (QALY) than twenty-eight other graded and ranked preventative services listed by the USPTF (Maciosek, LaFrance, Dehmer, et al., 2017).

Despite the benefits of screening and cessation counseling, half (50%) of patients are not asked about their use of tobacco nor advised and equipped to quit when they interact with the healthcare system at large (Byers, Wright, Tilford, et al., 2018). Reducing this harmful and addictive behavior is a prominent focus of research and education activities in the healthcare industry. The public health visionaries of Healthy People 2030, set a target goal reduction of current tobacco use in any form by adults nationwide from 20.1 percent baseline to 16.2 percent (2020). They continue with another

objective to increase the proportion of adults who get advice to quit smoking from a health care provider to a target of 66.6 percent (HP, 2020) from 56.9 percent (HP, 2015).

Context

The University of Kentucky's College of Nursing owns the Phyllis D. Corbitt Community Health Center outreach clinic in Wilmore, KY which is the focus of this project. Another collaborating clinic operated by UK HealthCare (UKHC) is the Turfland hub in Lexington, KY, which was the site of grant-funded quality improvement (QI) initiatives around tobacco use screening and cessation counseling, among other targets. Turfland employs a multidisciplinary team comprised of providers and health professionals working at the large, multi-specialty clinic, other smaller facilities, as well as through telehealth within core urban and outlying areas. The Wilmore clinic is staffed by doctoral-prepared nurse practitioners certified in family practice and psychiatric-mental health offering comprehensive care, who have sought educational input similar to that performed at Turfland on utilizing a new electronic health record for tobacco use screening and counseling documentation

Transmitting the scientific understanding of tobacco use and its effects to make a positive difference for primary care patients requires these clinicians to be knowledgeable as well as engaged with the best practices of prevention, screening, and cessation. However, the previous antiquated medical record system lacked readily accessible data reporting, so tobacco use statistics were largely unknown for patients who are part of this Wilmore practice. Therefore, these providers did not have the means to measure and track performance for this key metric, which the Center for Medicare and Medicaid Services (CMS) actually analyzes to determine reimbursement for services rendered. In the university healthcare enterprise as a whole, performance level for tobacco use screening and cessation counseling intervention metric had fallen below ninety percent criteria for full reimbursement, leaving them at a potentially reduced reimbursement rate, due to 2015 legislative reform known as the Medicare Access and CHIP Reauthorization Act (MACRA), and most importantly, best clinical practice.

Again, the current evidenced-based and recommended intervention is to screen all patients for tobacco use, counsel, and refer to treatment using the “5 A’s” approach: Ask, Advise, Assess, Assist, and Arrange (AHRQ, 2012). Nevertheless, there are definite opportunities to meet minimum reimbursement expectations as well as improve the prevention, screening, and treatment of patients who use combustible tobacco products.

Purpose/Objectives

The purpose of this project was to discover the process in which tobacco use screening can consistently and effectively be implemented at every patient’s primary care visit and then followed by appropriate smoking cessation counseling for those patients who screen positive for use. Using the Plan Do Study Act (PDSA) framework, the specific aims of this study were to

1. Discover and summarize the designated documentation process in new EHR.
2. Teach optimal performance of documentation by utilizing an academic detailing method in a multimedia delivery format to study subjects.
3. Evaluate the educational intervention impact on tobacco use screening.

Meeting these objectives will create an initial percentage point in an as-yet-unmeasured utilization of a newly implemented electronic health record (EHR). Recording this data marker and discrete statistical milestone then informs future QI efforts and allows their results to be trended as an investment toward increasing screening and counseling for tobacco users and thus, reducing preventable morbidity and mortality, costs, etc.

Theoretical Framework

Lewin’s Three Step Model of Change Management underpinned this project, using widely accepted concepts that promote multidisciplinary collaboration. Multilateral cooperation is required to accomplish systems-level change (Wojciechowski, Pearsall, Murphy, & French, 2016), even for a local healthcare organization in the scope of a single, relatively small ambulatory clinic, addressing a tightly

focused pair of measures in screening and cessation counseling rates. The first step of 'Unfreezing' is accomplished by creating awareness among stakeholders of the presence of gaps in high quality primary care services. Collating and indexing the clinic's rates will localize the problem and attribute responsibility to the sample group of providers. Next, having garnered attention and accountability toward these provider-linked metrics, the second step, 'Proposed Change', will be introduced. Education directed toward and demonstrating the new workflow (accompanied by technical support in the current-state Epic EHR) will role-model and assist the desired changes to initiate. Finally, in the third Lewin step known as 'Refreezing', post-interventional data trends will illustrate the changes, if any. In addition, regular dashboard reports as well as screening and counseling reference materials could reinforce the initiation and integration of the new documentation workflow.

PICOT Question and Search Methods

To establish which mechanisms are most effective in designing an educational intervention aimed to enhance primary care providers' knowledge, attitudes, and intentions in regards to completing tobacco use screening and cessation counseling with each of their adult patients, a literature review of recent scholarship was performed. Framed using the common population, intervention, control, and outcomes (PICO) archetype, the review was guided by this question: Among primary care providers which methods of teaching increases tobacco use screening, counseling, and referral to treatment documentation? A search was performed in the Cumulative Index to Nursing and Allied Health Literature (CINAHL) database, limited to five previous years, from 2016 through 2021, and only including academic journals with the terms 'academic detailing', 'provider', and 'education'.

Twenty-nine studies or descriptions were returned from peer-reviewed literature describing methods for implementing expert education, also known as academic detailing (AHRQ, 2013), aimed at increasing providers' adherence to evidence-based screening, guideline and prescribing practices among other clinical purposes. This evidence comes from across the nation and world, is often led by

pharmacists, although primary care providers appear as well, and almost exclusively targets medication prescribing and management. Of note, these methods include interventional models such as small group teaching sessions (Awad, Ulbrich, Furdich, Schneider, & Gothard, 2019), large meetings (Behar, Rowe, Santos, Santos, & Coffin, 2017), audit and feedback (Neo et al., 2020), as well as video-based virtual delivery, which increased under the coronavirus disease pandemic in-person restrictions (Hoffman et al., 2020). The study designs located include two systematic reviews, numerous qualitative analyses and interviews, a randomized controlled trial (RCT), and two meta-analyses in the settings ranging from community clinics to nationwide systems like the Veterans Health Administration (VA).

Summary of the Evidence

In particular, the single RCT (Lasser et al., 2016) as well as the meta-analyses of twenty-two (Pederson et al., 2018) and thirty-eight (Jeffrey et al., 2015) RCTs were unable to coalesce around a single, superior educational method to increase providers' adherence, despite positive feedback. According to the same publications, health outcomes in the respective patient panels were not statistically significant at the time of reporting, and could not be correlated to educational methods used with providers. However, qualitative evidence in this overall synthesis supports the efficacy of academic detailing as a type of educational intervention to increase provider adherence with evidence-based practice (Abd-Elsayed, Albert, Fischer, & Anderson, 2018), of which tobacco use screening and cessation counseling is unequivocally included. These twenty-nine sources are peer-reviewed, relevant, and recent, so any deductions may be extrapolated in further use of similar interventions with primary care providers.

Identify Current State, Desired State, Gaps in Practice

The clinical practice setting for this DNP Project has completed a significant transition from a legacy electronic health record (EHR), often cited by providers to be a barrier in completing tobacco use screening as well as lacking accessible data reporting features, to a new, universal EHR system. Clinicians

failed to document patients' tobacco use status as well as counseling or referral to treatment in thirty-one percent of charts reviewed in the legacy system at the urban hub main clinic (Roher, 2021). Accordingly, the cumbersome interface and non-existent end-user reporting functions have been thought to contribute to low enterprise wide primary care screening rates. Meanwhile, the new state-of-the-art EHR has a more intuitive interface, universal integration across platforms and health systems, and relatively simple data mining tools which will support rapid assessment of providers in the target metrics of this proposed project. As an enterprise, the goal threshold for screening is ninety percent (90%), with a risk of MACRA reimbursement loss tied to service line performance. Potentially, this new EHR may have the ability to pinpoint gaps in meeting various documentation measures and standards-of-care if providers and other end-users are given adequate technical and clinical support using it. Academic detailing may offer an emerging strategy for improving such documentation for the local outreach clinic, health system, and its patient population at large.

Methods

Design

This DNP project study was a quasi-experimental, single center, pre- and post-interventional design. While the review of patient encounter documentation to measure screening was randomized, the assignment of study subjects, the five nurse practitioners, was not. The project featured academic detailing as an independent variable with data collection and analysis intended to extrapolate influence, but not causal relationships, if any.

Setting

This study was conducted at The Phyllis D. Corbett Community Health Center, also known as the Wilmore Clinic, located in city of Wilmore within Jessamine County, Kentucky. The Wilmore Clinic is owned and operated by the University of Kentucky College of Nursing (CON). The city is relatively small with an estimated population of approximately six thousand residents, of which 80.5% (Census, 2020)

are adults. UK Wilmore Clinic functions as a medical home for ambulatory populations across the lifespan seeking primary care and sees patients five days a week. There are five advanced practice registered nurses functioning as primary care providers (PCPs) and two additional staff members. Key to the implementation of this project was the invitation and permission by the clinic's director to conduct such research and quality improvement activities. The clinic director and all providers are CON faculty or employees, and some also teach didactic courses in the academic setting as well as serve as clinical preceptors and mentors. In addition, the healthcare system at large had recently announced that CMS-directed payments are at risk based on performance measures (Board, 2020).

The most pertinent change to this setting is the newly-installed Epic electronic health record, a cloud-based digital platform for managing records in healthcare operations. The close of previous EHR and launch of Epic within this medical center enterprise was pivoted to largely virtual training between alpha and delta SARS-CoV-2 variant emergences. These and other launch adjustments have had an unstudied but probable effect on the new EHR installation and use. The Clinic's goals are to improve upon electronic documentation in the new system as they continue to grow in visit volume and provider team in alignment with strategic planning.

Sample

The study population was five primary care providers (PCPs), consisting of all family nurse practitioners, and one of whom is also dual-certified in psychiatric-mental health specialty care, and all practicing at the outreach clinic site in Wilmore, KY. For each respective provider, all patients can be screened for tobacco use, and/or secondhand exposure. However, for the objectives of this project, the medical records of only those adult patients eighteen years of age and older were evaluated for sufficiency of the provider documentation. At least fifty patient encounters from the Wilmore clinic in-person or telehealth visits were randomly selected for evaluation in both the pre-test and post-test time periods, without distinction or equal distribution per provider. A timeframe following the 5 June 2021

go-live date of the new EHR until the close of data retrieval on 7 March 2022 allowed for the necessary quota of one hundred patients to be obtained and analyzed manually. Preferred exclusion criteria were not yet available due to the ongoing work of CCTS data warehouse architects in creating and setting up new schema in the Epic EHR. For example, encounters performed by other providers outside of the target clinic were inadvertently included in the dataset and then manually excluded.

Procedure

The University of Kentucky HealthCare medical Institutional Review Board provided expedited Human Subjects approval for this research project. Research protocol number 69999 was granted approval with modification on 31 January 2022 following vetting by the Office of Research Integrity.

Evidence-Based Intervention Description

The evidenced-based intervention at the core of this project consists of an academic detailing educational method (AHRQ, 2013) that was delivered through video-conferencing format, during a regular clinician team meeting over approximately twenty minutes. The academic detailing intervention was delivered via Zoom meeting on 11 January 2022 for five consented and participating PCPs. The education was composed of the clinical problem, localized statistical context, impetus for best practice, as well as a screening and intervention counseling demonstration incorporating the brief, validated approach known as the “5 A’s” method. Guidance and examples for optimal documentation in the new EHR were also shared. Meanwhile, providers were engaged in discussion about their experiences documenting these key care components and receive a guided demonstration of optimal charting in the Epic EHR, with real-time solicitation of feedback.

Digital resource supplements were distributed directly to primary care providers afterward to encourage clinical reference and adherence to best practice, including screenshots of designated electronic interfaces in the EHR. This project intervention at the Wilmore outreach clinic measured changes in providers’ documentation both prior to and subsequent from the intervention in order to

close gaps in evidence-based practice. The degree to which significant changes in documentation workflow or other improvement initiatives in a new, streamlined EHR compare to the previous, legacy EHR were not formally addressed.

Data Collection

As acknowledged, the Center for Clinical and Translational Science (CCTS) provided deidentified clinical data extraction from the EHR using the following parameter requests: Age 18+; Seen in Wilmore primary care clinic; Time Frame between June 5, 2021, and prior to January 11, 2022, and between January 12, 2022 and March 7, 2022. Preceding and succeeding the intervention, chart reviews occurred in the newly-implemented EHR in the following steps. The designated number of one hundred patient encounters from Wilmore Clinic providers performing primary care visits were queried. Those medical record numbers were indexed, cross-walked to a deidentified file, and subsequently manually examined. The associated history documentation tab and embedded substance use history were mined for screening and/or cessation counseling attestation. Attestation was sought either via the designated radio button selection, drop-down menu, or otherwise free-texted in the narrative note. Next, findings were entered and saved in an Excel spreadsheet under deidentified, numbered entries. At this time, only a manual review by inspecting the substance use history tab, as well as narrative notes, encounter by encounter, can come closest to guaranteeing accuracy in the data collected.

Data Analysis

Consultation and oversight by the UK College of Nursing statistician, as approved for human subject research by UK IRB, was completed in conference with the PI and scrubbed dataset on 16 March 2022. Descriptive statistical methods including Pearson's Chi-Square and Fisher's Exact Test from the IBM SPSS software application were used to compute SPSS data output and synthesized tables (Figure 1). In addition, group statistics for mean, standard deviation, and percentages of variables of interest and demographics tables were also computed and indexed.

Results

Fifty individual patient charts were reviewed from data ranges both before and after the educational intervention delivered to study subjects on 11 January 2022. The mean age of the pre-group was 42.08 years old and the post- group 43.8 years old, but not statistically significant (Table 1). Next, the patients' gender in the former group was 66% female (n = 33) and in the latter grouping nearly equivalent at 68% female (n = 34). (Table 1). Ethnicity of the patients whose charts were reviewed was also not statistically significant, as non-Hispanic persons were the vast majority while Hispanic and Unknown ethnic background were also represented (Table 1). Finally, in the first table, race was delineated in the chart review. White patients made up 96.0% and 98.0%, a single black patient was part of both pre- and post- groups, and a single Asian patient was in the pre- group as well (Table 1).

The number of smokers in the pre-intervention group was six, and three were in the post-group. Therefore, cessation counseling will not be included in the display tables or reporting. Tobacco use screening rates in the pre-intervention cohort of fifty patient encounters were 58.0% (n=29), and post-intervention group of same number and type was 53.8% (n=21) and not statistically significant in relationship to the independent intervention (Table 2).

Discussion

This project was able to communicate the currently designated documentation process in the new EHR, deliver an academic detailing intervention and educational materials to clinic providers, and measure performance of tobacco use screening in the new documentation system. Despite an absence of statistical significance, and, in fact, a slight decrease in screening rates following intervention, a baseline datapoint with which to trend future reporting and frame expectations was established. Education methods for effecting change in provider adherence to certain standards of care or clinical practice guidelines are many and emerging. And similar to the literature findings showing no single most

effective provider educational measure for affecting change, (Pederson, et al., 2018) this project intervention did not contribute a significant impact that can be measured at this time.

Pioneering the quality improvement process using a newly-implemented electronic health record did result in discovering new ways of mining data for this focus of documentation, like searching free-text notes and using the audit trail link. With the new EHR, specifics of the data collection and analysis tool interface, titled 'Slicer Dicer', have not yet been released in final form. However, the capability for any end user with appropriate clearance to perform advanced and automated data searches is to be expected. These findings are consistent with desirable qualities of academic detailers that include innovating thinking and experience in the changes being proposed or supported in the clinic (AHRQ, 2022). Authors Anthierens, Verhoeven, Schmitz, and Coenen (2017) describing process evaluation of academic detailers visiting general practitioners, state "[they] bring an overview of objective and independent information relevant to their daily practice and with whom they can have a discussion" (p. 6).

With regard to the slight decline in documented screening rates, it is reasonable to ask about whether documentation drift would occur as the novelty of a new system wears off. On the same note, the amount of recordable information and assess-able human behaviors and habits is very wide in the new EHR and may become overwhelming as its breadth is realized with ongoing utilization. However, considering the unique agency setting of this project may yield additional insights. Patients in the clinic's panel are overall lower in rates of smoking than the general population and are also on average, middle-aged, not in the younger range with most propensity to start smoking anew. Providers may presume in most cases that their established patients, whom have not previously smoked, would not just start doing so without voluntary disclosure. Therefore, they may not be screening for use with the same frequency as a PCP in a larger city who is meeting a new patient in their first visit.

Nevertheless, if these reasons apply or not, there is the body of evidence cited that tobacco use screening and cessation counseling is vastly underperformed (Byers, Wright, Tilford, et al., 2018) and changing that statistic may not happen easily. Thus, Lewin's 'Unfreezing' step in change theory must be emphasized, and impressed upon PCPs not once in a single detailing session but over time (Wojciechowski, Pearsall, Murphy, & French, 2016) and perhaps with multiple and combination modalities, including focus groups to gain insight from providers.

As to the prospect of sustainability, ongoing continuous quality improvement (CQI) annual cycles are being administered by the healthcare enterprise and its Office for Value and Innovation in Healthcare Delivery (OVIHD). Empowering DNP students, among other professionals, to lead change in an already-ingrained program component for their respective professions seems an apt way to research and experiment with optimizing various clinical outcomes. The necessary buy-in being present with this clinical site leadership will also endorse further efforts to increase tobacco use screening, cessation counseling, and valid documentation thereof. The next step may be to recruit or propose a future DNP student take up the mantle of a very common primary prevention concern with underachieving application and/or adherence in this same setting where this work was started.

Implications for Practice, Education, Policy and Research

Certainly, there is room for improvement in the documentation of tobacco use screening, in addition to the need to consistently perform screening with every patient, at every encounter of care. This clinic setting had rates that were found in the mid-fiftieth percentile, at fifty-eight and fifty-four percent, respectively, which is very comparable to the national average (Byers, Wright, Tilford, et al., 2018) of fifty percent of patients screened. Although not evaluated alone, but in cumulative across the healthcare enterprise, the risk of losing bundle reimbursement from CMS for subpar tobacco use screening performance is real and would be consequential. From an education perspective, the workflow of taking the QI process from a well-supported, well-staffed clinic hub like Turfland where the

principal investigator learned the QI process, to an outreach clinic like Wilmore with limited ancillary and support resources is surprisingly complex. Completing this new work has revealed opportunities for dissemination of key utilization and documentation proficiency among PCPs. For example, determining that the providers did not know how effectively they were performing screening based on clinical records was enlightening and provided support of the need for this project. However, this clinical setting may have more de facto responsibility due to its small size, but also have more ownership of their medical charting than other practices with additional learners and reviewers contributing to documentation sufficiency. The Wilmore clinic can be a model test plot for examining primary care performance metrics that are reportable thru the EHR and trialing change processes, evaluating for their effectiveness. Real change in a dynamic, human-centered environment is rarely easy, and better, more efficacious strategies for producing positive impact are clearly indicated.

At a policy level, continuing even in the current state legislative session, advocates and researchers are reaching out to lawmakers in promoting efforts like Senate Bill 166 (Estep, 2022) to enact tighter restrictions on advertising and sale of tobacco products. This development plus a long history of policy-making leaders with connections to the College of Nursing seek a common goal, lowering smoking rates and needless health consequences. A united effort toward smoking cessation could benefit patients tremendously.

Limitations

As discussed, there was not a statistically significant relationship to the independent intervention in this relatively small participant and sample size. Therefore, the efficacy of the academic detailing method in this case is, to state fairly, inconclusive. Data extraction from the new EHR and delivery through university channels came at a high cost, and proved difficult to even the experienced personnel as the processes were not fully developed. Therefore, data extraction using a brand new EHR also limited data collection in this study.

Next, while conducting the manual patient chart reviews, when clear attestation options were not selected by providers, an audit trail menu was available and often referenced. However, this linked display only captures the last entered value and narrative note or comment by the last encountered provider. So, for example, a patient may have been seen for their annual screening physical exam by the PCP, who perhaps performed all substance use screening. But, in a subsequent visit to any other medical provider, the substance use screening performed later would supersede its precedent's place, negating the PCP's work when it comes to documentation audits. This limited accurate data collection. Another limitation was that this project occurred during a once-in-a-lifetime viral pandemic creating unforeseen challenges.

Finally, a recommended quality of academic detailing is administration and/or delivery by a professional peer (AHRQ, 2022). The principal investigator was not one, strictly speaking, but still a student in the educational program. While key stakeholders gave very positive reception to this project work from the beginning, in the end a junior learner-clinician will not have the same level of legitimacy when offering education as an experienced peer with the same background as the participant-providers.

Conclusion

This quality improvement project delivered an academic detailing intervention to educate PCPs in a primary care outreach clinic on specific tobacco use screening and cessation counseling functions of a newly implemented and comprehensive EHR. Improving the documentation of this evidence-based standard of care screening was not realized in actual performance verified with the data collection and analysis design, however. The work of measurement and trending has just begun and future DNP students can benefit from insights gained, methods trialed, and workflow pioneered.

Table 1. *Patient Demographics Variables of Interest*

	Pre-intervention (n=50) <i>Mean (SD) or n (%)</i>	Post-intervention (n=50) <i>Mean (SD) or n (%)</i>	<i>p</i>
Age	42.08 (15.369)	43.80 (16.273)	.588
Gender			.832
Male	17 (34.0%)	16 (32.0%)	
Female	33 (66.0%)	34 (68.0%)	
Ethnicity			.685
Non-Hispanic	47 (94.0%)	44 (89.8%)	
Hispanic	2 (4.0%)	4 (8.2%)	
Unknown	1 (2.0%)	1 (2.0%)	
Race			.610
White	48 (96.0%)	48 (98.0%)	
Black	1 (2.0%)	1 (2.0%)	
Asian	1 (2.0%)	0	

Table 2. *Tobacco Use Screening*

	Pre-intervention (n=50) <i>n (%)</i>	Post-intervention (n=50) <i>n (%)</i>	<i>p</i>
Screened for smoking cigarettes			.695
Yes	29 (58.0%)	21 (53.8%)	
No	21 (42.0%)	18 (46.2%)	

Figure 1. *Tobacco Use Screening by Gender*

			time		Total
			pre	post	
gender	female	Count	33	34	67
		% within time	68.0%	68.0%	67.0%
	male	Count	17	16	33
		% within time	34.0%	32.0%	33.0%
Total	Count	50	50	100	
	% within time	100.0%	100.0%	100.0%	

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