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Educating Providers regarding the ASCVD Risk Calculator in a Primary Care Setting: A Quality Improvement Program

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Educating Providers regarding the ASCVD Risk Calculator in a Primary Care Setting: A Quality

Improvement Program

A Scholarly Project Presented to the Faculty of the Nicole Wertheim College of Nursing and Health Sciences

Florida International University

In partial fulfillment of the requirements For the Degree of Doctor of Nursing Practice

By Shanice Armstrong, MSN, FNP, APRN

Supervised by Dr. Dana Sherman, DNP, APRN Appendix 1. Standards of Professional Behavior Policy TITLE: STANDARDS OF POLICY: The Nicole Wertheim College of Nursing and Health Sciences (NWCNHS) will specify specific requirements, student responsibilities and recommended guidelines regarding standards of professional behavior across all nursing and health sciences programs within the college. RATIONALE: Standards of Professional Behavior and Conduct Students in nursing and other health professions curricula are held to standards of conduct that both differ from and exceed those usually expected of university students. Consequently, NWCNHS students are required to demonstrate clinical competency, including reasonable skill, safe practice, and professional behavior at all times, in the care of clients and clinical rotation/field experience interactions. PROCEDURE: Students may be removed from program experiences at any time for unsafe or unprofessional behavior. Further, students are required to adhere to the standards of acceptable conduct outlined in their respective professional association code of ethics and state of Florida professional regulations. Students can be removed from the nursing or health sciences program of study and/or any college affiliate clinical site or organizations based on violation of professional conduct. NWCNHS students are held to the basic expectations for personal and professional behavior that all members of the FIU community should follow. Especially when faced with a difficult situation or decision, consider, and apply the university's core values of civility, respect, and integrity. Breaches of conduct are reviewed and processed by the program chair referred to the Office for Student Conduct and Academic Integrity in accordance with the procedures outlined in the FIU Student Handbook. Resolutions of presented violations may include dismissal from the program. Academic honesty and integrity are fundamental values that the Nicole Wertheim College of Nursing and Health Sciences upholds. Any incident of academic misconduct will be handled according to the guidelines of the FIU Office of Student Conduct and Academic Integrity. Additionally, any individual who is aware of violations of the Honor code is bound by honor to report the incidence or violation to the respective administration

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ABSTRACT

Background: Atherosclerotic cardiovascular disease (ASCVD) is a production of plaque buildup in the arterial walls that can lead to a myocardial infarction (MI) or cerebrovascular accident (CVA). Atherosclerosis can be caused by multiple of factors such as hyperlipidemia, hypertension, and smoking. The ASCVD risk calculator follows a standardized educational guideline for healthcare providers for recommendations to improve patient outcomes and decrease complications. Utilization of the Nurse Practitioner (NP) for ASCVD management in a primary office setting allows for improve medical management of ASCVD. Purpose: Development of an NP-led educational program in the primary care setting to improve the efficacy of health care providers knowledge on the ASCVD risk calculator and utilizing it into practice. **Participants**: 6-9 healthcare providers in a South Florida primary care clinic. **Method**: A quality improvement (QI) project with a pre- and post-design design measuring healthcare providers self-efficacy scoring with the ASCVD Risk Calculator Questionnaire. Educational guidelines given by a voiceover PowerPoint. Information is based on the ASCVD Risk Calculator created by the American Heart Association and American College of Cardiology. **Results**: Nine healthcare providers completed pretest and six completed the posttest. Based on the assessment clinical knowledge questions there was an increased knowledge of the ASCVD risk calculator.. Discussion: The primary healthcare providers had increased knowledge and awareness of the ASCVD Risk Calculator. Limitations of the pilot study was having a small sample size, the responses of the healthcare providers returning for posttest, and the anonymity of the participants.

Keywords: Atherosclerotic cardiovascular disease, ASCVD, healthcare providers, ASCVD Risk Calculator

I. Introduction/Problem Statement/Significance

The nature of the problem is prevention of a myocardial infarction (MI) or cerebrovascular accident (CVA) by screening cholesterol levels and risk factors using the ASCVD Risk Calculator. The scope of this problem is important, as the risk for MIs an CVAs could be identified more quickly and treated in an efficient matter. The current institution policy for treating hyperlipidemia is based on the facilities protocol. The South Florida Clinic currently does not have all the health care providers consistently using the ASCVD Risk Calculator for their primary outpatient facilities that can detect patients that have an increased cardiovascular risk. The ASCVD Risk Calculator is not used routinely in the primary care setting, but it is an essential tool to assist providers.

Stroke or CVA is the fifth leading cause of death for Americans (Center for Disease Control and Prevention, 2020). In 2018, one in every six deaths were from cardiovascular diseases that caused a stroke (Center for Disease Control and Prevention, 2020). For MI's, approximately 1.5 million cases occur annually in the United States (Zafari & Yang, 2019). The yearly incidence rate of MI's is approximately 600 cases per 100,000 people (Zafari & Yang, 2019). The death rate related to acute MI is approximately three times higher in men than in women (Zafari & Yang, 2019). The cost for not addressing the risk factors for not reducing cardiovascular risk is in the billions. Stroke-related costs in the United States were nearly 46 billion between 2014 and 2015 (Center for Disease Control and Prevention, 2020). Hospital costs for MI's that are classified as STEMI and non-STEMI are averaged to \$19,327 for STEMI and \$18, 465 for non-STEMI (Cowper et al., 2019). The dilemma of not identifying patients that have increased cardiovascular risk by screening cholesterol levels and risk factors would increase the cost of healthcare. Incorporating the ASCVD Risk Calculator into the healthcare provider's daily tasks would improve the utilization of the screening tools and patient's cardiovascular health. The study would contribute to the solution of the problem by providing awareness of the evidencebased screening tool of the ASCVD Risk Calculator on its affectability of detecting and treating patients with a risk of cardiovascular disease.

II. Summary of the Literature

The following questions that will be investigated in the study will be: Is there a compliance matter for providers understanding the ASCVD Risk Calculator and utilizing it; and will repetitive education improve providers efficiency by using the ASCVD (Atherosclerotic Cardiovascular Disease) risk calculator in practice? The goal is to improve the knowledge base of providers in primary care settings of the ASCVD Risk Calculator during a three-month period. The literature review focuses on the cholesterol levels that correlate to the stain treatment and lifestyle modifications when utilizing the ASCVD Risk Calculator.

Literature Search

The literature search involved the identification of the keywords associated with the PICO question, "Will educating the providers on the use of the universal ASCVD Risk Calculator improve the efficacy of their knowledge of the calculator and utilizing it into practice." The key words and the Boolean search terms were utilized in the literature review. The key words that were included in the search are: "ascvd risk calculator" OR "atherosclerotic cardiovascular disease risk" or "cardiovascular risk"; "patient compliance" AND "hyperlipidemia" OR "hyperlipidemia medication" OR "cholesterol levels" OR "systematic review on cardiovascular risk" OR "meta-analysis on cardiovascular risk;" "cardiovascular risk" AND "morbidity rate", "cardiovascular risk" AND "mortality rate," "ASCVD risk calculator" AND "prevention", "atherosclerotic cardiovascular disease risk" AND "prevention."

The search for the literature articles included Boolean/Phrase search terms, full text, publication date from January 2016 to January 2021, English language, and human subjects. The search engines used were CINAHL (Cumulative Index to Nursing and Allied Health Literature) Plus with Full Text, Cochrane Library, PubMed, and Google. The searches displayed systematic reviews and meta-analyses. The search engine that yields the most research articles according to the PICO question was PubMed of 276 results with respective limitations of not including systematic reviews and meta-analyses which shown to decrease the number of valuable results. The Cochrane Library had displayed one Cochrane review and 38 trials. CINAHL had generated 30 research articles. When including systematic reviews and meta-analyses as a filter for the searches, this limited the results of all the search engines. Google was used to give a broader search for literature articles that were on various sites that were given access to the public.

Literature Review

"Systematic Review for the 2018

AHA/ACC/AACVPR/AAPA/ABC/ACPM/ADA/AGS/APhA/ASPC/NLA/PCNA Guideline on the Management of Blood Cholesterol: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines" is a Level III with high quality data based on the John Hopkins Nursing Evidence-Based Practice (2017). The research article is a level III based on being a systematic review with a combination of randomized controlled trials. The article is high quality for having consistent, generalized results, sufficient sample size, definitive conclusions, and consistent recommendations based on comprehensive literature (The Johns Hopkins Hospital/ Johns Hopkins University School of Nursing, 2017). The sample size of the study was over 1000 patients designed for a follow-up in one year. The researchers identified ten randomized controlled trials to include the differences of treatment of hyperlipidemia. The results of the study were able to show evidence for adding non-statin lipid-modifying therapies to statins to decrease ASCVD risk.

"Fixed-dose combination therapy for the prevention of atherosclerotic cardiovascular diseases" meets the criteria of a Level III. The article relates to the objective of finding the effects of fixed-dosed combination therapy that can lead to fatal and non-fatal ASCVD events (Bahiru et al., 2017). The researchers used nine randomized controlled trials and four clinical trials. The sample size was a total of 7047 participants from the randomized controlled trials and 2021 from the clinical trials. This literature article is of good quality due to the lack of a comprehensive literature review although there was a reasonably consistent recommendation. The data gathered from the researchers presented the effects of fixed-dose combination drug therapy were uncertain to cause ASCVD events that leads to a need of ongoing, longer-term trials (Bahiru et al., 2017)..

"Predicting Risk of Atherosclerotic Cardiovascular Disease Using Pooled Cohort Equations in Older Adults With Frailty, Multimorbidity, and Competing Risks" is a lower quality literature article when compared to the previously discussed ones. This article is a Level I and good quality. The literature article was a longitudinal experimental study with a sample size of 4249 participants. The article had many limitations of overestimating the pool cohort equation performance and self-reported surveys for the participants and physicians which lead to individual bias (Nguyen et al., 2020). Overall, the study was able to show the calibration and discrimination were good for the population aged over 65 that utilized the ASCVD risk tool. Also, that there is a need for a more accurate ASCVD risk tool for participants with multimorbidity class and frailty status (Nguyen et al., 2020).





III. PICO Clinical Question

The PICO clinical question: Will educating the providers on the use of the universal ASCVD risk calculator improve the efficacy of their knowledge of the calculator and utilizing it into practice?

IV. Definition of Terms

ASCVD (Atherosclerotic cardiovascular disease) Risk Score: is a national guideline that calculates the ten-year risk of developing a cardiovascular problem such as a myocardial infarction or cerebrovascular attack (Intermountain Healthcare, 2019)

Hyperlipidemia: is an umbrella term for genetic and acquired disorders that defines elevated lipid levels within the body (Hill & Bordoni, 2021).

Myocardial Infarction: also known as a heart attack is a permanent damage to the heart muscle due to a lack of blood supply (Cleveland Clinic, 2019).

Cerebrovascular accident: also known as a stroke that occurs when there is a loss of blood flow to the brain (Medline Plus, 2021).

V. Conceptual Underpinning and Theoretical Framework of the Project

The conceptual framework that will be utilized is the Donabedian Quality-of-Care (QOC) model. The Donabedian QOC identifies three domains that relate to efficient patient quality of care which are structure, process, and outcome (LoPorto, 2020). The domains are used to

measure and compare the quality of health care organizations when it comes to resources, practices, and results. The structure measures the healthcare provider's capacity, the process measures what a provider does to maintain or improve health, and outcome reflects the impact of a health care intervention that is affecting the health status of the patient (Agency for Healthcare Research, 2015). When pertaining to the study the structure is how to establish and implement the awareness of the ASCVD Risk Calculator in the South Florida Clinic day-to-day patient care. The process would be the implementation of the ASCVD risk calculator by educating the providers so that it can be used in practice. The outcomes are the result of using the ASCVD Risk Calculator from increased awareness and seeing if it effective and accommodating to the providers.

The nursing theory that will be utilized is the Health Promotion Model designed by Nola J. Pender. The Health Promotion Model identifies health as the positive aspect rather than the absence of disease (Petiprin, 2020). Health promotion is the primary goal of the model with the focus for providers to utilize the ASCVD Risk Calculator that will promote change in the behavioral outcome of providers using a screening tool in practice for patients with hyperlipidemia and mixed hyperlipidemia. The Health Promotion Model makes four assumptions (Petiprin, 2020):

- 1. Individuals seek to actively regulate their own behavior.
- 2. Individuals, in all their biopsychosocial complexity, interact with the environment, progressively transforming the environment as well as being transformed over time.
- 3. Health professionals, such as nurses, constitute a part of the interpersonal environment, which exerts influence on people through their life span.

- 4. Self-initiated reconfiguration of the person-environment interactive patterns is essential to change behavior.
- VI. Methodology
 - A. PDSA Cycle

The PDSA cycle is the Plan-Do-Study Act cycle. The PDSA cycle is used to decide the proposed change that will result in improvement and to evaluate that change (Institute for Healthcare Improvement, 2021).

- Plan: A pre-survey given to providers for the ASCVD risk calculator. Providers will be educated on the ASCVD Risk Calculator, medication compliance, and cultural competency.
- Do: The provider, after diagnosing hyperlipidemia, will use the ASCVD risk calculator.
- Study: The provider will be reevaluated on how well their knowledge base is of the ASCVD Risk Calculator and how to use it effectively.
- Act: The provider will continue using the ASCVD Risk Calculator for the rest of the panel and utilize the recommendations. An end survey will be given to the providers.
 - B. Plan:
 - I. Study design: Quantitative pre and post-test design
 - II. Setting: South Florida clinic
 - III. Sample: Nine healthcare providers of Medical Doctors (MDs)/Doctor of Osteopathy(DOs) and Nurse Practitioners
 - IV. Intervention: The participants will be given a pre-test survey. The pre-test results will be used to create a targeted voice-over PowerPoint presentation education intervention based on the results of a related systematic review.

Participants will then be provided with an electronic link to view the voiceover PowerPoint educational session, which is expected to last approximately 20-30 minutes. Participants will then be electronically linked to the post-test immediately after the educational intervention.

- V. Measurement: The instruments that will be used are Qualtrics survey for the providers for the evaluation of the ASCVD risk calculator, medication compliance, and cultural competency. The screening tool for measuring the risk score is the American College of Cardiology ASCVD Risk Estimator Plus.
- VI. Data Collection: The collection of the data is the participants pre- and posttest survey results are online utilizing the Qualtrics surveys.
- VII. Data analysis: Qualtrics, Microsoft Excel, and T-test calculator for P-value calculations
- VIII. Protection of Human Subjects: A voluntary informed consent recruitment letter will be given to the providers of the South Florida clinic. The Institutional Review board given the approval of the project to make sure HIPAA compliance is ensured.

VII. Results

The findings of the pre- and post-test showed there was an increased understanding of the ASCVD risk calculator when pertaining to the assessment's clinical knowledge questions that were being measured. The other questions in the survey were opinion-based and not measured. For the demographics, the pre-test had nine providers, and of the nine providers six were Hispanic women and three were Hispanic men. For the professions, four were

Advanced Practice Registered Nurses and five were Medical Doctors/Doctor of Osteopathic Medicine. See Figure One and Figure Two on in-depth demographics. The result of the twotailed paired samples t-test with the p value < 0.001. This evidenced through the mean of the pre-test scores and post-test scores being significant different than zero with the standard deviation in the post-test being significant less than that in the pretest (0.087841046 is the pre-test vs 0.068041382 in the post-test). t was significant based on an alpha value of 0.005. Figure Four displays the correct percentages of the survey questions. See Figure Three for the visualization of correct and incorrect answers of the survey. For question seven: ASCVD risk calculator is primary prevention? (True/False) on the pre-test 9/9 participants (100%) answered True and on the post-test 6/6 participants (100%) answered True; question eight: For the ASCVD risk calculator there is age limit of utilization for risk score? (True/False) for the pre-test 8/9 participants (88%) answered True and for the post-test 5/6 participants (83%) answered True; question nine: Do you what ASCVD stands for? A. Arterial Cardiovascular Disease, B. Atherosclerotic Cardiovascular Disease, C. Aortic Cardiovascular Disease, and D. Aortic Coronary Disease for the pre-test 9/9 participants (100%) answered B. Atherosclerotic Cardiovascular Disease and the post-test 6/6 participant (100%) answered B. Atherosclerotic Cardiovascular Disease; question ten: Who created the ASCVD risk calculator? A. United States Preventative Services Task Force, B. American Academy of Family Physicians, C. American College of Cardiology, and D. Aortic Coronary Disease for the pre-test 6/9 participants (67%) answered C. American College of Cardiology and the post-test 6/6 participants (100%) answered C. American College of Cardiology; question eleven: Atherosclerosis is caused by all except: A. High Blood Pressure, B. Exercise, C. High Cholesterol, and D. Smoking for the pre-test 9/9 participants (100%) answered B. Exercise

and post-test 6/6 participants (100%) answered B. Exercise; question twelve: Having a high ASCVD risk score can lead to all except: A. Myocardial Infarction, B. Cerebrovascular Accident, C. Death, and D. Irritable Bowel Syndrome for pretest 9/9 participants (100%) answered D. Irritable Bowel Syndrome and post-test 6/6 participants (100%) answered D. Irritable Bowel Syndrome. When viewing an overall of the pre-test and post-test the healthcare providers understood the ASCVD risk calculator and were likely to use it in practice.

VIII. Discussion

The primary healthcare providers had increased knowledge and awareness of the ASCVD Risk Calculator after the educational intervention for treating patients with hyperlipidemia. The limitations of the pilot study were having a small sample size, the responses of the healthcare providers returning for post-test, and the anonymity of the participants. The South Florida Clinic was going through a change of ownership during the time of the pilot study which caused delays for the health care providers responding to the pre-test and post-test. Furthermore, the Covid-19 pandemic contributed to some of the delays of the study because healthcare providers were busier with patient care, and many would forget to check their emails daily. Daily emails were sent to providers for the pre-test and post-test, but there were still difficulties in getting a response from the providers which led to repetitive emails to providers that already finished the survey, and the clinical investigator was unaware which provider completed the survey due to anonymity. The improvement that could have been done in this pilot study are setting up a video chat meeting for all the healthcare providers that wanted to participate and provider the pretest, PowerPoint, and posttest in one day as this could have guaranteed an equal number of participants.

IX. Advanced Nursing Practice Implications

The implications for advance practice nursing are the utilization of screening tools in the primary care setting. All healthcare providers should be aware of the ASCVD Risk Calculator and ASCVD risk score as it is a useful screening tool to educate the public on cardiovascular health.. Also, the ASCVD Risk Calculator can give a visualization for patients and providers of the risk score with evidence-based information on lifestyle modifications and statin treatment for preventative measures.

X. Conclusions

ASCVD Risk Calculator is a valuable screening tool for healthcare professionals in the primary care setting as it can assist in making decisions on the proper medication and lifestyle choices that can reduce the risk for atherosclerotic disease. Screening tools are meant as a guide for providers and patients for educational information. The success of this pilot study identifies an opportunity to provide more awareness to providers about the ASCVD Risk Calculator tool and its use in treating hyperlipidemia. Increased utilization of tools like the ASCVD Risk Calculator are useful for both the provider and patient to visualize the risk for ASCVD, and understand the treatment advised from evidence-based guidelines.

XI. Diagrams/Tables





Figure Two









Figure Four

- XII. References
- Agency for Healthcare Research and Quality. (2015). *Types of health care quality measures*. Retrieved from https://www.ahrq.gov/talkingquality/measures/types.html
- Bahiru, E., Cates, A., Farr, M., Jarvis, M., Palla, M., Rees, K., Ebrahim, S., & Huffman, M. (2017). Fixed-dose combination therapy for the prevention of atherosclerotic cardiovascular diseases. *Cochrane Library*. https://doiorg.ezproxy.fiu.edu/10.1002/14651858.CD009868.pub3
- Centers for Disease Control and Prevention. (2020). Stroke. Retrieved from https://www.cdc.gov/stroke/facts.htm
- Cleveland Clinic. (2019). Heart attack (myocardial infarction). Retrieved from https://my.clevelandclinic.org/health/diseases/16818-heart-attack-myocardialinfarction

Hill, M. & Bordoni, B. (2021). Hyperlipidemia. StatePearls. https://www.ncbi.nlm.nih.gov/books/NBK559182/

Intermountain Healthcare. (2019). Understanding you ASCVD Risk Score. Retrieved from file:///C:/Users/armst/Downloads/ASCVD%20Risk%20Score_062719_KRO.pdf

Institute for Healthcare Improvement. (2021). Science of improvement: Testing changes. Retrieved from http://www.ihi.org/resources/Pages/HowtoImprove/ScienceofImprovementTestingCh

anges.aspx

LoPorto, J. (2020). Application of the Donabedian quality-of-care model to New York State direct support professional core competencies: How structure, process, and outcomes impact disability services. *Journal of Social Change, 12(1),* 40-70. https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?article=1252&context=jsc

MedlinePlus. (2021). Stroke. Retrieved from https://medlineplus.gov/stroke.html

Nguyen, Q., Odden, M., Peralta, C., & Kim, D. (2020). Predicating risk atherosclerotic cardiovascular disease using pooled cohort equations in older adults with frailty, multimorbidity, and competing risks. *Journal of the American Heart Association*, 9(18). https://doi.org/10.1161/JAHA.119.016003

Petiprin, A. (2020). Pender's health promotion model. Nursing Theory. https://nursingtheory.org/theories-and-models/pender-health-promotionmodel.php#:~:text=The%20Health%20Promotion%20Model%20was%20designed% 20by%20Nola,directed%20at%20increasing%20a%20patient%27s%20level%20of% 20well-being. The Johns Hopkins Hospital/ Johns Hopkins University School of Nursing. (2017). *Johns Hopkins nursing evidence-based practice*. https://www.ijhneducation.org/node/18409/done?sid=82062&token=4c130fa6a777521ac110550ce5b96aa f

Zafari, M. & Yang, E. (2019). Myocardial Infarction. Medscape. Retrieved from https://emedicine.medscape.com/article/155919-overview#a1

XIII. Appendices

IRB approval:



Office of Research Integrity Research Compliance, MARC 414

MEMORANDUM

То:	Dr. Dana Sherman
CC:	Shanice Armstrong
From:	Maria Melendez-Vargas, MIBA, IRB Coordinator
Date:	September 10, 2021
Protocol Title:	"Educating Providers of the ASCVD Risk Calculator in a Primary Care
	Setting: A Quality Improvement Project"

The Florida International University Office of Research Integrity has reviewed your research study for the use of human subjects and deemed it Exempt via the **Exempt Review** process.

IRB Protocol Exemption #: IRB-21-0402 **IRB Exemption Date:** 09/10/21

TOPAZ Reference #: 110661

As a requirement of IRB Exemption you are required to:

- 1) Submit an IRB Exempt Amendment Form for all proposed additions or changes in the procedures involving human subjects. All additions and changes must be reviewed and approved prior to implementation.
- 2) Promptly submit an IRB Exempt Event Report Form for every serious or unusual or unanticipated adverse event, problems with the rights or welfare of the human subjects, and/or deviations from the approved protocol.
- 3) Submit an IRB Exempt Project Completion Report Form when the study is finished or discontinued.

Special Conditions: N/A

For further information, you may visit the IRB website at <u>http://research.fiu.edu/irb</u>.

MMV/em

Letter of Support by facility:



July 13, 2021

To whom it may it concern,

I, Pablo Alonso MD, am writing this letter to certify that I am allowing Shanice A. Armstrong to conduct her Quality Improvement Project at IMC Health Medical Centers. Should you have any questions, feel free to contact me via email at <u>palonso@imchealth.com</u>.

Vonco

Sincerely, Pablo Alonso, M.D. Medical Director IMC Health Medical Centers

15105 NW 77TH Avenue, 4th Floor Miami Lakes, FL 33014 O: 305-649-8100 <u>www.IMCHealth.com</u>

Data Collection Forms:

PRETEST-POSTTEST

"Educating Providers of the ASCVD Risk Calculator in a Primary Care Setting: A Quality Improvement Project"

Introduction:

This questionnaire is an essential part of a quality improvement project aiming to increase healthcare provider knowledge of the ASCD risk calculator for patients with hyperlipidemia and mixed hyperlipidemia.

Please answer to the best of your knowledge. Your response will help to understand gaps in knowledge and room for improvement. The questions are structured to assess your understanding of ASCVD risk calculator, medication compliance, and cultural competency.

- Please do not write your name or other personal information on this questionnaire
- Your answers are anonymous and will be kept confidential
- Your participation is voluntary and will not have any bearing on your position

Demographic:

Gender: Female	Male	Other	Wish not to d	lisclose
Age: 20-30 yrs	30-40 yrs	_ 40-50 yrs	>50 yrs	
Clinical Position: MD	DO APR	N PA		
Years of experience: 0	-1 years 1	-3 years	3 or more	
Ethnicity: White	BlackH	lispanic	Asian	Other

Questionnaire:

No

1. Have you received any training on ASCVD Risk calculator in any form?

____Yes ____No

2. Do you have discussions about ASCVD risk score with your patients?

____Yes

3. In primary care, have you ever incorporated clinical tools into practice?

____Yes ____No

4. Please respond to the following statements:

Statement	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
I am familiar with ASCVD					

5. Please respond to the following statements:

Statement	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
I am familiar with ASCVD risk calculator					

6. *Please respond to the following statements:*

Statement	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
I am confident in my					
ability to discuss					
ASCVD risk score with					
my patients					

Assessment of Clinical Knowledge

True or False

7. ASCVD risk calculator is primary prevention?

_____True

____False

8. For the ASCVD risk calculator there is age limit of utilization for risk score?

_____True

____False

- 9. Do you know what ASCVD stands for?
 - a. Arterial Cardiovascular Disease
 - b. Atherosclerotic Cardiovascular Disease
 - c. Aortic Cardiovascular Disease
 - d. Aortic Coronary Disease

- 10. Who created the ASCVD Risk calculator?
 - a. United States Preventative Services Task Force
 - b. American Academy of Family Physicians
 - c. American College of Cardiology
 - d. Centers for Disease Control and Prevention
- 11. Atherosclerosis is caused by all except:
 - a. High Blood Pressure
 - b. Exercise
 - c. High Cholesterol
 - d. Smoking
- 12. Having a high ASVD risk score can lead to all except:
 - a. Myocardial Infarction
 - b. Cerebrovascular Accident
 - c. Death
 - d. Irritable Bowel Syndrome

Medication Compliance & Cultural Sensitivity

13. Please respond to the following statements:

Statement	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
How likely are you to use the ASCVD risk					
calculator?					

14. Please respond to the following statements:

Statement	Strongly	Agree	Undecided	Disagree	Strongly
	Agree				Disagree
Do you think ASCVD					
risk calculator will					
slow down productivity					
in practice?					

15. Do you think ASCVD risk score will help patients with medication compliance?

26

- 16. Which communication technique is most effective when speaking with patients?
 - a) Closed loop
 - b) Open-ended
 - c) Accusatory
 - d) Call-out

17. Please respond to the following statements:

Statement	Strongly	Agree	Undecided	Disagree	Strongly
	Agree				Disagree
Do you think culture					
plays a big factor in					
treatment					
recommendations?					