Aspirin and Statin Use for Primary Prevention of Cardiovascular Disease

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Introduction and Problem

- The purpose of the project is successful adoption of the 2016 USPSTF guideline on aspirin and statin use for primary prevention of CVD by North Dakota State University (NDSU) staff participating in a NDSU Health Screening.
- Due to lack of adherence and prescription by eligible adults to recommended medications, improved provider education, and the risk calculator coupled with the USPSTF guidelines may be a beneficial tool for providers to identify those at risk of CVD and more accurately prescribe medications, specifically statins and aspirin, to reduce that risk.

Project Objectives

I. Data will be gathered from patients 40 years of age and older at the NDSU Health Screening in July 2021 to corroborate whether patients are taking aspirin and/or statins per the USPSTF guidelines.
II. Participants in the Health Screening will report knowledge and practice of the current USPSTF guidelines related to aspirin and statin use for primary prevention of CVD and the cardiovascular risk calculator by the ACC/AHA in Fall 2021 through post-survey completion.
III. Participants in Health Screening will report a positive viewpoint related to the cardiovascular risk calculator by the ACC/AHA by Fall 2021 through post-survey completion.
IV. Participants in the Health Screening will provide data on adherence to USPSTF guideline recommendations to their primary care providers.

Theoretical Framework

- Iowa Model: Uses problem-solving steps with a series of feedback loops to guide providers when making clinical decisions that affect patient outcomes.
  - Integrates questions, strategies, and instructions to guide decision-making through each feedback loop.
- Diffusions of Innovation Theory: Developed to aid in the dissemination of new health behavior interventions for practical use.
  - Describes the process of innovation diffusion and the various stages involved in adopting a new idea.

Project Design

- Data were collected on a population of adults 40 years or older (n=28) at the NDSU Health Screening July 2021, accessing total cholesterol, blood pressure, age, diabetes status, smoking status, blood glucose, grip strength, body fat percentage, BMI, PHQ-9, and GAD-7
- Participants were provided a recommendation based off their risk score and instructed to discuss findings with their provider.
- Post-implementation surveys were utilized to evaluate knowledge, attitude, and beliefs of participants
- IRB approval from NDSU obtained in June 2021

Evaluation

- Participants completed a Qualtrics post-implementation survey evaluating their knowledge, attitudes, and beliefs regarding the USPSTF guidelines and ACC/AHA risk calculator.
- Vital signs and results were applied to the ACC/AHA risk calculator and the participants were given a risk score and evaluated against USPSTF guidelines.
- Each participant was asked to consult their provider regarding their results and assessed at one-month follow-up with an e-mail to evaluate if contact made with provider and if any changes were made based off guideline recommendations.

Results

on ASA & qualify	not on ASA & qualify	on ASA & do not qualify	not on ASA & do not qualify
14%	4%	0%	82%

on statin & qualify	not on statin & qualify	on statin & do not qualify	not on statin & do not qualify
18%	11%	0%	71%

Avg Total Cholesterol	178
Avg HDL	55
Avg triglycerides	185

Avg CVD risk (%)	4.96
Avg age (years)	55
% male	25%
% female	75%
Avg BMI	30.79
Avg body fat (%)	35.12
Avg Hand grip strength (lb)	74.51
Avg PHQ	3
Avg GAD	2
Avg blood glucose	110

Funding

- This project was self-funded for any costs incurred.

References available upon request