

Binghamton University

The Open Repository @ Binghamton (The ORB)

Research Days Posters Spring 2020

Division of Research

2020

Campus Community Health Assessments Using Ambulatory Blood Pressure Monitoring

Sue Mueller

Binghamton University--SUNY

Cassidy Go

Binghamton University--SUNY

Grace Hahn

Binghamton University--SUNY

Erica Olsen

Binghamton University--SUNY

Megan Sutton

Binghamton University--SUNY

Follow this and additional works at: https://orb.binghamton.edu/research_days_posters_spring2020

Recommended Citation

Mueller, Sue; Go, Cassidy; Hahn, Grace; Olsen, Erica; and Sutton, Megan, "Campus Community Health Assessments Using Ambulatory Blood Pressure Monitoring" (2020). *Research Days Posters Spring 2020*. 58.

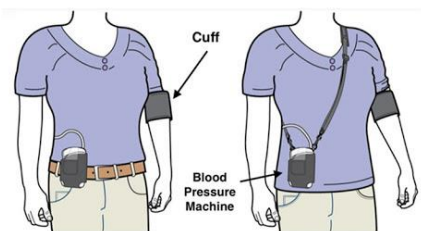
https://orb.binghamton.edu/research_days_posters_spring2020/58

This Book is brought to you for free and open access by the Division of Research at The Open Repository @ Binghamton (The ORB). It has been accepted for inclusion in Research Days Posters Spring 2020 by an authorized administrator of The Open Repository @ Binghamton (The ORB). For more information, please contact ORB@binghamton.edu.

Background

Tobacco remains one of the leading causes of death in the United States. Nicotine not only increases personal risk of cancer, but also negatively affects cardiovascular health. Since nicotine is an extremely addictive substance, tobacco-related behavior change is difficult. Based on a review of the literature, which showed that nursing interventions can effectively promote behavior change, a novel tobacco cessation intervention was developed.

The **purpose** of this study, which utilized Pender's Health Promotion Model (HPM) as its framework, was to determine the impact of cardiovascular (CV) health assessments on health promotion behaviors, including intent-to-quit nicotine.

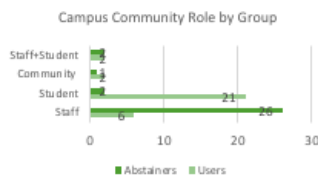


Methods

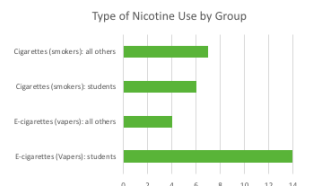
Setting: Large tobacco-free northeastern university

Protocol:

- Nicotine abstainers and users (two subgroups: smokers and vapers) validated by urinary cotinine.
- Surveys: Health history form (pre-test), Tobacco Use Survey (pre/post), Smoking: Self-Efficacy/Temptation (short form) (pre/post)
- 24-hour blood pressure monitoring with behavior diary
- Targeted nursing assessment
- Data analysis using SPSS 25.0



Results



Abstainers were more likely to:

- Hold a college degree ($p = 0.000$)
- Have a primary care provider ($p = 0.000$)
- Believe nicotine causes "a lot" of harm to health ($p = 0.009$)
- 25% of participants were referred to PCP for evaluation
- Vapers used nicotine more often than smokers ($p = 0.000$). Vapers vaped at 48% of waking BP readings; smokers smoked at 19% of waking BP readings.
- No significant change in intent-to-quit ($p = 0.536$) or interest in setting a quit date ($p = 0.142$) between pre- and post-test

Users were more likely to:

- Live with other users ($p = 0.000$)
- Socialize with other users ($p = 0.000$)
- Believe nicotine relieves stress ($p = 0.000$)

Clinical Impact	Users N	Users %	Abstainers N	Abstainers %	Total N	Total %
Enrolled due health concerns	3	9.68%	5	16.67%	8	13.11%
Referred to PCP	7	22.58%	8	26.67%	15	24.59%
Requested cessation support	2	6.45%	-	-	2	3.28%
Cessation due to intervention	1	3.23%	-	-	1	1.64%
Cessation due to EVALI	1	3.23%	-	-	1	1.64%



Sample Blood Pressure Monitor Graph: User



Sample Blood Pressure Monitor Graph: Abstainer

Conclusions

- Differences in blood pressure patterns between groups is attributed to nicotine use
- Vaping more prevalent among students than staff
- High rate of referrals to PCP reveals an unmet need for cardiovascular health screenings
- Findings support the role of prior-related behavior, personal characteristics, interpersonal influences, and situational influences on nicotine-related self-efficacy and health promotion planning

Recommendations

- Further study to determine the role of campus health in providing these screenings.
- Increased education about CV risks of nicotine for people under 30

Susan Mueller, RN MSN CDE CNE PHD-C

E: smuelle2@Binghamton.edu

References Available Upon Request