University of Western Cape –University of Missouri-St. Louis Academic Exchange Program for 2010

Proposal Application Form

Names of Applicants: Kelvin Mwaba, PhD and Nicolette Roman, PhD

Title of Project: Tobacco Use and Risk Perception Among Students at UWC and UM: Using the Theory of Triadic Influence to Develop Prevention and Intervention Programs

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Proposal Abstract:

The health risks of tobacco use are well documented in the international literature. Current data indicates that there are 4 million deaths a year associated with tobacco use. The World Health Organisation estimates that this figure will rise to more than 8 million by 2030. In response to the health risks posed by tobacco use, South Africa has adopted what is considered one of strictest tobacco control measures ever adopted by any government. The Tobacco Products Control Act of 1993 saw the regulation of smoking in public places and prohibited tobacco sales to people under the age of 16. The Act also regulated some aspects of tobacco advertising. In 1999, the Act was amended to make it even more comprehensive. The Amendment Act bans all advertising and promotion of tobacco products, including sponsorship and free distribution of tobacco products. While these measures have led to a decline in tobacco use among older people, evidence indicates that onset of tobacco use and the prevalence of current smoking young South Africans remained stable over the years. The primary aims of this study are:

1. To establish socio-cultural dynamics of smoking behavior and smoking risk perception among students at UWC.

2. To compare data on smoking behavior and smoking risk perception between students at UWC and UM.

3. To develop culturally appropriate smoking prevention and cessation intervention programs at UWC based on the successful Community Alliances for Smoke-Free Environments (CASE) programs initiated by Professor Everett at UM.

Triadic influence theory will be used as a framework for understanding factors associated with smoking in terms of the individual, immediate social environment, and broad social environment. Data of the study will inform the development of culturally appropriate smoking prevention and intervention strategies at UWC.

Tobacco Use and Risk Perception Among Students at UWC and UM: Using the Theory of Triadic Influence to Develop Prevention and Intervention Programs

A Research Proposal Submitted for the Academic Exchange Program for 2010: University of the Western Cape – University of Missouri

Principal Investigator: Kelvin Mwaba, PhD (Syracuse University, USA); Department of Psychology, University of the Western Cape

Investigator: Nicolette Roman, PhD (UWC); Department of Social Work, University of the Western Cape

Background

It is estimated that tobacco use kills approximately 6.4 million people every year around the world, with the figure expected to rise to 8 million people by 2030 (World Health Organisation, 2008). Smoking is considered to be one of the main preventable causes of premature morbidity and mortality in western countries with an estimated 0.5 million deaths each year in the European Union. In the United States of America, cigarette smoking is the leading preventable cause of death and disease with 0.46 million reported deaths (U.S. Department of Health and Human Services, 2004)

The health risks of smoking are officially recognized in South Africa. Cardiovascular disease, which is associated with tobacco use, is the second largest cause of death in the country (Bradshaw et al., 2003). It is estimated that about 60% of all admissions at one of the country's largest hospitals, Groote Schuur, are tobacco related (Department of Health, 2007). Smoking has been rated the second highest concern after HIV/AIDS. In response to the health risks posed by tobacco smoking, South Africa adopted what is considered one of strictest tobacco control measures ever adopted by any government. The Tobacco Products Control Act of 1993 saw the regulation of smoking in public places and prohibited tobacco sales to people under the age of 16. The Act also regulated some aspects of tobacco advertising. In 1999, the Act was amended to make it even more comprehensive. The Amendment Act bans all advertising and promotion of tobacco products, including sponsorship and free distribution of tobacco products. The Act also restricts all smoking in public places and stipulates penalties for transgressors. With these measures, it is estimated that cigarette consumption has fallen dramatically with the percentage of adult smokers dropping from 32 to 26.5 percent (Department of Health, 2007).

Studies indicate that generally young people constitute the largest proportion of smokers. Numerous studies have found that despite health knowledge about the adverse effects of smoking, many young people still experiment with tobacco use. Surveys among students have found that for the majority, the transition to university or college represents progression into adulthood and the freedom to make independent choices, including smoking. It has been proposed that, smoking onset follows a process that involves the following stages: Preparatory phase; Experimental phase; Regular smoking (Flay, 1993). According to the theory of Triadic Influence, youth smoking onset is influenced by three factors: individual characteristics (e.g. gender and age), immediate social environmental characteristics (e.g. friends and family), and broader social environmental characteristics (e.g. community).

While most of the research on youth smoking in South Africa has primarily focused on documenting prevalence of tobacco use (Swartz et al., 2004), few have investigated how the social environments surrounding youth might influence smoking onset and maintenance of smoking behavior (Reddy et al., 2005). There is strong evidence from studies conducted outside South Africa that the social environment, through modeling and social norms, has an influence on smoking onset, maintenance and cessation among the youth (Leatherdale & Manske, 2005; Osundu et al., 2008). For instance, studies show that young people are more likely to start smoking if other people in the house smoke or are permitted to smoke, and more than twice likely to be regular smokers when both parents smoke than if neither parent smokes (Flay, 1993).

Despite the fact that cigarette smoking among university students is a critical public health issue, there are no known programs at any of South African university campuses that are aimed at raising awareness of the health risks of smoking, prevention of smoking onset or cessation of smoking. While South African universities comply with nationwide ban on smoking in campus buildings, it is evident that there is very little that they are doing to address the dangers of smoking among students. Most of the effort to improving student health focuses on prevention and treatment of HIV/AIDS which is ravaging the country. However, there is also a need to ensure that universities take responsibility for preventing young people from starting to smoke or assisting them to cease smoking. This study aims to focus on tobacco smoking among students at UWC with regard to smoking behavior, beliefs, attitudes, and perception of risk associated with smoking. It is hoped that the findings of the study will be used as a basis for developing effective smoking prevention and intervention programs on campus.

Rationale

Research studies in industrialized countries exploring risk perception of smoking show that young people do not accurately perceive the risks of smoking or the power of addiction to cigarettes when they begin experimenting with tobacco. Although most young people recognize some health risks of smoking, such as lung cancer, other risks are unrecognized or underestimated. Studies also show that even when there is recognition of risk of smoking, young people are not deterred from starting to smoke or continuing to smoke.

Several studies support the notion that generally young people underestimate the addictive nature of tobacco and their own risk of becoming addicted. Many young smokers naively believe that they can experiment with smoking for a short period and stop whenever they wish without any risk of addiction. However, evidence of nicotine dependence has been documented among young people after only a few days of light smoking (Patterson et al., 2004)

Aims

The specific aims of the study are:

1. To establish attitudes and beliefs about tobacco smoking among students at UWC. Focus will be on attitudinal cognitions and cultural beliefs that motivate smoking behavior.

2. To determine the prevalence of smoking among students. The study will seek to obtain data that will be used to determine the prevalence of tobacco use among a representative sample of students at UWC.

3. To identify risk factors associated with smoking behavior among students, such as living in a household where smoking is permitted or household members smoke; community or social norms.

4. To compare data on smoking behavior and smoking risk perception between students at UWC and UM.

5. To develop smoking prevention and smoking cessation intervention programs at UWC.

Significance of the Study

It is expected that the study will provide empirical evidence regarding understanding of several aspects related to tobacco smoking among students: Prevalence of smoking among UWC students; beliefs and attitudes regarding tobacco smoking; and risk factors of tobacco smoking. It is also anticipated that the results of the study will form the basis of effective smoking prevention approaches and cessation intervention strategies. Students at UWC constitute a population that is vulnerable to experimenting with cigarette smoking or developing dependence on tobacco products. As such, this study has the potential to inform strategies that may prevent students from starting to smoke and assist those who have already started smoking to give up consumption of tobacco products.

Methodology

Research Design

The proposed study will employ a quantitative approach to survey a representative sample of students at the University of the Western Cape with regard to several aspects of cigarette smoking: smoking behavior, attitudes and beliefs regarding cigarette smoking. Stratified random sampling will be used to select the students on the basis of gender and race.

Participants

Students at the University of the Western Cape will serve as study participants. Stratified sampling will be used to select students from all six faculties of the university: CHS, Dentistry, Education, Law, Arts, and Science. Participants in the study will be both undergraduate and postgraduate students. An estimated 1000 students (approximately one-tenth of the student population) will be surveyed.

Measures

It is anticipated that data for the study will be collected using tools to be developed with the study collaborator at the University of Missouri, Professor Kevin Everett. The measures will focus on:

1. Smoking behavior among students

2. Attitudes toward smoking

3. Beliefs about smoking among students

4. Demographic data will include participants' age, race, sex, socio economic status, and religion.

The researchers will develop or adapt appropriate measures that will consist of self administered questionnaires.

Ethical considerations

The study will conform to all the ethical guidelines set by the Ethics Committee of the University of the Western Cape:

Participants will be informed that their participation in the study is voluntary and that they have to right to withdraw from the study at any time without any penalty.

Participants will be given adequate information about the study before being asked to consider participation.

Participants will be informed that no identifying information will be requested and so participation will be anonymous.

Participants will be given information about the dangers of smoking and referral information regarding cessation of smoking. General counseling referral information will also be given to the participants.

Procedures

Once the research instruments have been developed, the project proposal will be submitted to the University of the Western Cape Research Grants Committee for ethical approval and registration. Pilot testing of the research instruments will follow to ensure that all the data collection tools are appropriate.

The next step will be recruiting of students as research participants. This will entail liasing with Deans of all faculties and Chairpersons of departments at the university. Once all the permission has been granted, the selection of students as participants in the study will commence. The data collection process will consist of self administered questionnaires to be completed by selected students. It is anticipated that the data collection process will take a couple of weeks.

Project Timeline

Dates of Project: July 1, 2009 to September 2011

Dates	Task	Responsible person(s)
Aug 1, 2009	Begin discussion of specifics of collaboration with Prof. Everett	Drs. Mwaba , Roman & Everett
Sep.1,- Oct. 2009	Begin discussion of research design	Dr.s Mwaba, Roman & Everett
November 1, 2009 – Jan. 2010	Begin discussion of research participants	**Drs. Mwaba, Roman, & Everett**
Feb. 1 – March 2010	Develop Research proposal	Drs. Mwaba, Roman & Everett
March – April, 2010 (Dr Mwaba & Roman to St. Louis)	Meet Prof Everett to review instruments, design; meet with student leaders; training sessions	Dr. Everett in St. Louis
April 1-June 1, 2010	Instrument adaptation & development; pilot of new instruments	Drs. Mwaba, Roman & Everett
June 1-Dec. 2010	Pilot of instruments	Drs. Mwaba & Roman
Oct. 2010	Data collection	Drs. Mwaba & Roman
Jan. 1 - May 1, 2011	Data cleaning & descriptive statistics	Drs. Mwaba & Roman
May 1-July 1, 2011	Manuscript preparation	Drs. Mwaba, Roman & Everett
July 1 - Sep. 1, 2011	Manuscript completion & submission	Drs. Mwaba, Roman & Everett

Motivation for Collaboration with University of Missouri-St. Louis

University of Missouri-St.Louis has developed what is arguably one of the most effective successful smoking cessation intervention programs in the United States of America. The Campus-Community Alliances for Smoke-Free Environments or CASE at UM aims to reduce workplace smoking and to promote smoking prevention programs in schools. Professor Kevin Everett, PhD (Clinical Psychology), a leading expert on health behavior change with specific interest on tobacco use, serves as the Principal Investigator on the CASE project. Professor Everett has agreed to collaborate on this project and has committed to contributing to the development of the research design, data collection tools, and data analyses. The UWC project team would also benefit tremendously from collaborating with Professor Everett and his team at

CASE in terms of developing effective smoking prevention and intervention strategies. Professor Everett has expressed willingness to serve as host at the University of Missouri.

While it is anticipated that most of the ground work on the project will involve teleconference meetings with Professor Everett, a two week visit by the UWC team to St. Louis is planned for the following reasons:

- To review and develop data collection instruments
- To meet the CASE team in order to gain insight about smoking prevention program at UM
- To understand leadership development training approaches adopted by the CASE team at UM
- To understand smoking treatment approaches in St. Louis

References

Bradshaw, D. et al., (2003). Initial Burden of Disease Estimates for South Africa, 2000. South African Medical Research Council, Cape Town.

Leatherdale, S.C., & Manske, S. (2005). The relationship between student smoking in the school environment and smoking onset in elementary school students. Cancer Epidemiology Biomakers & Prevention, 14, 1762-1765

Flay, B. (1993). Youth tobacco use: risks, patterns, and control. In Slade, J. and Orleans, C.T. (eds). Nicotine Addiction: Pronciples and Management. Oxford University Press, New York, pp. 365-384.

Osundu, N.B., Okwuoma, C.A., & Agwu, N.A. (2008). Antecedents to smoking among male adolescent students in South East Region, Nigeria. Intenational Journal of Tropical Medicine, 3, 60-65.

Patterson, F. et al., (2004) Cigarette smoking practices among American college students. Review and future directions. Journal of American college Health, 52, 203-211.

Reddy. S. et al., (2005) Determinants of smoking cessation among adolescents in South Africa. Health Education Research, 20, 586-599.

U.S. Department of Health and Human Services (2004). The Health Consequences of Smoking. A report of the Surgeon General. USDHHS, Atlanta, GA.

Swartz, D. et al., (2004). The 2002 Global Youth Tobacco Survey. South African Medical Research Council, Cape Town.

PROPOSED BUDGET: SHORT TERM VISIT – 2 WEEKS

Note: All prices should be calculated on the $1=R8.5 exchange rate.

Item*	Amount requested from UMSAEP	Amount funded by other sources**	Total
1. Air fare (most direct flight to St Louis or Kansas City)	$3544		$3544
2. Room / board – excluding meals	$1260		$1260
3. Meals (an allowance of US$40 per day is provided)	$560		$560
4. Ground transport including car rental ONLY in Missouri	$560		$560
5. Personnel – applies in exceptional cases			
6. Materials / printing – excluding laptops (maximum allowed is US$60.	$60		$60
7. Communications – excluding long distance telephone calls	$50		$50
8. Other expenses – motivate clearly			
Total	$6034		$6034 = R51289

* **ATTACH A BRIEF DESCRIPTION JUSTIFYING EACH BUDGET ITEM.**

Budget Justification:

1.Travel Costs: $3544

Airfare from Cape Town to St. Louis for Dr. Mwaba and Dr Roman: $1772/person=$3544

2. Room and Board: $1260

Dr . Mwaba and Dr Roman's visit to St. Louis: 14 nights @ $45/night/person: $1260

3. Meals: $40/day/person: $560

14 days @$40/day/person:$560

4. Ground transportation: $560

14 days@$20/day/person: $560

5. Materials: $60

Stationery, Printing, Tapes:$60

6. Communications: $50

Telephone, Fax:$50

TOTAL = $6034 = R51289

** Please identify the source(s) of matching funds.

A detailed account of your expenditure must be submitted to the International Relations Office, Senate Building, at the conclusion of your project.

Signature of applicant: _____ Date: 13/7/09

13/7/09

Signature of Department Chairperson or Dean _____ Date: 13/07/2009

Appendix A

Letter of confirmation of collaboration from Professor Everett, UM St. Louis