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Rita DeBate University of South Florida, rdebate@usf.edu

Amy Gatto University of South Florida, agatto@usf.edu

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Keywords

College health, mental health, male undergraduate students, social marketing, mental health literacy

Acknowledgements/Disclaimers/Disclosures

The authors have no conflict of interest to disclose, financial or otherwise.

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Rita D. DeBate* Amy Gatto

Abstract

Male college students have been observed to have low mental health literacy and help-seeking behaviors. The purpose of this study was to apply social marketing theory to address mental health literacy among male undergraduate students in order to improve both mental health literacy and help-seeking behaviors. The current study employed qualitative methods involving key informant interviews among male undergraduate university students (n = 26). Participants were provided three vignettes representing a male college student presenting with anxiety, depression, or stress during the key informant interviews. The concepts from the key informant interviews were mapped onto the social marketing theory marketing mix (product, price, place, promotion). The social marketing mix identified methods to improve professional help-seeking behaviors (product) among male undergraduate students by reducing stigma, both perceived social stigma and selfstigma, as well as addressing masculine norms (price) in locations where students are comfortable, such as the university health center or the Internet (place), by connecting the physical signs and symptoms (promotion) to mental health concerns. Findings were translated into a targeted and tailored social marketing campaign implemented in male restrooms in the campus recreation center. Social marketing theory is a valuable tool for developing targeted and tailored social marketing programs for mental well-being among college students.

*Corresponding author can be reached at: rdebate@health.usf.edu

Introduction

Young adults, aged 18-24, have been revealed to be a high-risk population for developing mental health concerns as an estimated 20% of all adult diagnoses in the United States occur in this age group (Hunt & Eisenberg, 2010; National Institute of Mental Health, 2017). A substantial body of evidence has shown that young adult males are at risk for developing mental health concerns, however, they are less likely than their female counterparts to seek professional care (Coppens et al., 2013; Reetz et al., 2016; Rickwood et al., 2015; Thomas et al., 2013). As an alternative to utilizing mental health services, college males are more likely to talk to friends and family (Eisenberg et al., 2011) and to engage in contraindicated coping

strategies, such as excessive alcohol consumption and use of sleeping pills (Cotton et al., 2006; Schofield et al., 2016). Noted reasons for males' reluctance to seek treatment are a desire for self-reliance (Spence et al., 2016), stigma (Coppens et al., 2013; DeBate et al., 2018; Lannin et al., 2016; Pedersen & Paves, 2014; Vogel et al., 2011), and masculine ideals (Chuick et al., 2009; Oliffe, Kelly, et al., 2010; Oliffe, Robertson, et al., 2010; Vogel et al., 2011). As well, males have been shown to possess lackluster mental health literacy (MHL) (Rafal et al., 2018), especially when compared with females (Davies et al., 2016; Kim et al., 2015; Klineberg et al., 2011). Jorm et al. (1997, p. 182) defined MHL as "knowledge and beliefs about mental disorders which aid in their recognition,

management, and prevention," and it has been indicated as determinant of mental wellbeing and help-seeking (Beatie et al., 2016; Reavley et al., 2011; Rickwood et al., 2015; Thomas et al., 2013).

Previous studies among male college students conducted by the authors have revealed that male undergraduate students demonstrated moderate MHL (Rafal et al., 2018). Specifically, results showed a moderate score on knowledge of signs and symptoms of mental health issues, a moderately high score for beliefs pertaining to mental health, and moderate attitudes (Rafal et al., 2018). Moreover, male college students were observed to have low intentions to seek professional help for behavioral health issues, mental health issues associated with academics, and interpersonal mental health issues (Rafal et al., 2018). Further, stigma was identified as a factor that mediates the relationship between MHL, attitudes toward seeking help and subjective norms, and intention to seek professional help (DeBate et al., 2018). These data collectively reveal the need for relevant targeted and tailored programs for college males to decrease their risk of sustaining and potentially worsening their mental wellbeing.

As part of a larger study, the purpose of this study was to apply social marketing theory to identify factors associated with mental health literacy and help-seeking behaviors among male undergraduate students. Social marketing interventions have been used for a variety of health behavior change, including addressing mental health stigma (Corrigan, 2011; Thackeray et al., 2011) and discrimination and access to treatment (Ashwood et al., 2016; Henderson et al., 2013). For instance, a state-based social marketing initiative was implemented in Washington State focused on countering mental health myths and disputing prejudicial attitudes and practices with the goals of

reducing self-stigma, adoption of a recovery model of care among providers, and changes toward balanced media reporting on mental illness (Thackeray et al., 2011). Similarly, the California Mental Health Service Authority developed and implemented a social marketing initiative entitled, "A New State of Mind: Ending the Stigma of Mental Illness." Key findings included an increase in helpseeking behaviors among adults who were exposed to the campaign (Ashwood et al., 2016). Increasing the adoption of mental health help-seeking behaviors via social marketing initiatives to reduce stigma and discrimination have also been implemented by countries such as New Zealand ("Like Minds Like Mine"), Canada ("Opening Minds"), Denmark ("One of Us"), and England ("Time to Change") (Henderson et al., 2013).

Materials and Methods

Theoretical Framework: Social Marketing

Social marketing is defined as "a programplanning process that applies commercial marketing concepts and techniques to promote voluntary behavior change" (Andreasen, 1995; Grier & Bryant, 2005; Kotler et al., 2002). An element of social marketing theory includes the understanding development of an appropriate "marketing mix" (Grier & Bryant, 2005), which includes the four Ps: product, price, place, and promotion (Grier & Bryant, 2005). Product encompasses the benefits associated with the behavior change and includes both what people will gain when they perform the behavior (core product) and the desired behavior (actual product) (Grier & Bryant, 2005; Kotler et al., 2002). Price is the cost for the desired benefits, and in social marketing it further includes intangible costs (e.g., psychological hassle, loss of time, etc.) (Grier & Bryant, 2005). Place includes the

distribution of goods and the location where one can find the goods and services, and encompasses the physical location, but also includes accessibility and intermediaries responsible for delivering the product (Grier & Bryant, 2005). Lastly, promotion is the mode of communication used to convey the product, price, and place for the behavior, and is typically the most visible component of social marketing (Grier & Bryant, 2005). For social marketing to be the most impactful, the marketing mix should be fully developed and integrated, making this strategy distinct from other behavior change techniques.

Design

In Fall, 2017, key informant interviews were conducted with male undergraduate students at a large research institution in the southeastern US. The inclusion criteria were as follows: a) \geq 18 years of age; b) enrolled as a degree-seeking student in classes for the current semester; and c) identified as male. The population for the current study included 19,400 males. Research integrity and compliance approval for this study were granted through the university's Institutional Review Board.

A purposive recruitment strategy was used after identifying target populations (i.e., undergraduate, STEM majors) based on previous study findings at this institution on MHL that these students were more likely to have moderate MHL and low intentions to seek professional care (Rafal et al., 2018). Participants were recruited through e-mail and university-specific Facebook pages (Facebook, Menlo Park, CA). In addition to a description of the study, recruitment materials included a link to an online screen (Qualtrics, Provo, UT) to determine whether interested participants met inclusion criteria, and assessed their availability for a 30- to 60minute in-person interview. Prior to each

interview, participants were asked to read and sign an informed consent form, the procedures and purpose were explained by the interviewer, and participants were given an opportunity to ask questions. All interviews were audio recorded and later transcribed verbatim by an experienced transcriptionist. Participants were compensated with a \$10 meal voucher. Data collection was finalized in December 2017.

Measures

Participants were provided with three vignettes representing a male college student presenting with anxiety, depression, or stress. Table 1 includes these vignettes. Interviews were conducted in person, in a semistructured manner; the same series of questions were asked for each of the three vignettes, and probing for additional information was left to the discretion of the interviewer. Interview auestions arranged in a funneling pattern according to protocol outlined by Hawe and colleagues (1990). Key questions included: a) Given what I just described about *name from vignette*, what do you think *name from vignette* is experiencing; b) Explain why you answered that way; c) Describe how *name from vignette* can best be helped; d) Where do you think he could get more information about this concern; e) Imagine *name from vignette* is someone you've known for a long time and you know him well. You want to help him. What do you think is appropriate to do?; f) Have you or any of your friends ever experienced this? What did you do/tell them to do?; and g) If you were *name from vignette* what would you do? Participants also completed a brief questionnaire assessing the perceived helpfulness of various mental health resources (such as family, peers, institutional supports, counseling, etc.). Additional details

Table 1
Study Vignettes and Associated DSM IV Mental Health Disorders

Disorder	Vignette		
Anxiety	John is 20 years old, works part-time, and is currently enrolled in classes at USF. He complains of dizziness, heart palpitations, ringing ears, trembling, and sweating palms. Additional periodic symptoms include a sore throat, cough, or dry mouth and throat. Periods of extreme muscle tension, along with feelings of being "wound up" or "edgy" are also present. These symptoms often interfere with his concentration and have been present more often than not for about the past 2 years. John constantly worries about failing his classes, completing projects at work in a timely manner, being able to please his parents, and paying bills. He keeps a low profile at work, and also avoids going out with friends, meeting new people, and exercising at the gym.		
Depression	Marcus is 21 years old. He has been feeling unusually sad and miserable for the last few weeks. Even though he is tired all the time, he has trouble sleeping nearly every night. Marcus doesn't feel like eating and has lost weight. He can't keep his mind on his schoolwork and puts off making any decisions. Even day-to-day tasks seem too much for him. This has come to the attention of Marcus's advisor who is concerned about his poor academic performance. Marcus feels he will never be happy again and believes his family would be better off without him. Marcus has been so desperate; he has been thinking of ways to end his life.		
Stress	Steve is 20 years old. For the past week, he has been experiencing sleep difficulties, and digestive upset. He recently changed his major and his part-time job responsibilities have increased. Nevertheless, Steve has not missed any of his classes, has consistently arrived on time at work, completes his school-related assignments, manages to attend his intramural sport games, and continues to occasionally socialize on weekends. Additionally, this past week he has been feeling irritable and pressured, and experiencing intermittent headaches.		

for this study have been provided in work by DeBate, Gatto, Rafal, and Powell (under review).

Analysis

Throughout the data collection process, interview audio files were transcribed and reviewed for accuracy by the study team. Three independent coders (members of the research team, n = 3) initially hand-coded the

interview transcripts. Individual codes within the code families were garnered through inductive investigation of the data. Members of the research team were responsible for determining which codes presented in a code family. The research team then met and discussed individual codes until consensus was reached. This process was repeated in order to reduce the number of individual codes such that themes might present more readily. To ensure inter-rater reliability, at

least three research team members had to completely agree on the code for each quotation. Coding of the study transcripts was performed using Atlas. Ti v6.2 (Atlas. Ti, Berlin), where axial coding was then performed to identify overarching themes and subthemes. The key findings from each component were then triangulated and mapped onto the concepts of social marketing theory to determine appropriate product, price, place, and promotion to increase MHL among male college students.

Table 2 Demographic Characteristics of Participants

Results

A total of 26 key informant interviews were included in the analysis. As depicted in Table 2, the majority of respondents were white, non-Hispanic, domestic students in their second or third year with an average age of 20.64 (SD = 3.04).

Analysis of the Four Social Marketing Ps

The overall results across the four social marketing *P*s are summarized in Table 3 and described below.

	Undergraduate
N = 26	f(%)
Ethnicity	
 Non-Hispanic 	20 (76.9)
 Hispanic 	6 (23.1)
Race	
 AA 	2 (7.7)
Asian	10 (38.5)
White	14 (53.8)
International Student	
• No	24 (92.3)
• Yes	2 (7.7)
Living Status	
 Off-campus 	23 (88.5)
 On-campus 	3 (11.5)
Year in School	
• 1 st year	2 (7.7)
• 2 nd year	10 (38.5)
• 3 rd year	10 (38.5)
• 4 th year	3 (11.5)
• 5 th + year	1 (3.8)
Age	m±sd
0-	20.64 ± 3.04

Table 3
Summary of Results for Social Marketing Mix to Address Mental Health Literacy among Male College Students

4 Ps of Social Marketing	Operationalization	Definition
Product	Help-seeking behavior	Seeking help for a mental health concern from a trained/licensed professional
Price	Social stigma	Perception of others and society when seeking professional help for a mental health concern
	Self-stigma	Self-perception when receiving help for a mental health concern, includes feeling unstable or embarrassed
	Masculinity	Needing to act strong to fulfill typical gender norms specifically by hiding feelings and figuring out problems independently
Place	University health centers	Locations on campus where students can receive general medical care
	Internet	Locations online where students can receive accurate and reliable information
Promotion	Physical signs and symptoms	Physical signs and symptoms that manifest from mental health concerns

What is the Product of increasing MHL among male college students? Mirroring findings from the previous survey, male college students demonstrated moderate MHL (Rafal et al., 2018). In the key informant interviews male undergraduate students struggled to correctly identify mental health concerns in each vignette. Participants identified the physiological, behavioral, and emotional concerns in each vignette, yet were not able to identify those signs and symptoms as stress, anxiety, and depression, with the following quotes representing this finding.

[Depression] "He's losing weight, he does not feel like

eating, he's constantly tired ... he just lacks the energy."

[Stress] "It seems like he's got a lot on his mind, which I guess is causing him not to be able to sleep well."

Aligning with the first *P* of social marketing, the product is professional help-seeking behavior among male college students. MHL increases professional help-seeking behavior, thus male students' moderate levels of total MHL, as well as their inability to identify mental health disorders in the vignettes, illustrate the barriers to help-seeking behaviors in this population.

What is the Price of increasing MHL among male college students? The key informant interviews identified the most significant barriers to seeking professional help as being social stigma, self-stigma, and masculinity. Social stigma included how participants felt they would be viewed by others and society if they sought help for a mental health concern. This was illustrated by the following quote:

"The stigma associated with them if someone found out like, 'Oh you went to a mental health place. So you must be crazy or you're not stable. Don't talk to me. I need friends who are normal.'"

Self-stigma describes how participants would view themselves if they received help for a mental health concern and encompassed the ideas of feeling unstable or embarrassed. This includes the impact of seeking professional help on the participant's self-confidence. Self-stigma was illustrated by the following quote:

"I feel like it's probably kind of scary ... 'Maybe I'm like having a mental illness. ... Does that make me stupid? Does that make me dangerous? Does that make me this or that?""

Lastly, masculinity represented the idea of participants recognizing that males needed to act strong to fulfill typical gender norms meaning they would hide their feelings and figure out their own problem. The following quote illustrates masculinity:

"Especially among men, it's considered a weakness in a lot of groups of people (pause) it's not masculine to receive help."

Aligning with the *P*s of social marketing, there is a substantial price for male undergraduate students to seek professional help for mental health issues. The cost includes stigma, both perceived social stigma and the impact of care on their self-confidence, as well as the feeling of compromising their masculinity. In order for male college students to receive professional help, these barriers should be reduced or eliminated.

Where should this occur for male college students? (Place) While the quantitative survey captured MHL, attitudes, beliefs, and intention to seek professional help (Rafal et al., 2018), the key informant interviews captured the experience of male college students in regard to their mental health. A short questionnaire was included at the end of the key informant interviews assessing the perceived usefulness of a variety of resources for mental health concerns. Respondents found friends, either from the university (96.2%) or outside the university (84.6%), counselors (92%), mental health professionals (91.7%), psychologists (95.7%), psychiatrists (91.3%), and general practitioners (84%) to be helpful resources. During the interviews common sources of information and help included talking to a doctor or using the Internet. Representative quotes are as follows:

> "I think the first thing would definitely be, make sure he gets to a doctor, gets checked up, make sure that everything physically is fine."

> "I feel like it comes up from medical websites to like, social media, Tumblr, and stuff. I feel like it's really kind

of ... you can get a medical opinion on it, which, medical opinions online aren't the best, but you can get something about it."

The social marketing mix includes place as another *P* and based on these findings the best places to reach male undergraduate students would be through a physician or health care provider and on the Internet.

How should this occur for male college students? (Promotion) It was clear in the key informant interviews that male undergraduate students could identify the physical signs and symptoms of mental health disorders. They focused on the physical ailments for each vignette and were likely to recommend professional help related to those physical signs. The following quotes illustrate this finding:

[Anxiety] "The physical symptom, dizziness, heart palpitations, sweating palms, trembling, sounds like an indication of anxiety ... it sounds like his physical symptoms match his mental state."

[Depression] "He's losing weight, he does not feel like eating, he's constantly tired ... he just lacks the energy."

Based on the promotion P of the social marketing mix, there is support to focus on the physical signs and symptoms of mental health disorders as male undergraduate students could tie the physical signs and symptoms to a need for professional help.

Discussion

The current study identified a social marketing framework that has the potential to the unique needs of male address undergraduate students in order to increase their MHL and subsequent help-seeking behaviors. The social marketing mix includes professional help-seeking increasing behaviors (product) by improving awareness of physical signs and symptoms (promotion) in health care centers and online (place) while reducing stigma, including social stigma and self-confidence to seek help, and masculine norms (price).

Translation of the marketing mix into a social marketing intervention resulted in the development, implementation, evaluation of the "Male Restroom Project". More specifically, based on the findings from this study, tailoring mental health literacy communications for college males should focus on physical signs and symptoms in addition to projecting a "sense of control" over the issue. For example, the marketing mix revealed that males identified with mental health issues via physical health symptoms and reflective of masculinity ideals, wanted to be able to "take care of the issue" themselves. Subsequently, a set of four social marketing campaigns was developed with the goal of improving mental health literacy through associating mental health issues with physical signs and symptoms. Figure 1 is an example of one of these campaigns aimed at improving mental health literacy. Additionally, four social marketing campaigns were developed with behavioral call to action consisting of engaging in a campus sponsored online therapy program. Figure 2 is an example of the campaign to increase help-seeking marketing campaigns behaviors. All underwent formative assessments to obtain feedback from male college students to ensure comprehension, attention, relatability,



Figure 1. An example of one of these campaigns aimed at improving mental health literacy.

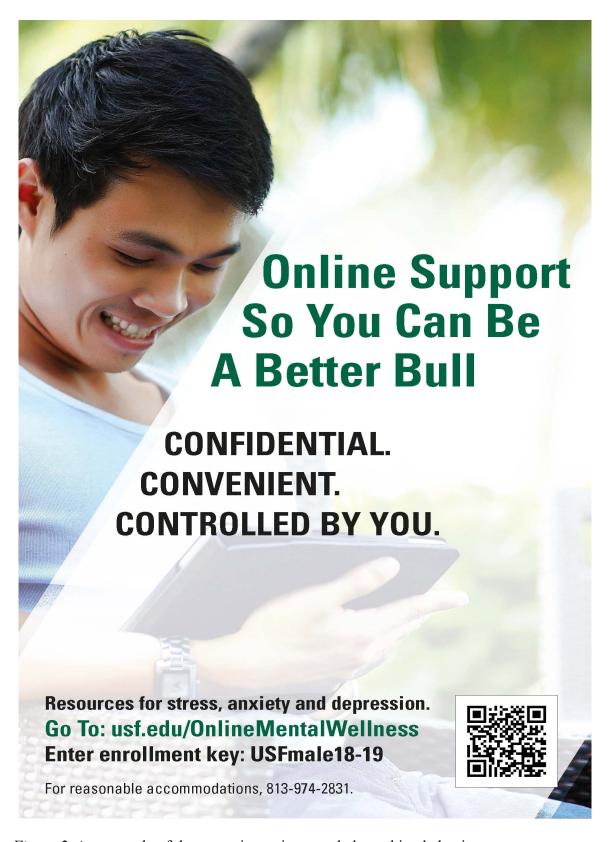


Figure 2. An example of the campaign to increase help-seeking behaviors.

and compatibility. To address the self-stigma and social stigma, the campaigns were placed on the back of all bathroom stall doors in the Recreation & Wellness men's restrooms. This served as a private place for the males to review the material and scan the QR code to get information on the online therapy program (TAO). The intervention was piloted in the Recreation & Wellness male restrooms pending evaluation results for scaling up.

Although social current marketing campaigns have been aimed at larger national and statewide populations (Ashwood et al., 2016; Henderson et al., 2013; Thackeray et al., 2011), a comprehensive social marketing program can also be developed toward smaller targeted audiences. Combined with a public health, systems-thinking approach, a comprehensive social marketing program developed targeted was to undergraduate students focusing on having them recognize the physical signs and symptoms that may be related to mental health concerns. Similar to the California Mental Health Service Authority social marketing initiative entitled, "A New State of Mind: Ending the Stigma of Mental Illness" (Ashwood et al., 2016), the goal of the current program was to increase mental health help-seeking behaviors. However, general population, unlike the undergraduate students are less inclined to seek professional help due to differences in the identified marketing mix such as "place" and "price". For example, two locations were identified as places where they may seek services or information: university health centers and through online sources. Calls to action on these marketing materials should direct students to those locations where they can receive accurate information in a way that resonates with them. Regarding "price," strength-based messages relating the idea of being strong physically and mentally, as well as appealing to traditional masculine

ideology, may increase the likelihood of seeking care. For example, when males visit university health centers there must be a conscious approach to address mental health concerns in a way that reduces any self- or perceived social stigma. Rather than referring to counseling or highlighting "weaknesses" among this population, providers need the tools to address mental health concerns during their time with patients or to provide appropriate referrals with follow-up. The focus of this campaign should focus on increasing the likelihood that undergraduate students will seek professional help for mental health concerns.

The findings of this social marketing mix study do not have to be used independent from other university initiatives. instance, creating a Men's Initiative addressing mental health concerns is only one component. This initiative should include other components of men's health, wellbeing, and success in order to address stigma and masculinity, as well as provide reliable and accurate information to male undergraduate students. Understanding this social marketing mix would allow for more attention to messages that would resonate with this population related to their mental health struggles. Further, these findings highlight the need for intentional wording in marketing materials to male undergraduate students. It is not enough to encourage male students to visit counseling services to get the help they need. Services should be imbedded in locations where they frequent in order to reduce stigma of seeking help, such as in university campus recreation facilities and residence halls. The locations providing services to male students should also have expanded hours to eliminate logistic barriers for male undergraduate students, as the process to seek professional help should be as streamlined and efficient as possible.

To fully integrate these findings on university campuses message development and testing must occur with a wide variety of male students to ensure the marketing mix is addressed in all materials. It would also be beneficial to explore further segmenting the audience into representative student groups (e.g., demographic groups, academic majors, student athletes, etc.).

This study was grounded in findings from a quantitative survey which informed the qualitative key informant interviews. As with most qualitative studies, the findings from the key informant interviews lack generalizability beyond this study population. There also may have been socially desirable responses during the interviews. By building on previous findings it was the hope that the key informant interviews would further aid in the identification of strategies for developing a social marketing plan to improve helpseeking behaviors among male undergraduate students.

Implications for Health Behavior

Males, particularly male college students, are well-documented as having low mental health literacy and are less likely to seek professional help for mental health concerns compared to their female counterparts. They are more likely to engage in contraindicated behaviors (e.g., alcohol and substance use, risky sexual activity, gambling, etc.) as coping strategies. Increased mental health literacy among this population leads to a greater likelihood of seeking professional help. provides This study detailed information on strategies to improve mental health literacy among male university students using a social marketing approach. It is innovative in that it provides formative research for the development of a targeted and tailored social marketing campaign to increase male mental health literacy and help seeking behaviors. Evaluation data is currently being collected and analyzed.

Future studies should report the findings of this social marketing campaign and implications for scaling up. Universities seeking to apply this framework on their campuses can focus on initiatives addressing target populations with specified behavioral outcomes.

Discussion Questions:

- 1. What health behaviors do you believe would benefit from the use of social marketing theory? Describe how this theory would enhance behavior change.
- 2. Social marketing theory can be used alongside many other theories. Describe how you could use social marketing theory and another theory together to address a health behavior.

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