

# Social and News Media Use and Perceived Stress Among Graduate Students

David Cameron, Sayeli Jayade, Aldina Mesic, Margaret Wilson

Boston University School of Public Health

May 2018

**Introduction:** Social and news media are critical components of young people's lives, but the association between social and news media and mental health outcomes, such as stress, depression, anxiety, and subsequent impaired quality of life, are not well understood. In this study, we used mixed methods explore the association between social media and news media exposure and perceived stress in a sample of graduate students who may be at elevated risk for mental disorders.

**Methods:** We conducted a cross-sectional mixed methods study to explore the relationship between social and news media and perceived stress among graduate students from March to April of 2018. The study involved a self-administered quantitative survey and semi-structured interviews. Quantitative data was analyzed using bivariate analyses and multivariate linear regressions. Qualitative data was analyzed using narrative analyses to identify emerging themes.

**Results:** There was a significant negative association between high social media exposure and perceived stress score ( $\beta = -18.8$ , 95% CI = -35.67, -1.93), indicating that high social media exposure (5 or more hours per day) is significantly associated with lower perceived stress scores. There was not a significant association between news media exposure and perceived stress. Qualitative themes included participants expressed negative feelings related to use of news media, and social comparison and worries about others' opinions affecting their engagement with social media.

**Discussion:** Our qualitative and quantitative findings highlight the complex relationship between social and news media and stress among graduate students. Interventions that address stress among graduate students should consider the important role of social and news media.

# **Do Public Health Students' Attitudes Influence Action in the Opioid Epidemic? A Mixed Methods Study Investigation**

Sidney Allmendinger, Houda Chergui, Mackenzie Hine, Parul Kashyap  
Boston University School of Public Health  
May 2018

**Introduction:** Opioid abuse has escalated rapidly in recent decades. Boston University School of Public Health (BUSPH) Master of Public Health (MPH) students are members of a vast healthcare community, and many will encounter the effects of the opioid epidemic in their careers. This study focused on how their attitudes impact their actions regarding the opioid epidemic.

**Methods:** This mixed method study consisted of a questionnaire, one focus group discussion (FGD), and one in-depth interview (IDI). Participants were asked about their perceptions, knowledge, and experience with opioids. Our outcome of interest was High Action. The key independent variable was the Attitude Score, but we also investigated the Knowledge Score. We analyzed our data first with correlation tests and then linear and logistic regressions in RStudio. Qualitative data from the FGD and IDI were analyzed in NVivo to determine common themes.

**Results:** Our final quantitative analysis (N=183) were as follows: The mean Action Score (1.96) was very low, but the mean Knowledge Score (19.45) was moderately high and the mean Attitude Score (35.49) was very high. A multivariate logistic regression of High Action to Attitude resulted in an insignificant association (adj. OR=1.1 for moderate and 0.87 for low). However, we found that Knowledge Scores appear to have an association with High Action; the odds of having a High Action Score increase once achieving a High Knowledge Score (adj. OR= 1.19). The most notable themes from the FGD and IDI were relevant experience or academic interests impacted perceptions of opioid use and BU activism.

**Discussion:** Overall, we could not detect any significant association between attitude and action. It is notable that attitudes were immensely positive, but that does not appear to lead to increased engagement in activities to abate the opioid epidemic.

# **A Mixed Methods Study Investigating Student Awareness of Mental Health Services (MHS) Available Among Boston University Master of Public Health (BU MPH) Students**

Kaitlin Chatterton, Christina McCall, Victoria Pae, and Erin Pleasants  
Boston University School of Public Health  
May 2018

**Introduction:** In 2016, one in six adults in the United States were living with a mental health illness (1). Nationally, 44.7% of graduate students reported having an emotional or stress-related problem that significantly affected their emotional well-being or academic performance within the previous year (2). In response, there is a call for campuses to provide students with accessible and high-quality services. The purpose of this study is to determine the awareness of MHS among BU MPH students.

**Methods:** We conducted a mixed methods study to assess the awareness of MHS on campus. Quantitative and qualitative instruments included questions about demographic information, awareness of MHS, barriers and benefits to utilization, and recommendations for improvements. Multivariate logistic regression models explored predictors of MHS awareness and stress levels. A predicted probability model was generated to further explore stress levels based on gender identification and awareness of services.

**Results:** The final analysis included 104 MPH students and 61.54% of respondents reported they had seen advertisements for MHS on campus. The predicted probability model demonstrates that individuals who identify as male or gender non-conforming and have a low awareness of MHS are most at risk for perceived high stress levels. Common themes that emerged during the four in-depth interviews (IDI) included stigma towards mental health and utilization of services, reaching out to professors regarding mental health issues, and recommendations for increasing awareness of MHS.

**Discussion:** Based on the predicted probability model and qualitative analysis, there is an unmet need for greater conversation surrounding mental health and the services available to MPH students. Having a high awareness of MHS decreases risk of high perceived stress levels. Despite the majority of respondents having seen advertisements for MHS, many students feel MHS and faculty should have a greater visibility on campus.

# **Examining the Effect of Institutional Policies at BUSPH/BUMC on the Stress, Social Inclusion and Wellness of Sexual and Gender Minority Graduate Students**

Emily Assarian, Dieyna Drame, DL Lundberg, Sridevi Prasad

Boston University School of Public Health

May 2018

**Introduction:** Sexual and Gender Minorities (SGM) in the US face discrimination, oppression and social stigma due to their sexual orientation and/or gender identity. Often, these have profound negative effects on their mental health and well-being. This study focused on Boston University School of Public Health (BUSPH) graduate SGM students, examining the association between their stress, social inclusion and existing institutional policies on the Boston University Medical Campus (BUMC). The overall study objective was to compare the differences in these outcomes between cisgender non-LGBTQ and SGM students.

**Methods:** A mixed methods study was conducted to assess two key outcomes. The primary outcome was to examine SGM and cisgender non-LGBTQ students' perception of stress. The secondary outcome was to examine SGM and cisgender non-LGBTQ students' perspectives of institutional policy changes. Multivariable linear regressions assessed the impact of predictors such as gender identity and sexual orientation on perceived stress. A multivariable logistic regression was performed to further identify predictors of a dichotomous perceived stress variable.

**Results:** The final analytic sample was made of 104 BUSPH graduate students, 21 of which self-identified as SGM. The multivariable logistic regression indicated that SGM students had 2.71 times the odds of having a higher stress score compared to cisgender non-LGBTQ students ( $p$ -value=0.155). Themes from the focus group and in-depth interviews included "lack of inclusive space, resources or representation", "LGBTQ stress", and a portrayal of BUSPH as "pretend liberal land."

**Discussion:** Study results confirmed that SGM students experienced higher stress that could be reduced with more supportive policies for SGM students. On average, MPH students at BUSPH self-reported awareness of problems that SGM students encounter. Finally, BUSPH MPH students in both the discussions and the survey expressed their support for policy change in order to have a more inclusive campus.

# **Seemingly Simple: Navigating the Decision for Flu Vaccination Among BUSPH Students A Mixed Methods Study**

Julia Bentley, Marianne Mabida, Bhumi Patel, Cody Ragonese  
Boston University School of Public Health  
May 2018

**Introduction:** Every year, millions of people are affected by the seasonal flu virus. One of the most effective strategies for preventing the virus is to receive the flu vaccine. Despite being a successful strategy, there are various beliefs and perceptions regarding vaccination uptake, which prevent a large number of college students from receiving it. Our study explores themes like knowledge, practices, attitudes and medical history among Boston University School of Public Health (BUSPH) students in order to understand factors that may influence their decision to receive the flu vaccine for the 2017-2018 flu season.

**Methods:** We conducted a mixed-methods study to explore vaccination rates, knowledge levels and perceptions about the flu and vaccine. Quantitative and qualitative data were collected through a survey and two focus group discussions. Participants were asked about their knowledge and perception of vaccination, along with demographic information, reasons for getting a flu vaccination, and awareness of BU sponsored flu clinics. T-tests and Chi-squared tests were conducted to determine the association between vaccination status and participants' knowledge and perceptions of vaccination. A multivariable logistic regression model was constructed to examine the predictive factors for getting vaccinated. A second logistic regression was used to explore the role of insurance as an effect modifier on vaccination status.

**Results:** Our final analysis included 164 students currently enrolled at BUSPH. 61.59% of surveyed BUSPH students were vaccinated for the 2017-2018 flu season. A majority of respondents had a positive perception of the flu vaccine and risk for the flu virus (94.51%), and a high knowledge score (77.4%). Both mean knowledge score and high knowledge score were positively associated with being vaccinated for the flu, with t-test and chi-square tests being statistically significant ( $p=0.015$  and  $p=0.009$ ). Positive perception of the flu vaccine and risk for the flu virus was also positively associated with being vaccinated, however, these results for mean perception score and positive perception level were not statistically significant. Being employed in a medical setting, higher knowledge and being 28+ compared to 20-23 were strong predictors for vaccination status after adjusting for potential confounders. From the two focus groups ( $n=10$ ), several themes emerged in relation to the flu virus and flu vaccine: knowledge, perceived risk, barriers and facilitators to vaccination, and recommendations for future flu awareness campaigns at BUSPH.

**Discussion:** A higher knowledge level, a positive perception and employment in a medical setting were found to be significant predictors of flu vaccine uptake. The most pertinent barriers to BUSPH students were convenience, accessibility and cost. Even though a large majority of students reported seeing email messages from Boston University, the results from our qualitative analysis indicate that this form of communication from the university was not effective. Therefore, participants expressed enthusiasm in a "Flu Week," which would act as a campaign to raise awareness of the importance of the flu.

# **Do Graduate Students Have the Campus Resources to Manage Stress? A Mixed-Methods Study Examining Facilitators and Barriers to Stress Reduction Among Boston University Master of Public Health Students**

Caitlin Bryan, Amr Jijakli, Britta Seifert  
Boston University School of Public Health  
May 2018

**Introduction:** Stress is linked to high blood pressure, obesity, depression, anxiety and unhealthy behaviors, and is common among graduate students. Stress-relieving activities, like exercise, have been shown to reduce stress and improve health outcomes. This study investigates facilitators and barriers to stress-relieving activities among Boston University School of Public Health (BUSPH) Master of Public Health students.

**Methods:** A mixed-methods study design explored BUSPH students' experiences with and access to stress-relieving activities. Quantitative data were obtained through an online survey and qualitative data were obtained through two focus groups. Participants were asked about demographic characteristics, perceived stress, awareness of on-campus services, and utilization of stress-relieving activities. Fisher and Chi-Square tests were conducted to measure the association between income level, fitness center use, and perceived stress. A multivariable regression was conducted to measure the association between mode of commuting and stress score. Qualitative data was coded using NVivo software, and analyzed for predominant themes.

**Results:** The final survey sample included 94 BUSPH MPH students. Most respondents (77.66%) reported moderate stress, while 22.34% reported high stress, and no respondents reported low stress. Students with a paid job had decreased odds of high stress compared to students who did not report paid employment, while students who used the Fitness and Recreation Center had increased odds of high stress. The majority of respondents (71.28%) were not aware of the Health and Wellness activities offered at BUSPH, and only 8.51% had attended a Health and Wellness event hosted by BUSPH. In focus groups, participants reported coursework, finances, family commitments and concerns about the future as sources of stress. Lack of awareness and time were identified as barriers to attending Health and Wellness activities at the BU Medical Campus, and the distance of the FitRec from the Medical Campus was identified as a major barrier to use.

**Discussion:** Our study indicates that stress is prevalent among BUSPH MPH students, and that students currently do not have adequate access to the stress-relieving activities in which they would like to participate.