A Cross-Sectional Study to Assess Mental Health Awareness among Adolescents

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Abstract

Suicide is among the top three leading causes of death in adolescents, and the rate of suicide-related deaths is on the rise. A systematic approach to address this challenge is warranted. This study aimed to assess how many students had awareness of or have had mental health issues, or knew someone who struggled with mental health. A cross-sectional, web-based survey was conducted at Acton-Boxborough middle and high schools in Massachusetts, USA. An electronic, self-administered survey with a total of 13 questions, including closed- and open-ended questions, was developed to collect feedback from students, teachers, counselors, and staff members. The survey was conducted between October 20 and November 13, 2016. The survey was posted on Facebook and was accessible to anyone with a Google email account linked to Acton-Boxborough schools. In this three–week survey, 623 completed responses were returned. The most frequent responders were middle school and younger students (n = 356; 57.1%), followed by high school students (n = 213; 34.2%), and college students (n = 39; 6.2%). A high number of participants (99%) considered mental health to be an important topic of discussion. A considerable number of the participants (n = 252; 40.4%) confirmed that they personally struggle with mental illness, most commonly anxiety (n = 324; 86.6%) and depression (n = 253; 67.6%) followed by bipolar disorder, drug/alcohol addiction and eating disorders. A large number (n = 570; 91.5%) responded that they know someone in their school suffering from mental illness. In conclusion, this web-based, cross-sectional questionnaire study revealed that there is an acute need to develop strategies to improve awareness of and education for mental illness among adolescents. There is also a need to plan, design, and execute early intervention-based studies in adolescents.

Key words: mental illness, counseling, suicide, adolescent, schools

Introduction

Every life cut short due to suicide and mental illness is an insurmountable loss. This situation becomes dire when adolescent groups are involved. Adolescence is a transitional stage during which a young person develops from a child into an adult, and when mental and biological changes occur rapidly. During this phase, numerous stressors, ranging from catastrophic or traumatic life events, strain due to studies, peer pressure, or routine daily hassles are hurdles that must be overcome [Anderman 2002]. Academic matters are one of the key factors and a source of chronic and sporadic stress for young people worldwide. Academic stress has a significant association with mental health challenges like anxiety, depression and suicide ideation [Huan 2006]. Another challenge encountered is that these adolescents refrain from discussing their feelings with their parents, and rarely ask or seek psychiatric help even when it is necessary [Khalil 2010].

Suicide is one of the three leading causes of deaths among adolescents worldwide [Wasserman et al. 2015; Nock et al. 2008; Wasserman et al. 2005]. In the USA, over 1,700 suicides were reported among this age group (15–19 yrs.) [CDC2017]. The exact number of these deaths could be even more, as many of these might have been reported as accidental deaths [Shain 2015]. In addition, suicide attempts, which can be considered potential deaths, would raise the death count significantly. In 2013, among

students in grades 9–12 in the USA, over 17% of them seriously thought of attempting suicide, 13% made plans about how they would attempt suicide, and 8% attempted suicide at least one or more times [CDC 2015]. In addition female adolescents are twice as prone to attempting suicide as their male counterparts [Kitagawa 2017]. These suicide and suicide attempts contribute to the medical, financial and, more importantly, emotional cost of the families and communities at large. To address the problem, there have been numerous measures, tools, and outreach programs at national, state and local school levels designed by government organizations as well as various non-profit organizations; however, these programs still need to be refined to improve the prevention of suicide among adolescents. Most of the programs currently aim to aid students who have already attempted suicide, rather than addressing the health issue before it spirals out of control. In 2016, two students took their lives in Acton and Boxborough County, Massachusetts, USA. This traumatic incident prompted us to plan this study. This cross-sectional, web-based survey aimed to assess the awareness about mental health among adolescents and staff in the schools in Acton and Boxborough County, Massachusetts, USA. We also aimed to find out the current shortcomings in the system and provide potential solutions to improve the awareness among adolescents and administrators

Methods

In the study, an electronic, self-administered survey with a total of 13 questions, including both closed-ended questions and open-ended questions, was developed to collect feedback from students, teachers, counselors, and staff members at the Acton Boxborough Regional High School, Massachusetts, USA (and any of the elementary and middle schools in the area). The 13 questions covered the following: 1) age group; 2) significance of mental health to the responders; 3) responders' personal struggles with mental health; 4) responders' awareness of the prevalence of depression in their respective

schools; 5) their relationships with those afflicted by depression; 6) mental illness as a a a pressing issue at school; 7) if so, how many are suffering from mental illness; 8) if there is a need to discuss mental health; 9) why or why not; 10) if the responders were personally impacted by the suicides that had occurred at Acton Boxborough Regional High School; 11) if the deaths had impacted the ability to complete schoolwork for any students; 12) how the school handled the suicides of the students; and 13) additional comments. It is important to note that teachers, staff, and students answered these survey questions, in order to assess the mental health awareness of everyone affected at the time. Next, the responders were asked if they currently struggle with or had once struggled with mental illness. Those who chose to answer this question were presented with disorders such as anxiety, depression, bipolar disorder, and drug/alcohol addiction, along with eating disorders. In addition, an "other" category was available for selection. Responders were then asked to identify a person at school who may be battling depression, a disease that had just claimed the lives of two Acton-Boxborough High School students, and were asked to identify their relationship with the afflicted person. Responders could select "best friend," "friend," "acquaintance," "teacher," or "another person." In addition, if the responders did not feel comfortable disclosing their relationship with the afflicted person—though the survey was anonymous—they could also select "I do [know someone at the school battling depression]." Lastly, if the responders did not know anyone affected by depression, they could respond as such. Next, the responders were asked about how many students they believed were struggling with depression. Responders could select either "no one," "not a lot," "some," "half of the students," and "majority of the students." Lastly, responders were asked to comment on how they believed the Acton-Boxborough school administration handled the recent suicides of two students. Responders could select either "very well," "well," "fine," "poor," or "very

poor." It is important to note that only those with a Google email account run by the Acton-Boxborough schools were able to complete this survey. In addition, the survey was completed anonymously to ensure that responders answered honestly and thoroughly. The survey was also publicized through few Facebook posts and through word of mouth. The creators received no financial compensation, and the deans of Acton-Boxborough Regional High School gave their full permission for the creation of this survey and the disclosure of the results.

Results

In this three-week, web-based, cross-sectional survey, 623 completed responses were returned. The most frequent responders were middle school and younger students (356; 57.1%), followed by high school students (213; 34.2%), and college students/Acton-Boxborough Alumni (39; 6.2%). Details of the responses to closed-ended questions are summarized in the table. Over 99% of the participants considered mental health to be an important topic of discussion. Following the two deaths at Acton-Boxborough High School, many current and past students were personally affected by the loss of their peers, and demanded that mental health be a disease people are not afraid to admit they suffer from, and some even requested it be emphasized in the curriculum for freshman health class. A considerable amount of the participants, 252 (40.4%), confirmed that they personally struggle with mental illness, most commonly anxiety (324; 86.6%) and depression (253; 67.6%) followed by bipolar disorder, drug/alcohol addiction, and eating disorders. A large number, 570 (91.5%), responded that they knew someone in their school suffering from mental illness. Those suffering were themselves (23.9%), best friends (39.5%), or friends (70.8%). In addition, 38 responders (6.1%) claimed they knew a teacher who was struggling with depression. Mental health does not only affect the students at Acton-Boxborough, but the staff members as well. Almost half of the responders thought that some students in the school were suffering from depression. It is important to note that not one responder believed that no one at their school was suffering from depression.

Mental health is a prominent issue at Acton-Boxborough and many students are affected by mental illnesses. A large number of survey respondents, 591 (94.9%), asserted the need to speak more about mental illness. In contrast, about 5% felt that there was no need to speak about this issue because it is stigmatized. Over 580 (93.1%) participants admitted to have been emotionally impacted by the recent two suicides at the school prior to the conduct of this survey.

Discussion

This web-based and school-focused study was an attempt by students to assess the awareness about mental health among their peers and associated teachers, counselors, and staff members. One of the major findings of the study was that over 252 (40%) of the responders suffered from mental illness. Further analysis suggested that anxiety was the most prominent mental illness followed by depression, eating disorder, and drug/alcohol addiction. If these challenges persist and are not addressed in time, they can lead to both suicidal tendencies and self-harm. A study by Kitagawa et al. assessed the association of appetite loss/eating disorder as a prominent predictor of suicidal ideation and self-harm in adolescents. This self-reported questionnaire based study, in over 18,000 Japanese Junior and Senior High School students, concluded that self-reported appetite loss was highly associated with suicidal tendencies in children ages 13–19 years [Kitagawa 2017]. These particular findings correlate to the present study performed in Acton and Boxborough County, where around 20% of the respondents reported struggling with an eating disorder. In addition, the majority of the participants agreed to the importance of mental health and a need for discussion and education on this subject.

In a multicenter, cluster-randomized, controlled trial conducted in Europe called "The Saving and Empowering Young Lives in Europe (SEYLE) study", over 11,000 adolescent pupils, with a

median age of 15 years (IQR 14–15), from ten countries in the European Union and across 168 schools were enrolled. The objective of this study was to assess the efficacy of school-based preventive interventions of suicidal behaviors. The study had three interventions, namely, a) Question, Persuade, and Refer (QPR), a gatekeeper training module focused on teachers and other school personnel, b) Youth Aware of Mental Health Programme (YAM) focused on pupils, and c) screening by professionals (ProfScreen) with referral of at-risk pupils. The primary endpoint was the number of suicide attempt(s) made by these adolescent pupils within three and twelve months of follow-up post-intervention. The investigator concluded that the YAM intervention was most effective in the overall reduction of the number of suicide attempts and suicidal ideation in this cohort. These findings support the benefit of such useful and universal suicide preventive interventions in school settings [Wasserman 2015]. Our study findings, although cross-sectional in nature and in contrast to the interventional methodology in the previously described study, express the need of student-specific programs at the school level. Those who are struggling with any form of mental illness need to be provided counseling and support during the time when they are the most vulnerable and impressionable. Though there is no cure for mental illness, as the severity of these diseases can be highly subjective, counselors and professionals suggest reading inspirational literature and meditation as ways of relaxing and calming the mind. However, there is sparse evidence, in terms of randomized controlled intervention studies performed in the USA, to assess the impact of these practices on suicide and suicide ideation [Aseltine 2004].

One study, called Signs of Suicide (SOS), which was a classroom based intervention study among over 2,000 students in North American high schools, concluded that there was a reduced risk of suicide at three-month follow-up, with no differences in suicidal ideation. Acton-Boxborough has recently adopted the SOS program following the deaths of the two students. The goals of this program are as follows:

1) decrease suicide and suicide attempts by increasing student knowledge and adaptive attitudes about depression, 2) encourage personal help-seeking and/or help-seeking on behalf of a friend, 3) reduce the stigma of mental illness and acknowledge the importance of seeking help or treatment, 4) engage parents and school staff as partners in prevention through "gatekeeper" education, and 5) encourage schools to develop community-based partnerships to support student mental health. The SOS program attempts to raise awareness of mental health by instructing parents, school staff, and students to look out for signs of mental illness among their friends and loved ones, such as unexplainable anger/sadness/hopelessness, avoiding friends and family, extreme fear of certain people/surroundings, and feeling guilt. In addition, this program also educates people to look for signs of mental illness in themselves, such as irregular eating habits, constant worrying, inability to concentrate, constant fatigue, and other signs. SOS is currently the only youth suicide prevention program that has demonstrated an improvement in students' knowledge and adaptive attitudes about suicide risk and depression, as well as a reduction in actual suicide attempts. Moreover, the SOS program follows up with students and parents every three months, in order to have updated information on the mental health of their participants, and to make sure no signs of suicide go unnoticed [SAMHSA, 2016].

We also suggest that those affected by mental illness are often reluctant to admit their struggle to loved ones or professionals, as they may be afraid to feel vulnerable. Part of the issue lies in the fact that mental illness is very different than physical illness, and is much harder to diagnose and treat. While programs like SOS and other state, national and federal suicide prevention programs are helpful, a more comprehensive approach to mental illness education needs to be embedded into the school curriculum from elementary school onwards. The comprehensive approach should include engaging discussion about mental health and finding customized solutions, like classroom-based inspirational and motivational teaching, meditation, and exercise.

Table. Demographics and responses to the specific questions

Age group	Number of responses (n = 623) (%)
Jr. High school student and younger	356 (57.1)
High school student	213 (34.2)
College student	39 (6.2)
22-35 years	11 (1.8)
36-55 years	4 (0.7)
56+ years	0
Other	0
Do you personally struggle with mental illness and if so which?	
Anxiety	324 (86.6)
Depression	253 (67.6)
Bipolar	28 (7.5)
Drug/Alcohol Addiction	27 (7.2)
Eating Disorder	75 (20.1)
Other	35 (9.4)
Do you know anyone at school whom is battling depression? Who are they to you?	
I do	149 (23.9)
Best Friend	246 (39.5)
Friend	441 (70.8)
Acquaintance	267 (42.9)
Teacher	38 (6.1)
Another person who goes to school	198 (31.8)
I do not know anyone who does	51 (8.2)
How many students in school do you think are struggling with depression?	
None	0.0 (0.0)
Not a lot	16 (2.6)
Some	322 (51.7)
Half of the students	205 (32.9)
Majority of the students	80 (12.8)
In light of the recent tragedies, how do you think the school administration has handled these situations?	
Very Well	13 (2.1)
Well	67 (10.8)
Fine	227 (36.4)
Poor	242 (38.8)
Very Poor	74 (11.9)

The ultimate aim should be to respond to the problem of mental illness after incidents have occurred, but rather instill discussions about cognitive health early in school curriculums, providing a platform for open discussions. Thus, if students ever exhibit signs of mental illness, they will be properly educated on the subject and will be more inclined to talk to an adult about their situation, allowing them to receive professional aid before suicide attempts and deaths occur. The rate of suicide-related deaths will diminish only if the stigma surrounding mental health is eliminated.

Conclusion

In conclusion, the results of a web-based, cross-sectional questionnaire, coupled with a growing number of suicide attempts among teenage students, suggest the need for an early intervention and prevention program. There seems to be an acute need to develop strategies to instill cognitive health-related education early in school curricula, providing a platform for open discussions and awareness of mental illness among adolescents. Engaging students to have discussions on mental health and finding customized solutions, like classroom-based inspiration and motivational teaching, meditation, and exercise, could help those affected by mental illness overcome their respective challenges. The ultimate aim should be to maintain an environment conducive to communication, care, and continued life, with more positivity.

Further intervention-based studies in pre-teens and adolescents need to be planned and executed to discover the transient nature of the classroom-based customized solutions. An environment of collaboration needs to be created among teachers, parents, counsellors, educators, and administrators, for harmonizing the efforts and implementing a solution that focuses on early prevention rather than postvention.

Conflicting Interests and Funding

The authors declare no conflict of interest.

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