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“Just Talk to Me”: Communicating With College Students About Depression Disclosures on Facebook

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Abstract

Purpose—To determine acceptability, preferred communication medium, and other key considerations for intervention by friends, professors or resident advisors, and strangers in response to college students’ references to depression on the social networking site Facebook.

Methods—Facebook profiles belonging to 18- to 19-year-old students ($n = 60$) at a large public university were evaluated for references to depression. In-person, structured interviews assessed how students would prefer to be approached by a friend, professor or resident advisor, or stranger if that person saw displays of depression on the student’s Facebook page. We coded interview transcripts for approach acceptability, communication medium, and emerging themes. We used chi-square tests to assess differences between depression displayers and non-displayers.

Results—The sample was 60% female with a mean age of 18.5 years. All students were accepting of intervention approaches by friends. Most (93%) were accepting of an approach by known adults. Approximately half would accept an approach by a stranger, but this proportion was 26% lower among those who had displayed depression references on Facebook than among non-displayers ($p = .072$). In-person communication was preferred for approaches made by friends and adults. E-mail or using a student’s friend as an intermediary was preferred if a stranger were to intervene.

Conclusions—In-person communication from friends or trusted adults is the preferred means for raising concerns about a student’s signs of depression displayed on Facebook. Programs that encourage resident advisors and peers to respond in this manner and encourage treatment may represent a way to improve access to care for depression.

Keywords

Adolescent; College student; Social networking sites; Depression; Qualitative research; Facebook

Mental health disorders are a leading contributor to the burden of disease among young adults [1]. Because approximately half of young adults in the U.S. attend postsecondary

education [2], the college setting presents an opportunity to reach a large portion of the population during the age window in which most mental health disorders first appear [3]. Depression, in particular, is common among the college student population. Epidemiological research suggests that 25%–33% of students report feelings of depression that interfered with their functioning at least once in the past year and 6%–10% report seriously considering suicide in the past year [4,5].

Many individuals who could benefit from evidence-based therapies do not receive services [6]. In one large survey of undergraduates, 28% of those with a positive screen for major depression and 49% of those with other types of depression (dysthymia or depression not otherwise specified) did not think they needed help [7]. Among students meeting criteria for major depression in the *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition, only 36% received medication or therapy/counseling, and among those with other depression types, only 16% received such services [7].

In an effort to identify individuals at risk for depression and other health problems outside the clinical setting, researchers have begun to investigate the relationship between the content posted on social networking sites (SNS) and user behaviors and characteristics offline [8,9]. SNS such as Facebook and Twitter are online environments in which users communicate with their network of friends and acquaintances. Over 90% of U.S. college students report having a Facebook profile [10–13]. On Facebook, users post “status updates” in which they share their thoughts, feelings, and ideas in real time. They can also post videos, audio, and links to news stories and other online content. Recent news stories have documented the presence of suicidal notes as status updates on SNS [14]. Because warning signs for a suicide may appear on Facebook, the company has recently developed a partnership with the National Suicide Lifeline that allows users who observe suicidal content on Facebook to report it directly to the National Suicide Lifeline via a page on Facebook’s website [15].

Prior studies have found that college students who displayed depression symptoms on Facebook had higher scores on clinical measures of depression [16]. This evidence suggests that SNS profiles may represent an opportunity to identify individuals experiencing depression symptoms. The next step is to determine the optimal way to provide intervention or resources to these individuals. Because of their high rates of SNS participation and the ease of linkages to university-based health services, college students are an ideal candidate population for such screening and intervention efforts. However, given the sensitivity and stigma regarding the topic of mental health, it is important that efforts to intervene be conducted in ways that are acceptable and comfortable to students.

First-year students face a unique set of challenges in accessing health resources as they transition from high school to college. Freshmen must navigate the new college environment and corresponding responsibilities, often in the absence of the friends and family who formed their support structure during high school. Therefore, this study sought to understand how first-year students would prefer to be approached about references to depression that they displayed on their Facebook profile. The research aimed to identify how approach acceptability and preferred communication medium might vary based on (1) whether the approach was done by a friend, a known and trusted adult (such as a professor or resident advisor [RA]), or a stranger; and (2) whether the individual had herself displayed references to depression on Facebook within the past year.

Methods

This mixed-methods study used content analysis of freshman students' Facebook profiles and structured interviews with the same students. We carried out data collection and analysis between January 2010 and March 2012. We received institutional review board approval from the University of Wisconsin-Madison.

Setting and subjects

We identified participants for this study using Facebook (www.facebook.com), the most popular SNS among our target population of college students [17,18]. As part of a larger ongoing study investigating health behaviors and Facebook, we examined publicly available Facebook profiles of undergraduate freshmen students within one large state university network on Facebook. There were 5,680 students in the first-year class [19]. All students who hold a Facebook account have the option to join the university's Facebook network by providing a university-affiliated E-mail address. They can elect to display their graduation year on their profile. Because this study focused on depression screening approaches that could be applied to publicly available Facebook profiles, we excluded students maintaining profiles with private security settings. To be included in the study, profile owners were required to self-report their age as 18–19 years, have an e-mail address or phone number available on Facebook or in the university directory, show evidence of Facebook profile activity within the past 30 days.

Recruitment and data collection

We used the Facebook search engine to identify profiles within the university's network listing a graduation year indicating the owners were first-year students. This search yielded 273 profiles, all of which we assessed for eligibility. Most ineligible profiles occurred because the content was kept private, ($n = 102$), the owner's age was 18 or 19 years ($n = 27$), or there was no contact information (phone number or E-mail) listed within the Facebook profile or the university directory ($n = 60$). A total of 84 profiles met inclusion criteria. We contacted the owners of these profiles by phone or E-mail and invited them to participate in an interview about college student health.

Facebook profile coding—For the 84 profiles that met inclusion criteria, trained research assistants reviewed content posted in the past year and recorded demographic data and displayed depression symptom reference data, including verbatim text from profiles. When present, we removed identifiable information from text references. We defined references to depression symptoms using the *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition, symptom criteria for a major depressive episode [20]. Criteria for a major depressive episode included depressed mood, loss of interest or pleasure in activities, appetite changes, sleep problems, psychomotor agitation or retardation, energy loss, feeling worthless or guilty, and decreased concentration or suicidal ideation [20]. We considered status updates to be depression symptom reference when a keyword or a synonym fit one of the described depression criteria. For example, one symptom keyword of major depression is “hopeless”; therefore, a status update stating, “I feel hopeless” would be coded as a reference to depression. The term “giving up” is a synonym of “hopeless”; therefore, a status update disclosing “I feel like giving up” would be coded as a reference to depression. Status updates referring to a person other than the profile owner (i.e., “Bob is sitting next to me in class and he looks really sad”) or references to the common experience of having a bad day (i.e., “I’m having a terrible week”) were not coded as depression references.

We categorized profiles into one of two groups. Profiles with one or more references to depression symptoms were considered “depression displayers.” Profiles with no depression symptom references were considered “non-displayers.” Three research assistants evaluated a 20% random subsample of profiles to test interrater reliability. We used Fleiss’s kappa statistic to evaluate the extent to which there was overall agreement in coding of the presence or absence of depression references on a profile, as well as overall agreement among research assistants for categorization of the depression references. Fleiss’s kappa was .79 for the presence or absence of depression references on profiles.

Interviews—Interviews were one-on-one with a trained graduate student. After we explained the study and obtained consent, participants completed several health measures for the ongoing study, including demographic information. We then asked participants, “In some of our research studies we have found that many college students display references to depression on their Facebook profiles, such as bumper stickers, pictures, and status updates. If one of your friends saw something on your profile that made them worried about you regarding depression, how would you want them to communicate with you about that?” The interviewer then asked, “If somebody who didn’t know you as well, like an RA or professor, saw something on your profile that made them worried about you regarding depression, how would you want the individual to communicate with you about that?” Finally, the interviewer asked, “If somebody who had never met you in person saw something on your profile that made them worried about you regarding depression, how you would want that individual to communicate with you?” All interviews were audio recorded. Respondents who completed the interview were provided a \$50 incentive.

Three trained research assistants transcribed interviews; one investigator reviewed 25% of transcriptions to ensure accuracy. Although interview questions were open-ended, the highly structured nature of the questions allowed coding of several categorical and binary variables for quantitative analysis [21,22]. Before coding, three investigators reviewed all transcripts and identified several a priori variables of interest: whether communication on the topic of depression was acceptable to the specified individual (yes/no), whether privacy concerns were mentioned (yes/no), and what the preferred communication medium was (i.e., in-person conversation, phone call, E-mail). Multiple communication media were sometimes indicated and recorded when appropriate.

Data analysis

Three investigators (J.M.W., L.N.B., and M.A.M.) read and independently coded the same random sample of 10 transcripts, entering codes into a spreadsheet. In addition to coding the prespecified variables, we used an open-coding approach to identify aspects of the communication not anticipated by the researchers. One author (J.M.W.) then merged the coding files, reviewed all coding, renamed codes with different spellings but identical meanings (e.g., “celltext” and “text,” both of which refer to a cellular text message), and calculated interrater reliability. Fleiss’s kappa statistic was 92%. We discussed all discrepancies and agreed on specific definitions and codes to use in future coding rounds. We then divided the remaining transcripts evenly among the authors and coded them. The coders discussed ambiguous or unclear cases and agreed on a consistent approach for such cases. As new themes emerged or code definitions were refined, we recoded the batch in an iterative fashion to account for the changes. In total, there were four rounds of coding.

Using Stata 12 statistical software (StataCorp, College Station, TX), we generated binary variables to represent the presence or absence of each code for each participant. For binary and categorical variables, we used frequencies, proportions, and chi-square tests to assess differences by sex and by displayer or non-displayer status. Concepts that arose from the

qualitative open-coding process are reported as themes and potential areas for future consideration.

Results

Of the 84 students who met eligibility criteria and were recruited for interviews, 60 agreed to participate. The composition of the participant group and the non-responder group was similar in terms of sex and displayed depression references. Our analysis was limited to the group for which we had both Facebook and interview data. A total of 60% of the sample was female (Table 1). Coding of Facebook profiles indicated that one third of the sample (20 students) had displayed references to depression on their Facebook profile. A total of 44% of females were depression displayers compared with 17% of males ($\chi^2 = 5.00$; $p = .025$).

All interview participants indicated that they would want a friend to approach them in some manner if that friend observed a reference to depression on Facebook (Figure 1). Almost all participants (93%) indicated that they would want a familiar adult, such as a professor or RA, to approach them in response to a depression reference. This was true for 85% of depression displayers and 97% of non-displayers ($\chi^2 = 3.35$; $p = .067$). One third of displayers wanted a stranger to intervene, whereas 60% of non-displayers welcomed a stranger's involvement ($\chi^2 = 3.24$; $p = .072$). Relatively few students (25%) discussed privacy concerns in relation to an approach about the topic of depression.

When describing how they would want to be approached by a friend or known adult, it was common for participants to indicate a preference for more direct forms of communication, compared with asynchronous communication that occurs via the Internet, including Facebook (Table 2). Almost half of the non-displayers suggested they would want in-person communication from a friend, and 60% of depression displayers said they would want a friend to "talk to" them. For depression displayers, cell phone-based communication (text messages and phone calls) were welcomed by 20% of participants. However, the relatively small percentage of depression displayers who were open to a stranger's approach suggested that indirect communication was preferred, such as sending an E-mail (15%) or talking to one of the participant's friends (30%) about their concerns. Table 2 shows the proportions of depression displayers and non-displayers who cited each communication method from friends, adults, and strangers.

The open-coding process identified several themes beyond the a priori variables of interest. First, the relatively low proportion (30%) of depression displayers who wanted a stranger to approach may be because of discomfort with the idea of unknown individuals monitoring the student's Facebook activity. Several students said something such as, "I still think the whole having someone you don't know looking at your Facebook profile is weird..[A stranger contacting me] would probably stress me out more because then someone would be randomly looking at my Facebook profile that I don't know and that's kind of creepy."

Furthermore, several participants were concerned that someone with whom they had no offline relationship might be unable to accurately judge their risk of depression from the content on Facebook. As one student who would not want a stranger to approach about this said, "They had no interaction with me, so they don't have an accurate representation of anything. I could look at a random profile and make random generalizations about them all day." The preference we observed for strangers to speak first to a student's friend to get a better assessment of the student's mental health could help alleviate this concern.

The acceptability of electronic communications from both professors or RAs and strangers may help some students feel more comfortable by giving them time to think about how they would like to respond. As a respondent put it, "I wouldn't really like talking on the phone to

someone I don't know that well about personal information. So [E-mail] gives me a little time to figure out what I want to say."

Generally, students encouraged their friends to approach them in a straightforward manner about the potential issue with depression, and to be caring and compassionate. For both friends and known adults, we noted the preference for taking an inquisitive and supportive approach by asking, "How are you doing? Do you want to talk about anything?" in several interviews.

Discussion

Increasingly, SNS are recognized as an environment in which individuals may display signs and symptoms of mental health problems [9,16]. Because information posted on SNS is shared with friends, acquaintances, and the public (depending on privacy settings), the question of how to respond to such information is important. The results from this study begin to address the issue of how college students want to be approached when others observe references to depression on their Facebook profiles.

Based on our coding of public Facebook profiles, the proportion of observed depression references for the sample overall is comparable with estimates from other population-based studies of college students. Similarly, the higher prevalence of depression displays among females is consistent with their elevated rates of depression compared with males. Students generally welcomed intervention by friends or known adults, such as RAs or professors; approximately half the students welcomed a stranger approaching based on what he observed on Facebook. However, rates of acceptability were lower among those who had actually displayed depression references and higher among those who did not. This difference approached statistical significance, which suggests that this is not an ideal intervention strategy among those who would truly need help. Explicit mentions of privacy concerns with regard to how an approach happens were relatively rare. This may be because certain communication modes are assumed to be private (i.e., phone calls or email), because it is not a highly prevalent concern, or because we did not ask directly about privacy.

Considering the sensitive matter nature of depression, it is unsurprising that face-to-face communication from a trusted individual—friend or faculty—was preferred. These results underscore the point that online social environments are not viewed by young adults as a replacement for traditional, in-person interactions [23]. Students, especially those who displayed signs of depression on Facebook, did not approve of individuals with whom they did not also have an offline relationship reaching out to them about this topic. The open-coding process provided additional insight into why this may be the case, by highlighting the fact that some students find the idea of a stranger monitoring their Facebook page to be weird or creepy. In addition to being welcome to ask directly based on their own observations, friends were also recommended as an intermediary if a stranger were concerned about an individual student's health.

Facebook has taken steps to make it easier for peers to monitor each others' mental health by adding a mechanism for reporting suicidal content, through their partnership with the National Suicide Lifeline, and for reporting bullying. However, the extent to which these services are used remains unknown. Linkages to services may be more difficult outside the college setting, where counseling and medical services are available to students. Given the generally positive acceptability of dormitory RAs or known professors asking whether the student is experiencing difficulties with depressive feelings, universities may want to implement programs to encourage RAs to consider Facebook as another tool for looking after students.

Limitations

We obtained these data from a sample of first-year college students with publicly available Facebook profiles and contact information at one large university; they may not be generalizable to other populations. Since we collected the data for this study, Facebook has received public scrutiny about issues of privacy and default privacy settings, and have changed instructions. Some evidence indicates that the amount of content that is fully public has decreased over time as user awareness of privacy settings has increased [12,24]. College students with more restrictive privacy settings may differ in their views about other private matters, such as discussion of mental health issues, from college students who have private profiles on Facebook. A small sample size may also have limited our ability to detect statistically significant differences across groups. Despite these limitations, these data provide a first look at how this potentially vulnerable group of students would want to be approached about the common and debilitating condition of depression.

It would be useful to replicate this study at other universities and with a population of students with private profile settings as a next step toward developing interventions. Future studies should assess whether intervention by specific types of strangers with a legitimate interest in student mental health might be more acceptable. However, because strangers—including school counselors and student affairs personnel—would not ordinarily be able to view Facebook content for students with private profiles, the same types of approaches by friends and professors or RAs preferred by our study sample may be the most feasible route to intervention for those students, as well.

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IMPLICATIONS AND CONTRIBUTION

College freshmen who displayed depression references on their Facebook page wanted friends to offer support, preferably in person. Communication from professors and RAs was also acceptable. Programs that encourage RAs and peers to respond confidentially and suggest treatment may represent a way to improve access to care for depression.

Figure 1.

Proportion of students who want communication from a friend, professor or RA, or stranger about depression symptom(s) displayed on Facebook. *P* values are from chi-square tests of difference in proportion wanting communication: depression displayers with >1 reference to DSM-IV depression symptom on Facebook profile in last year versus non-displayers. RA = Resident Advisor.

Table 1

Participant demographic characteristics

	Number (%)
Gender	
Female	36 (60)
Male	24 (40)
Age (years)	
18	30 (50)
19	30 (50)
Ethnicity	
Caucasian	53 (88)
Asian-American	2 (3)
African-American	0
Hispanic/Latino	0
Mixed/other	4 (7)

Table 2
Preferred communication media for response to depression references on Facebook

Communication medium	Friend		Professor/RA		Stranger	
	Depression Displayer (n = 20) (%)	Non-displayer (n = 40) (%)	Depression Displayer (n = 20) (%)	Non-displayer (n = 40) (%)	Depression Displayer (n = 20) (%)	Non-displayer (n = 40) (%)
Direct						
Talk to me	60	35	30	33	10	10
In person	30	48	30	48	10	18
Phone						
Phone call	20	18	0	5	0	0
Text message	20	5	0	3	0	0
Computer-based						
E-mail	0	5	25	18	15	18
Online (general)	0	0	0	0	5	0
Facebook						
Facebook message	0	8	5	3	0	5
Facebook chat	5	3	0	0	0	0
Facebook wall post	5	3	0	0	0	0
Facebook (general)	0	0	0	0	5	0
Third-party						
Talk to friend	0	0	5	5	30	3
Talk to parent	0	0	0	0	0	5
No contact	0	0	15	3	66	40
Unspecified	10	3	10	0	10	15

Categories are not mutually exclusive. Column header (Friend, Professor/RA, Stranger) indicates response to the question, "If a [type of person] saw something on your Facebook profile that made them worried about your mental health, how would you want them to communicate to you about that?" Depression Displayer means that the Facebook profile contained at least one reference to a *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition, depression symptom.