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Postsecondary Students' Information Needs and Pathways for Help with Stress, Anxiety, and Depression
Les besoins d'information des étudiants postsecondaires et les parcours conçus pour réduire le stress, l'anxiété, et la dépression

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ABSTRACT

Surveys indicate that prevalence rates of depression, anxiety, and other disorders in post-secondary students are equal to or higher than those in the general population; however, students often do not access help for these problems. Moreover, those who do seek help are confronted by a range of choices involving psychological, pharmacological, or combined treatment, along with multiple sources of information regarding treatment options. In an effort to identify the information needs and preferences of Canadian university students, we conducted a survey of students seeking counselling or medical services on campus. Results indicated that students were more likely to initially seek advice from romantic partners or friends rather than counsellors or health care providers. When asked to consider what information is important when seeking help, students reported that treatment effectiveness, advantages/disadvantages of treatment, side effects, and what happens when treatment is stopped were all very important. Training and experience of service providers were seen as more important than providers' recommendations for type of treatment. Meetings with a counsellor were preferred over medication as a treatment modality. Preferred sources of information included health care providers, information sheets, and the Internet. Implications of the survey for postsecondary mental health service delivery are discussed.

Résumé

Selon les sondages, les taux de prévalence de la dépression, de l'anxiété, et d'autres troubles chez les étudiants postsecondaires sont équivalents ou plus élevés que dans la population en général, et pourtant, dans bien des cas, ces jeunes n'ont pas recours à de l'aide pour ces problèmes. De plus, ceux et celles qui se décident à chercher de l'aide doivent choisir parmi une gamme de services qui va du traitement psychologique, en passant par la

pharmacologie ou une combinaison des deux, ainsi que de multiples sources de renseignements au sujet des options de traitement. Afin de définir les besoins et préférences des étudiants postsecondaires canadiens en matière d'information, nous avons mené un sondage auprès d'étudiants à la recherche de services de counseling ou médicaux sur le campus. Les résultats indiquent que les étudiants sont plus susceptibles de rechercher, dans un premier temps, l'avis de partenaires de cœur ou d'amis plutôt qu'auprès d'un conseiller ou d'un fournisseur de soins de santé. Lorsqu'on leur a demandé de réfléchir au type de renseignements qu'ils jugeaient importants dans leur recherche d'aide, les étudiants ont répondu que l'efficacité du traitement, les avantages et inconvénients qu'il comporte, ses effets secondaires, et ce qui advient à la fin du traitement sont tous des aspects très importants. Ils considéraient aussi la formation et l'expérience des fournisseurs de services des facteurs plus importants que les recommandations de ces fournisseurs concernant le type de traitement. Comme mode de traitement, les étudiants ont dit préférer les rencontres avec un conseiller plutôt que la médication. Parmi les sources de renseignements privilégiées sont les fournisseurs de soins de santé, les fiches de renseignements, et Internet. L'article présente une discussion des implications du sondage pour la prestation de services de soins de santé mentale chez les clients au niveau postsecondaire.

Mental disorders are common among young adults, with the prevalence of the most common disorders, such as anxiety and depression, reaching a peak between ages 18 and 24 (Kessler, 2007). When considering postsecondary students more specifically—where academic, financial, and interpersonal stressors compound the age-related risk factors—the prevalence of mental disorders may be even higher (Cooke, Bewick, Barkham, Bradley, & Audin, 2006). One national U.S. survey found that almost half of the students sampled met the DSM-IV criteria for at least one mental disorder in the previous year, including 12% for an anxiety disorder and 18% for a mood disorder (Blanco et al., 2008). More recently, a North American survey of students indicated that more than 80% of respondents felt exhausted and overwhelmed, with nearly half reporting that they felt hopeless at some point in the past academic year (American College Health Association, 2013). In line with these findings, rates of suicidality are also high among postsecondary students, with one U.S. national survey indicating that more than half of students surveyed had considered suicide at some point in their lives, including an alarming 8% of undergraduates who reported at least one suicide attempt (Drum, Brownson, Burton Denmark, & Smith, 2009).

Given the high levels of mental health concerns among postsecondary students, one might expect that mental health service utilization would be similarly high; however, this is not the case (Kiley, 2013). A national U.S. survey showed that fewer than half the students screening positive for mood or anxiety disorders reported receiving any mental health services during the preceding year (Eisenberg, Golberstein, & Gollust, 2007). Although there have been apparent increases in the willingness of postsecondary students to access campus mental health services (Hunt & Eisenberg, 2010), young adults are among the age cohorts least likely to seek help for their mental health problems (Statistics Canada, 2011; Wang et al., 2005). In addition, when young adults do seek treatment, they may not be basing their decisions on complete information or seeking this information from

reliable sources. As such, it is worthwhile to explore the ways in which mental health information and treatment resources can be made more accessible for this vulnerable cohort.

Much of the information that young adults want or need about mental health problems and treatment options can be understood within the framework of mental health literacy, which may be defined as the extent to which individuals in need of treatment are able to recognize and identify their symptoms as a condition requiring access to mental health resources (Coles & Coleman, 2010). The role of mental health literacy in service accessibility is highlighted by a recent Australian study that found only 26% of students would seek help from a general practitioner and only 10% from a student counsellor should they experience a mental health problem (Reavley, McCann, & Jorm, 2012). Results from a U.K. survey of 3,000 young people aged 16–24 showed similar results (Klineberg, Biddle, Donovan, & Gunnell, 2011). In this study, participants were asked to identify if characters from a vignette had depression, and what they thought the characters would do in terms of seeking help. Interestingly, about one third of the participants who recognized severe mental health symptoms in the vignettes thought that the characters would do nothing about their mental health problems (Klineberg et al., 2011).

In addition to low rates of mental health literacy, previous research has identified a number of psychological factors that are related to reduced rates of help-seeking, including lack of emotional openness (Hunt & Eisenberg, 2010), degree of symptom severity (Leahy et al., 2010; Wilson, 2010), and self-stigma (Eisenberg, Downs, Golberstein, & Zivin, 2009). Of these factors, self-stigma is of particular concern because of its pervasive nature and impact. For example, in a study by Vogel, Wade, and Haake (2006), self-stigma, above all other factors measured, uniquely predicted participants' willingness to seek counselling and other forms of help. Self-stigma is likely to have such a high degree of impact because it involves a perception that one is socially unacceptable (Vogel et al., 2006), which may lead people experiencing psychologically distressing symptoms to forego seeking treatment in order to maintain a positive self-image (Miller, 1985; Vogel et al., 2006; Vogel, Wade, & Hackler, 2007). In an effort to address this concern, Romer and Bock (2008) looked at whether improved provision of treatment information would help to reduce self-stigma among people who had previously faced troubling mental health symptoms and those who had not. They found that providing counterstereotype information and information on treatment effectiveness was helpful in reducing stigma in both groups. These findings underscore the importance of ensuring that young adults have sufficient information to increase their knowledge regarding symptoms and treatment options and also to decrease the risks associated with self-stigmatization.

In working with young adults, however, it is also important to recognize the significant role that relationships play in help-seeking (O'Callaghan et al., 2010). For most, the first act of help-seeking is made to friends and family (Klineberg et al., 2011). Although friends and family may not be the best source to provide accurate mental health information, a study by O'Callaghan et al. (2010) found

that having a family member involved in the help-seeking process was associated with shorter help-seeking delays. Therefore, families may play a vital role in initiating treatment and increasing service utilization among individuals experiencing problems. However, it is also possible that family influence may result in a negative outcome. For example, depending on their experiences, people with a family history of mental health problems may be less likely to seek help due to a lack of confidence in the ability of available health services to successfully address the problem (Chen et al., 2005). Therefore, receiving unbiased and reliable information is important in promoting help-seeking behaviour.

Overall, untreated mental health problems are of great concern for postsecondary students who are expected to function at peak levels of psychological and intellectual performance. In addition to complicating their adjustment to postsecondary education, mental health problems can adversely affect students' physical health, personal development, academic achievement, and quality of life (Bayram & Bilgel, 2008). For these reasons, insight regarding the preferred ways in which students would like to receive information about mental health problems, treatment options, and means of accessing help would be valuable in identifying ways to meet their needs more effectively.

The aim of the present study was to explore the opinions of university students regarding their information needs and pathways for help with common mental health problems. More specifically, our research asked: If a young adult were to experience a significant problem with stress, anxiety, or depression,

1. Who would they likely turn to for advice?
2. What information would be important to them in considering the types of help available?
3. What types of assistance would they see as being helpful to them?
4. How would they prefer to receive information?
5. How much information would they prefer to receive?

METHOD

Participants

All participants were students at the University of X, an intermediate-sized comprehensive Canadian university with a student population of approximately 29,000. Participants were solicited from the waiting rooms at the university's separate student counselling and health centres. Participants were 187 students (122 females, 60 males, and 5 unspecified) between the ages of 18 and 25 (see Table 1 for details).

The counselling and health centres are both dedicated to providing services to students, and each serves a large number of students seeking help for mental health concerns. All counselling services are provided free of charge; costs for medical services are covered through the provincial health services plan for Canadian citizens or through mandatory private insurance for international students. The counselling centre is a multidisciplinary unit with psychologists, counsellors, social

workers, and career specialists on staff. According to annual utilization statistics, the primary presenting issues at the counselling centre are stress, anxiety, depression, and relationship concerns. More than 1,000 students access counselling services at the counselling centre each year. The university health centre is a family practice-style medical clinic providing a full range of medical services, including care for acute and minor health problems, check-ups, prenatal care, health and travel counselling, immunizations, and health promotion programming. According to the clinic administrator, depression and anxiety are among the top five concerns for students seeking health services, with approximately 30% of physician time devoted to student mental health problems.

Table 1
Sociodemographic Characteristics of Respondents

Mean age (*SD*)	23.1 years (4.78)
Female/male proportion	72%/28%
Racial origin	
Caucasian	54%
Asian	23%
Aboriginal/First Nations	9%
Black	7%
Other	7%
Born in Canada	73%
Marital status	
Married & living together	16%
Never married & never lived with someone in a marital-like relationship	73%
Divorced/separated	10%
Participants' mean years of education (*SD*)	16.0 years (8.37)
Mothers' mean year of education (*SD*)	15.0 years (8.76)
Fathers' mean year of education (*SD*)	14.8 years (3.94)
Program working toward	
Bachelor's degree/diploma	80%
Graduate degree	14%
Professional degree	6%
Recruitment location	
University Health Services	15%
Student Counselling and Career Centre	85%
Main activity in the last 12 months	
School	54%
Working (full-time)	12%
Working (part-time)	4%
Work part-time/school part-time	25%
Other	5%
Depression Anxiety Stress Scale-21	
Depression mean score (*SD*)	7.5 (6.17)
Anxiety mean score (*SD*)	5.9 (4.99)
Stress mean score (*SD*)	8.1 (5.03)
K10 distress scale mean score (*SD*)	14.9 (8.49)
Have received professional help for stress, anxiety, or depression (% yes)	50%
Was there a time when professional help for stress, anxiety, or depression would have been helpful? (% yes)	63%

Note. N = 187.

Procedure

This study was approved by the University of X Research Ethics Board. When recruiting participants, a research assistant approached students who appeared to be between the ages of 18 and 25 in the waiting rooms of the separate counselling and health centres. Students who provided written informed consent were invited to complete the questionnaire while waiting for an appointment and to return it in a sealed envelope. Students were given a survey package that was gender-typed for their gender. If students were called for their appointment before they had completed the survey, they had the opportunity to complete the survey after their appointment or to take the survey home with them and return it later. When surveys were returned to the research assistant or to reception staff, participants received a $10 gift card for campus food services. The survey took approximately 30 minutes for participants to complete. Of those approached about the study, 71% agreed to participate, and 84% of those who agreed to participate returned completed surveys.

Measures

Sociodemographic information. Participants provided information regarding their age, gender, racial/ethnic background, education, occupation, parents' education, and living situation.

Emotional distress. Emotional distress was measured using the Depression Anxiety Stress Scale (DASS-21; Lovibond & Lovibond, 1995). The DASS-21 assesses symptoms over the previous week on depression, anxiety, and stress subscales. Items are rated on a 4-point severity/frequency scale ranging from 0 (*Did not apply to me at all*) to 3 (*Applied to me very much, or most of the time*). Additional information on participants' emotional distress was obtained using the Kessler Psychological Distress Scale (K10; Kessler et al., 2003), which measures past-month symptoms of anxiety and depression. The 10-item survey contained questions such as "In the past 4 weeks, about how often did you feel tired out for no good reason?" Items were rated on a 5-point Likert scale ranging from 1 (*none of the time*) to 5 (*all of the time*), with total scores of distress ranging from a category of *likely to be well* (score of 10–19) or *likely to have a mild* (score of 20–24), *moderate* (score of 25–29), or *severe* (score of 30–50) *mental disorder* (Andrews & Slade, 2001).

Previous psychometric analyses indicated excellent internal reliability for the DASS-21, with a Cronbach's alpha of .93 for the total score and individual subscale coefficients of .88 for depression, .82 for anxiety, and .90 for stress (Lovibond & Lovibond, 1995). The DASS-21 has been shown to possess adequate construct validity in measuring general psychological distress and shows good convergent and discriminant validity when compared with other valid measures of depression and anxiety (Antony, Bieling, Cox, Enns, & Swinson, 1998; Clara, Cox, & Enns, 2001; Henry & Crawford, 2005).

In comparison to the 42-item DASS, Antony et al. (1998) reported lower intercorrelations of factors, higher mean loadings, and fewer cross-loading items

in the shorter DASS-21 version. A study by Henry and Crawford (2005) further examined the validity of the subscales and concluded that the DASS-21 subscales can validly be used to measure depression, anxiety, and stress. Additionally, the K10 was shown to produce high discrimination scores between community and noncommunity cases of DSM-IV-defined psychiatric disorders, including anxiety, mood, and nonaffective disorders (Kessler et al., 2003). Similarly, previous psychometric analyses indicated excellent internal reliability for the K10, with a Cronbach's alpha of .93 (Kessler et al., 2003).

Information preferences. With the purpose of providing context for the survey questions, respondents were asked to read brief vignettes describing two young adults of the same gender as the respondent (male or female). The first vignette described experiences of significant distress and impairment from symptoms of panic disorder, and the other described symptoms of depression. In the first question in the information preferences section, respondents rated how familiar they were with different types of help available to people experiencing mental health problems on a 9-point scale ranging from 0 (*not familiar at all*) through 4 (*moderately familiar*) to 8 (*very familiar*). In answering subsequent questions, respondents were asked to consider that at some time in their lives, they, a close friend, or a close family member might have a problem similar to those described in the vignettes. From this perspective, they were then asked to answer questions concerning their preferences for information, including amount of content, mode of delivery, and whom they would likely turn to for advice concerning problems with stress, anxiety, or depression.

A series of questions also asked for participants' views concerning the helpfulness of various forms of assistance for these problems. In developing questions about the information content that might be important to young adults, we considered the logical sequence of events in treatment and also findings from qualitative research (individual interviews and focus groups) with young adults (Ryan-Nicholls, Furer, Walker, Reynolds, & The Mobilizing Minds Research Group, 2009). When weighing treatment options, a person might want to consider the available treatment choices, what is involved in the treatment (what you do), cost of treatment, effectiveness of treatment, how long it takes for treatment to work, how long treatment continues, what happens when treatment stops, and risks and benefits of treatment.

We also included two questions about their own experience. The first question stated, "When thinking about your own past experiences, was there a time when you received help from a professional (such as a counsellor, therapist, or doctor) for problems with stress, anxiety, or depression?" A second question asked if there was a time when they would have benefited from professional help but did not receive it.

RESULTS

Table 1 shows the demographic information and characteristics of the sample. Sixty-five percent of the participants identified themselves as female, 32% as male,

and 3% reported no gender. The apparent overrepresentation of female participants is characteristic of the profiles of service utilization at the centres where students were recruited. Overall, 73% of participants were born in Canada. On average, respondents had completed four or more years of education after high school and their parents had completed an average of three years after high school. Most respondents (80%) were working toward an undergraduate degree, with the remainder working toward graduate or professional qualifications.

The majority of participants were solicited from the waiting room at the counselling centre (85%), with a much smaller proportion (15%) obtained from students attending the health centre. Differential rates of participation were obtained at the two sites in part because the reception staff at the counselling centre notified students about the study during times when the research assistant was not on site, whereas the health centre receptionists were unable to assist with this aspect. Respondents from both locations were compared using chi-square analyses to assess for differences regarding demographic information, mental health service use, and levels of depression, anxiety, and stress. No significant differences were found between the two samples based on these variables, with the exception of depression. Participants from the counselling centre reported significantly higher levels of depression symptoms than participants at the health centre. Considering that depression is one of the major pressing issues at the counselling centre, this result was not surprising. Because there were no other differences identified between the two samples, a decision was made to combine participants from both locations into a single dataset for further analyses. As might be expected among participants from general counselling and health service settings, levels of symptoms of distress were low to moderate. Participants' mean levels of depression, anxiety, and stress on the DASS-21 were higher than those reported for nonclinical community samples, but lower than those reported for samples of people with clinical levels of distress (Henry & Crawford, 2005). Similarly, the average score on the K10 distress scale was consistent with levels reported in community samples (Andrews & Slade, 2001). As might be expected with the population we sampled, a high percentage of participants (50%) reported receiving professional help at some time for problems with stress, anxiety, or depression. Additionally, a high percentage of participants (63%) reported that there was a time when professional help with stress, anxiety, or depression would have been helpful, but they did not receive it.

Preferred Sources of Information

Table 2 contains information on how likely participants would be to talk to various people if they were having a serious problem with stress, anxiety, or depression. The largest proportion of respondents indicated that they would be very likely to talk to a romantic partner (65%), a close friend (63%), a counsellor at university (52%), a parent (51%), or a family doctor (51%). A lower percentage indicated that they would be very likely to speak to an instructor (19%) or a phone-in counselling or health line (16%).

Table 2
Preferred Sources of Information

How likely would you be to talk to one of the following people for advice if you were having a serious problem with stress, anxiety, or depression?

Source of advice	Not likely (%)	Moderately likely (%)	Very likely (%)	Mean rating (95% confidence interval)
Parent	14	35	51	4.9 (4.52–5.31)
Brother or sister	23	35	42	4.2 (3.79–4.62)
Close friend	7	30	63	5.8 (5.44–6.07)
Romantic partner	5	30	65	5.7 (5.33–6.07)
Teacher or instructor	34	47	19	2.4 (2.02–2.69)
Counsellor at school	15	33	52	4.7 (4.27–5.03)
Phone-in counselling or health line	39	45	16	2.4 (2.02–2.72)
Family doctor	12	37	51	4.6 (4.24–5.01)

Note. *N* = 187. Each source was rated on a 9-point rating scale with the anchors 0–2 (*not likely*), 3–5 (*moderately likely*), and 6–8 (*very likely*).

Important Information Content when Considering Help

Tables 3 and 4 summarize participants' ratings on the importance of various topics concerning help for mental health problems. Table 3 describes ratings of importance regarding information about different aspects of the treatment process and different treatment options. Information about the cost of the treatment to the recipient was rated as more important (60% very important) than the cost of treatment to the health care system (37% very important). More participants thought it was highly important to receive information about counselling/psychological treatment (78% very important) than medication treatments (44% very important).

Table 4 summarizes participants' ratings of the importance of information about the administrative and logistical aspects of treatment. The treatment provider's training (80% very important) and experience (81%) were seen as more important than rationale for the recommended treatment (74%) or latency to begin treatment (66%). Logistical aspects of treatment, such as information about where it would take place (48% very important) and the time of day when appointments were scheduled (48%) were seen as less important, even though nearly half of the respondents thought these aspects were very important.

Helpfulness of Various Forms of Assistance

Table 5 provides a summary of opinions about the helpfulness of different types of services that respondents might consider if they were having a problem with stress, anxiety, or depression at some point in their life. The highest rating was for an in-person meeting with a counsellor (72% very helpful). A range of

Table 3
Importance of Information on Treatment Options

What information would be important to you if you were considering help (for yourself, a close friend, or a close family member?)

Information type	Not important (%)	Moderately important (%)	Very important (%)	Mean rating (95% confidence interval)
Available treatments	7	26	67	6.0 (5.75–6.30)
Available medication treatments	11	45	44	4.9 (4.56–5.17)
Available counselling or psychological treatments	2	20	78	6.5 (6.29–6.79)
What you have to do as part of the treatment	1	19	80	6.4 (6.16–6.67)
Cost of treatment to you	10	30	60	5.5 (5.14–5.79)
Cost of treatment to healthcare system	21	42	37	3.6 (3.18–3.95)
Effectiveness of treatment	0	10	90	7.1 (6.89–7.28)
How treatment works	1	16	83	6.9 (6.65–7.05)
Goal or outcome of treatment	0	10	90	7.2 (7.01–7.35)
How long it takes for treatment to produce results	0	22	78	6.5 (6.27–6.69)
How long treatment continues	1	24	75	6.4 (6.14–6.58)
What happens when treatment stops	1	18	81	6.6 (6.40–6.87)
Common side effects of treatment	1	15	84	6.9 (6.69–7.11)
Uncommon but serious side effects of treatment	3	24	73	6.4 (6.14–6.64)
Advantages and disadvantages of treatment	0	12	88	6.9 (6.65–7.05)

Note. N = 187. Each information area was rated on a 9-point rating scale with the anchors 0–2 (*not important*), 3–5 (*moderately important*), and 6–8 (*very important*).

Table 4
Importance of Information on Administrative Aspects of Treatment

What information would be important to you if you were considering help (for yourself, a close friend, or a close family member?)

Information type	Not important (%)	Moderately important (%)	Very important (%)	Mean rating (95% confidence interval)
Training of person providing treatment	1	20	80	6.7 (6.48–6.90)
Health care provider's experience in treating these problems	2	17	81	6.6 (6.41–6.86)
Waiting period before starting treatment	3	31	66	6.0 (65.70–6.23)
Where treatment will take place	7	45	48	5.2 (4.89–5.46)
Amount of time required to take treatment	4	37	59	5.7 (5.49–5.99)
Time of day appointment is scheduled	11	41	48	5.1 (4.78–5.41)
Treatment option health care provider recommends and reasons why	2	24	74	6.4 (6.13–6.59)

Note. N = 187. Each information area was rated on a 9-point rating scale with the anchors 0–2 (*not important*), 3–5 (*moderately important*), and 6–8 (*very important*).

other options were considered likely to be very helpful by a smaller number of respondents, including a recommended self-help book (47%), a recommended self-help website (48%), medication recommended by their family doctor (41%), and medication recommended by a psychiatrist (45%). Other service options (e.g., Internet discussion group, educational workshop) were rated as less helpful, with only 22–27% of respondents rating these options as likely to be very helpful.

Table 5
Helpfulness of Various Forms of Assistance

How helpful would the following types of assistance be if you were having a problem with stress, anxiety, or depression?

Type of assistance	Not helpful (%)	Moderately helpful (%)	Very helpful (%)	Mean rating (95% confidence interval)
Recommended self-help book	11	42	47	4.6 (4.23–4.89)
Recommended self-help website	12	40	48	4.9 (4.56–5.18)
Telephone meetings with a counsellor	22	51	27	3.6 (3.24–3.88)
In-person meetings with a counsellor	5	23	72	6.2 (5.88–6.45)
Educational meeting (about 2 hours with 20–30 people)	36	42	22	3.6 (3.25–4.01)
Educational workshop (about 6 hours with 20–30 people)	11	41	24	3.3 (2.99–3.66)
Internet discussion group led by a professional	31	43	26	3.3 (3.00–3.68)
Internet discussion group led by a person who has coped with the problem themselves	26	51	23	3.5 (3.21–3.87)
Medication recommended by your family doctor	21	38	41	4.4 (4.04–4.71)
Medication recommended by a specialist in psychiatry	17	38	45	4.7 (4.35–5.04)

Note. *N* = 187. Each source was rated on a 9-point rating scale with the anchors 0–2 (*not helpful*), 3–5 (*moderately helpful*), and 6–8 (*very helpful*).

Preferred Source and Amount of Information

Information about help for common mental health problems may be obtained from a variety of sources. We asked participants how they would prefer to receive information about various services. As described in Table 6, the preferred methods to receive information about services were discussion with a health care provider (67% highly preferred), information in a written form (brochure or booklet, 60% highly preferred), and information on a recommended website accessed from home (60% highly preferred). Less preferred methods of obtaining information were a website accessed in a health care provider's office (44% highly preferred) and video or DVD (29%).

Table 6
Preferred Method for Receiving Information About Services

Preferred method	Not at all preferred (%)	Moderately preferred (%)	Highly preferred (%)	Mean rating (95% confidence interval)
Written form (information sheet)	11	29	60	5.6 (5.28–5.88)
Discussion with health care provider	3	30	67	6.1 (5.85–6.36)
Video or DVD	19	52	29	3.7 (3.40–4.08)
Recommended website accessed from home	8	32	60	5.5 (5.24–5.85)
Website accessed in health-care provider's office	13	43	44	4.8 (4.46–5.09)

Note. N = 187. Each method was rated on a 9-point rating scale with the anchors 0–2 (*not at all preferred*), 3–5 (*moderately preferred*), and 6–8 (*very much preferred*).

Participants were also asked about the amount of information they would prefer concerning various types of help. Table 7 shows participants' ratings of the amount of information they would prefer to receive (in pages) concerning medication treatment, counselling or psychological treatment, and self-help approaches. Most participants (75–87%) indicated an interest in receiving two to six pages of information about each of these forms of treatment.

Table 7
Preferred Amount of Information About Treatment Options

Treatment option	Number of pages						Mean rating (95% confidence interval)
	0 (%)	2 (%)	4 (%)	6 (%)	8 (%)	10+ (%)	
Medication treatment	2	30	37	20	3	8	2.2 (1.99–2.33)
Counselling or psychological treatment	1	22	36	26	8	7	2.4 (2.26–2.59)
Self-help approaches	4	29	28	18	7	14	2.4 (2.15–2.57)

Note. N = 187. Amount of information area was rated on a 6-point rating scale with the anchors 0 (*0 pages*), 1 (*2 pages*), 2 (*4 pages*), 3 (*6 pages*), 4 (*8 pages*), and 5 (*10 pages or more*).

DISCUSSION

Students accessing a university counselling or health centre were surveyed to identify their mental health information needs and pathways for help. Students were asked, "If you were to experience a significant problem with stress, anxiety, or depression: Who would you likely turn to for advice? What information would be important in considering the types of help available? What types of assistance would you see as helpful? How would you prefer to receive information? How much information would you prefer to receive?"

Preferred Sources of Information

The survey participants indicated that they would be likely to first turn to members of their personal support network when seeking advice about dealing with common mental health problems such as stress, anxiety, and depression. This finding about the importance of friends and family is consistent with other research on help-seeking for mental health problems (e.g., Reavley, Yap, Wright, & Jorm, 2011). In order to reach those who would benefit from help for these problems, it is important to reach out to students' friends and family members to inform them about the availability of information and help for common mental health problems. Beyond their personal support network, students are also likely to turn to available counselling staff and health resources such as a family doctor. This suggests that in disseminating information to students it will be important to ensure that high quality educational resources are available to friends and family as well as to counselling and health professionals who are likely to come into contact with them.

Although students overall seem less likely to use phone-in lines than friends, family, or health care professionals as a source of advice, about 60% of our respondents indicated that they would be moderately to very likely to use phone-in lines as a source of information. There are times when sources of information like this may be especially helpful, such as when other sources of assistance are not available, after regular office hours, or in the middle of the night. Approaches such as the use of phone lines may also have advantages in terms of cost and ease of accessibility. In addition, other technology-based approaches could also be considered to assist with mental health support, such as social media sites (e.g., Gowen, Deschaine, Gruttadara, & Markey, 2012) and mobile applications that are always accessible by students (e.g., Samson, 2014).

Important Information Content when Considering Help

Survey questions on the preferred information content revealed that participants judged information on a wide range of topics to be highly important, including treatment effectiveness, advantages/disadvantages of treatment, side effects, and what happens when treatment is stopped. Previous research with young adults suggests that information on a small number of these topics (primarily descriptions of common mental health problems and the types of treatment available) is accessible on the Internet and in brochure format (Walsh, Walker, Reynolds, & the Mobilizing Minds Research Group, 2010). However, very little information is available to the public on other topics important to making informed choices (e.g., effectiveness of various treatments, advantages and disadvantages of treatment, common side effects of treatments). Moreover, where it is available, some of this information is focused on marketing specific medications or products. As such, evidence-based information on some important topics, such as what happens when treatment stops, is not easily accessible to either the public or health care professionals. Developing accessible, reliable

sources of such information would be very helpful for students, health care providers, and other stakeholders.

Helpfulness of Various Forms of Assistance

Participants indicated that in-person meetings with a counsellor were the most highly preferred source of direct help, followed by a range of other services including self-help books or websites and medication treatment recommended by a family doctor or a psychiatrist. Respondents were quite positive about self-help resources, which have advantages in terms of low cost and potentially wide availability. Self-help resources may also be integrated with other sources of help, such as contact with a counsellor or a physician. Medication was also considered to be a helpful form of treatment. Potentially lower-cost alternatives, such as telephone meetings with a counsellor, educational meetings, and educational workshops, were considered to be very helpful by a lower proportion of respondents. However, considering both *very helpful* and *moderately helpful* ratings, almost two thirds of respondents considered these resources to be potentially helpful. As such, these low-cost alternatives may be methods of meeting the needs of students when one-on-one counselling resources are limited.

Preferred Source and Amount of Information

About two thirds of the survey respondents indicated that they preferred to receive information about mental health services through in-person discussion with a health care provider. However, a significant challenge for health care professionals in providing information to students is the limited time that they have available in each consultation. For most patients, a physician visit typically lasts for 15 minutes or less. Visits with a counsellor are usually limited to a 50-minute session, during which it is often necessary to accomplish a number of goals in addition to exchanging information. There are also limits to the availability and accessibility of these service providers, who are only available at particular times and at specific locations. This suggests that other methods of delivering information would be helpful as alternatives to directly seeking out professionals for advice.

Given these issues with accessibility to information meetings with a service provider, it is helpful to note that 60% of respondents also expressed preferences for receiving information in written form (brochure or booklet) or through a recommended website accessed from home. These latter findings are consistent with a recent study (Cunningham et al., 2013) carried out in primary care medical clinics, where more than 1,000 young adults from a wide range of educational backgrounds responded to a consumer-preference modelling survey concerning how they would like to obtain information about problems with anxiety or depression. These researchers identified two segments of young adults—one segment that was particularly interested in receiving information through the Internet, and another segment interested in receiving information through more traditional written materials such as brochures. When these findings are considered along with our survey results, it would seem helpful to develop resources that can be

accessed online and also downloaded in hard-copy format, as well as printed for distribution in conventional brochure formats of two to six pages, as found in many health service settings.

Limitations

This study has a number of limitations that should be considered when interpreting the results and considering their application to other samples of students or young adults. Although the levels of symptoms and distress were fairly low, the majority of respondents were seeking some form of help, which was corroborated by the observation that a relatively high proportion had reportedly received help for problems with stress, anxiety, or depression in the past. The opinions of students who have never attended a counselling centre may be different, as may be the opinions of students who did not volunteer to complete the survey. It would be helpful in future research to obtain the opinions of students who are recruited in other settings, such as public areas of the university campus, and from more than one institution. In addition, the respondents had, on average, four years of education after the completion of high school, and it would be helpful to obtain information from young adults with lower levels of education and from families with lower levels of parental education. Although the proportion of respondents born outside of Canada and from different racial/ethnic groups suggests that respondents came from diverse backgrounds, it is possible that young adults with different characteristics (e.g., from other specific cultural groups or from lower-income families) would have different opinions than participants in this survey. Such considerations should be explored in future studies to ensure that adequately generalizable results are obtained regarding information pathways for students seeking help for their mental health problems.

Implications

In summary, the survey findings indicated that students would first turn to people in their personal support network and then to health care providers for information, advice, and assistance with common mental health concerns. However, given limitations on the level of mental health literacy among partners, peers, and parents, along with limited access to counsellors and physicians, alternative sources of information about mental health conditions and various treatment aspects are needed. As most students have relatively easy access to the Internet and are familiar with using it as a source of information, development of websites focusing on accessible, balanced, and reliable information about their mental health-related needs would be very helpful.

With respect to such websites, it may be especially effective to develop combined sources of information that would enable students, family, friends, and health care providers to access the required information online, which could also be downloaded and printed as resource sheets if desired. In addition, while video content was not highly rated as a primary method of receiving information in the survey, such narrative information may be particularly useful in encouraging

positive health behaviours (Fix et al., 2012). With broadband access now widely available, it is not difficult to include video content on information websites.

For example, The Mobilizing Minds Research Group has recently developed a website to specifically address the documented information needs of young adults concerning treatment choices for depression (http://depression.informed-choices.ca), which serves to illustrate how evidence-based sites can be used to increase mental health literacy for students and those to whom they are likely to turn for support, such as friends and families. Professionals can also download materials from this site, in both French and English, through its Creative Commons licence.

Web-based resources are also useful as a way for student groups to enhance mental health literacy among their peers. For example, the McMaster University Students Union has partnered with the Canadian Mood Disorders Association to develop the COPE: Student Mental Health Initiative (http://copex.weebly.com/) that consists of both web-based materials and peer-led workshops to increase awareness of depression and available treatment resources on campus. From a faculty and staff perspective, web-based resources can also be helpful to both increase mental health literacy and provide basic information on how to identify and refer students at risk, such as the Mental Health Awareness Program developed for those who work closely with students at the University of Guelph (https://www.uoguelph.ca/counselling/awareness/).

In addition to web resources, campus events (e.g., speakers, workshops, panel presentations, information booths, and displays) during national campaigns such as the Canadian Mental Health Association's Mental Health Week (http://mentalhealthweek.cmha.ca/) provide high-profile opportunities to increase mental health literacy and provide helpful information about treatment resources available on campus. Similar programming can also be introduced at orientation events for students and their parents. And, on an even broader scale, national initiatives such as the Canadian Association of College & University Student Services and Canadian Mental Health Association (2013) joint project to develop a comprehensive guide for postsecondary mental health hold promise of changing the entire landscape of mental health awareness and service delivery on campuses across Canada.

We hope that the results of our survey of postsecondary students' information needs and pathways for treatment can assist in the continued development of evidence-based resources that can be delivered online, made available in printed format, and used to inform programming and policy development designed to address the mental health-related issues affecting postsecondary students across Canada.

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