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Research Articles

THE PROCESS AND CONTENT OF AN ONLINE SUPPORT GROUP FOR COLLEGE STUDENTS WITH PSYCHOLOGICAL PROBLEMS

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ABSTRACT

This study examines the usage of a website providing both information pages and an online support group for UK college students experiencing psychological or academic problems. It extends a previous paper (Freeman, Barker, & Pistrang, 2008) which reports on outcome data. Participants ($N = 238$) were given access to a website containing information pages about common student emotional and academic problems, and some ($N = 142$) were also given access to an online mutual support group. Content analysis of postings and monitoring of web page hit rates showed that participants accessed the information pages and online support group for help with a diverse range of both academic and emotional problems. The processes of the online support group were similar to those reported in previous studies of online support groups for other psychological problem types: the most common verbal responses were Self-Disclosure, Providing Information, and Providing Emotional Support. The findings suggest that online support plus information can be a viable method of facilitating self-help for psychological problems in the college student population.

Key Words: online support, internet support, mutual help, students, mental health, academic problems

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Online support groups for psychological problems come in many different shapes and sizes, but they usually follow a peer-support model—that is, they are run by their members for their members, with minimal or no professional input. However, in practice, online groups are often embedded within a larger website that also provides some professionally generated self-help material in addition to the peer support group.

The present study examines the usage patterns of a website providing both information and online peer support for UK college students experiencing psychological or academic problems. Such problems are widespread in the college student population (Harrison, Barrow, Gask, & Creed, 1999; Reavley & Jorm, 2010; Stewart-Brown, Evans, Patterson, Petersen, Doll, Balding, et al., 2000; Webb, Ashton, Kelly, & Kamali, 1996). The website was intended to complement existing college counseling services by being available around the clock and accessible anonymously, as well as being a first port of call for those who did not wish to seek professional help.

Earlier studies of online support groups have found that the process of communication is consistent across groups for different types of psychological problems in a general adult (non-student) population. The most common types of verbal responses were the same in groups for problem drinkers, eating problems, and depression (Klaw, Huebsch, & Humphreys, 2000): self-disclosure was the most frequent response, followed by information or advice, and then emotional support. These processes are similar to those in face-to-face support groups, although online groups may have higher levels of both directly expressed emotional support and self-disclosure (Salem, Bogat, & Reid, 1997).

Participants in the present study were randomly assigned to either: 1) a Support Group condition (online support group plus online information provision); or 2) an Information Only condition. The rationale for these two conditions was that support groups and information pages both represent commonly available types of online help, and the combined condition would allow any additional effects of the support group to be examined. An earlier report found that outcomes in the two conditions were roughly comparable (Freeman, Barker, & Pistrang, 2008). The present article examines the pattern of access to the information pages and the process and content of postings to the online support group.

METHOD

Participants

As described in Freeman et al. (2008), participants were recruited by an e-mail advertising the online support site, sent to all undergraduate and graduate students at a major UK university (with approximately 16,000 students in total). There were 283 participants, 198 (70%) women and 85 (30%) men, proportions differing markedly from the roughly equal numbers (52% women and 48% men) at the university ($\chi^2(1) = 36.6$, $p < .001$). The median age was 21, with a range of 18

to 56. The largest ethnic group was White (202, 71%) and the next largest UK Asian (i.e., referring to the Indian sub-continent: 29, 10%), followed by Chinese (19, 7%), Black (5, 2%), and Other (26, 9%). Again, these proportions differed from that in the university as a whole ($\chi^2(4) = 26.4$, $p < .001$), with the study sample having a greater proportion of White and Chinese students and a lower proportion of the other groups.

Procedure

All procedures for the study were conducted online and were approved by the university Research Ethics Committee. The recruitment e-mail invited students to participate in a research project testing a new website aimed at reducing stress, and it gave a link to a site where they could read the participant information sheet and complete the informed consent form. Consenting participants then filled out a demographic data form and the pre-measures described below. They were then randomly assigned to either the Information Only condition, giving access to a website containing information about common student problems, or the Support Group condition, giving access to an identical website, with the addition of an online mutual support group. Participants in both conditions had to log in, enabling access control and monitoring of the site and the support group.

The *information pages* provided information about common student problems, such as depression, loneliness, and procrastination, as well as suggestions about coping with such problems. These pages were created specifically for the study (adapted from material kindly made available by other UK universities). No other online psychological information pages were available at the university at which the study took place. In addition, the website contained listings of individuals and organizations offering support (online, telephone, and face-to-face) for those problems.

The *online mutual support group* took the form of an electronic bulletin board, again created specifically for the study. Support Group participants could post messages, and read and reply to other participants' messages. The first time that participants accessed the board they were asked to create a pseudonymous screen name. They also had the option of being e-mailed when someone replied to one of their messages. The board used a peer support approach, although it was moderated by the first author to ensure that postings were not abusive or otherwise inappropriate. No action was ever needed by the moderator during the course of the study.

Risk Screening

For ethical reasons, all students' responses on the initial CORE-OM questionnaire (see below) were examined, in order that anyone indicating high levels of risk to self or others could be referred to appropriate sources of help. The scoring structure of the risk scale meant that there were often scores just over or

just under the cut-off point. The questionnaire answers of these students were discussed by the first author (who at the time of the study was a trainee clinical psychologist) and the second author (a clinical psychologist) and an e-mail was sent if it was felt that the student might benefit from more psychological help than would be found on the website advice pages. Forty-six participants were contacted by e-mail to suggest that they seek additional help; the only student who scored at a high enough level to cause immediate concern was proactively followed up. Following these interventions students were able to join the study.

Duration

The study lasted for 10 weeks, a time period necessitated by the end of the academic year. However, after the study ended, the online support group was opened up to all students at the university, and all original participants were invited to continue on a voluntary basis.

Measures of Psychological Well Being

Three measures of psychological well being were used. They were administered as a pre-measure (and also as a post-measure 10 weeks later, although these latter data are not addressed here).

1. *Clinical Outcomes in Routine Evaluation—Outcome Measure* (CORE-OM; Evans, Connell, Barkham, Margison, McGrath, Mellor-Clark, et al., 2002). This widely used 34-item questionnaire assessed level of psychological distress. It has four subscales measuring subjective well-being, problems/symptoms, life functioning, and risk to self or others, for example "I have felt tense, anxious or nervous." Responses are on a 5-point scale, from 0 = "Not at all" to 4 = "Most or all of the time";
2. *Satisfaction with Life Scale* (SWLS; Diener, Emmons, Larson, & Griffin, 1985). This measure has five items (e.g., "In most ways my life is close to ideal") rated on a 7-point scale, from 1 = "Strongly disagree" to 7 = "Strongly agree"; and
3. *Sense of Community Index* (SCI; Chavis, Hogge, McMillan, & Wandersman, 1986). An amended 11-item version of this measure assessed sense of belonging to the university community, for example "I think [University] is a good place to study." Responses are on a 4-point scale, from 1 = "Strongly disagree" to 4 = "Strongly agree."

Process and Content Measures

Monitoring of Websites and Mutual Support Group

A website tracking service (hitmatic.com) was used to monitor how often each page was accessed. In addition, details of when each participant accessed the online mutual support group were recorded.

Support Group Content and Process

The *content* of all posts was coded into eight categories:

1. study difficulties;
2. employment worries;
3. financial worries;
4. interpersonal problems;
5. existential concerns;
6. depression or sadness;
7. anxiety; and
8. eating concerns.

Multiple codings were possible. All posts were coded by the first author; as a reliability check, the second author coded 40% of them. All but two categories had Cohen's kappas of .83 or above: Existential concerns and Anxiety had Cohen's kappas of .46 and .64 respectively (this was partly a result of their low frequency: the percentage agreements were 90% and 95%).

The *process* of all posts was coded independently by the first two authors using Klaw et al.'s (2000) system, which has been used in previous studies of online support groups. Six categories covered both Providing and Requesting each of three communication types: Emotional Support (e.g., empathy and encouragement), Information or Advice, and Self-Disclosure. Two further categories covered comments on inter-group relations: Appreciation and Negative Feedback. Two categories in the original system, Tracking and Humor, were omitted due to low frequencies of occurrence. The categories were not mutually exclusive; that is, a single post could receive multiple codings. Cohen's kappa between the two sets of ratings ranged from .54 for Request Emotional Support to 1.0 for Appreciation and Negative Feedback. Overall levels for each category were determined by averaging (thus if the two raters agreed that a category was present, the message was scored as 1, if both agreed it was absent, 0, and if there was disagreement, 0.5).

RESULTS

Psychological Well Being

The response to the background questionnaires showed that the website attracted a substantial number of participants who fell into the intended target population of students with psychological problems. Seventy-five (26%) reported current or previous contact with mental health services. On the CORE-OM, the mean score was 2.74 (*s.d.* 1.28); 137 (48%) participants scored above the clinical cut-off. The mean on the Satisfaction with Life Scale was 3.98 (*s.d.* 1.4) and the mean on the Sense of Community Index was 2.82 (*s.d.* 0.35).

Usage of the Online Information Pages

Over the 10-week period of the study, the information pages were viewed 1,204 times (see Table 1), a mean usage level of 4.3 pages per participant. These are aggregated data from the hit-rate counts: no data are available for individual usage, so the standard deviation and range cannot be ascertained. The pages with general details of other support services and those with information about procrastination were the most frequently accessed. The next most accessed pages by those in the Information Only condition were on work block, concentration,

Table 1. Frequency Each Information Page was Accessed in Each Condition

Page topic	Support group (% of group total)		Information Only (% of group total)		Total (% of total)	
Support services' details	79	(20%)	129	(16%)	208	(17%)
Procrastination	57	(14%)	75	(9%)	132	(11%)
Work block	28	(7%)	72	(9%)	100	(8%)
Depression	35	(9%)	63	(8%)	98	(8%)
Concentration	25	(6%)	67	(8%)	92	(8%)
Examinations	21	(5%)	62	(8%)	83	(7%)
Loneliness	27	(7%)	42	(5%)	69	(6%)
Anxiety	18	(4%)	47	(6%)	65	(5%)
Self-esteem	21	(5%)	40	(5%)	61	(5%)
Sexuality	18	(4%)	27	(3%)	45	(4%)
Eating disorders	13	(3%)	31	(4%)	44	(4%)
Relaxation	8	(2%)	24	(3%)	32	(3%)
Anger	7	(2%)	18	(2%)	25	(2%)
Self-injury	8	(2%)	17	(2%)	25	(2%)
Insomnia	5	(1%)	17	(2%)	22	(2%)
Homesickness	6	(1%)	15	(2%)	21	(2%)
Traumatic stress	7	(2%)	14	(2%)	21	(2%)
Bereavement	10	(2%)	11	(1%)	21	(2%)
Alcohol & drugs	1	(0%)	18	(2%)	19	(2%)
Phobias	7	(2%)	6	(1%)	13	(1%)
Parental divorce	3	(1%)	5	(1%)	8	(1%)
Total number of accesses	404	(100%)	800	(100%)	1204	(100%)

and depression, and by those in the Support Group condition were depression, work block, and loneliness (in those orders respectively). Overall, the patterns of information page use were similar in the two conditions, but the information pages were consulted more often by those in the Information Only condition than those in the Support Group condition.

Support Group Usage

Of the 142 participants assigned to the Support Group condition, the majority (84, 59%) did not log in to the support group (but may well have browsed the information pages). Of the 58 participants who did access the support group, 32 (55%) accessed it once, 10 (17%) twice, and 16 (28%) three or more times (including one participant who accessed it 45 times). The majority (39, 67% of support group users) read messages but did not post anything ("lurkers" in internet terminology); 19 (33% of support group users) posted messages. The group was accessed around the clock: 48% of accesses were between 9am and 5pm; 42% between 5pm and 1am; and 10% between 1am and 9am. During the 10-week period of the study, 49 messages were posted in 15 different conversations, known as "threads" in online terminology.

Neither age, gender, nor ethnicity was related to usage level, as measured by frequency of support group access among users. Those who reported previous contact with mental health services tended to have a greater usage (Mann-Whitney $U = 208$, $z = 2.2$, $p = .03$). Usage was negatively correlated with pre-test Satisfaction with Life (Spearman's $r_s = .29$, $p = .03$), but was not associated with the pre-test CORE-OM total or the Sense of Community Index. (The use of non-parametric tests means that these findings were not distorted by the one outlier who accessed the group 45 times.)

Support Group Content

The two most frequent content categories in the support group postings were study problems and interpersonal difficulties; depression/sadness, eating worries and employment worries were also frequent topics (see Table 2).

Support Group Process

The most frequent response modes used in postings to the online support group were Providing Self-Disclosure, Providing Information and Advice, and Providing Emotional Support. This pattern was similar to that in previous studies of online support groups for various different problem areas in non-student populations (see Table 3): ongoing groups for problem drinkers (Klaw et al., 2000), depression (Salem et al., 1997), and eating disorders (Winzelberg, 1997). Examples of some of these processes are given below.

Table 2. Content of Support Group Messages

Content code	Number of messages
Study difficulties	14 (29%)
Interpersoal problems	14 (29%)
Depression/sadness	9 (19%)
Eating worries	8 (17%)
Employment worries	7 (15%)
Existential concerns	4 (8%)
Anxiety	4 (8%)
Financial worries	2 (4%)

Note: Each message could be coded under more than one content coding.

Providing Self-Disclosure

Self-disclosure was defined as statements where the writer was giving information about themselves, their past and present life, their feelings and opinions. This was the most frequently used code (71% of posts). Self-disclosure generally related to the central problem of the conversation thread of which it was a part. It could be part of the provision of advice or emotional support but often served as part of a request for support in which case it was coded for both disclosure and requesting emotional support, as in the following example:

> Hiya all. I was wondering if anyone felt like me, or could help me. I'm a first year UG [under-graduate], my course is really hard and I just don't know why I'm bothering with anything. I've felt like this for a couple of years and it's really beginning to eat me up. It comes and goes, but I can't afford it now with exams. The thing is nothing really matters.

Providing Information or Advice

This was the next most common coding of support group posts (47%).

> If you're feeling down, treat yourself! Why not? Don't wait for others to, just focus on the things you like doing. What do you really like doing or what are you interested in? Try and do more of that stuff and less of stuff you don't like. It may sound simple, cos of course we all have to do loads of things we don't like all the time; exams and stuff, but if your filling the rest of your time with cool, fun stuff, it sort of sweetens the pill and might help you look at things from a different perspective.

Table 3. Rank Ordering of Process Codes Compared to Three Previous Studies

	Provide self-disclosure	Provide information or advice	Provide emotional support	Request self-disclosure	Request information or advice	Group feedback: appreciation	Request emotional support
Present study	1 (71%)	2 (47%)	3 (24%)	4 (15%)	5 (13%)	6 (12%)	7 (7%)
Problem drinking (Klaw et al., 2000)	1 (66%)	2 (37%)	3 (29%)	6 (7%)	5 (15%)	4 (25%)	7 (3%)
Depression (Salem et al., 1997)	1 (51%)	2 (34%)	3 (22%)	*a*	*a*	*a*	*a*
Eating disorders[b] (Winzelberg, 1997)	1 (31%)	2 (23%)	3 (16%)	5 (4%)	4 (7%)	*a*	6 (5%)

Notes: 1 = most frequent, 6 = least frequent. Percentages are numbers of posts containing the category as a percentage of total posts (note that one post could have more than one code).

[a]There was no category of this type in these studies.

[b]The coding scheme used by Winzelberg (1997) gave each post only one code.

The information and advice provided would often be on the basis of the experience of the writer.

> I know it's hard, but my advice would be: find a job that would be good experience if you can, and it'll pay off. For me, because I was 20 at the time, it also made me mature faster and take things more seriously, realising their value.

Providing Emotional Support

Emotional support was coded as present in 24% of the posts.

> Hi, you seem really sad. Hope you're feeling a bit better than when you posted your message.

> Really hope you get somewhere and the situation changes. I know how horrible it can be living with something like this and not feeling able to say anything. It sounds silly but it ends up affecting a lot more of your life than you think. Good luck!

Requesting Self-Disclosure

Requests for others to disclose information about themselves were present in 15% of the posts. They often overlapped with requests for emotional support or for advice and information.

> I was wondering if anyone else has the same problem as me, and if anyone has any good tips to avoid the problem.

> I was simply wondering if anyone else has dealt with the mortality issue before or had any thoughts on what I've been dealing with.

Requesting Information or Advice

This code occurred in 13% of posts.

> Anyone else having problems with procrastination? Anyone tried any methods that *really* helped?

Requesting Emotional Support

This code occurred in 7% of posts and often overlapped with self-disclosure and requests for self-disclosure.

> Anyone have any advice or kind words for a heartbroken girl? My long-term boyfriend has just dispatched with me in a very cruel manner. Now I see nothing but endless solitude before me. . . .

Group Feedback (Appreciation)

This code occurred in 12% of the messages and generally referred to the writer thanking a particular person for a reply, but also sometimes occurred as a more general appreciation of the replies or the group.

> Hi, thanks for replying to my posting. I am glad to hear that you survived it all and can tell the tale as a postgraduate.
>
> That's a really good idea and I wish I had known this in September! I will definitely try it next year! I think I am going to be living with 3 workaholics next year, rather than in distracting halls, so here's hoping for a positive influence.
>
> Thanks to this page I . . . realised that I'm not alone and that my predicament is actually defined as procrastination.

DISCUSSION

This study examined the usage patterns of a website with information pages and an online mutual support group aimed at college students with psychological problems. About half of the users scored above the clinical cut-off score on the CORE-OM screening instrument. They used the site for help with a diverse range of both academic and emotional problems. The processes of the online support group were strikingly similar to those reported in previous studies of online support groups for diverse problem areas and with varied populations. This demonstrates a consistency of helping behaviors across different group environments.

The most frequently addressed student concerns, both in the information pages and the support group, were related to difficulties in studying. This is in accord with other studies of student mental health (Monk, 1999; Stewart-Brown et al., 2000) that have found that worries about study were among those most related to psychological difficulties. In the support group, interpersonal problems were discussed at the same highest level as worries relating to study, and depression or sadness was the second most discussed problem. However, the content of the information pages was pre-determined, and may not have tapped the full range of student concerns. For example, there were no pages on intimate partner violence or acquaintance rape, which research has shown to be prevalent in the student population (Forke, Myers, Catallozzi, & Schwarz, 2008). On the other hand, the support group data are limited due to the low level of support group usage. Despite these limitations, the two approaches—content analysis of postings and counting hits to the information pages—provide complementary research methods for triangulating estimates of the predominant concerns in the student population and they yield largely similar findings, together building up a picture of which problems students tend to use online resources for.

Participants in the Support Group condition tended to use the information pages less than those in the Information Only condition, which suggests that the availability of a support group may reduce the need for information from external sources. Future research could examine the characteristics of those tending to use informational versus interpersonal support; that is, whether students with greater levels of distress or different types of concerns prefer one medium over the other.

Of those students assigned to the support group condition, around 40% used the group at least once; of these, just over a quarter were more active users (accessing the group three or more times). This a lower usage than that found in a professionally led online support group for Asian-American male students (Chang, Yeh, & Krumboltz, 2001) and in another professionally led group for female students with eating disorders (Winzelberg, Epstein, Eldredge, Wilfley, Dasmahapatra, et al., 2000), but it resembles that in an unstructured group for teenage mothers (Dunham, Hurshman, Litwin, Gusella, Ellsworth, & Dodd, 1998), which, similarly to the present study, found a skewed distribution of support group use, with about a third of the group being active users. This pattern may be generally characteristic of naturally occurring online mutual support groups, which develop a core membership of a few active posters who communicate the group culture to the rest of the membership (Lieberman & Russo, 2002). Previous mental health service contact and lower life satisfaction (although not level of psychological symptoms) predicted increased support group use in the present study, suggesting that the group was seen as potentially useful by those whom it was aimed at.

Several factors thought to be therapeutic in face-to-face groups were present in the online group. In particular, Self-Disclosure, Providing Information, and Providing Emotional Support were the most frequently used response modes. Self-disclosure has been suggested as being therapeutic in itself (Pennebaker & Seagal, 1999; Yalom, 1995). It is a prominent feature of both naturally occurring online mutual help groups (Klaw et al., 2000; Salem et al., 1997; Winzelberg et al., 2000) and groups set up for research purposes (Chang et al., 2001; Dunham et al., 1998).

The present study had several limitations. Most importantly, it was limited by the relatively low usage rate of the online support group. The 10-week period of the study may have been too short: newly created groups may take some time to build up a critical mass of active members. It may also be that the heterogeneous nature of the problems discussed worked against the group forming a clear identity and group culture. Had more funding been available, we would have advertised the website more extensively at the point of use, for example, by providing mouse mats and posters in the computer cluster rooms, in order to attract more participants. There are also software and web design issues, as the overall tone and layout of the home page often determines whether users will engage further with a site. At the time of our study, the site was not set

up by professional web designers (although its current version now has an attractive look and feel). Another limitation was that we were only able to collect rudimentary data on individual patterns of usage for the support group, and no data on individual patterns of usage for the information pages, due to the software package used. Future studies could usefully examine how support group users read, respond to, and initiate messages over time. Similarly, studies could examine how online information is used over time, that is, whether individuals tend to look at pages only once or return to them over multiple occasions.

The findings suggest that online support plus information can be a viable method of facilitating self-help for psychological problems in the college student population. As well as providing help and support for those with existing problems, online support or information may also serve a preventive function, by enabling students to identify and deal with potential problems at an early stage before they become serious (Reavley & Jorm, 2010). The great advantage of sites combining information and support is that they are freely accessible and non-stigmatizing, and combine the best of peer-led and professional help. The present project attempted to strike a balance between the professional knowledge embodied in the material on the information pages and the experiential knowledge (Borkman, 1990) conveyed in postings to the peer-led mutual support group. Although initiated by professionals, the online support group functioned as a peer-led community, with the professionals only monitoring in case of major risk issues (there were none during the study period). Future work could profitably examine the interplay between online support groups, online information pages and other forms of online self-help (such as computerized CBT), professional counseling, and other forms of informal social support in this population, in order to understand how the psychological needs of students may best be met.

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REFERENCES

Borkman, T. J. (1990). Experiential, professional, and lay frames of reference. In T. J. Powell (Ed.), *Working with self-help* (pp. 3-30). Silver Spring, MD: NASW Press.

Chang, T., Yeh, C. J., & Krumboltz, J. D. (2001). Process and outcome evaluation of an on-line support group for Asian American male college students. *Journal of Counseling Psychology, 48,* 319-329.

Chavis, D. M., Hogge, J. H., McMillan, D. W., & Wandersman, A. (1986). Sense of community through Brunswik's lens: A first look. *Journal of Community Psychology, 14*, 24-40.

Diener, E., Emmons, R. A., Larson, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 46*, 71-76.

Dunham, P. J., Hurshman, A., Litwin, E., Gusella, J., Ellsworth, C., & Dodd, P. W. D. (1998). Computer-mediated social support: Single young mothers as a model system. *American Journal of Community Psychology, 26,* 281-306.

Evans, C., Connell, J., Barkham, M., Margison, F., McGrath, G., Mellor-Clark, J., et al. (2002). Towards a standardised brief outcome measure: Psychometric properties and utility of the CORE-OM. *British Journal of Psychiatry, 180,* 51-60.

Forke, C. M., Myers, R. K., Catallozzi, M., & Schwarz, D. F. (2008). Relationship violence among female and male college undergraduate students. *Archives of Pediatrics and Adolescent Medicine, 162*, 634-641.

Freeman, E., Barker, C., & Pistrang, N. (2008). Outcome of an online mutual support group for college students with psychological problems. *Cyberpsychology and Behavior, 11,* 591-593.

Harrison, J., Barrow, S., Gask, L., & Creed, F. (1999). Social determinants of GHQ score by postal survey. *Journal of Public Health Medicine, 21,* 283-288.

Klaw, E., Huebsch, P. D., & Humphreys, K. (2000). Communication patterns in an on-line mutual help group for problem drinkers. *Journal of Community Psychology, 28,* 535-546.

Lieberman, M. A., & Russo, S. (2002). Self help groups and the internet: Breast cancer newsgroups. *International Journal of Self Help and Self Care, 1,* 323-344.

Monk, E. M. (1999). Student mental health. *International Journal of Stress Management, 6,* 215-219.

Pennebaker, J. W., & Seagal, J. D. (1999). Forming a story: The health benefits of narrative. *Journal of Clinical Psychology, 55,* 1243-1254.

Reavley, N., & Jorm, A. F. (2010). Prevention and early intervention to improve mental health in higher education students: A review. *Early Intervention in Psychiatry, 4,* 132-142.

Salem, D., Bogat, G. A., & Reid, C. (1997). Mutual help goes on-line. *Journal of Community Psychology, 25,* 198-207.

Stewart-Brown, S., Evans, J., Patterson, J., Petersen, S., Doll, H., Balding, J., et al. (2000). The health of students in institutes of higher education: An important and neglected public health problem? *Journal of Public Health Medicine, 22,* 492-499.

Webb, E., Ashton, C. H., Kelly, P., & Kamali, F. (1996). Alcohol and drug use in UK university students. *Lancet, 348,* 922-925.

Winzelberg, A. (1997). The analysis of an electronic support group for individuals with eating disorders. *Computers in Human Behavior, 13,* 393-407.

Winzelberg, A. J., Eppstein, D., Eldredge, K. L., Wilfley, D., Dasmahapatra, R., Dev, P., et al. (2000). Effectiveness of an internet-based program for reducing risk factors for eating disorders. *Journal of Consulting and Clinical Psychology, 68,* 346-350.

Yalom, I. D. (1995). *Theory and practice of group psychotherapy* (4th ed.) New York: Basic Books.

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