Adolescent’s preferred modes of delivery for mental health services

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Background: Mental health interventions for young people are increasingly being delivered online. This is occurring due to an assumption that young people prefer online interventions because they address some of the well-established help-seeking barriers.

Method: A self-report questionnaire investigating preferences for mental health care delivery was administered to a nonclinical sample of 231 young people aged 15–19.

Results: The strongest help-seeking intention in response to a scenario describing symptoms of depression was for face-to-face services, followed by not seeking help at all. Only 16% expressed a preference for online treatment.

Conclusion: The assumption that a majority of young people will prefer online delivery of mental health treatment was not supported, although boys showed a stronger relative preference for online modes.

Key Practitioner Message

- The assumption that the majority of young people want services online is not supported with only 16% of an Australian nonclinical sample holding this preference
- Although two-thirds of participants state a preference for seeking help face-to-face, the highest behavioural intention was to not seek help at all
- An intention to seek help online was directly predicted by an intention to seek help face-to-face and indirectly predicted by higher mental health literacy
- Males showed a stronger relative preference for online help
- Simply providing services online is unlikely to improve help-seeking rates for mental health problems among young people

Keywords: Mental health care; help-seeking; online therapy; young people; adolescents

Introduction

Mental health problems are highly pervasive among adolescents, with the National Comorbidity Survey – Adolescent Supplement (NCS-A) revealing that half of those aged 13–18 years in the United States experience mental disorder (Merikangas et al., 2010). Over half of all mental health problems emerge before 14 years of age and there is a steep increase in the prevalence of mood-related disorders in mid-adolescence (Kessler et al., 2005). Paradoxically, this increase in prevalence of mental disorder is associated with an increasing reluctance by adolescents to seek professional mental health care (Rickwood, Deane, Wilson & Ciarrochi, 2005).

Adolescence is a time of critical changes as young people make their way into adulthood by completing school, gaining work and financial autonomy, moving out of the family home and beginning new relationships (Rickwood, White & Eckersley, 2007). Mental health problems have been related to impaired peer relations, low self-esteem, low attention and difficulties in school (Strauss, Frame & Forehand, 1987), with even mild issues causing social, emotional and cognitive changes during this vital developmental period (Rickwood et al., 2005). To engage more young people in mental health care, some services are changing their mode of delivery to an online format, under the assumption that young people prefer to seek help online. This assumption is, however, untested; it is unknown whether most adolescents would truly prefer online to traditional face-to-face mental health service delivery, or whether this applies only to a subset of young people facing specific barriers to service use.

Modes of seeking help

Face-to-face. Face-to-face service delivery is the traditional approach to mental health care and can be offered in a wide range of settings and contexts. The common thread among all face-to-face options is the ability to obtain reassuring human contact and nonverbal and visual cues that are fundamental to the traditional counselling process (Rochlen, Zack & Speyer, 2004). Face-to-face mental health care may be particularly preferred by those people who lack human contact in their usual day-to-day activities. Furthermore, face-to-face help is likely to be preferred by those who are concerned about the quality of
online or phone line information, or the credentials of those therapists providing it (Barak, Klein & Proudfoot, 2009; Eysenbach, Powell, Kuss & Sa, 2002).

**Over the phone.** Phone-based help via crisis lines and counselling over the phone enables people to talk through their problems with another person, while maintaining a degree of anonymity. Phone-based services allow for verbal, but not nonverbal, cues. Although phone lines are more anonymous than face-to-face services, this is not to the extent of online services as others may overhear the conversation or see the phone bills (Oravec, 2000). Phone lines are, however, likely to be more cost effective and easier to access than face-to-face therapy (J. Wright, 2002).

**Help online.** Online services offer a number of unique benefits depending on the specific modality utilised. Online therapy can occur either asynchronously or synchronously, through guided or self-guided options, be public or private and occur in either individual or group circumstances (Barak & Bloch, 2006; Luce, Winzelberg, Zabinski & Osborne, 2003; Oravec, 2000). The common link between the various online options is the ability to stay completely anonymous if the help-seeker wishes to do so.

**Identified barriers to help-seeking**

Many varied factors have been investigated for their impact on help-seeking. Particularly, strong and consistent evidence has been found for the effects of gender, self-stigma, emotional competence, mental health literacy, self-reliance and shyness. Females have been identified as being more likely to self-disclose (Valkenburg, Sumter & Peter, 2011) and seek help for their mental health problems than males [Australian Bureau of Statistics (ABS), 2007]. Higher self-stigma has been related to lower help-seeking behaviour (Corrigan, 2004) and effects may be strongest for males, who report significantly more stigmatising and prejudicial attitudes than females (Corrigan & Watson, 2007). People low in emotional competence are likely to have lower levels of help-seeking as they have fewer social supports, fewer positive past help-seeking experiences, and are more easily embarrassed than those higher in emotional competence (Ciarrochi, Wilson, Deane & Rickwood, 2003; Rickwood et al., 2005). Low mental health literacy has been associated with low help-seeking intentions (Gould et al., 2004). Emotional competence and mental health literacy are generally higher in females (Ciarrochi, Wilson & Deane, 2001; Ciarrochi et al., 2003) and both have been connected to lower levels of self-stigma (Rickwood et al., 2005). Higher levels of self-reliance have been identified as a barrier to help-seeking due to the belief that one should be able to cope with problems alone (Gould et al., 2004). Finally, shyness is an aspect of social competence that has been identified as a contributing factor in help-seeking behaviour (Rickwood et al., 2005).

**Overcoming help-seeking barriers**

The help-seeking barriers of self-stigma, emotional competency, mental health literacy, self-reliance and shyness are likely to be maximally evident in face-to-face help. Online modalities are increasingly being adopted by mental health services as they have been suggested as having the ability to overcome these identified barriers. Online services may reach more males with studies showing that the ‘gender divide’ apparent in other sources of help is reduced in online sources, with males accessing help (Gould, Munfakh, Lubell, Kleinman & Parker, 2002), and self-disclosing at similar levels to females (Valkenburg et al., 2011). The anonymity provided by seeking help online is likely to be valued by those high in self-stigma (Oravec, 2000). The easy access to most online services allows adolescents to exercise self-reliance and autonomy from parents (Oravec, 2000; Rochlen et al., 2004; J. Wright, 2002), and mental health literacy can be gained from online websites. Online services can also empower young people by giving them more control over the timing of interactions by proving a ‘zone of reflection’, which may be especially valued by those who are shy or low in emotional competence (Rochlen et al., 2004).

**Preferences towards modes of delivery**

Increasing service provision online is based on the assumption that young people would prefer to access services via this mode, as it overcomes their barriers to seeking help face-to-face; however, a review of the literature has found no study demonstrating that young people actually prefer this source of help over that of face-to-face or phone-based services. Studies by Burns, Davenport, Durkin, Luscombe and Hickie (2010) and Gould et al. (2002) found that approximately one-fifth of adolescents aged 12–17 years had used the internet in the past for a mental health or substance abuse problem, but neither of these studies indicated whether the internet was the preferred mode of support for these young people or if it was used simply because they lacked an alternative. Consequently, it is currently an untested assumption that adolescents actually prefer online mental health care over more traditional forms of delivery.

**The current study**

The aims of this study were to determine whether adolescents do prefer online over more traditional types of mental health service delivery, what their help-seeking intentions are for a commonly experienced mood disorder and the factors that affect these intentions. Based on previous research, it was hypothesised that girls would prefer face-to-face or phone-based services, whereas boys would have a greater preference for the more anonymous online help, and that these help-seeking preferences would be evident in help-seeking intentions. Furthermore, intentions to seek different types of help were hypothesised to be related to previously established help-seeking barriers, as displayed in Figure 1.

**Method**

**Participants**

A nonclinical sample was obtained because the study was interested in either help-seeking behaviours, and the very high prevalence rate of mental disorders in this age group justifies a community sample. Participants were 231 students attending three schools in Canberra, the capital of Australia, during April/May, 2011. Initially, 302 students were approached to voluntarily participate; 71 of these did not return the survey, resulting in a return rate of 76.49%. There were 139 female students (60.2%) and 92 male students (39.8%) from 15 to 19 years of age (M = 16.31, SD = 0.87). The students came from
both public (43.3%) and private schools (56.7%), and there were 59 (25.5%), 94 (40.7%) and 78 (33.8) students in grades 10, 11 and 12 respectively.

Measures

Help-seeking preferences. To assess help-seeking preferences, participants were asked to choose overall whether they would prefer to have help: ‘over the phone’, ‘online’ ‘face-to-face’ or ‘I would not seek help’, and then briefly indicate why they held this preference.

Help-seeking intentions. The ‘General Help Seeking Questionnaire’ (GHSQ) (Rickwood et al., 2005; Wilson, Deane, Ciarrochi & Rickwood, 2005) was used to assess intentions to use each help source. Participants first read a vignette adapted from Jorm and Wright (2008) describing depression, and then rated how likely it was that they would use each help source from 1 (Extremely Unlikely) to 7 (Extremely Likely). The various sources of help were chosen to reflect variation in type of communication and level of anonymity comprising of online, phone line, face-to-face and no help. The online options were split into self-guided ‘…from a website’ and guided options, with the guided options also being split into an asynchronous source ‘…email with a professional’, and a synchronous source ‘…instant chat with a professional’. The various face-to-face options were as follows: ‘Youth worker’, ‘Private psychologist’, ‘School counsellor’, ‘Other counsellor’ and ‘Health Practitioner/GP’. The responses for each of the categories were averaged to obtain a total help-seeking intention score for each of the four categories of phone, online, face-to-face and no one.

Self-stigma. Self-stigma was assessed using the ‘Self-Stigma of Depression Scale’ (SSDDS) (Barney, Griffiths, Christensen & Jorm, 2010). Participants were asked to imagine that they had the problem stated in the depression vignette when answering each item.

Emotional competency. An adapted 12-item version of the original 20-item ‘Toronto Alexithymia Scale’ (TAS-20) (Bagby, Parker & Taylor, 1994) was used to measure emotional competency.

Mental health literacy. Mental health literacy was assessed by asking participants to respond to questions after reading three vignettes describing someone with Social Phobia/Anger, Schizophrenia or Depression with Substance Misuse (Burns & Rapee, 2006; Jorm & Wright, 2008). For each vignette, participants were asked to indicate how worried they would be about the emotional well-being of the person described in the vignette if that person were their friend. Participants were also asked what they thought was the matter and whether they thought the person needs help for their problem. Scores between zero and two points were awarded for each question, resulting in a total score of six for each vignette. Total scores for the three vignettes were averaged to obtain a total mental health literacy score of six, with higher scores indicating better mental health literacy.

Self-reliance. Self-reliance was assessed using the self-reliance subscale of the Psychosocial Maturity Inventory Form D’, for the 11th grade (Greenberger, Josselson, Knerr & Knerr, 1974).

Shyness. Shyness was assessed using the Revised Cheek and Buss Shyness Scale (CBSS-R) (Crozier, 2005).

Design and procedure

Research ethics approval was first obtained and parental consent provided for those aged less than 18 years. Each participant also provided informed consent. Participation involved completing a self-report questionnaire comprising the study measures and demographic questions, taking about 30 min.

Statistical analysis

Data were analysed using PASW Statistics 18 (SPSS Inc., Chicago, IL, USA, 2009) with alpha set at .05, unless otherwise specified. All data were first carefully screened. There was less than 5% missing data over all items, indicating that the data can be assumed ‘missing at random’ (Tabachnick & Fidell, 2007), listwise deletion was therefore used. Bivariate Pearson’s product-movement correlation coefficients (r) were computed for each of the study variables and are presented in Table 1. To examine whether gender affected preferences for sources of help, a Pearson’s Chi-square test of contingencies was used. As only three participants chose ‘Over the phone’ as their desired preference, this category was removed. To determine

Table 1. Summary of the intercorrelations of the study variables

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<td>Face-to-face</td>
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<td>No help</td>
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<td>Emotional competency</td>
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N = 230.

*p < .05; **p < .01.

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whether there were gender and/or age differences in intentions to seek help by each help source, a 2 (gender) × 3 (grade) × 4 (help-seeking preference) mixed analysis of variance (SPANOVA) with a repeated measure on the last factor was performed. All assumptions were met except for sphericity; consequently, the Huynh-Feldt correction was employed (Tabachnick & Fidell, 2007).

To investigate the hypothesised direct and indirect predictors of intentions to use each of the help-seeking sources, a path analysis was conducted. This was also used to test the goodness-of-fit of the data to the initial hypothesised model (presented in Figure 1). Prior to the analysis, however, phone help was removed as this preference was negligible. Note that a multiple regression analysis was not conducted due to the lack of significant bivariate correlations between the dependent variables and the predictor variables (see Table 1). Consequently, the multivariate regression analysis would provide no useful information. Rather, the path analysis was conducted to reveal the indirect effects and enable prediction of multiple dependant variables. The path analysis was performed using AMOS 18 (Arbuckle, 1983–2005) to enable the simultaneous estimation of multiple dependent relationships. The sample size of 231 met the minimum requirement of 200 to ensure high statistical power (Kline, 1998). At each stage of model respecification, the best-fitting model was assessed using the Akaike Information Criterion (AIC) and more stringent Consistent Akaike Information Criterion (CAIC), which Williams and Holahan (1994) suggest as the best indicators of model-parsimony. Based on the recommendation of Holmes-Smith, Coote and Cunningham (2004), the model with the smallest AIC/CIAC was considered the best-fitting model.

Results

Preferences for help sources

Overall, face-to-face help was preferred by 58.9% of participants, 23.8% of the sample preferred to not seek help, 16% preferred online help and 1.3% stated that they would prefer to seek help over the phone. The qualitative responses for preferring face-to-face help included that it is more personal, body language can be assessed, it is a trusting environment, the help-seeker knows who they are talking to and there is customised feedback. Reasons for preferring to not seek help were because the potential help seekers were too scared or did not like talking about themselves. Responses from participants who preferred online sources as to why they held this preference included, the anonymity of the internet, that information was easily accessible, and that there are often people in chat rooms who have been through the same thing.

Gender differences within preferences

The 2 × 3 Chi-square test was statistically significant χ² (2, N = 228) = 12.79, p = .002, with a small to medium effect size, Cramer’s V = .24, indicating that gender was related to help source preferences. To determine where the significant difference in preferences lay, separate 2 × 2 Chi-square tests were used. The association between gender and help-seeking preference was small, but statistically significant when comparing preferences for online and face-to-face help, χ² (1, N = 173) = 5.34, p = .021, Cramer’s V = .18. Odds ratios revealed that males were 1.66 times more likely to prefer online sources over face-to-face sources than females. There was also a significant, small to moderate association between gender and the help-seeking preferences of face-to-face help and not seeking help, χ² (1, N = 191) = 10.77, p = .001, Cramer’s V = .24. Odds ratios showed that females were 1.58 times more likely to prefer help face-to-face than not seek help, compared with males. The association between gender and the preferences of online help and not seeking help were nonsignificant, χ² (1, N = 92) = .22, p = .636, indicating that males and females were just as likely to have a preference for either of these sources. The preferences by gender are shown in Figure 2.

Intentions to use each help source

The only statistically significant effect revealed by the SPANOVA was a large main effect for help-seeking intentions, F (3, 672) = 43.03, p < .001, partial η² = .16. A series of pairwise comparisons using a Bonferroni adjustment found that the intention to use each help-seeking source was significantly different from the intention to use any other source. The highest intention was to not seek help, followed by seeking help face-to-face, then online help, with phone help being the least intended source of help.

Predictive model of help-seeking intentions. The hypothesised model presented in Figure 1 did not fit the data, χ² (233.861, df = 26, p < .001, GFI = .807, AGFI = .666, TLI = -.077, RMSEA = .047, AIC = 78.236, CAIC = 171.526, along with standardised parameter estimates. All paths presented were significant at p < .05. This model explained 5% of the variance in intentions to use face-to-face help, 1% of the variance in online help and 3% of the variance in intentions to seek no help. The model was subsequently modified by dropping nonsignificant paths, and examination of modification indices was used to obtain a better fitting model. Figure 3 shows the model that best fit the data, χ² = 36.236, df = 24, p = .052, GFI = .966, AGFI = .937, TLI = .931, RMSEA = .047, AIC = 78.236, CAIC = 171.526, along with standardised parameter estimates. All paths presented were significant at p < .05. This model explained less than 1% of the variance in intentions to use face-to-face help, 1% of the variance in online help and 3% of the variance in intentions to seek no help. All the parameters attaining significance in this multivariate model were consistent with their bivariate correlations.

In the multivariate model, the only direct predictor of online intentions was a moderately strong intention for help-seeking preference, 14% of the variance in intentions to seek no help, followed by seeking help face-to-face, then online help, with phone help being the least intended source of help. The only statistically significant effect revealed by the
mental health literacy. Intention to not seek help was directly predicted by a moderately strong negative relationship with intentions to seek face-to-face help and a weaker association with self-stigma. In turn, greater self-stigma was predicted by relatively weak relationships with emotional competence (less competence), gender (being female) and higher shyness.

### Discussion

This study aimed to determine whether adolescents do report a preference for online modes of mental health care, and whether established barriers to face-to-face service use are related to this preference. It was revealed that adolescents still hold a majority preference for help provided face-to-face, whereas their highest behavioural intention is to not seek help at all.

Preference for face-to-face rather than online help could be explained by the ‘mere exposure effect’ of attitude formation (Zajonc, 1968), which would maintain that the greater familiarity of face-to-face help explains its precedence; whereas online help is new and unfamiliar. As advertising campaigns have been shown to increase awareness related to mental health problems such as depression (Phoenix Research., 2006), an awareness campaign promoting online services may increase their preference.

As hypothesised, boys were shown to have a stronger preference for online compared with face-to-face help relative to girls. However, overall, adolescent girls were more likely to seek help than boys, and boys had a strong preference to not seek help at all. This is consistent with previous research, and supports the work of Gould et al. (2002) arguing that the ‘gender divide’ that is highly evident in face-to-face modes appears to be attenuated online. This is an important finding in ways to encourage more young men to seek help.

The predictive model provides support for self-stigma, emotional competency, mental health literacy and shyness as direct or indirect barriers to help-seeking. However, the strength of these factors predicting intentions to seek different sources of help was quite low. The model accounted for 5% of the variance in intention to seek help face-to-face, with mental health literacy being the only direct predictor, and gender having an indirect effect through literacy. The association between mental health literacy and face-to-face help-seeking intentions is important, as mental health literacy can be improved (Kelly, Jorm & Wright, 2007; Wright, McGorry, Harris, Jorm & Pennell, 2006). Intentions to seek help online were directly predicted by only a greater intention to seek help face-to-face, accounting for 14% of the variance in this intention. Not seeking help at all was most strongly predicted by the model, explaining 19% of the variance. This was through direct relationships with low intention to seek help face-to-face and higher self-stigma, and indirect effects through lower mental health literacy, lower emotional competency, greater shyness and being female.

The stronger association of self-stigma, emotional competency and shyness in predicting an intention to not seek help at all over seeking help online suggests that – at this point in time – the online format has not overcome the barriers that cause adolescents to not seek help. There is still an overall orientation to not seek help and barriers remain to all forms of help. This has concerning implications as it suggests that simply providing help through different means will not increase the likelihood that young people facing these barriers will actually use these new avenues of help.

This is not surprising as, based on a functional approach to attitude change (Katz, 1960), young people faced with particular barriers need to experience the help-seeking process to determine whether it overcomes their barriers and concerns. To encourage uptake of online interventions, adolescents could be exposed to this alternative help-seeking source through whole-school interventions, which enable them to trial the format before they even need to use it. Behaviourally based awareness and exposure interventions allow young people to try out and decide which sources of help address their individual concerns, possibly changing their attitude to that source, and thereby increasing their intention to seek help when needed in the future. Online interventions are particularly amenable to such exposure as they can be delivered to large numbers of young people in a nonintrusive and cost-effective way.

### Limitations of the study

This study was undertaken with a sample of students from a number of schools in the capital of Australia, but...
it is unknown how well these results may generalise more widely. In particular, Australia has been an early adopter of online mental health interventions and the sample may have been further biased by those who declined to participate. Notably, the sample was nonclinical, which raises the question as to whether the same results would be found within a clinical sample. However, in regards to this limitation, there is no indication as to how current mental health state affects current preferences. In addition, mental health and emotional problems are so common within this age group that it is highly appropriate to study a nonclinical sample when investigating early help-seeking preferences. This is especially the case if these results are to be taken into account when designing strategies to promote early help-seeking in schools and general population settings. The study also tested a multivariate model, comprising many well-established barriers to help-seeking, but it is acknowledged that many potentially important factors may have been omitted. Most importantly, however, the cross-sectional nature of the study means that the causal nature of the relationships revealed remains to be confirmed. To further investigate the causal nature of the barriers identified, a longitudinal approach is required. Finally, as the study only asked participants to choose ‘overall’ their preferred mode of help, we were unable to determine whether preferences may change within each modality, for example, there may be stronger preferences for synchronous versus asynchronous help online.

Future studies should use a longitudinal approach based on the mere exposure theory (Zajonc, 1968) to test whether promoting various help-seeking sources can, in fact, alter attitudes and intentions to seek help for those sources. As the barriers identified in this study were unable to account for any more than 14% of the intentions to seek help online, it would also be useful to further investigate the reasons for this. As this was the first study, which appears to directly ask young people their preferred mode of service delivery, it is also recommended that future studies investigate this further to determine whether preferences change within different modalities.

Conclusion

In conclusion, this study revealed that young people aged 15–19 years in Australia still prefer traditional face-to-face mental health service delivery, although a small group would prefer online help. Of particular interest is the overwhelming lack of preference for phone-based help. Unfortunately, one in four still prefer to not seek help at all, and online options have not yet penetrated this overarching reluctance to not seek mental health care. We need to improve our understanding of how to use a greater range of options to encourage help-seeking and extend current modes of mental health care delivery to a broader variety of young people.

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Barak, A., Klein, B., & Proudfoot, J.G. (2009). Adoption of online mental health interventions and the nature of the relationships revealed remains to be confirmed. In conclusion, this study revealed that young people...


