E-mental health for psychological distress in University students: A narrative synthesis on current evidence and practice

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Given the high rates of mental health problems experienced by students, and the low rates of help seeking, it is highly desirable for Universities to provide effective interventions that reduce distress and improve wellbeing. There is also a need to move towards an early intervention/prevention model to help students reduce stress and prevent the onset of mental illness. University programs also need to offer flexibility for students to access help, so that more students are likely to seek help. E-mental health has the potential to play an important part in the future of mental health care, making mental health support more accessible and reducing barriers to help seeking. A number of program delivery options will not only benefit the individual student, but will reduce health service costs and benefit the wider university population by creating a culture of health and wellbeing and reducing the stigma of mental illness. The aims of this narrative review are to outline the current knowledge and application of e-mental health programs in the university population, and to discuss ways that prevention and intervention programs delivered via the Internet and smartphones can be taken to scale to reach a larger number of students to improve their mental health.

Keywords: Mental health, University students, e-mental health

Introduction

Mental illnesses are common in Australia, with one in five (20%) individuals reporting a common mental illness (anxiety, depression and substance use) in a 12-month period, which is equivalent to 3.2 million people (Australian Bureau of Statistics, 2009). In Australia and worldwide, mental illness is a leading cause of disability. Mental illnesses often start in adolescence or early adulthood, with 50% of all mental illnesses emerging by age 18 and 75% by age 25 (Kessler, Berglund, Demler, Jin, Merikangas, & Walters, 2005). Mental illness in early adulthood significantly affects a young person's ability to form relationships, to progress in their education path, and can lead to the development of unhelpful lifestyle habits (Storrie, Ahern, & Tuckett, 2010; Byrd, & McKinney, 2012; Bowman, McKinstry & McGorry, 2016). It is therefore important to intervene early, and pervert the course of mental illness.

There has been considerable concern about the mental ill health of University students (Department of Health and Ageing, 2010) and the effects that this has on their academic success, the impact it has on other areas of their life, and the ability of the University to meet the needs of students (Shuchman, 2007). University life can be an exciting, yet challenging time for the development of a student. The stress experienced by students may be associated with moving away from home, establishing new friendships, financial difficulties and managing academic pressure. These stressors have been correlated with lower course grades (Struthers, Perry & Menec, 2000), decreased social activity and problem-solving capacity (D'Zurilla & Sheedy, 1991), and drug and alcohol misuse (Melaku, Mossie, & Negash, 2015). Furthermore, ongoing stress can lead to mental and physical illness such as depression, anxiety, substance use, cardiovascular disease and cancer (Pearlin, Schieman, Fazio, & Meersman, 2005). As students attending University are at the age (between 18-25 years) when mental health difficulties are likely to emerge (Eisenberg, Gollust, Golberstein, & Hefner, 2007), this makes them a particularly vulnerable group.

A recent Australian University Survey found that 46.5% of students experienced moderate to severe levels of psychological distress (Andrews & Chong, 2014). This was consistent with an earlier study which identified that students experienced depression, anxiety, and stress symptoms at rates higher than those found in the general population (Andrews & Chong, 2011). Stallman (2010) found that University students experience almost three times the elevated distress levels than that of the general population (83.9% vs. 29%) (Australian Bureau of Statistics, 2009). An American University reported that only 16.5% of students reported no symptoms of depression,

while 30.6% of reported moderate levels, and an additional 23.2% reported severe levels (Garlow, Rosenberg, Moore, Haas, Koestner, Hendin, & Nemeroff, 2008). A Canadian survey in 2011 reported that 88.8% of students felt overwhelmed, 50.2% experienced anxiety, and 32% experienced depression (Craggs, 2012). A large study (16, 460) of students at a Turkish University found 27.1% experienced moderate depression, 47.1% experienced anxiety, and 27.1% reported stress (Bayran & Bilgel, 2008). Combined, these studies confirm that University students are at high risk of developing serious mental illness.

As well as students experiencing increasing levels of distress, a large proportion of those students do not seek help or delay seeking professional help (Slade, Johnston, Teesson, Whiteford, Burgess, Pirkis, & Saw, 2009). In one University study, up to 85% of students with moderately severe or severe depression, and 84% who were experiencing suicidal ideation, were not receiving treatment (Garlow et al., 2008). Stallman (2010) found that 34.3% of students who were experiencing significant distress consulted a health professional, and Storrie et al (2010) found that only 15% of students accessed the University Counselling Service. Downs and Eisenberg (2012) found that the most commonly reported barrier for help seeking was: (1) wanting to deal with stress alone, (2) the belief that stress is normal at University, (3) not seeing their needs as serious and (4) not having time for treatment. As such, the current approaches to mental health in the university setting are failing to reach students most in need. New models of care are needed.

E-mental health

Christensen, Griffiths and Evans (2002) defined e-mental health as "mental health services and information delivered or enhanced through the Internet and related technologies." There are several advantages to e-mental health when compared to face-to-face and group interventions. E-mental health interventions are available 24/7 and are accessible from wherever the person chooses to be; Users can remain anonymous and this may encourage usage; E-mental health is easily accessible and there is no waiting list; E-Mental health does not require an instructor or therapist; E-mental health is less costly (Andersson & Cuijpers, 2009; Andersson & Titov, 2014; Cuijpers, Marks, van Straten, Cavanagh, Gega, & Andersson, 2009; Farrer, Gulliver, Chan, Batterham, Reynolds, Calear, Tait, Bennett, & Griffiths, 2013). Therefore, e-mental health may offer a viable solution to the challenges Universities are experiencing in terms of student mental healthcare.

A number of studies have proposed that e-mental health may be appealing for people who are in need of help but unlikely to approach traditional services. A study of 500 adults showed that the Internet was the first choice of delivery for mindfulness meditation treatment, followed by face-to-face therapy, and group format was the last choice (Wahbeh, Svalina & Oken, 2014). A study by Ybarra, Eaton and Bickman (2005) found that students with suicidal ideation preferred a computer-based intervention compared to face-to-face counselling. This finding was further supported by a study that found that 47 percent of students intended to use an online intervention for promoting wellbeing, and that students that were more distressed were more likely to use an online student program (Ryan, Shochet & Stallman, 2010). A recent study with students was carried out where they chose between hypothetical mental health services. They found that students preferred to access e-mental health rather than waiting for standard counselling (Cunningham, Zipursky, Christensen, Bieling, Madsen, Rimas, Mielko, Wilson, Furimsky & Munn 2017). These findings reinforce that Australian youth have shown that they prefer to seek help and information about their mental health online (Burns, Davenport, Durkin, Luscombe, & Hickie, 2010), with the Internet proving helpful for increasing mental health literacy, help-seeking and support (Horgan & Sweeney, 2010; Haas, Koestner, Rosenberg, Moore, Garlow, Sedway, Nicholas, Hendin, Mann, & Nemeroff, 2008).

The preference for internet delivered care, as well as the lack of availability of current services, has led to researchers designing a range of standalone online programs that delivered evidence-based therapies including the gold standard of Cognitive Behaviour Therapy (CBT). Recent systematic reviews and meta-analyses (Cuijpers et al., 2009; Davies, Morriss & Glazebrook, 2014) have demonstrated that the Internet is an effective medium for the delivery of therapeutic content designed to reduce the symptoms of depression and anxiety disorders (Christensen, Griffiths, & Jorm, 2004; Christensen, Griffits, Mackinnon & Brittliffe, 2006). Over the last decade, there has been a shift from the internet to mobile technology, and the global penetration of smartphones has been noteworthy (Moock, 2014). Mobile phones offer several further advantages over desktop programs. Practically, they are usually used by one individual and can be extremely flexible and attractive to users. They have multiple functions including internet connectivity and are always turned on. This makes them potentially, a very useful way for young people to access mental health treatment and information (Proudfoot, Clarke, Birch, Whitton, Parker, Manicavasagar, Harrison, Christensen & Hadzi-Pavlovic, 2013).

Mobile health (m-health) is a form of e-health, which focuses on the development of smartphone applications (apps) to improve medical or mental health care. Given the desire to have easy access to healthcare, there is a growing number of m-health apps for both clinical and general populations (Seko, Kidd, Wiljer, & McKenzie, 2014). In an increasingly tech-savvy society, m-health is seen as a potential way for younger people to access mental health information and programs. This field has seen the development of a mobile health intervention for suicide prevention in Indigenous Australian youth (Shand, Ridani, Tighe & Christensen, 2013); a smartphone app for mood tracking (Harrison, Proudfoot, Wee, Parker, Pavlovic, Manicavasagar, 2011); and mobile apps for the treatment of depression (Arean, Hallgren, Jordan, Gazzaley, Atkins, Heagerty & Anguera, 2016). However, a systematic review in 2013 suggested that the majority of apps that are currently available lack scientific evidence about their efficacy (Donker, Petri, Proudfoot, Clarke, Birch & Christensen 2013). Pilot studies are beginning to emerge in the literature, but randomised controlled trials across various patient populations are still rare (Birkhoff & Moriarty, 2016) and pose significant methodological challenges (Nicholas, Larsen, Proudfoot & Christensen, 2015). Thus, the science of mobile app evaluation is in its early stages, and more research is needed to provide an evidence base for the implementation of mobile phone technologies.

E-mental health in the University setting

Given the advantages of Internet delivered care, health service researchers and student Counselling services have begun to examine their application in University settings. Following from the above findings that students are willing to access e-mental health, it is important to review the efficacy of these programs in Universities.

A study by Radhu, Zafiris, Daskalakis, Arpin-Cribbie, Irvine and Ritvo (2012) showed that web-based CBT led to psychological improvements in anxiety and perfectionism. Day McGrath and Wojtowicz (2013) found that university students who had access to a guided self-help program significantly improved with respect to levels of self-reported anxiety, depression and stress, compared to participants in the delayed access condition. There is also evidence that a web-based Acceptance and Commitment Therapy (ACT) prevention program led to decreases in depression and anxiety compared to waitlist controls (Levin, Pistorello, Seeley & Hayes, 2013), and that online mindfulness is effective in reducing stress and improving coping in university students Messer, Horan, Tuner and Weber, 2016).

A review by Farrer et al (2013) showed that web-based interventions (usually involving CBT) may be useful in targeting anxiety and, to a lesser extent, depressive symptoms in university students. A systematic review by Davies et al, (2014) found that online and computer-delivered interventions can potentially be beneficial in improving depression, anxiety, and psychological distress outcomes in university students.

When reviewing the literature on the efficacy of smartphone apps to deliver mental health interventions in Universities, little information is available. A review by Seko et al, 2014 indicated that in 17 studies, mobile phones were potentially effective platforms for enhancing treatment and improving mental health interventions among young people (13 – 24 year olds). Broglia, Millings and Barkham (2016) are currently running a feasibility study comparing counselling alone versus counselling supplemented with guided use of a well-being app for university students experiencing anxiety or depression. Due to accessibility and acceptability of smartphones apps, and their potential to reach large number of students, future research on the quality and efficacy of apps in the student population using rigorous research method is strongly encouraged.

Another possibility in the provision of mental health care is via virtual clinics. An Australian University conducted a study with focus groups of university students to obtain feedback on potential features of a university-specific virtual clinic for mental health. Participants expressed a desire to connect with professionals through the virtual clinic, for the clinic to provide information tailored to issues faced by students, and peer-to-peer support (Farrer, Gulliver, Chan, Bennett, Griffiths, 2015).

More recently there has been a growth in Australian e-mental health websites relevant to young people, such as The Desk, e-couch, eheadspace, Reach Out. MoodGYM, and myCompass. These websites can provide information about mental health or may provide online CBT programs for depression and anxiety (myCompass and MoodGYRM). Investigating the impact of these websites on student wellbeing would be an important focus for future research.

In summary, there is increasing evidence on the efficacy, acceptability and feasibility of e-mental health services which include internet and mobile delivery of evidence-based interventions in the student population. In addition to reducing wait times, e-mental health services might increase utilization by those fearing stigmatization by face-to-face services or group interventions, and supplement conventional approaches to treatment. Research on the utilization of e-mental health

may inform strategies for improving engagement in student mental health services. Although there has been much enthusiasm for delivering interventions through smartphone apps, there needs to be more rigorous research using mobile apps in the student population to determine efficacy and establish evidence for best practices.

Conclusion

Psychological distress is prevalent in the University population and many students do not seek help. Students due to their age are at-risk for mental health problems, and there is a need for a broad reaching prevention approach to deal with this. Early intervention approaches will help in the prevention of mental health problems developing into more serious mental illness. Universities have traditionally delivered mental health services via face-to-face or group-based consultations. There is a need for innovative approaches to address the needs of students, so that they are offered more flexible ways of accessing mental health care. Interventions need to be tailored according to student's preferences for mental health delivery.

E-mental health may offer an option for students as an alternative and/or in addition to the existing approaches that seek to assist students in dealing with stressors, thus increasing wellbeing. Due to the delivery method (i.e., online or mobile apps), these programs can potentially reach large number of students, and may encourage students to engage with an intervention that is non-confrontational and non-stigmatising, thus positively impacting health outcomes for the entire University community. E-mental health can therefore be a viable public prevention strategy for students.

E-mental health services should be made easily available to students to increase help seeking. To facilitate the ability of students to have flexibility in accessing mental health services, University Counselling services, Health services and other Student Support services should be made aware of the online mental health treatment and support options. This information could then be made available to students via University websites and by professionals and clinicians working in those services.

Below is a list of e-Mental Health Treatment Programs that may be useful for students. This list has been compiled from the Black Dog Institute website and the E mental health in practice website.

https://www.blackdoginstitute.org.au/docs/default-source/factsheets/depression_ementalhealth.pdf?sfvrsn)

http://www.emhprac.org.au/site/assets/files/1120/emh_programs_services_booklet_updated.pdf

E-Mental Health Services

https://www.mycompass.org.au/myCompass is an interactive self-help service that aims to promote resilience and wellbeing

https://www.thedesk.org.au/ the desk aims to support Australian tertiary students to achieve mental and physical health and wellbeing. The desk offers free access to online modules, tools, quizzes and advice.

https://moodgym.com.au MoodGYM is a free self-help program to teach CBT skills to people vulnerable to depression and anxiety.

https://ecouch.anu.edu.au e-couch is a CBT self-help interactive program with modules for depression, generalised anxiety disorder (GAD), worry, social anxiety, relationship breakdown, and loss and grief.

http://thiswayup.org.au Using CBT principles, THIS WAY UP Clinic offers proven online courses for Depression, GAD, and Anxiety.

http://ontrack.org.au OnTrack offers free access to online programs, information, quizzes and advice to support the Australian community in achieving mental and physical health and wellbeing.

https://mentalhealthonline.org.au Mental Health Online offers self-guided or therapist assistant programs for panic disorder, social anxiety disorder, GAD, obsessive compulsive disorder, post-traumatic stress disorder, depression and insomnia.

https://mindspot.org.au MindSpot combines educational and practical exercises with regular contact with a MindSpot therapist, allowing help to be obtained in a discreet, effective way.

https://eheadspace.org.au. eHeadspace is a confidential, free, anonymous, secure space where 15-25 year olds can chat, email or speak with qualified youth mental health professionals.

https://reachout.com ReachOut is a mental health website for people under 25.

http://youthbeyondblue.com Youth Beyond Blue provides mental health education and links to phone support for 12-25 year olds.

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