Understanding the Barriers and Facilitating Factors to Mental Health Help-Seeking in Australian Adolescent Males with Anxiety Disorders

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Abstract

Aims: Adolescent males are consistently reported to be reluctant to seek help for common mental health problems. The aim of this thesis was to inform future developments of youth mental health interventions by enhancing the conceptual understanding of factors associated with help-seeking for clinical anxiety in this population. This aim was achieved by investigating the attitudes of adolescent males (both with and without experience of help-seeking for anxiety) towards help-seeking behaviour for anxiety disorders. In addition, the research investigated the attitudes of adolescent males towards a method often hypothesised to increase youth mental health help-seeking (computerised psychological support). Finally, the thesis investigated the relationships between identified barriers to youth help-seeking (mental health literacy, stigma, and parenting behaviour) and help-seeking attitudes, intentions and behaviour in adolescent males within the context of anxiety disorders. **Scope:** This thesis by published works comprises five papers reporting two qualitative and three quantitative investigations. Semi-structured interviews and focus groups were conducted with 31 adolescent males (aged 12 to 18 years) from both clinical and community samples. Quantitative online surveys were also completed by community samples of adolescent males (aged 12-18 years) from Sydney and Canberra, Australia. **Conclusions:** An in-depth understanding of barriers and facilitating factors to help-seeking, anxiety-specific mental health literacy, and stigma in adolescent males was elicited. Mental health literacy, stigma, and parenting behaviour were all found to have an association with help-seeking in adolescent males; although, this association was typically in relation to help-seeking attitudes and intentions as opposed to help-seeking behaviour. Social norms of hegemonic masculinity were found to influence a number of help-seeking variables investigated within the thesis.

Statement of Originality

I certify that the work in this thesis entitled **"Understanding the Barriers and Facilitating Factors to Mental Health Help-Seeking in Australian Adolescent Males with Anxiety Disorders"** has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree to any other university or institution other than Macquarie University.

I also certify that the thesis is an original piece of research and it has been written by me. Any help and assistance that I have received in my research work and the preparation of the thesis itself have been appropriately acknowledged.

In addition, I certify that all information sources and literature used are indicated in the thesis.

The research presented in this thesis was approved by Macquarie University Ethics Review Committee, **5201300162** on **29/07/2013** and **5201300531** on **07/02/2014**.

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Chapter 1

Introduction

Youth Mental Health

The mental health of Australian adolescents.

Overview. Young adults (aged 16–24) have been found to have higher rates of mental disorders than any adult age group in Australia (Slade, Johnston, Oakley Browne, Andrews, & Whiteford, 2009). Adolescents, in particular, have high rates of mental health difficulties, with an estimated 14% of Australian adolescents (aged 12–17) expected to experience a mental health disorder over a 12-month period (Lawrence et al., 2015). Epidemiological studies investigating adolescents (typically individuals aged 12-18 years) often report that females have higher or similar rates of mental health problems to males in this age group (Merikangas et al., 2010; Sawyer et al., 2001). However, the most recent Australian child and adolescent mental health survey found males to have higher rates of mental health problems than females in the 12–17 year-old age category (16% males compared to 13% female; Lawrence et al., 2015).

In Australia, anxiety disorders have been identified as the most common mental disorder in adolescence (Lawrence et al., 2015). Anxiety disorders are estimated to affect 6% of adolescent males and 8% of adolescent females (Lawrence et al., 2015). After anxiety disorders, attention deficit hyperactivity disorder (ADHD) is identified as the most common condition in adolescents (affecting 6%), although affecting a greater number of males (10%) than females (3%). Depression (believed to affect 5% of adolescents) and conduct disorder (estimated to affect 2% of adolescents) have also been identified as common mental health problems in Australian adolescents. These prevalence rates mirror those of other Westernised countries. In the US, anxiety disorders were again found to be the most common mental health condition in adolescence (affecting 32%), followed by behavioral disorders (19%), mood disorders (14%), and substance use disorders (11%; Merikangas et al., 2010).

Adolescence: A critical time for mental health. During adolescence significant social, emotional and physiological changes occur (Eccles et al., 1993). Adolescence is perceived to be a critical life stage in terms of long term mental health. The onset of mental disorders is often during adolescence (commonly before the age of 14) and the prevalence of mood-related disorders has been found to significantly increase in mid-adolescence (Kessler et al., 2005). Additionally, mental health problems are often particularly acute during adolescence. In a national survey of Australian child and adolescent mental health, adolescents were almost three times more likely than children to have experienced a mental disorder categorised as 'severe' (Lawrence et al., 2015). During adolescence, mental health problems are associated with significant disruption to important developmental milestones, such as educational and vocational achievements (Kessler, Foster, Saunders, & Stand, 1995). Importantly, early intervention in adolescents has been found to reduce the likelihood of recurrent and persistent mental health conditions in adulthood (Feehan, McGee, & Stanton, 1993; Harrington, Rutter, & Fombonne, 1996).

Mental health service utilisation in adolescent males. Despite the significant impact of mental health problems during adolescence and consequently early adulthood, paradoxically, young adults (typically aged 16–24 years) are the most reluctant to seek help for mental disorders. In the 2007 Australian National Survey of Mental Health and Wellbeing (NSMHW), the prevalence of mental disorders was higher in young adults compared to adult age groups; however, mental health service use was lowest for this age group (Slade et al., 2009). This rate is equivalent to international findings with reports indicating that only one in five US adolescents (aged 13–18 years; Merikangas et al., 2010), one in three Norwegian youths (aged 15–16 years; Zachrisson, Rödje, & Mykletun, 2006), and one in seven young adults from Switzerland (aged 16–20 years; Mauerhofer, Berchtold, Michaud, & Suris, 2009) experiencing psychological distress would seek professional help.

Epidemiological surveys on young adults in Australia also suggest that males are less likely to seek mental health treatment than females. The 2007 Australian National Survey of Mental Health and Wellbeing found only 13% of 16–24 year-old males to seek formal help for mental disorders, compared to 31% of 16–24 year-old females (Reavley, Cvetkovski, Jorm, & Lubman, 2010). The survey specifically identified that only 8% of 16–24 year-old males (compared to 20% of females) with a mental health disorder had been in contact with a general practitioner (GP) regarding his mental health (Reavley et al., 2010). In another study examining 3092 young Australian adults (aged 15–24 years), 39% of males and 22% of females reported that they would *not* seek help from formal services if they experienced emotional problems (Donald, Dower, Lucke, & Raphael, 2000).

Impact of untreated mental health in adolescent males. Seeking professional help for mental health problems has been demonstrated to reduce psychological distress associated with emotional problems (Tracey, Sherry, & Keitel, 1986). In contrast, untreated mental disorders are associated with peer problems, high personal and family distress, and suicide (Ezpeleta, Keeler, Erkanli, Costello, & Angold, 2001; La Greca & Lopez, 1998; Schaffer et al., 1996). The reluctance of adolescent males to seek help for mental health problems is believed to contribute to higher rates of anti-social and self-destructive behaviors in this population compared to other populations. Young men have higher rates of anti-social behaviour and substance misuse than in young women (Eaton et al., 2012). Due to costs associated with health care provision, unemployment, reduced income and education, imprisonment, welfare, and mortality, mental illness in young men aged 12–25 is estimated to cost the Australian economy $3.27 billion per annum (Degney et al., 2012).

Of particular concern are rates of suicidal behaviour in young men. Sadly, suicide continues to be the largest single cause of death in young Australian males aged 15–24 years (Australian Bureau of Statistics, 2009). The 2015 Australian child and adolescent mental

health survey found 14% of males aged 12-17 years with major depressive disorder (based on self-report) had attempted suicide in the previous 12 months (Lawrence et al., 2015). During adolescence, boys are more likely to engage in high risk behaviour and are more likely to commit suicide than girls (Slade et al., 2007). Suicidal ideation has been found to predict lower treatment seeking intentions in adolescents (Carlton & Deane, 2000; Wilson, Deane, & Ciarrochi, 2005); whereas, seeking appropriate mental health treatment has been demonstrated to offer protection against the development of acute forms of suicidality and suicidal behaviour (Greenberg, Domitrovich, & Bumbarger, 2001; Kalafat, 1997; Rudd, Joiner, & Rajad, 1996). Consequently, in order to reduce current rates of untreated mental health disorders and suicidal behaviour in young men, methods that promote mental health service utilisation in this population are required. As identified above, anxiety disorders are the most common form of mental health disorder in adolescents. Consequently, research aiming to increase mental health service utilisation in adolescents should initially focus on help-seeking for these particular disorders. It should be noted that mental health service utilisation research often focuses on and reports findings for young adults (aged 16-24 years) rather than adolescents. Consequently, much of the literature in this thesis refers to a 'young adult' sample.

Anxiety disorders in adolescent males. The *Diagnostic and Statistical Manual of Mental Disorders, 5th Ed.* (*DSM*-5; American Psychiatric Association, 2013) defines an anxiety disorder as 'excessive fear and anxiety and related behavioural disturbances'. Anxiety disorders in young adults include generalised anxiety disorder (GAD), social anxiety disorder (SAD), specific phobia, panic disorder, separation anxiety disorder, and agoraphobia. Anxiety disorders are one of the most prevalent forms of mental health problems in youth and are estimated to affect 278,000 Australian young adults each year (Lawrence et al., 2015). The second Australian child and adolescent survey of mental health and wellbeing found 6%

of male and 8% of female adolescents (aged 11-17 years) to have experienced symptoms of an anxiety disorder. In this age group, SADand GAD were found to be the most common forms of anxiety.

Untreated anxiety disorders are associated with significant distress and life interference for sufferers (Rapaport, Clary, Fayyad, & Endicott, 2005). The impact of untreated clinical anxiety disorders in youth is well documented, although this typically relates to youth generally as opposed to specific populations such as adolescent males. Anxious youth are less likely to have good peer relationships and are more likely to have high levels of family distress (Ezpeleta, Keeler, Erkanli, Costello, & Angold, 2001; La Greca & Lopez, 1998). Anxiety during adolescence, as opposed to childhood, is particularly associated with negative long term psychosocial outcomes and psychopathology. A study by Essau, Lewinsohn, Olaya, and Seeley (2014) examined the associations between anxiety disorders during childhood and adolescence and psychosocial outcomes at age 30. While childhood anxiety only predicted fewer years of completed education at age 30, adolescent anxiety predicted lower income, unemployment, maladjustment, poor coping skills, and more chronic stress. Additionally, adult major depressive disorder (MDD) was the only disorder predicted by childhood anxiety, whereas adolescent anxiety predicted MDD, substance (SUD) and alcohol abuse/dependence (AUD) in adulthood.

In order to reduce the significant distress and life interference associated with anxiety and other common mental health problems in young adults, significant funding has gone into the development of evidenced-based services (services offering treatments with demonstrated effectiveness in reducing dysfunction and disability and promoting recovery; Corrigan, Druss, & Perlick, 2014). The National Youth Mental Health Initiative in 2005 (now known as *headspace*) is aimed at improving both mental health prevention and treatment efforts for young Australians. Headspace centres aim to offer evidenced-based interventions and support

to young people aged 12–25 years around their mental health, health, and wellbeing needs (Rickwood, Telford, Parker, Tanti, & McGorry, 2014). Although it should be noted that one recent report has indicated that the psychological interventions offered at headspace centres may not have been delivered in the evidenced-based manner in which they were originally intended (Jorm, 2015).

Despite the increased availability of empirically-evaluated psychological treatments, it is not yet clear if adolescent males experiencing anxiety disorders are any less reluctant to access these services. Over the past decade mental health service use amongst children and adolescents has increased. A recent epidemiological survey on child and adolescent mental health found over two thirds of children and adolescents (aged 6-17 years) to have accessed services over a 12-month period (Lawrence et al., 2015). This is an increase in comparison to to a 1998 survey where only one in four of those with mental health problems (aged 4-17 year olds) had attended a professional service over a six-month period (Sawyer et al., 2001). However, the most recent child and adolescent epidemiological survey in Australia to break service use down by gender and disorder was in 2007. This survey found only 15% of young adult males (16–24 years) with symptoms of clinical anxiety had made contact with a mental health professional (Reavley et al., 2010). The 2015 child and adolescent mental health survey did not breakdown rates of mental health service use by age group and disorder (Lawrence et al., 2015). As a result, it is not clear if there has been significant changes in the mental health utilisation of adolescent males experiencing anxiety disorders since 2007. Consequently large numbers of adolescent males may be suffering from highly treatable anxiety disorders as a result of not accessing mental health services.

Epidemiological mental health studies suggest that rates of service utilisation, and the length of time these individuals have been experiencing psychological distress before entering services, may differ across anxiety disorder presentation. A large epidemiological

study in Germany by Essau (2005) found adolescents (aged 12–17 years) with symptoms of agoraphobia, obsessive compulsive disorder (OCD), or post-traumatic stress disorder (PTSD) had the greatest mental health service utilisation rates (between 26.2–47.1%). In this study, adolescents with symptoms of panic disorder, specific phobia, social phobia, or GAD were found to have the lowest service utilisation rates (between 13.9–25%). Merikangas et al. (2011) found only 12% of socially anxious adolescents in the US had accessed mental health services for their anxiety. Treatment seeking for certain forms of anxiety disorder in adolescent males may be particularly low or delayed. In adults, there is evidence that individuals with social anxiety disorder have the longest latency to seek help out of any mental health problem (Wang et al., 2007). However, research on service utilisation and treatment delays in adolescents that differentiate between forms of anxiety disorder is yet to be conducted. This research is needed in order to target resources that promote service utilisation in vulnerable groups (such as adolescent males) effectively.

Anxiety disorder treatment. In order to fully appreciate the benefits of treatment seeking in adolescents, it is helpful to consider the evidenced-based forms of psychological intervention available. Psychological interventions for anxiety disorders in adults have primarily been developed and evaluated within, rather than across, the major diagnostic categories as defined within the DSM (Clark, Hanstock, & Clark, 2016). However, in adolescents a more transdiagnostic approach to treatment is typically adopted. A transdiagnostic approach is one which transcends diagnostic boundaries set out by disorder classification schemes and addresses common maintaining processes across diagnoses (McManus, Shafran, & Cooper, 2010).

Cognitive-behavioural therapy (CBT) is the psychological intervention with the most extensive evidence in the treatment of anxiety disorders in childhood and adolescence (Cartwright-Hatton, Roberts, Chitsabesan, Fothergill, & Harrington, 2004). A recent

systematic review has demonstrated that CBT therapy is an effective treatment for anxious youth (James, James, Cowdrey, Soler, & Choke, 2013). At present, the majority of anxiety treatments are designed for children and adolescent populations generally as opposed to specific populations such as adolescent males. CBT is a collaborative and time-limited psychological intervention (often lasting between 8–10 sessions). This form of treatment is based on the knowledge that cognition is linked with behaviour and that behavioural change can occur through cognitive change and vice versa (Westbrook, Kennerley, & Kirk, 2007). CBT interventions require a certain level of commitment from the young person and when delivered face-to-face typically require attendance at weekly therapy sessions whilst also completing homework tasks.

There are a growing number of options for mental health consumers in terms of delivery of CBT programs. Treatments can now be delivered on the computer, by phone, or face-to-face in individual and/or group formats. This diversification in treatment delivery has been motivated by a number of factors, such as providing access to those in remote geographic locations and to attract those not well represented in traditional mental health services (such as adolescent males). In particular, there has been an explosion of computerised CBT programs for children and adolescents over the past decade. This increase in available computerised CBT treatment programs represents an increasing use of *self-help* methods in mental health options for children and adolescents. Self-help is a therapeutic intervention administered through text, audio, video, via computer, group meetings, or individualised exercises such as *therapeutic writing*, and is designed to be conducted predominantly independent of professional contact (Bower, Richards, & Lovell, 2001). Although, it is important to note that many of the computerised programs involve options for therapist/parent support and would not be considered pure self-help. It is also important to be

aware that all treatment options (including self-help versions) still require significant motivation and engagement from the young person to access and utilise effectively.

Computerised self-help programs for adolescents with anxiety (such as the BRAVE program) have been developed and demonstrated to be empirically effective at symptom reduction (Spence et al., 2011; Spence, Holmes, Donovan, & Kenardy, 2006). However, many self-help anxiety interventions for adolescents are still being evaluated. An evidenced-based review into the role of self-help in the treatment of mild anxiety disorders in adolescents (aged 13-18) was conducted by Rickwood and Bradford (2012). The review found a surprisingly small number of studies in this area (n = 6) but investigations included in the review suggested small to moderate improvements in anxiety symptoms amongst adolescents undertaking self-help anxiety treatments. However, Rickwood and Bradford have urged caution when interpreting the results of this review as they found the overall quality of the studies to be poor with methodological issues such as small sample sizes, high attrition rates, and little to no control taken to prevent participants seeking outside treatment or medication. In summary, although many are still being empirically investigated, evidenced based treatment options for anxious adolescents do exist. Furthermore, new more accessible forms of treatments are emerging in order to attract adolescents who are currently not accessing traditional mental health care. However, given the continued low rates of help seeking, it seems that more work may be needed to overcome the reluctance of anxious adolescent males to access these interventions.

Mental Health Help-Seeking Behaviour in Adolescence

What is mental health help-seeking?

Defining mental health help-seeking. Help-seeking refers to treatment seeking for mental health problems but also to a broader range informal behaviours that relate to seeking

help or support for emotional distress. Rickwood and Thomas (2012) conducted a systematic review of mental health help-seeking research and found, despite a high level of research activity, there was no commonly applied definition of help-seeking. A definition of help-seeking proposed by Rickwood and Thomas (2012) is: "In the mental health context, help-seeking is an adaptive coping process that is the attempt to obtain external assistance to deal with a mental health concern" (p. 8).

A more in-depth definition of mental health help-seeking by the World Health Organization (Barker, 2007) is:

"Any action or activity carried out by an adolescent who perceives himself/herself as needing personal, psychological, affective assistance or health or social services, with the purpose of meeting this need in a positive way. This includes seeking help from formal services – for example, clinic services, counsellors, psychologists, medical staff, traditional healers, religious leaders or youth programmers – as well as informal sources which includes peer groups and friends, family members or kinship groups and/or other adults in the community. The "help" provided might consist of a service (e.g. a medical consultation, clinical care, medical treatment or a counselling session), a referral for a service provided elsewhere or for follow-up care or talking to another person informally about the need in question" (p. 8).

Rickwood and Thomas (2012) also proposed a framework to aid the design of help-seeking research in order to increase systematic and well-executed research in this area. This framework informed the development of studies within the current thesis. Rickwood and Thomas recommended that each of the following five components be explicitly considered in help-seeking research:

1) Process – this refers to whether the focus of the investigation is general orientation/attitude toward obtaining assistance, future behavioural intentions, or observable behaviour (either in the past or prospectively in the future)

2) Time Frame – this refers to the time period of help-seeking behaviour examined in the study (e.g. a 12-month period).

3) Source – the source of assistance that is sought, this includes formal, semi-formal, informal social supports, and self-help resources (see below for detail on these definitions).

4) Type – this refers to the form of actual support that is sought, such as psychoeducation, referral, supportive, counselling, and therapy. Rickwood and Bradford (2012) identified this element to be particularly poorly developed or specified in the current help-seeking literature. This is defined as instrumental (financial assistance, transport), information (health-related information, referral information), affiliative (i.e. peer support), emotional (support for emotional wellbeing), and treatment.

5) Concern – this refers to the type of mental health problem for which help is being sought (e.g. anxiety).

Help-seeking attitudes, intentions and behaviour. Help-seeking research typically investigates a) help-seeking attitudes (thoughts or feelings towards the general concept of formal or informal help-seeking); b) intentions (referring to a young person's personal intentions to seek help should they experience an emotional difficulty); and c) behaviour (the physical act of seeking either formal or informal support for psychological difficulties). A number of measures have been used to assess help-seeking, in particular, those that measure attitudes (e.g., Cash, Kehr, & Salzbach, 1978) and intentions (e.g., Deane & Todd,

1996). However, in Rickwood and Thomas's (2012) review of mental health help-seeking research, only a minority of studies (31%) utilised a standardised measure of help-seeking. The most commonly used measure (used by 17% of studies in the review) was the Attitudes towards Seeking Professional Psychological Help Scale (ATSPPHS; Fischer & Turner, 1970), which measures attitudes towards mental health help-seeking. Another 10% of studies in the review had used some form of published measure, but these were found to be unique to the study and did not comprise measures with reported psychometric properties. The next most commonly used measure (used by 3% of studies in the review) was the General Help-Seeking Questionnaire (GHSQ; Wilson, Deane, Ciarrochi, & Rickwood, 2005), which measures future help-seeking intentions and recent and past help-seeking experiences. The past help-seeking component of the measure is sometimes referred to as the Actual Help-Seeking Questionnaire (Rickwood & Thomas, 2012). Past help-seeking behaviour is typically measured by asking whether professional help has been sought in the past for a mental health problem, and recent help-seeking behaviour is often measured by listing a number of potential help sources and asking whether or not help has been sought from each of the sources during a specified period. Overall, there is a lack of widely used, standardised help-seeking research measures available. At present, the GHSQ is the only help-seeking measure used with and found to be psychometrically valid in adolescents (Rickwood & Thomas, 2012; Wilson et al., 2005). Although the ATSPHS has been demonstrated to have sound psychometric properties in college students (Fischer & Farina, 1995), this measure has yet to be extensively investigated in samples of adolescents.

The relationship between key mental health help-seeking components (i.e. attitudes, intentions, and behaviour) in adolescents is still being established. A review of help-seeking in young adults (aged 14-24) identified that the strength of the relationship between stated help-seeking intentions and future help-seeking behaviour is variable, but generally modest

(Rickwood, Deane, Wilson, & Ciarrochi, 2005). Wilson, Deane, Ciarrochi, and Rickwood (2005) found significant positive (albeit small in magnitude) correlations between help-seeking intention scores and help-seeking behaviour for personal-emotional problems. Similarly, a study investigating mental health help-seeking intentions and behaviour in adolescent males (aged 13-15 years)found intentions to predict only 13% of the variance in help-seeking behaviour from the school counsellor (Deane, Ciarrochi, Wilson, Rickwood, & Anderson, 2001). Other studies have also found help-seeking intentions to be only weakly correlated with actual help-seeking behaviour (Rickwood, Cavanagh, Curtis, & Sakrouge, 2004; Wilson, Deane, Ciarrochi, & Rickwood, 2005). Current knowledge on youth help-seeking is limited by the fact that many help-seeking studies tend to only measure one of the three help-seeking components (often attitudes or intentions; Kauer, Mangan, & Sanci, 2014; Wilson et al., 2005). Consequently, many studies claiming to measure help-seeking may only be measuring one component of this process which may or may not be strongly associated with help-seeking behaviour. This is significant as help-seeking behaviour is generally acknowledged as the main variable of interest when investigating help-seeking in adolescents and young adults. Other methodological issues also limit the usefulness of comparing studies to investigate the relationships between help-seeking components. Study limitations, such as unclear construct definition and highly idiosyncratic variable items that relate to study-specific goals, have been identified in a number of youth help-seeking investigations (Wilson et al., 2005). In summary, in order to extend the literature on youth help-seeking, research that addresses these methodological issues is required.

It is also important to note that, at present, the majority of help-seeking investigations (both in adult and young adults) use self-report measurement. A number of validity issues, such as recall bias and demand characteristics, are associated with the use of self-report measures (Hoskin, 2012). Responses to a self-report measure are influenced by a participants'

understanding and knowledge of mental health and their comprehension of the questions/statements used in the measure. Additionally, participants may not always be honest in their responses to questions on a topic associated with stigma, such as mental health. Mental health help-seeking in young adults needs to be measured using a range of qualitative and quantitative approaches in order to manage these validity issues associated with existing research in this area. ***Sources of help.*** Identifying the source of help-seeking was identified as an important process within the Rickwood and Thomas framework of help-seeking research (described above). A number of definitions have been developed to differentiate sources of help. The term *treatment seeking* has been used to delineate seeking help from specific health treatment providers and seeking help from generic support and community services. Help-seeking behaviour in young adults (aged 14-24) has been categorised as formal, informal, or semi-formal help-seeking (Rickwood & Bradford, 2012). Initially the term *formal help-seeking* included a wide range of professions including specialist, generalist, and primary health care providers but also non-health professionals such as teachers, clergy, and community and youth workers. The term *semi-formal help-seeking* was then introduced to define the latter group (Rickwood & Thomas, 2012). *Informal help-seeking* refers to assistance from informal social networks, such as friends and family. It comprises sources of help that have a personal and not a professional relationship with the help-seeker (Rickwood & Thomas, 2012). More recently, sources of help have included *self-help* (as described above).

Young adults systematically demonstrate a preference for self-reliance or informal sources of help over professional help when managing symptoms of psychological distress (Boldero & Fallon, 1995; Gulliver, Griffiths, & Christensen, 2010; Rickwood, 1995). Research suggests that young men tend to turn to family before friends, whereas young women often turn to friends before family when it comes to emotional difficulties (Chandra

& Minkovitz, 2006; Rickwood, 2015). Interestingly, Rickwood, Mazzer, and Telford (2015) found the influence of friends to be surprisingly low in terms of encouraging young people to seek help from mental health services either in-person or online. In contrast, family was found to be highly influential in encouraging young people to access in-person mental health services. It is not yet known if the preferred sources of youth help-seeking differs across mental health problems or forms of anxiety (for example if adolescents are more likely to go to parents for depression but peers for anxiety).

Formal help-seeking has been shown to reduce psychological distress (Tracey et al., 1986) but it is not known if informal help-seeking (i.e. from friends and/or family) has the same benefits. Current mental health literature actively encourages children and adolescents to discuss emotional difficulties with their friends and family but, as these individuals are often untrained in mental health difficulties, the impact (in terms of psychological distress, psychopathology and/or promoting other forms of help-seeking) of these interactions is largely unknown. As anxiety disorders have been established to be maintained and reinforced by certain behaviours from others (for example a common maintaining factor associated with GAD is seeking reassurance from others; Dugas & Robichaud, 2007), help-seeking from informal sources may reduce psychological distress in the short term but be associated with increased risk of psychopathology in the long term. In saying this, it should be contextualised that poor quality formal help-seeking may also have these, or similar, negative effects. Within the scope of this thesis, where formal help-seeking is referenced, this is in relation to evidenced based psychological treatments such as those discussed above.

Evidence also suggests that young adults (aged 12-25) demonstrate a preference for forms of informal help-seeking that relate to self-help (such as self-help books and/or mental health websites) in comparison to formal help-seeking (Oh, Jorm, & Wright, 2009). However, young adult's engagement with self-help or generally more autonomous forms of

mental health help-seeking (such as computerised treatments) is also yet to be established. Investigations into these forms of self-help treatments commonly report low uptake and high dropout rates (Ellis, et al., 2015; Griffiths & Christensen, 2007).

Current help-seeking research in adolescents. Despite the high volume of research into mental health help-seeking, investigations relating to mental health help-seeking in adolescents has been limited. In a systematic review of mental health help-seeking literature, Rickwood and Thomas (2012) reported that only 14% of help-seeking studies included a sample of adolescents. Investigations into mental health help-seeking in adolescents, typically large correlational studies, have tended to focus on identifying clinical characteristics and demographic factors associated with treatment seeking behaviour in adolescents. In Australian adolescents, mental health help-seeking has been found to be predicted by psychological distress, availability of social support, knowing someone who had sought professional help, high private self-consciousness, willingness to disclose mental health, parent report of hyperactivity and peer problems, prior service use, being from a single-parent family and having Australian born parents (Ciarrochi, Wilson, Deane, & Rickwood, 2003; Rickwood & Braithwaite, 1994; Ryan, Toumbourou, & Jorm 2014). Low emotional competence (the ability to recognise and describe emotions in yourself and others), stigmatising attitudes towards mental illness, and lower mental health literacy (knowledge of mental health conditions and forms of support) have also been found to be associated with lower help-seeking intentions and behaviour in young adults (Ciarrochi, Deane, Wilson, & Rickwood, 2003; Gulliver et al., 2010). However, findings from these correlational studies have not always been consistent. Low socioeconomic status (SES) has been shown to be associated with increased adolescent service use in countries such as New Zealand and America (Feehan, Stanton, McGee, & Silvia, 1990; Zahner & Daskalakis, 1997), yet this association was not replicated in a study of young adults in Australia (Sawyer, Miller-Lewis,

& Clark, 2007). In addition, there have been inconsistent findings across studies investigating the association between ethnicity and use of mental health services (Cohen & Hesselbart, 1993; Douma, Dekker, Ruiter, Verhulst, & Koot, 2006; Ford, Hamilton, Meltzer, & Goodman, 2008; Verhulst, & van der Ende, 1997; Zahner & Daskalakis, 1997; Zimmerman, 2005). At present, the literature remains limited in terms of understanding how these factors influence each other and the help-seeking process itself in young adults.

It is important to highlight at this point that mental health help-seeking for adolescent anxiety is an inherently complex subject due to the considerable social, developmental and physiological changes that occur during adolescence. Behavioural and cognitive systems in the brain mature at different rates and consequently adolescence is often perceived as one of increased vulnerability and adjustment. Adolescence is characterized by an increased need to regulate affect and behaviour in accordance with long-term goals and consequences, often at a distance from the adults who provided regulatory structure and guidance during childhood (Steinberg, 2005). Consequently, anxiety during this period is to be expected and often difficult to differentiate from clinical levels of anxiety. Furthermore, these biopsychosocial changes will have a significant impact on the level of involvement and role of a parent in helping an adolescent receive professional support for a mental health problem. Adolescents will typically experience greater responsibility and autonomy in life decisions such as choices relating to health. This natural shift towards empowerment stands in direct contrast to help-seeking behaviour where a young adult will be asking for assistance. Finally, adolescents will be increasingly aware of culturally specific norms and status. Young males in early adolescence have been shown to prioritize popularity and status enhancement over other domains such as friendship, personal achievement, following rules, prosocial behaviour, and romantic interests (LaFontana & Cillessen, 2010). This awareness is likely to influence any behaviour potentially associated with social stigma, such as mental health help-seeking

behaviour. A young adults' attitudes and intentions towards help-seeking are likely to alter (possibly quite frequently) because of these developmental changes. Any help-seeking research in adolescence should be interpreted within the context of significant developmental changes that occur during this period.***Gender effects in youth help-seeking.*** Research into youth help-seeking has identified significant gender differences. Being male is consistently associated with lower levels of mental health help-seeking in young adults (Rickwood & Braithwaite, 1994; Ryan et al, 2014). Young men have also been found to have lower mental health literacy (Ciarrochi, Wilson, Deane, & Rickwood, 2003), lower emotional competence (i.e. the ability to identify, describe, understand and communicate emotions) (Rickwood et al., 2005) and higher levels of mental health stigma (Calear, Griffiths, & Christensen, 2011; Chandra & Minkovitz, 2006; Danda 2003; O'Driscoll, Heary, Hennessy, & McKeague, 2012) compared to their female equivalents. Despite such significant gender differences in help-seeking, research that is specific to adolescent male help-seeking is uncommon. Additionally, there is evidence to suggest that young men are one group that are particularly under-represented in mental health research with samples typically including more young females than males (Kauer, Mangan, & Sanci, 2014; Patel, Doku, & Tennakoon, 2003).

Models of help-seeking in adolescence. A number of models have aimed to conceptualise the mental health help-seeking process. These models differ according to their broadness of scope (i.e. whether the model aims to capture purely the process or also capture factors which influence the process) and area of emphasis (i.e. whether this is a systemic, social, or internal representation of help-seeking). A broad model of the stages of help-seeking was developed by Rickwood, Deane, Wilson, and Ciarrochi (2005). Rickwood and colleagues (2005) conceptualised help-seeking as a "process where the personal becomes increasingly interpersonal" (p. 8). The process begins with an awareness of symptoms and appraisal of having a problem that may require intervention (a stage labelled *awareness*).

Secondly, this personal awareness and problem-solving appraisal must then be able to be articulated or expressed in a manner that can be understood by others (*expression*). Thirdly, sources of help must be available and accessible (*availability*). Finally, the help-seeker must be willing and able to disclose their inner state to that source (*willingness*). Additionally, help-seeking attitudes, intentions, and behaviour are hypothesised to influence, and be influenced, at each stage of this process. The model has been designed to be broad in scope and consequently could represent the help-seeking process across a range of ages and applied to formal and informal help-seeking situations for both clinical and non-clinical emotional difficulties. As a result of this scope, the model does not attempt to conceptualise specific barriers or facilitating factors. Barriers are generally regarded as factors which prevent or inhibit psychological help-seeking and facilitating factors aim at encouraging or promote psychological help-seeking. Although the model taps into specific barriers that have been associated with youth mental health help-seeking, these are not explicitly identified in the model. These barriers include poor mental health literacy (which would prevent awareness), low emotional competence (which would prevent expression), inaccessible mental health support structures (which would reduce availability) and stigma (which would reduce an individual's willingness to seek help).

A more recent and youth specific model of mental health help-seeking is one by Martínez-Hernáez, DiGiacomo, Carceller, Correa-Urquiza and Martorell-Poveda (2014). This three-stage process model aims to explain how both internal (i.e. the young person's cognitions) and external (i.e. framing help-seeking within a social context) processes influence youth help-seeking. The conceptualisation is informed by current youth mental health help-seeking literature in addition to findings from a qualitative investigation into non-professional help-seeking for depression in young adults (17-21 years-old). Firstly, young adults dismiss emotional distress as normal (Stage 1) and use strategies such as

normalisation, reliance on themselves, and social networks to manage symptoms of depression. As distress continues, young adults begin to conceptualise their distress as problematic (Stage 2). Obstacles to seeking help at this stage include denial, lack of knowledge about services available, practical difficulties accessing help (i.e. obtaining an appointment), and fear of receiving a diagnosis. Finally, young adults evaluate the consequences of help-seeking in social terms (Stage 3). Pertinent barriers to help-seeking include a fear of shame, stigma, a mistrust of mental health professionals (i.e. concerns regarding the efficacy of treatment and confidentiality), and a view of therapy as impersonal and insensitive. There is significant overlap with the broader conceptualisation by Rickwood et al. (2005) as Stages 1, 2 and 3 tap into concepts of awareness, expression, availability and willingness. Interestingly the focus of this model is on the adolescent, in particular the adolescent's cognitions and internal drives, and less attention is given to systemic and environmental influences which are typically emphasised in other models of youth mental health help-seeking.

Many of the well-known youth specific help-seeking models (such as Costello, Pescosolido, Angold, & Burns 1998, Logan & King 2001; Srebnick, Cauce, & Baydar, 1996) tend to emphasise the importance of the parents' role and their perception of need for help in youth help-seeking. Help-seeking behaviour in these models is hypothesised to be highly influenced by systemic factors and changing levels of autonomy relevant to this developmental stage. Logan and King (2001) presented a 5-step conceptualisation of parentally mediated service-seeking for adolescents, which incorporated Fischer, Weiner, and Abramowitz's (1983) child models of help-seeking behaviour and Prochaska and DiClemente's (1982) readiness for change model. These steps include: a) parent gaining an awareness of an adolescents' distress; b) parent recognizing the problem as psychological in nature; c) parent considering possible causes of action; d) parent developing an intention to

seek mental health services; e) parent making an attempt to seek services, and f) parent obtaining mental health services for or with the adolescent. This model highlights the important role that parents may play in their child's help-seeking and incorporates a number of systemic factors associated with youth help-seeking (i.e. parent psychopathology, family history of service use, and parental perception of need; Raviv, Maddy-Weitzman, & Raviv, 1992; Ryan, Jorm, Tombourou, & Lubman, 2015; Zwaanswijk, Verhaak, Bensing, Van der Ende, & Verhulst, 2003;). In contrast to the Martínez-Hernáez et al. (2014) model, this conceptualisation of youth help-seeking is focused on the parents' experience and gives little attention to non-systemic factors that might encourage or prevent a young person from accessing mental health services. Consequently, the model does not incorporate many factors established to be associated with help-seeking in young adults (such as mental health literacy and stigma), nor does the model incorporate parenting style or behaviour, which have been found to influence help-seeking in adolescence. This model would be particularly relevant for families where parents are heavily involved in their adolescent's health care; however, this is not always the case. In particular, older adolescents are likely to be much more autonomous in their healthcare management than younger adolescents.

The models illustrate the process or fluid nature of help-seeking (previously conceptualised in the literature as a series of discrete barriers) but there is still a limited understanding of how each of the factors hypothesised to influence youth help-seeking affect each other. An over-arching limitation of the existing models discussed is the focus on factors that prohibit help-seeking (i.e. barriers) and the tendency to neglect facilitating factors to youth help-seeking. Whilst it is essential that the barriers to youth help-seeking are clearly understood, a change in help-seeking behaviour is unlikely to occur without a comprehensive understanding of the facilitating factors to help-seeking and the efficacy of interventions designed to promote them. The models discussed also attempt to conceptualise mental health

help-seeking across all young adults despite gender differences in youth help-seeking being clearly established. At present, there is an absence of models that look specifically at help-seeking in adolescent males, particularly adolescent males with anxiety. This thesis was primarily guided by the model of help-seeking by Rickwood et al. (2005) and the Martínez-Hernáez et al. (2014) model of youth help-seeking. Paper 5 relates to the influence of parenting and help-seeking and the development of this study was guided by the Logan and King (2001) model.

Barriers and Facilitating Factors to Mental Health Help-Seeking

A number of factors associated with lower levels of help-seeking (mental health literacy, stigma and emotional competence) are now referred to as specific 'barriers' to formal help-seeking in young adults. However, it is important to highlight that this change in terminology is due to a range of help-seeking studies finding a negative correlation between these barriers and help-seeking (attitudes, intentions or behaviour). At present there are very few experimental or longitudinal studies investigating the association between identified barriers and help-seeking. Gulliver, Griffiths and Christensen (2010) conducted a systematic review into perceived barriers and facilitators to mental health help-seeking in young adults (16-24 years-old). Barriers to help-seeking in young adults identified in the review (7 quantitative and 15 qualitative studies) included a) public, perceived and self-stigmatizing attitudes to mental illness (identified in ten studies); b) confidentiality and trust (six studies); c) difficulty identifying the symptoms of mental illness (five studies); d) concern about the characteristics of the provider (five studies); and e) a preference for self-reliance (five studies). Less prominent barriers included: f) knowledge about mental health services; g) fear or stress about the act of help-seeking or the source of help itself and h) lack of accessibility e.g., time, transport, cost. All of these barriers were identified in four studies

included in the review. The least prominent barriers identified by the review included: i) difficulty or an unwillingness to express emotion (identified in three studies); j) not wishing to burden someone else (two studies); k) preferring other sources of help (e.g., family, friends) (two studies), l) worry about effect on career (one study) and m) others not recognizing the need for help or not having the skills to cope (one study). It is clear that many of the factors that discourage young adults from seeking help overlap (for example, a lack of knowledge about mental health/formal psychological services is likely to magnify concerns about the confidentiality of accessing help from services). As a result of this review, the focus of much recent youth help-seeking literature has been on mental health stigma (as related to barriers a and b) and mental health literacy (barriers b, c, d, f, g and m).

As discussed in relation to the mental health models above, Gulliver et al. (2010) found 'facilitating factors' to be comparatively under-researched. In the review by Gulliver et al. (2010) only three qualitative studies (and none of the seven quantitative studies) investigated facilitators of mental health help-seeking. The main facilitator theme was positive past experiences with help-seeking (identified in all three of the studies). Less prominent facilitators were social support/encouragement from others, confidentiality and trust in the provider and positive relationships with service staff (each identified in two of the three studies). The least prominent facilitators included perceiving the problem as serious, ease of expressing emotion and openness/ positive attitudes towards seeking help (each identified in one study). A number of the facilitating factors identified emphasise the importance of youth mental health services being approachable and being transparent with young adults about the legal requirements associated with confidentiality. Although, how exactly these concepts can be successfully integrated into everyday mental health practice is yet to be established.

The reason behind the lack of research on facilitating factors to youth mental health help-seeking is not clear. It could be argued that by removing barriers to help-seeking, such as poor mental health literacy, this is facilitating help-seeking behaviour. A number of factors identified in the review (such as confidentiality and trust in the provider) feature as both barriers and facilitators. At present, mental health literacy promotion and/or anti-stigma programs, predominantly delivered as part of the school curriculum, appear to be the main interventions designed to facilitate youth mental health help-seeking. However, relying on barrier reduction in order to facilitate help-seeking behaviour appears slightly overly-simplistic. Whilst these interventions are likely to reduce barriers to youth mental health help-seeking, it is not clear if they increase help-seeking behaviour itself. In order to promote help-seeking in young adults, a greater understanding of the role of facilitating factors is needed. This research, in particular, requires specific components of help-seeking (i.e. attitudes, intentions and behaviour) to be measured separately.

Small qualitative studies indicate that barriers to youth mental health help-seeking are strongly conditioned by gender (Martínez-Hernáez et al., 2014; Timlin-Scalera, Ponterotto, Blumberg, & Jackson, 2003) but, as mentioned previously, the majority of youth help-seeking research has investigated young adults as one population and tends to look at all forms of psychological distress. As a result, we know very little about the influence of specific barriers and facilitating factors to help-seeking in adolescent males with anxiety. Factors associated with youth help-seeking that are influenced by gender differences include mental health literacy, stigma and a preference for self-reliance. Each of these specific barriers and facilitating factors will now be reviewed in detail.

Mental health literacy. One of the most commonly investigated and discussed barriers to youth help-seeking is mental health literacy. Mental health literacy refers to "knowledge and beliefs about mental disorders which aid their recognition, management or

prevention" (Jorm et al., 1997, p. 182). It includes the ability to recognise specific disorders, knowledge and beliefs about risk factors and causes, self-help interventions, professional help available, attitudes which facilitate recognition, appropriate help-seeking, and knowledge of how to seek mental health information (Jorm, 2000). Although help-seeking is believed to be influenced by many variables, one of the most widely established factors is a lack of recognition by the person that he or she has a mental disorder (Gulliver et al., 2010). Large community surveys of mental health literacy across the globe suggest that a lack of knowledge and awareness of mental disorders (especially anxiety disorders) is common across all age groups (Jorm, Nakane, et al., 2005; Reavley & Jorm, 2011). Due to less life experience than adults, adolescents are more likely to have an underdeveloped understanding of mental disorders (Wright & Jorm, 2009) and studies suggest that Australian adolescents vary significantly in terms of ability to identify common mental health problems and appropriate sources of help (Burns & Rapee, 2006; Cotton et al., 2006). Mental health literacy would be most associated with the awareness, expression and availability components in the Rickwood et al.'s (2005) conceptualisation of help-seeking.

Interestingly, findings on the relationship between youth mental health literacy and help-seeking are often inconsistent. A review into the efficacy of school mental health literacy programs addressing mental health knowledge, attitudes and help seeking in young adults (aged 12-25 years-old) identified a number of methodological issues across existing studies (Wei, Hayden, Kutcher, Zygmunt, & McGrath, 2013). For example, studies investigating youth mental health literacy and help-seeking often fail to include standardised help-seeking measures and have tended to measure only one area of help-seeking (either attitudes, intentions, or behaviour). Where mental health literacy help-seeking studies have been conducted, despite anxiety being the most common mental health condition in adolescence and believed to be widely under-recognised amongst young adults (Reavley and

Jorm, 2011), the focus of research has been on depression and schizophrenia (e.g. Bruno, McCarthy, & Kramer, 2015; Burns & Rapee, 2006; Byrne et al., 2015; Eckert, Kutek, Dunn, Air, & Goldney 2010; Marshall & Dunstan, 2013; Melas, Tartani, Forsner, Edhborg, & Forsell, 2013). Consequently, knowledge of anxiety specific mental health literacy programs and their impact on mental health help-seeking is extremely limited.

Studies of young adults have consistently demonstrated that males have lower levels of mental health literacy than females (Burns & Rapee, 2006; Cotton, Wright, Harris, Jorm, & McGorry, 2006). Females (aged 12–25 years) were more likely to correctly identify depression in a vignette compared to male respondents (Cotton et al., 2006). Poor mental health literacy in young men is hypothesised to contribute significantly to low help-seeking rates in this population, although few studies have directly investigated the association between mental health literacy and help-seeking in this population.

Mental health stigma. Similar to mental health literacy, mental health stigma has received slightly more empirical investigation than other barriers to youth mental health seeking. Mental health stigma could be conceptualised as being most associated with the willingness component of Rickwood et al.'s (2005) conceptualisation of help-seeking. Adolescents have been found to exhibit significantly higher levels of mental health stigma than children (O'Driscoll, Heary, Hennessy, & McKeague, 2012). In particular, adolescent males consistently demonstrate higher levels of mental health stigma compared to females (Calear, Griffiths, & Christensen, 2011; Chandra & Minkovitz, 2006; Danda 2003). Additionally, like poor mental health literacy, a concern about stigmatisation is also believed to contribute significantly to adolescent males' reluctance to seek help for mental health problems.

Although inherently a complex and multifaceted topic, stigma has been defined as having four integral components: (a) it is fundamentally a label of an out-group; (b) the

labelled differences are negative; (c) the differences separate *us* from *them*, and (d) label and separation lead to status loss and discrimination (Link & Phelan, 2001). Mental health stigma specifically refers to the perception that individuals with mental health problems are weak, flawed, dangerous, and/or socially incompetent (Wahl & Harman, 1989; Wahl, 2003). Although many labels and theories have been espoused in relation to stigma, a review of childhood mental disorder stigma found concurrence on three dimensions of stigma (negative stereotypes, devaluation, and discrimination), two contexts of stigma (self and general public), and two targets of stigma (self/individual and family; Mukolo, Hefinger, & Wallston, 2010). *Self Stigma* refers to a negative internalised perception of oneself as a mental health consumer, *Personal Stigma* refers to one's own negative beliefs about individuals with mental health disorders, and *Public Stigma* refers to one's belief that others (i.e. the public) perceive an individual as socially unacceptable (Yap, Wright, & Jorm, 2011).

Adults and adolescents with mental health problems commonly report experiences of stigma (Adler & Wahl, 1998; Chandra & Minkovitz, 2007; Vogel, Wade, & Hackler, 2007). Although mental health stigma amongst adolescents remains far less investigated than in adults, it is well established that public, personal, and self-stigmatizing attitudes to mental illness have a negative impact on youth mental health help-seeking (Barker, Olukoya, & Aggleton, 2005; Chandra & Minkovitz, 2007; Eisenberg, Downs, Golberstein, & Zivin, 2009; Rickwood, Deane, Wilson, & Ciarrochi, 2005). The association between stigma and help-seeking has been explored in specific subgroups, such as parents making decisions about their children's health care (Hinshaw, 2005; Struening et al., 2001), veterans (Hoge et al., 2004), and health care providers (Wrigley, Jackson, Judd, & Komiti, 2005) but, with the exception of several small qualitative non-stigma specific studies (Gair & Camilleri, 2003; Gilchrist & Sullivan, 2006), this topic has not yet been investigated in adolescent males. Currently, despite stigma being perceived as a key barrier to help-seeking in this population, a detailed

understanding of common types of mental health stigma amongst adolescent males is absent. In particular, a better understanding of anxiety-specific mental health stigma and specifically how it influences help-seeking behaviour is required. In order to successfully address the help-seeking barrier of mental health stigma in adolescent males, further research into this topic is needed.

In particular, it is not clear if current stigma reduction interventions are being used optimally in terms of encouraging mental health help-seeking in young adults. A range of interventions have been designed to reduce mental health stigma in adults and young adults with differing levels of success. Corrigan, Morris, Michaels, Rafacz and Rüsch (2012) conducted a meta-analysis of studies investigating the efficacy of interventions aimed at reducing mental health stigma. This review included 72 outcome studies in 14 countries. Interventions included protest or social activism, education about mental health and interpersonal contact with persons experiencing mental illness. The review found that education about mental illness and contact with people experiencing mental illness to be effective at reducing stigma attitudes and/or behavioural intention. For adults, contact with affected individuals was found to be most effective, whereas psychoeducation was the most effective intervention amongst adolescents. Consequently, the primary approach to reducing mental health stigma in Australian adolescents is psychoeducation. However, it is not yet clear if current psychoeducational interventions are effective in increasing help-seeking in anxious adolescent males. ***Masculinity.*** Further to the need for general research into mental health stigma in adolescent males, young men are believed to be particularly influenced by stigma that relates to traditional norms of masculinity and a socially constructed "men don't seek help" gender stereotype. Traditional masculinity is comprised of social norms that include an emphasis on competition, strength, avoiding emotions and perceived femininity, action-orientated, and the acceptability of anger and violence (Coleman, 2015). Mental health

problems and the concept of obtaining help is inconsistent with notions of hegemonic masculinity that stress toughness and strength (Connell & Messerschmidt, 2005). Consequently, the male gender-role in Western societies and cultures implies not perceiving or admitting anxiety or fear (Möller-Leimkühler, 2002). A number of qualitative help-seeking investigations have highlighted the importance of social norms of traditional masculinity in this population (Gair & Camilleri, 2003; Gilchrist & Sullivan, 2006). Specifically, adolescents in these studies described help-seeking as being "weak", "pathetic" and being incongruent to "a tough or self-reliant male" (Gilchrist & Sullivan, 2006, p. 9).

Whilst it is well established that adult males with greater affiliation to social norms of traditional masculinity tend to have more negative attitudes towards or less willingness to seek formal help for emotional difficulties (Komiya, Good, & Sherrod, 2000; Levant, Wimer, Williams, Smalley, & Noronha, 2009; Pederson & Vogel, 2007; Powell, Adams, Cole-Lewis, Agyemang, & Upton, 2016; Sullivan, Camic, & Brown, 2015; Yousaf, Popat, & Hunter, 2015), this has yet to be empirically established in adolescent males. There is also a lack of research into how effective current methods of reducing stigma (such as anti-stigma school based programs) are at minimising the effect of this specific help-seeking barrier (i.e. affiliation with masculinity). Consequently, anxious adolescent males who are highly affiliated with traditional masculinity norms are believed to be particularly at risk of unmet mental health needs. As both traditional masculinity and untreated psychopathology (established risk factors associated with this population) have been found to predict suicidal ideation (Beautrais, 2000; Coleman, 2015), there is a real need for help-seeking research in this area.

Preference for self-reliance. Social norms of traditional masculinity emphasise strength, independence and an ability to manage emotional difficulties independently (Coleman, 2015). An established barrier to mental health help-seeking, hypothesised to be

especially relevant to adolescent males, is a preference for self-reliance (i.e. a desire to manage emotional difficulties without involving others). The belief that one should cope with emotional distress alone is common in young adults (Gould, Velting, Kleinman, Lucas, Thomas, & Chung, 2004; Kuhl, Jarkon-Horlick, & Morrissey, 1997). Wilson, Deane, and Ciarrochi (2005) found that adolescents tended to report admiration of those who cope with emotional distress without using counselling. Carlton and Deane (2000) suggest that such beliefs are associated with developmental processes of individuation and adult autonomy where a young person develops a belief that they should only deal with problems alone. There has been significant research activity in two areas of mental health help-seeking as a result of young adults demonstrating a preference for self-reliance: computerised mental health programs and parenting. Research into computerised mental health programs aims at developing methods of mental health support that can be accessed without any or little support from others (i.e. support a preference for self-reliance whilst also providing mental health intervention). Investigations into parenting enable researchers to develop an understanding of factors which could potentially influence youth help-seeking indirectly and informally. Parents may be in a unique position to encourage their adolescent to seek help (i.e. move away from a self-reliance in management of emotional distress) if they are requiring mental health treatment. Consequently, a better understanding of how parents might potentially encourage or discourage help-seeking in adolescents is an important component to improving mental health service utilisation in adolescents who require it.

Computerized mental health programs. Adolescents with a preference towards self-reliance are likely to be more autonomous in their management of emotional distress. Computerised mental health support is hypothesised to enable individuals to access psychological programs more independently with high levels of personal control. This form of mental health provision is hoped to reduce many barriers to youth help-seeking identified

in the Gulliver et al. (2010) systematic review, such as reducing the risk of stigma by providing greater anonymity and providing treatment that avoids issues of time, transport, and cost. Therefore, computerised help-seeking would be most associated with the availability component of Rickwood et al. (2005) conceptualisation of help-seeking and the Stage 2 of Martínez-Hernáez et al. (2014) model of youth help-seeking.

Internet-based applications have been shown to reduce mental health symptoms, stigmatising attitudes towards common mental health conditions and improve mental health literacy (Griffiths & Christensen, 2007). Young men in particular have been shown to be active users of the internet for information and support on emotional difficulties (Ellis, et al., 2013; Gould, Munfakh, Lubell, Kleinman, & Parker, 2002). Although many computer-based mental health programs or forms of support are yet to be evaluated, a number of computerised CBT treatment programs have been demonstrated to be clinically effective treatments for depression and/or anxiety in young adults (Calear, Christensen, Mackinnon, Griffiths, & O'Kearney, 2009; Griffiths & O'Kearney, 2009; Wuthrich et al., 2012). Despite significant promise, computerised mental health interventions are still not popular amongst young adults (Burns & Rapee, 2006; Kauer et al., 2014). In particular, difficulties with long-term engagement and a high program dropout rate have been identified in regards to computerised mental health interventions (Ellis et al., 2015; Griffiths & Christensen, 2007). Research is needed in order to gain a greater understanding of factors that facilitate the use of computerised youth mental health interventions but also specifically address how long term engagement can be maintained.

In a systematic review, Kauer et al. (2014) identified a range of barriers and facilitators to online help-seeking, although reported that these were rarely measured empirically. The review indicated both significant overlap and differences in comparison to established barriers and facilitators to help-seeking (i.e. in relation to more traditional forms

of mental health help-seeking). Barriers to help-seeking included a lack of mental health awareness, being male, a preference for face-to-face services and, to a lesser extent, a lack of motivation, uncertainty about confidentiality, and unfavorable content. Facilitators to help-seeking included accessibility to online resources, anonymity, reduction of stigma, increase in mental health literacy and, to a lesser extent, trust and credibility, the ease of sharing personal information compared to face-to-face services, and high distress. Although there is considerable overlap with the barriers and facilitating factors as identified in the Gulliver et al. (2010) systematic review, it appears that computerised mental health help-seeking may be a distinct form of help-seeking influenced by a different range of factors to more traditional forms of help-seeking. However, Kauer et al. (2014) reported that the overall quality of the studies included in the review was poor. Specifically, the review found the majority of studies utilised small sample sizes containing a high proportion of young women and only 22% of studies used adequate measures of help-seeking. Further research is needed to clearly identify the barriers and facilitating factors to youth online mental health help-seeking.

As with other areas of help-seeking research, there is a lack of specific research into forms of computerised help-seeking for adolescent males. Again, there are gender differences around young adults's preferences for mental health care that suggest that computerised approaches may hold considerable potential to appeal to an adolescent male population. Bradford and Rickwood (2014) investigated preferences for mental health care delivery (including face-to-face, online, and phone interventions) using a survey administered to a nonclinical sample of adolescents. Female participants were significantly more likely to prefer face-to-face sources over not seeking help compared to males, and males were significantly more likely to prefer online sources over face-to-face sources compared to females. Although, it should be noted that only 16% of the total sample stated a preference for online help and 23.8% of the sample stated that they would prefer not seek help at all.

Overall, computerised mental health interventions hold significant potential to improve help-seeking rates in adolescent males with anxiety and further research is needed in order to clearly identify key barriers and facilitating factors to this form of youth help-seeking.

It is important to note that due to the range of available internet-based mental health information/programs (which range from anecdotal or inaccurate information from non-professional sources to evidenced based, effective programs that are delivered online), it is not yet possible to categorize online services as 'formal' or 'informal' help-seeking behaviour. This is a relatively new form of help-seeking and is yet to be established in terms of how it relates to other forms of help-seeking. Within the scope of this thesis, online help-seeking will be researched and referenced to as a separate form of help-seeking to established formal and informal options.

Systemic influences. Due to the previously mentioned common preference for self-reliance in young adults, an understanding of indirect and informal influences to youth help-seeking is particularly important. Evidence suggests that when adolescent males do seek help it is from informal sources of support, specifically family members (Chandra & Minkovitz, 2006; Rickwood, 2015). In particular, parents are believed to have a significant influence on a young person's help-seeking behaviour. Parental burden, parental problem perception, parental perception of need, parental disapproval of help-seeking, and parental beliefs about the helpfulness of psychological interventions have all been associated with young adults' mental health help-seeking attitudes, intentions, or behaviour (Chandra & Minkovitz, 2006; Oh et al., 2009; Ryan, Jorm, Tombourou, & Lubman, 2015). There is also evidence to suggest that overcontrolling parenting behaviors are associated with a reduced likelihood of youth mental health help-seeking, although at present this has only been investigated in children and very young adolescents (Jongerden, Simone, Bodden, Dirksen, & Bogels, 2015; Ryan, Toumbourou, & Jorm, 2014). The relationship between parenting and help-seeking in

older adolescence is likely to be more complex than in childhood. Adolescents are typically granted greater autonomy but still require significant parental assistance. It is also a time when emotional turmoil is considered normal and increased self-reliance (an identified barrier to help-seeking for mental health issues) is encouraged in most areas of life. Although the role of parents has often dominated models of youth help-seeking (as seen in the Logan and King 2001 conceptualisation of a parent mediated-pathway to mental health services for adolescents), there is limited investigation on specific forms of parenting and help-seeking. The influence of parents on particular components of help-seeking (i.e. attitudes, intentions, and behaviour) is also poorly understood. A better understanding of the role of parents in adolescent male mental health help-seeking can be used to develop interventions that support parents to maximise opportunities for mental health help-seeking in this population.

Aim and Outline of Thesis

Broadly, the aim of the thesis was to investigate barriers and facilitating factors to mental health help-seeking in adolescent males with anxiety. This includes developing a more in-depth conceptual understanding of factors that influence the complex help-seeking process in this population. Currently, there is an absence of studies examining mental health help-seeking in anxious adolescent males, and where literature does exist, there are significant methodological issues, such as a limited use of standardised help-seeking measures. At present, much help-seeking research in young adults has focused on barriers to help-seeking and a better knowledge of factors that facilitate the youth help-seeking process is needed. In order to address these limitations, chapter two describes a qualitative investigation into the barriers and facilitating factors to help-seeking behaviour for clinical anxiety in adolescent males.

Poor mental health literacy and traditional norms of masculinity are some of the most well-known barriers to mental health help-seeking in adolescent males, although little is known about the effects of these variables on specific help-seeking components and, from the perspective of mental health literacy, on anxiety disorders. Chapter three describes a study that investigates the impact of masculinity on the relationship between anxiety-specific mental health literacy and mental health help-seeking in adolescent males.

The effectiveness of mental health literacy programs at increasing youth mental health help-seeking rates is likely to be influenced by mental health stigma, another highly established barrier to help-seeking in young adults. A detailed understanding of common types of mental health stigma in this population is limited and the specific relationship between mental health stigma in relation to anxiety disorders and help-seeking in adolescent males is yet to be empirically researched. Chapter four describes an investigation into anxiety specific mental health stigma and its relationship to help-seeking in a sample of adolescent males.

A fear of stigma is associated with the well-documented preferences for anonymity and self-reliance in young adults with mental health problems. Computerised delivery of psychological services is believed to be a more appealing method of treatment delivery in adolescents compared to more traditional help-seeking options. Over the past decade there has been significant investment into the development of computerised mental health programs, although existing research suggests that participant engagement in computerised mental health treatment programs is often lacking. Chapter five describes a qualitative study that investigates adolescent males' attitudes towards computerised mental health intervention and more specifically to a particular online anxiety treatment program.

Adolescent males demonstrate preferences for self-reliance or support from family members when managing emotional distress. Consequently, it is important to fully

understand the indirect and informal influences on help-seeking in young men in this position. Parents are in a unique position to influence a young person's help-seeking indirectly and certain parenting behaviours (i.e. autonomy granting) are believed to influence youth help-seeking attitudes, intentions and behaviour, although this has yet to be empirically investigated in adolescent males. Chapter six describes an investigation into the association between parental behaviour and mental health help-seeking in adolescent males.

It is helpful to raise awareness at this point that there is overlap in the study samples described in this PhD thesis. The data collected in studies described in chapters three, four and six were collected as part of the same randomised controlled trial (Hudson, Brockveld, Byrow, Stow, & Clark, 2016). A total of six schools participated in the trial but the schools involved in each of the three studies differed due to reasons associated with random allocation of measures across data collection, school consent procedure and intervention arm of the trial. Specifically, participants from one school contributed to the data collection in each of these three studies. Additionally, participants in the qualitative investigations described in chapters two and five were invited, and exclusively accepted, to participate in both studies.

The last chapter in the thesis summarizes the main findings of the thesis and reviews the strengths and limitations of the investigations. The chapter discusses the theoretical and clinical implications of each of the individual studies and the thesis as a whole. In particular, how this research contributes to the wider literature on adolescent male mental health help-seeking, youth stigma and mental health literacy is discussed.

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Chapter 2

The second chapter presents the paper “Barriers and Facilitating Factors to Help-Seeking for Symptoms of Clinical Anxiety in Adolescent Males”. As identified in chapter one, there is a lack of literature on the barriers and facilitators to help-seeking for anxiety disorders in adolescent males. The study described in chapter two explores factors that are pertinent to help-seeking in this population. Further, the study aims to establish an understanding of the process associated with help-seeking behaviour in adolescent males.

Barriers and Facilitating Factors to Help-Seeking for Symptoms of Clinical Anxiety in Adolescent Males

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Abstract

Background and Aims: Despite being estimated to affect approximately 9% of males aged 16-24 in Australia, young men are very reluctant to seek help for anxiety disorders. In particular, the factors which facilitate mental health help-seeking in adolescent males are poorly understood. This study aimed to investigate the barriers and facilitating factors to help-seeking behaviour for clinical anxiety in Australian adolescent males. **Method:** The views of 29 adolescent males, both with and without experience of clinical anxiety symptoms, were elicited using semi-structured interviews and focus groups. Verbatim transcripts were analysed using grounded theory. **Results:** Primary barriers to help-seeking included stigma (particularly in relation to social norms of masculinity), effort, limited awareness/knowledge of symptoms of anxiety and a sense of being 'confronted' by private emotions through help-seeking. Facilitating factors included increasing the accessibility of school-based mental health literacy programs and providing a wider range of formal and informal help-seeking options. Other facilitators related to amendments in how mental health information is presented and investments into high speed/low effort help-seeking options. The findings facilitated the development of a preliminary model of mental health help-seeking in adolescent males with clinical anxiety. **Conclusions:** Adolescent males feel they risk significant stigma by help-seeking for mental health problems but lack information as to the benefits or the experience of help seeking. A stepped approach to options for mental health support and information for this population should be evaluated.

Keywords: Help-Seeking, Adolescents, Anxiety, Barriers, Mental Health.

Introduction

Young adults (aged 16-24 years) have higher rates of mental disorders than any adult age group in Australia (Slade, Johnston, Oakley Browne, Andrews, & Whiteford, 2009). Anxiety disorders are the most prevalent mental health condition in youth (Merikangas et al., 2010; Rapee, Schniering, & Hudson, 2009) and are associated with significant psychosocial impairment as well as high individual and family distress (Ezpeleta, Keeler, Erkanli, Costello, & Angold, 2001; La Greca & Lopez, 1998). However, despite the expansion of evidence-based treatments for clinical anxiety over the past 10 years, only a small percentage of anxious young adults actually access and receive the benefits of established mental health treatments (Merikangas et al., 2011; Slade, et al., 2009).

Help-seeking behaviour refers to the use of formal (health facilities and professional care providers) and informal (family, kinship networks, friends, traditional healers and/or religious leaders) supports (Barker, Olukoya, & Aggleton, 2005). The term 'semiformal' is used to describe supports in the form of service providers and professionals who do not have a specified role in delivery of mental health care such as teachers and youth workers (Rickwood & Bradford, 2012). Following the expansion of evidenced based treatments, formal help-seeking (i.e. from mental health professionals) is considered the most adaptive form of help-seeking for mental health disorders and has been found to have a strong negative effect on the psychological distress associated with emotional problems (Tracey, Sherry, & Keitel, 1986). However, young adults systematically demonstrate a preference for self-reliance or informal sources of help when managing symptoms of psychological distress (Boldero & Fallon, 1995; Gulliver, Griffiths, & Christensen, 2010; Rickwood, 1995). Consequently, there is concern that many adolescents continue to suffer from, often highly treatable, mental health conditions.

A systematic review by Gulliver et al. (2010) reported the barriers and facilitators to mental health help-seeking in young adults (aged 12-25 years-old) as identified in both the qualitative and quantitative literature. The review identified that barriers to help-seeking included public, perceived and self-stigmatising attitudes to mental illness, concerns regarding confidentiality, poor mental health literacy and a preference for self-reliance. To a lesser extent, a lack of accessible services, poor emotional competence and a preference for informal sources of support were also found to inhibit formal help-seeking. Facilitating factors were found to be comparatively under-researched with only three studies (all qualitative) included in the review investigating methods to promote help-seeking. Key facilitator themes included a positive past experience with help-seeking, good social support, trust and a positive relationship with the care provider and, to a lesser extent, education on mental health and positive attitudes towards seeking help generally. As identified by Martínez-Hernáez and colleagues, much qualitative and quantitative literature on help-seeking in young adults has tended to conceptualise the avoidance of help-seeking as "a series of discrete barriers rather than as an integrated complex of factors or help-seeking process" (Martínez-Hernáez, DiGiacomo, Carceller, Correa-Urquiza, & Martorell-Poveda, 2014, p. 2). As a result, there is a need to develop the youth help-seeking literature in a manner which takes into account the complexity of mental health help-seeking and adds particular focus to capturing data on facilitating factors.

Within Australia, adolescent males have been identified as the group least likely to seek treatment for common mental health problems such as affective, anxiety and substance abuse disorders. It is estimated that only 13.2% of 16-24 year-old males seek formal help for these conditions, compared to 31.2% of 16-24 year-old females (Burgess et al., 2009). The 2007 Australian National Survey of Mental Health and Wellbeing found 9% of males aged 16-24 to have experienced symptoms of clinical anxiety over the past 12 months but only

15% of this population to have been in contact with a mental health professional (Reavley, Cvetkovski, Jorm, & Lubman, 2010). Mental illness in young men aged 12–25 is estimated to cost the Australian economy $3.27 billion per annum (Degney et al., 2012). This figure is associated with costs such as health care provision, unemployment, reduced income and education, imprisonment, welfare and mortality. More significantly, the impact of poor mental health is particularly visible in this population. Suicide is the largest single cause of death in young Australian males aged 15–24 years (Australian Bureau of Statistics, 2009).

The lack of specific help-seeking investigations in adolescent male populations is surprising given that barriers to help-seeking are often influenced by gender. Firstly, low emotional competence, stigmatising attitudes towards mental illness and lower mental health literacy have all been associated with lower help-seeking intentions and behaviour in young adults (Ciarrochi, Deane, Wilson, & Rickwood, 2002; Gulliver et al., 2010). Young men have been found to have lower mental health literacy and lower emotional competence (i.e. the ability to identify, describe, understand and communicate emotions) than their female equivalents (Ciarrochi, Wilson, Deane, & Rickwood, 2003; Rickwood, Deane, Wilson, & Ciarrochi, 2005). Men have also been found to report more stigmatising attitudes than females (Corrigan & Watson, 2007). Secondly, the literature suggests that male and female adolescents utilise available help sources differently. Martínez-Hernáez et al. (2014) found that male participants were more likely to seek help from their friends to "forget about" emotional distress, a behaviour associated with normalising symptoms of depression. In contrast, female participants tended to understand their social networks as a resource for "talking about it" or problematizing the distress. Thirdly, several qualitative studies have identified a fear of threatened masculinity as a barrier to mental health help-seeking in adult and adolescent males (Gair & Camilleri, 2003; Gilchrist & Sullivan, 2006; Hutchinson & John, 2012; Tyler & Williams, 2014). It should be noted that the focus of these studies has

been on barriers to help-seeking as opposed to identification of facilitating factors. Health help-seeking has been traditionally conceptualised as a feminine behaviour (Courtney, 2000; Lyons, 2009; Spalding, Zimmerman, Fruhauf, Banning, & Pepin, 2010). Males who fail to conform to hegemonic masculine behaviours (such as physical toughness, emotional stoicism, projected self-sufficiency (Chu, Porche, & Tolman, 2005), are perceived as weak, less masculine and have reduced social power. Rickwood and colleagues (2005) review on youth help-seeking called for research into how boys can 'express their internal world in a way that is empowering rather than disempowering and felt to be evidence of weakness' (Rickwood et al., 2005, p. 27).

Where information on the barriers and facilitating factors to adolescent male help-seeking is available, a number of methodological limitations are pertinent. Studies which have focussed on help-seeking in young males have typically recruited participants aged 17 and older (Tyler & Williams, 2014; Wilson, Cruickshank, & Lea, 2012) or have collected data predominantly by indirect methods such as through other individuals in the help-seeking process (i.e. parents, sports coaches, school nurses; Hutchinson & John, 2012; Mazzer & Rickwood, 2014; Wilson et al., 2012). Perhaps even more importantly, whilst disorder-specific investigations into help-seeking in young adults are beginning to emerge (e.g. suicidal behaviour, depression; Deane, Wilson, & Ciarrochi, 2001; Wilson, Deane, & Ciarrochi, 2005; Wilson, Rickwood, & Deane, 2007), these have yet to be extended to anxiety disorders.

Anxiety disorders, as defined within the Diagnostic and Statistical Manual of Mental Disorders 5, are distinct from other mental health conditions in their aetiology, symptomatology, maintaining factors and treatment (American Psychiatric Association, 2013). Additionally, anxiety disorders (in particular the diagnosis of social anxiety disorder; APA, 2013) have been associated with greater levels of 'weak not sick' mental health stigma

than other common mental health conditions in young adults (Yap et al., 2011). This form of stigma is where a mental disorder is attributed to a personal weakness rather than an illness. The majority of anxiety stigma research (particularly relating to specific forms of anxiety) has been conducted using adult samples. Griffiths, Batterham, Barney and Parsons (2011) investigated the stigma associated with Generalised Anxiety Disorder (GAD) in Australian adults aged 18-65 years. Griffiths and colleagues reported that over half of the respondents endorsed the view that most other people did not believe anxiety disorder was a real medical illness, believed that they could snap out of it if they wanted to, and thought that it was a sign of personal weakness and associated with instability. An understanding of personal and perceived forms of anxiety stigma within adolescent males is required to inform help-seeking interventions for this population. In order to increase service utilisation in this vulnerable population and effectively manage service provision and treatment development, a more comprehensive understanding of help-seeking behaviour in adolescent males with anxiety is needed.

The aim of the present study was to obtain the perspectives of adolescent males, both with and without experience of clinical anxiety, on the barriers and facilitating factors to mental health. A qualitative methodology was utilised in order to ensure a detailed understanding of how barriers and facilitators interact in the context of the mental health help-seeking process.

Method

Participants

Purposive sampling was employed to recruit adolescent male participants ranging in age. In order to generate a representative sample, participants with and without experience of formal help-seeking for clinical anxiety were recruited. The final sample comprised of 29

adolescent males aged 12-18 years (M = 15.17, SD = 1.91). All participants were in full-time school education.

Clinical participants (n = 8) were adolescent males that had experienced symptoms of clinical anxiety (either with or without a co-morbid diagnosis of depression) and were in the process of (i.e. had contacted a local mental health provider) or had already received formal mental health intervention. Clinical participants were recruited from child and adolescent mental health services across New South Wales, gumtree (a nationwide internet classified advertisements and community website) and the Centre for Emotional Health, Macquarie University. Sources of professional help obtained by participants included a school counsellor (n = 1), a private local psychologist (n = 2) and a child and adolescent mental health clinic which offered online treatment (n = 2) in addition to face-to-face therapy (n = 2). 'Non clinical' participants (n = 21) were adolescent males who had not received treatment for mental health difficulties. Non-clinical participants were recruited from gumtree and two independent schools based in New South Wales. Using the Australian Rural, Remote and Metropolitan Areas (RRMA) classification, 4 (14%) participants lived in a Rem2 (remote area), 18 (62%) participants lived in a R2 (small rural centre) and 7 (24%) lived in an M1 (metropolitan city) area (Australian Institute of Health and Welfare, 2016). Recruitment ceased when data saturation had been achieved.

Procedure

Ethical approval for the project was granted by the University of Macquarie Committee for Ethics in Human Research in July 2012. Participants and their parents were required to sign information consent forms prior to their involvement in the interviews. A qualitative methodological approach was adopted due to the exploratory nature of the investigation. This approach enabled the researchers to investigate themes in an in-depth and contextual manner. The interviews were analysed using grounded theory due to the lack of

information/research in the subject area. This approach was considered the most appropriate as the study aimed to develop a theoretical framework on this topic (Strauss & Corbin, 1994). To facilitate discussion in interviews and focus groups, a vignette with related questions was used to identify participant's knowledge of and preferences regarding help-seeking options (see Figure 1).

With the exception of one focus group, the first author conducted all the interviews. These took place in child and adolescent mental health clinics, schools or at the participant's home and occurred either in four focus groups (n = 20) or individually (*n* = 9). Due to the personal nature of the topic, participants with a history of clinical anxiety, or non-clinical participants opting not to participate in a group (*n*=1), were interviewed individually. The focus groups (FG) contained between three and six participants (FG 1: *n* = 3; FG 2: *n* = 6; FG 3: *n* = 4; FG 4: *n* = 7) with other adolescents of similar ages (FG 1: 13-14 years, FG 2: 16-17 years, FG 3: 12-13 years, FG 4: 15-16 years).

Interviews (focus group and individual) lasted between 43 and 67 minutes. All interviews were audio recorded for transcription purposes and video recorded in order to supplement the transcription with pertinent non-verbal communication. In-depth notes were taken during, and directly following, the interviews by the facilitator. The focus groups and individual interviews all followed the format detailed in Figure 1. In younger or highly anxious participant groups, the facilitator needed to use a higher level of 'promoting'. This refers to the amount of involvement in discussions, questions asked and provision of suggestions required by the facilitator in order to progress the discussion. Any responses (approximately 3% of the transcriptions) that were felt to be elicited through demand characteristics were excluded prior to analysis.

Interview Questions

All participants were read the following vignette of an adolescent male 'Jack' with symptoms of social anxiety and then asked the questions below.

Jack is a 16-year-old boy. He gets very worried about saying or doing something stupid in front of other people and it really interferes with him going to school and seeing friends. To make sure he sounds interesting, Jack will look up interesting things to say on the internet before going into school and avoids conversations with what he considers to be 'interesting and popular' kids in case he doesn't know what to say. He worries that if people notice he is anxious then they will think he is stupid and odd. Jack has noticed that he goes red when he worries and so to keep himself cool he will only ever wear a thin t-shirt or shirt (even in winter). He also carries a bottle of water with him at all times and splashes his face with water several times a day. He finds all this worrying about looking stupid really tiring and time-consuming and it stops him from doing things he likes to do, such as basketball. Jack wishes he was more like his friends who don't seem to get as worried about things.

Focus Group/Interview Questions

1) What would you do if you were Jack? (deigned to elicit knowledge around help-seeking sources and preferences)

2) What do you think are the things that get in the way or stop adolescent males like Jack getting help for anxiety?

3) Can you think of any changes we could make (either through school, in the community or any other area) that would help more adolescent males with anxiety come forward for help?

Figure 1. Focus group/interview questions.

Data Analysis

The interviews were transcribed verbatim and analysed by the first author in accordance with the principles of grounded theory (Glaser & Strauss, 2009). Analysis was initially conducted within and across individual questions in order to identify emerging themes relating to global themes of (i) help source preferences, (ii) barriers and (iii) facilitating factors to help-seeking. Following this analysis, a behavioural model was developed to conceptualise the dynamic relationship between the barriers and facilitating factors to help-seeking in adolescent males with anxiety (see Figure 2). In accordance with the principles of grounded theory (Cresswell, 2007), the model incorporated existing theory on barriers from the youth help-seeking literature.

The thematic analysis component of the data analysis followed a structure proposed by Attride-Sterling (2001). This process involved coding the material, identifying key themes then constructing, describing, exploring and summarising thematic networks (an analytic tool used to organise the thematic analysis of the data) before interpreting broader patterns across the data. In accordance with this process, the data was organised into '*basic'* (the lowest order theme derived from the data), '*organising'* (middle-order theme that organises the basic themes into clusters of similar issues) and '*global'* (super-ordinate themes that encompass the principal metaphors in the data as a whole) themes. To determine the level of representativeness of responses, four levels of frequency labels were also applied, a method utilised in other qualitative youth help-seeking investigations (Mazzer, Rickwood, & Vanags, 2012). As proposed by Hill, Knox, Thompson, Williams, Hess and Ladany (2005), a theme that applied to all or all but one of the cases was considered *general*. A *typical* theme applied to more than half of the cases (up to the cutoff for general). A theme was considered *variant* when included in at least two cases up to a maximum of half of all cases. Responses from clinical and non-clinical participants were categorised separately (i.e. in order to qualify as a

'general' theme, it had to be present in all or all but one of the clinical interviews (a total of eight) and in all or all but one of the non-clinical interviews/focus groups (a total of five). This was done in order to ensure that all themes reported were represented across both participant groups and not specific to one subgroup.

An inter-rater reliability check was conducted by randomly selecting six transcripts using an online random number generator. The selected transcripts were then independently coded by a second researcher (the fourth author). The development of almost identical themes suggested that the original interpretation of the data had been appropriate. However, a number of original themes were developed and refined as a result of the inter-rater check and subsequent discussion (see results for further details).

Results

Global Theme 1: Help-Source Preferences

Preference for self-reliance. The majority of participants indicated a preference for self-reliance in response to Question 1 (i.e., what they would do if they were in Jack's position). This *general* theme was present in seven clinical interviews and four non-clinical focus groups. Participants were less certain on what 'relying on themselves' would involve and, when asked what they would do, suggested non-specific help-seeking responses such as 'get a new mindset', 'do something fun', 'try to relax', and 'use people as role models'. Many participants stated that they would be comfortable speaking to friends or family members, although typically held strong opinions on which option this was.

'*I wouldn't talk to anyone personally. I would just probably keep trying to deal with it myself and try my best not to let anyone else know about it' (non-clinical focus group member, aged 14).*

Global Theme 2: Barriers to Help-Seeking

The organising themes associated with the global theme of 'barriers to help-seeking' identified included stigma, limited knowledge-awareness of information on clinical anxiety, effort and feeling 'confronted' by private emotion through help-seeking.

Stigma. An important *typical* organising theme was that of stigma, identified in six clinical interviews, one non-clinical interview and four focus groups. Stigma (particularly public stigma) was reported by participants of all ages to be a significant barrier to help-seeking. Public (also referred to as perceived) stigma is the 'stigma associated with seeking mental health services, therefore, is the perception that a person who seeks psychological treatment is undesirable or socially unacceptable' (Vogel, Wade, & Haake, 2006, p. 325). Mental health was conceptualised as a 'secret' or 'hidden' problem and consequently help-seeking was identified as involving exposure to potential stigma (usually characterised as bullying or exclusion). In particular, many interviewees felt that help-seeking in youth (as opposed to adulthood) was a public, rather than a private, experience. Several clinical participants spoke about the 'embarrassment' of being removed from class by the counselor or the counsellor's office being next to public areas (e.g. lunch rooms).

'I don't think there's really anywhere to go [in terms of getting help for anxiety], I think that's backing yourself against a wall' (non-clinical focus group member, aged 14).

'it's be kind of embarrassing [to leave class for an appointment with the school counsellor] because everyone would ask me where are you going and this and that, why are you going to miss so much class' (clinical participant, had sought formal help from a school counsellor, aged 13).

When exploring the theme of stigma, many adolescents (*variant* theme present in five clinical interviews and two focus groups) articulated views associated with social norms of masculinity. Help-seeking behavior was conceptualised as 'weak' or 'not macho', perceived to potentially compromise their social status leaving them vulnerable to stigma. A subtheme associated with themes of masculinity related to concerns that others would dismiss anxiety as not a 'real' illness' further increasing the likelihood of the help-seeker being stigmatised as 'weak'. A number of interviewees felt that this specific fear would cause them to deny experiencing symptoms both to others and themselves.

'Yeah, there's a sort of stereotype of males that you have to be stronger and everything, that if you are suffering from one of those [mental health problems] that you are weaker than everyone else' (non-clinical focus group member, aged 16).

'Seeking help is often the toughest thing to do, um, it can be tough but, um, it's not, it doesn't make you look tough' (clinical participant, had sought formal help from a child and adolescent mental health clinic, aged 14).

Limited awareness-knowledge of clinical anxiety. Many participants felt that most adolescent males, parents and teachers would lack important information on the symptoms and treatment of clinical anxiety. This *typical* theme was present in two focus groups, one non-clinical and eight clinical interviews. In particular, participants felt others lacked information on the 'treatable' nature of the condition and this lack of knowledge was felt to promote the perception of anxiety as 'not a real illness'. School based mental health literacy programs were considered 'inaccessible' and unhelpful with classes on social and emotional development being considered overly formalised and 'like school' involving 'too much reading' and 'assignments'. As a result, help-seeking from peers was considered unhelpful

and ineffective and more likely to result in stigma than useful support. However, two clinical participants warned against an overly informal tone of information presentation on mental health which would also communicate that anxiety isn't a 'real problem'.

Whilst participants perceived parents and teachers as being less likely (than other adolescents) to stigmatise a young person for having an anxiety disorder, they felt confident that such individuals would also lack the knowledge to help them. This generated interesting discussion regarding these sources (parents and teachers) which indicated that they were perceived as motivated sources of help but lacking the skills to be useful. A few participants expressed concern that as a result of help-seeking from parents or teachers adolescents would be 'forced' into formal help-seeking options (see also "confronted by emotion' theme below) due to a lack of knowledge of other support options.

'Yeah, like I was feeling, like, down all week and stuff and I had no clue what was going on'. (clinical participant, had sought formal help from a child and adolescent mental health clinic, aged 14).

'They have like awareness days and all that where they sell blue ribbons and do all this for Beyond Blue and all this. But they don't actually explain what it is. They don't explain how to help' (clinical participant, had sought help from a school counsellor and private psychologist, aged 18).

A limited knowledge/awareness of anxiety treatments and support, in particular the unknown nature of help-sources, was also identified as a key barrier to help-seeking. Many participants felt that 'not knowing' exactly what would happen if they sought help (i.e. the process of help-seeking, policies around confidentiality or the likelihood of being given 'labelled' with a diagnosis) or being unfamiliar with the characteristics of the provider (i.e.

approachability or 'friendliness') would be important barriers to help-seeking. Specifically, many participants had concerns about the efficacy of help-seeking/treatment. All of these concerns contributed to a sense of help-seeking being unfamiliar and potentially risky.

'If you know the school counsellor is a bit of a beast then I wouldn't do that [go to a school counsellor for help]' (clinical participant, had sought help from a school counsellor, aged 17).

Confronted by emotion. A *variant* theme (featuring in one focus group and five clinical interviews) related to participants expressing difficulties speaking about emotional problems which they felt to be 'private' and such conversations feeling 'confronting'. This theme was particularly prominent in interviews with adolescents from the clinical group. Several clinical participants described lying to school counsellors because, although they recognised they needed help, the conversation felt too intrusive. Participants felt that adolescent males required time and the opportunity to consider different forms of support gradually which was not facilitated by the current mental health support systems. Many participants felt that formal help seeking (i.e. seeing a counselor, logging on to a website about clinical anxiety) would feel too 'confronting' as it would mean that it became 'real' and that they would be labelled as 'having an issue' (i.e. mental health condition).

'Um, oh, yeah, it is, um, quite confronting to go onto a website all about treatment, like it's quite, um, yeah, you've just suddenly stepped into another world' (clinical participant, had sought formal help from a child and adolescent mental health clinic, aged 14).

Effort. The majority of participants (a typical theme featuring in three focus groups and five clinical interviews) identified low motivation or 'laziness' as an important barrier to

help-seeking in this population. Any help source that required organisation (such as booking an appointment) or effort (such as following an online treatment program) was perceived as highly problematic unless the anxiety disorder was very severe. Participants conceptualised their reasons for this as 'being male' and a 'teenager'.

'It would be too hard to get like to work [get adolescent males to seek help online] you'd need to work to do stuff' (non-clinical focus group member, aged 16).

Global Theme 3: Facilitating Factors to Help-Seeking

The global theme of 'facilitating factors to help-seeking' related to organisational themes of a gradual introduction to information/support, increased help-seeking options for adolescents, accessible school-based anxiety programs and a review of how information on anxiety is presented. These themes were often extensions of discussions related to the barriers identified above.

Fast to access, low effort to use options that introduce mental health information/support concepts gradually. Participants felt that, in order to increase the number of adolescent males engaging in help-seeking behaviour, options for help/information needed to be highly visible and easily accessible. This *typical* theme was present in three focus groups, one non-clinical and five clinical interviews. Although many participants had expressed negative views towards current school lessons on social and emotional development, most adolescents felt that schools should increase the information provided on clinical anxiety through these programs and in early high school, as 'you are there anyway'.

The motivation to seek help for emotional distress in adolescent males was felt to be very short lived and that more immediate methods of communication with formal help services (i.e. the school counsellor) were required, such as through an online messenger

service, phone application or text (ideally for free) to capitalise on this. This would also enable adolescents to 'meet' professionals involved in the help-seeking process before needing to meet them for the first time face-to-face (gradual introduction). Several participants felt that school counsellors should be visible in schools and offer 'drop in' sessions during the day so the need to organise an appointment was removed (i.e. reducing the effort involved). Some participants suggested that schools should offer private rooms/computers for students to be able to try online anxiety treatment during breaks or part of mental health information classes in order to be able to consider this as an option before committing to a program.

Several participants also felt that schools should have members of staff (dual-role teachers) with training in mental health that adolescents could talk to easily. These staff members would not be directly connected to mental health (reducing stigma) and adolescents may have contact with the staff member as part of their daily routine (low effort).

'yeah, you just need to get to know them, um, and it's quite easy if they're your year co-ordinator or someone like that as well' (clinical participant, had sought formal help from a child and adolescent mental health clinic, aged 14).

Participants believed that information on anxiety needed to be accessible at all times. Several participants recommended having a phone app (to an anxiety information website or treatment program) or placing advertising (such as beyondblue posters) at the top of school staircases so that adolescents have a constant visual reminder. Participants regularly asked if more information could be linked to social media (for example Facebook, Instagram or Twitter) where adolescents could incidentally learn about mental health and sources of help without the effort of actively searching for it.

'So kind of putting it in front of kids as often as possible so that they get lots of opportunities to be reminded that it's there if they need it' (clinical participant, in the process of seeking help from a child and adolescent mental health clinic, aged 13).

Increased informal and formal help-seeking options for adolescents.

Discrete help-seeking. Concern regarding confidentiality and help-seeking being very 'public' was identified as a *typical* theme and was evident throughout the interviews (see Stigma), featuring in four focus groups and four clinical interviews. The provision of a dual-role teacher, hidden options to speak to school mental health personnel (e.g. text, messenger) and monitored online forums for adolescents with mental health questions were all popular suggestions believed to facilitate more discrete help-seeking. Adolescents felt that counsellors' offices should be positioned in a more discrete area of the school, options for evening and weekend appointments should be available and that adolescents are not removed from class for appointments.

***Accessible school based anxiety information programs*.** Discussions associated with inaccessible school mental health literacy programs revealed a desire for more relatable information on mental health. This *global* theme featured in three focus groups, one non-clinical and seven clinical interviews. Participants described a desire for a more personalised learning experience which involved (either directly or video) listening to the experience of an individual (ideally a young person) who had experienced anxiety as an adolescent. Participants stressed the importance of seeing 'the bigger picture', which involved two components. Firstly, participants felt that mental health literacy programs should stress the 'seriousness' of anxiety (i.e. that it can cause significant life interference if left untreated). Secondly, that it is a treatable illness (i.e. how an individual's life can change/improve after

completing treatment). Adolescents felt these two components should be communicated using personal stories/examples that they could relate to. Many participants (particularly those with experience of a clinical anxiety disorder) felt that schools should also provide tailored programs for parents and teachers.

'Probably knowing, or even just having the possibility, that you can be better off at the end' (non-clinical focus group member, aged 14).
'Hearing other people's success stories [would make an adolescent more likely to seek help for anxiety]' (non-clinical focus group member, aged 14).

Participants felt, in addition to being more accessible, school based mental health literacy programs should communicate information on; (a) formal help seeking professionals (e.g. professional restrictions regarding confidentiality, non-judgemental process) and treatment programs; (b) efficacy of treatment for anxiety disorders; (c) details of impact when anxiety is untreated/severe and; (d) specific options for help rather than 'just come and talk to someone'.

'I guess if you got information like, you know, like [about] counsellors and stuff……you shouldn't be intimidated by them [counsellors], they're like here to help, you know, like not going to judge you' (clinical participant, in the process of seeking help from a child and adolescent mental health clinic, aged 13).

Review of anxiety information presentation. A smaller help-seeking barrier (a *variant* theme, identified in two focus groups and three clinical interviews) related to labelling (either by a formal help-source or the individual themselves). Participants felt that

information on anxiety and informal/formal help-sources needed to utilise less formal and less diagnostic-driven vocabulary. For example, participants described being far more likely to log on to a website about general men's health issues than a website tailored to clinical anxiety difficulties. It was also clear that information needed to have a 'masculine' tone, with examples using stereotypical 'manly' figures, in order for adolescent males to feel that they could relate to it.

'Like, the tradies, I guess. Like the – you know, the guys that work sort of in tough situations….which is why I think seeing the tough guys talk about it [would be helpful in mental health literacy programs]' (clinical participant, had sought help from a private local psychologist, aged 16).

During the inter-rater coding, the third author elicited the themes 'feared negative evaluation of self and others' and 'feared consequences'. It was debated whether these themes should be separate independent themes or both represented within the theme 'stigma'. Through discussion, it was felt that both concepts were best theoretically represented under the term 'stigma'. There was also discussion around if 'confronted by emotion' was a separate theme or again connected with the theme 'stigma'. In this situation, the third author continued to review transcripts until this discrepancy was resolved.

Model of Mental Health Help-Seeking Behaviour in Adolescent Males

An important theme throughout the interviews was the conceptualisation of help-seeking intentions and behaviour as fluid processes that alter in the context of different help-seeking opportunities and the formality of each option. The severity of the disorder appeared to moderate the strength of the barriers (i.e. help-seeking barriers were perceived as less

prohibitive when anxiety symptoms were more severe). In addition, the formality of the help-seeking options appeared to alter the nature and impact of specific barriers/factors influencing the decision making process. The interviews suggested that, in order for adolescent males to engage in formal support for anxiety, they must first naturally (without external pressure) transition from a preference of self-reliance to contemplating more informal help-seeking options. If these stages have been undertaken successfully and then adolescent males would consider more formalised help-seeking options. Participants also felt that greater exposure to options that would typically fall in between formal and informal help-seeking categories (such as an online treatment program, talking to a dual-role teacher or the opportunity to text or speak to the school counsellor by messenger) would facilitate more adolescent males to consider formal help-seeking options.

A preliminary model is proposed to illustrate the how barriers and facilitating factors may influence different components of the help-seeking process (see Figure 2). Existing knowledge from the youth help-seeking literature (i.e. established help-seeking barriers) also informed the development of this model (Gulliver et al., 2010; Martínez-Hernáez et al., 2014). The model suggests that adolescents engage at a level of help-seeking that is dependent on a dynamic interaction of barriers and facilitators that are moderated by severity of symptoms. Before passing through the preliminary stages of the model (i.e. consideration of and/or engagement of more informal help-seeking options), the data suggests that adolescent males would perceive and experience barriers to help-seeking (e.g. feeling 'confronted' by negative emotions or 'rushed' into formal help-seeking options) more acutely. The 'barriers' and 'facilitators' identified at each stage represent factors which would encourage or influence the adolescent to move from the current phase (e.g. preferring to manage emotional distress independently) to the following phase (consideration of informal

help). However, at each point in the model, participants may return to a previous phase of help-seeking.

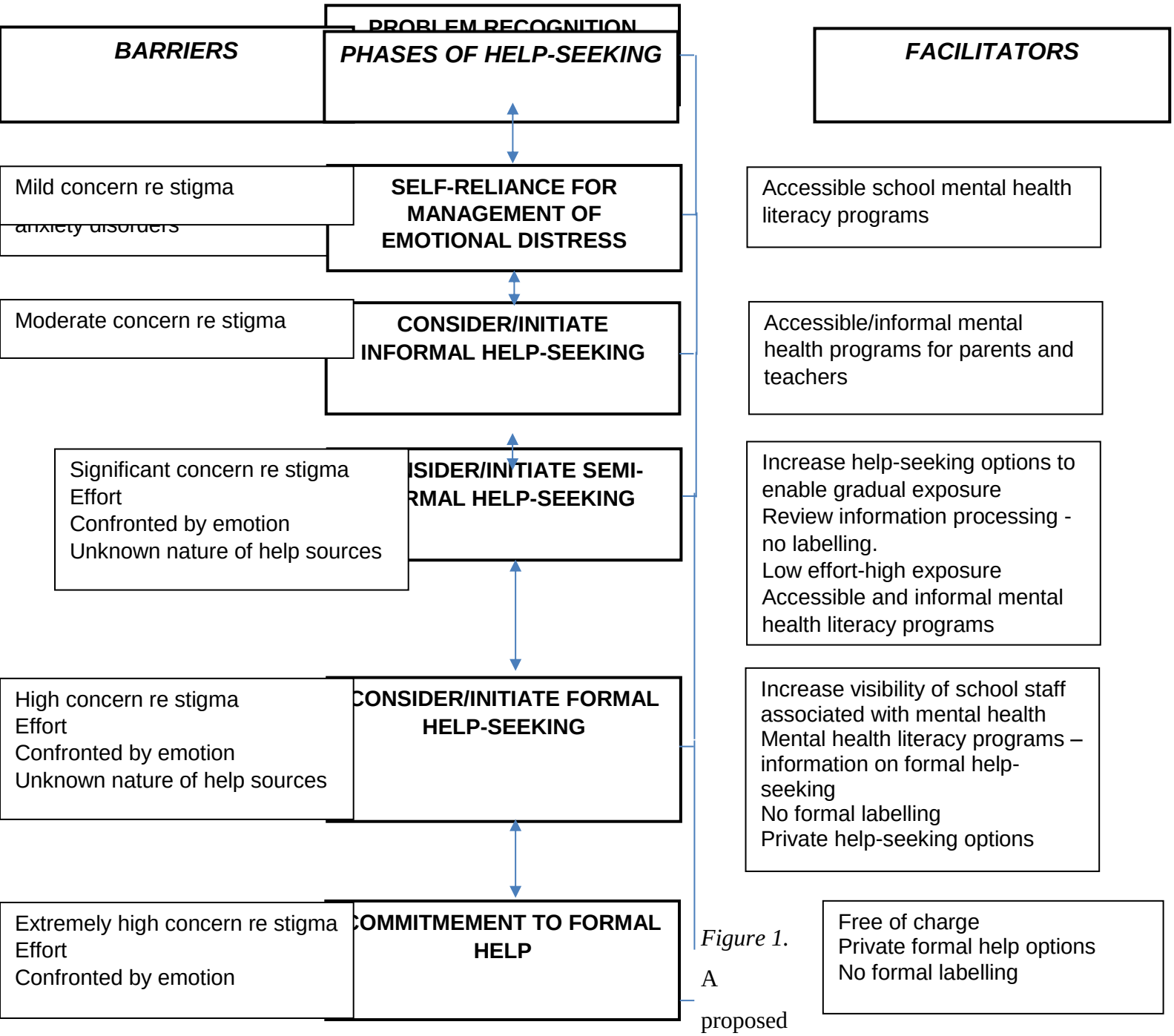

Figure 1. A proposed model of the interaction effect between barriers and facilitating factors to help-seeking among adolescent males with symptoms of anxiety in the context of different help options.

Discussion

Despite significant financial investment into 'accessible' services for adolescents, very few adolescent males seek formal help for emotional difficulties. This study sought to investigate the barriers and facilitating factors to help-seeking for anxiety disorders in adolescent males and to provide a conceptualisation of how these factors interact within the help-seeking process. Consistent with existing youth help-seeking research (Gulliver et al., 2010), perceived stigma, limited mental health literacy and a preference for self-reliance were found to be barriers to mental health help-seeking. Additionally, as previously identified in the literature, discussions of stigma often related to 'weak not sick' forms of stigma and social norms of masculinity (Gair & Camilleri, 2003; Gilchrist & Sullivan, 2006; Hutchinson & John, 2012; Tyler & Williams, 2014; Yap et al., 2011). The study findings overlapped significantly, both in terms of barriers and facilitators, with results reported in the Martínez-Hernáez et al. (2014) qualitative investigation into non-professional help-seeking among Spanish young adults with depression. This suggests that, although both are qualitative studies with small samples and conducted in different countries, the findings might be more generalisable than is traditionally estimated in qualitative research.

A number of novel constructs were identified. In particular, an understanding of i) how a belief that society does not perceiving anxiety as a 'real problem' and ii) how a sense of feeling 'confronted' can inhibit help-seeking in this population was elicited. Participants reported current school based mental health literacy programs as being 'inaccessible' and not widely reaching (i.e. no programs for teachers and parents). These views have important implications for how information on clinical anxiety is communicated to adolescents. Perhaps most significantly, the current study adds to the existing literature by providing a more developed understanding of facilitating factors to help-seeking in adolescent males. Participants provided clear and practical suggestions regarding how services could facilitate

discrete options for help-seeking in a manner which was fast, low effort and communicated the seriousness of clinical anxiety disorders. Interestingly, there were very few differences between the clinical and non-clinical participants in terms of the themes that emerged, only 'confronted by emotion' was found to be more present in clinical vs non-clinical participant interviews.

Consistent with the findings of Martínez-Hernáez et al. (2014), help-seeking was found to be a dynamic and multi-faceted process rather than a discrete set of barriers and facilitators. While Martínez-Hernáez and colleagues conceptualised factors to help-seeking in the context of how adolescents cognitively appraise their emotional distress, the current study's results suggest a conceptualisation based on how the adolescents appraised the help-seeking options available and the formality involved in each possible route. However, it is likely that, that both conceptualisations are relevant to the wider help-seeking of all young adults. It is clear that the relationship between barriers and help-seeking behaviours in young adults is not one-dimensional. Even participants with a non-stigmatising view of mental health, a good social network and high levels of mental health literacy (i.e., individuals where established barriers to help-seeking were not particularly prominent), said they would be extremely reluctant to seek help if they had a mental health disorder. As demonstrated in Prochaska and DiClemente's (2005) transtheoretical model of intentional human behaviour change, behaviour change is rarely a discrete, single event; rather it is a process of identifiable stages through which a person passes. Consequently, individuals need to be psychologically ready (i.e. pre-conceptualisation and conceptualisation to have occurred) to embrace the 'Action' component required for change. Miller and Rollnick (2002) suggest that three critical components are required to motivate a change in behaviour: a person's willingness, ability and readiness to make a change. Furthermore, the theory of self-determination asserts that in order to be intrinsically motivated people need; (i) a sense of skill mastery

(competence); (ii) a sense of belonging or attachment to others (connection or relatedness); and (iii) to feel in control of their own behaviours-goals (autonomous; Ryan & Deci, 2000). Therefore, enabling anxious youth to become knowledgeable on the topic of anxiety, exposing adolescents to individuals with personal experience of anxiety disorders and facilitating opportunities for young adults to contemplate help and move between informal-formal help-seeking gradually, may significantly improve youth help-seeking rates. Future research is needed to investigate the impact of implementing a stepped care approach to help-seeking.

This study is one of the first to investigate both barriers and facilitating factors to help-seeking in adolescent males for clinical anxiety. However, a number of limitations of the study should be acknowledged. First, whilst a sample size of 29 participants is considered an appropriate sample size for a qualitative investigation (Depaulo, 2000) and data saturation was established, this nevertheless limits the generalisability of its findings. Consequently, the model should be considered highly preliminary and further research needed to confirm this conceptualisation of the help-seeking process in adolescent males. Yet the high degree of overlap in findings from previous qualitative studies suggests that the data may be representative of a larger sample. Second, the sample was also more homogeneous than ideally desired with the majority of participants (68%) living in a rural area. However, the study did recruit adolescents from remote, rural and metropolitan areas of New South Wales and themes appeared consistent across participants from different geographic locations. Finally, the study did not investigate adolescent male responses to help-seeking for specific forms of anxiety disorder. As there are considerable differences in the symptoms, causes/risk factors, rates of help-seeking and treatment for different types of anxiety disorders, the broad scope of the investigation limits the generalizability of the results. Furthermore, as the vignette example utilised in the interviews related to symptoms of social anxiety and

consequently participant responses may have been tailored towards this form of anxiety. Future studies should aim to investigate adolescent help-seeking within the context of specific anxiety disorders.

Conclusion

This investigation demonstrates that adolescent males feel that they risk significant stigma and discrimination by help-seeking for mental health problems and are highly uncertain as to the benefits or the experience of seeking help. At present the anticipated costs associated with help-seeking are greater than the perceived benefits. The data suggest that, currently, this population are not provided with sufficient options to seek help discretely and in a manner that minimizes identified barriers. Therefore, consideration of a variety of informal to formal help-seeking options is required. The findings suggest that schools may play an important role in providing a more stepped care approach to help-seeking for emotional distress than is currently available. Further research in this area may have the potential to facilitate higher rates of formal help-seeking for mental health problems in this population.

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Chapter 3

The third chapter presents the paper “Investigating the Impact of Masculinity on the Relationship between Anxiety Specific Mental Health Literacy and Mental Health Help-Seeking in Adolescent Males”. Chapters one and two established the importance of social norms of masculinity and mental health literacy in regards to mental health help-seeking in adolescent males. The study described in chapter three explores the relationship between mental health literacy, masculinity and help-seeking in the context of anxiety disorders in adolescent males.

Investigating the Impact of Masculinity on the Relationship between Anxiety Specific Mental Health Literacy and Mental Health Help-Seeking in Adolescent Males

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Abstract

Background and Aims: Poor mental health literacy and adherence to traditional norms of masculinity are established barriers to mental health help-seeking in adolescent males. However, little is known about how these variables influence adolescent help-seeking for anxiety. The purpose of this study was to investigate the relationship between i) anxiety mental health literacy, ii) attitudes towards traditional masculinity and iii) help-seeking attitudes, intentions and behaviour in a sample of adolescent males. **Method:** 1732 adolescent males (aged 12-18 years) participated in the online study whilst at school. **Results:** Mental health literacy scores generally had positive associations, whereas masculinity generally had negative associations, with measures of help-seeking attitudes and intentions. In adolescents with low/average masculinity scores, higher mental health literacy was positively associated with more favourable attitudes towards formal and informal help-seeking whereas this relationship was not found in adolescents with high masculinity scores. Participant attitudes towards formal help-seeking, intentions to seek help from a family member and from an online source, anxiety and depression scores were found to predict professional help-seeking behaviour. **Conclusions:** Mental health initiatives which consider the impact of masculinity and gender stereotypes have the potential to significantly improve help-seeking rates in this population.

Keywords: Help-Seeking, Mental Health Literacy, Masculinity, Adolescents, Anxiety

Introduction

Mental health help-seeking refers to obtaining help in understanding, advice, information, treatment, and general support in response to a mental health problem or distressing experience (Rickwood, Deane, Wilson, & Ciarrochi, 2005). Help-seeking research typically investigates help-seeking attitudes (thoughts or feelings towards the general concept of formal or informal help-seeking), intentions (which typically refers to an individual's intentions to seek help should they personally experience an emotional difficulty) and behaviour (the physical act of seeking either formal or informal support for psychological difficulties). At present there is not a clear understanding of how mental health help-seeking attitudes and intentions influence help-seeking behaviour in young people (14-24 years old; Rickwood et al., 2005).

There is considerable interest in mental health help-seeking attitudes, intentions and behaviour in adolescent males due to high rates of mental health disorders but low rates of treatment seeking in this population. Epidemiological studies have consistently demonstrated a smaller proportion of adolescent males with mental health disorders seek psychological assistance compared to adolescent females with mental health disorders (Merikangas et al., 2011; Slade et al., 2009). Unmet mental health needs in adolescent males are associated with antisocial behaviour, alcohol or other substance misuse problems and higher rates of completed suicide than in young women (Eaton et al., 2012; Slade et al., 2009). Consequently, there is a great need to identify barriers and facilitating factors to help-seeking in this population.

A range of factors has been demonstrated to influence at least one component (either attitudes, intentions or behaviour) of youth mental health help-seeking including poor mental health literacy, stigma, a preference for self-reliance and concern about confidentiality (Gulliver, Griffiths, & Christenson, 2010). Poor mental health literacy has been identified as

a particularly important barrier to mental health help-seeking behaviour in both men (Harding & Fox, 2014) and adolescent males (Gulliver et al., 2010). Mental health literacy refers to "knowledge and beliefs about mental disorders which aid their recognition, management or prevention" (Jorm et al 1997, p. 182) and it consists of several components including: (a) the ability to recognise specific disorders or different types of psychological distress, (b) knowledge and beliefs about risk factors and causes, (c) knowledge and beliefs about self-help interventions, (d) knowledge and beliefs about professional help available, (e) attitudes which facilitate recognition and appropriate help-seeking behaviour and (f) knowledge of how to seek mental health information (Jorm, 2000).

It is well established that adolescent males have lower mental health literacy than adolescent females (Burns & Rapee, 2006; Cotton, Wright, Harris, Jorm, & McGorry, 2006). This lack of awareness of mental health symptoms or knowledge of appropriate support options is believed to contribute to males not seeking help for psychological disorders. However, the relationship between mental health literacy programs and help-seeking attitudes, intentions and behaviour in young adults remains to be fully understood. A systematic review of help-seeking interventions for depression, anxiety and general psychological distress by Gulliver, Griffiths, Christensen and Brewer (2012) found mental health literacy to be effective in improving help-seeking attitudes in the majority of studies at post-intervention, but was not found to have an effect on help-seeking behaviour. Another systematic review by Wei, Hayden, Kutcher, Zygmunt and McGrath (2013) investigated the efficacy of school mental health literacy programs in enhancing knowledge, reducing stigmatizing attitudes and improving help-seeking behaviours among youth (12-25 years of age). Wei et al. identified only three studies which included specific help-seeking measures (based in the US, Germany and Australia). These studies found mental health literacy programs to have a positive impact on a help-seeking outcome (Battaglia, Coverdale, &

Bushong, 1990; Paulus et al., 2009; Rickwood, Cavanagh, Curtis, & Sakrouge, 2004). However, none of the aforementioned studies investigated help-seeking behaviour directly, investigating only help-seeking attitudes (Battaglia et al., 1990) and help-seeking intentions (Paulus et al., 2009; Rickwood et al., 2004). Furthermore, the studies by Paulus et al. and Rickwood et al. reported only finding a very weak impact of the mental health intervention on help-seeking intentions. Additionally, a recent study by Perry et al. (2014) investigated the impact of a school-based educational intervention on mental health literacy, stigma and help-seeking in a sample of Australian adolescents. Despite significant increases in participant mental health literacy and reductions in rates of stigma following the intervention, there was no significant change in participants' attitudes towards professional psychological help-seeking. These contradictory findings and the significant limitations of using only one help-seeking outcome suggest that further research into the association between mental health literacy and help-seeking in youth is needed.

Mental health literacy research in adolescents has tended to focus on adolescents' knowledge of depression (e.g. Bruno, McCarthy, & Kramer, 2015; Byrne, Swords, & Nixon, 2015; Eckert, Kutek, Dunn, Air, & Goldney 2010; Marshall & Dunstan, 2013) or depression and schizophrenia (e.g. Burns & Rapee, 2006; Melas, Tartani, Forsner, Edhborg, & Forsell, 2013). This research has typically presented participants with vignettes (a textual description of an adolescent suffering from a specific mental health condition) followed by either open-ended or closed response questions that can be used to measure mental health literacy in young adults. Limited research has focused on adolescents' knowledge of anxiety disorders, despite this set of disorders being the most common mental health conditions in adolescence. Where studies have employed vignettes describing a young person with anxiety difficulties these have been restricted to social anxiety disorder (SAD; Coles et al., 2016; Mason, Hart, Rossetto, & Jorm, 2015; Reavley & Jorm, 2011) and post-traumatic stress disorder (PTSD;

Reavley & Jorm, 2011). These investigations suggest that adolescents have much lower rates of symptom recognition, lower help-seeking encouragement and higher rates of certain forms of stigma in response to an anxiety vignette compared to other disorders measured (Reavley & Jorm, 2011, Yap, Wright, & Jorm, 2011). In particular, SAD has been found to often be perceived as a personal weakness rather than a disorder by young adults (Yap et al., 2011) a form of stigma identified as 'weak not sick'. Despite the need for mental health literacy about anxiety disorders in young adults, our understanding of the relationship between mental health literacy and help-seeking attitudes, intentions and behaviour for anxiety is particularly limited.

A factor believed to influence both mental health literacy and help-seeking in young adults is gender. There is evidence, in both adult and adolescent samples, that mental health literacy is highly influenced by traditional norms of masculinity and a socially constructed 'men don't seek help' gender stereotype. In a British general population survey, Swami (2012) found adult respondents more likely to indicate that a male vignette did not suffer from a mental health problem compared to a female vignette. In this study participants were randomly assigned the male or female vignette but the vignette content was identical with the exception of the gender. In adolescent samples, the female vignette was found to have a higher percentage of young men identify depression symptoms than the male vignette (Bruno et al., 2015; Burns & Rapee, 2006). Consequently affiliation with traditional masculinity is believed to have a significant impact on how adolescent males interpret and utilize information on mental health issues.

Traditional masculinity is comprised of social norms that include an emphasis on competition, strength, avoiding emotions and perceived femininity and being action-orientated (Coleman, 2015). Mental health problems and the concept of obtaining help is inconsistent with notions of hegemonic masculinity that stress toughness and strength

(Connell & Messerschmidt, 2005). It is well established that adult males who experience greater gender role conflict (cognitive conflict and negative emotion experienced when defying masculine norms), or score highly on measures of traditional masculinity ideology, tend to report more negative attitudes towards and less willingness to seek professional psychological assistance (Komiya, Good, & Sherrod, 2000; Levant, Wimer, Williams, Smalley, & Noronha, 2009; Pederson & Vogel, 2007; Sullivan, Camic, & Brown, 2014). In an online survey conducted in the UK, Yousaf, Popat and Hunter (2015) found men's attitudes about traditional masculinity norms predicted attitudes towards professional psychological help, accounting for 50% of the variability.

The association between traditional masculinity and help-seeking attitudes, intentions or behaviour has yet to be empirically tested in adolescent males. This is surprising considering that perceived stigma has been identified as a prominent barrier to youth help-seeking and young men with a strong affiliation to traditional masculinity are likely to experience concerns of stigma particularly acutely. As a consequence of these factors, anxious adolescent males highly affiliated with traditional masculinity norms are at great risk of unmet mental health needs. These effects could have potentially devastating consequences as both traditional masculinity and untreated psychopathology have been found to predict suicidal ideation (Beautrais, 2000; Coleman, 2015) and suicide continues to be the leading cause of death for young men in many western countries (Hawton et al., 1998; Slade et al., 2009). In order to improve initiatives designed to promote all forms of help-seeking in adolescent males empirical research into the impact of anxiety mental health literacy on help-seeking in this population and how affiliation with traditional masculinity influences this relationship is required.

The current study aimed to investigate the relationships between traditional masculinity, anxiety disorder mental health literacy and help-seeking attitudes, intentions and

behaviour in a sample of adolescent males. As mental health help-seeking behaviour has been found to be predicted by greater symptoms of psychological distress (Rickwood & Braithwaite, 1994), increased anxiety and depression scores were expected to increase all forms (i.e. formal, informal and online) of help-seeking attitudes and intentions and to predict help-seeking behaviour. Greater mental health literacy was hypothesised to be positively associated with more favourable formal, informal and online help-seeking attitudes and intentions whereas greater affiliation with masculinity was hypothesised to be negatively associated with formal, informal and online help-seeking attitudes and intentions. Participant's affiliation with traditional masculinity was hypothesised to moderate the relationship between anxiety mental health literacy and all forms of help-seeking attitudes and intentions. Greater help-seeking intentions, more favourable help-seeking attitudes, higher mental health literacy, lower affiliation with masculinity and greater symptoms of anxiety and depression were hypothesised to predict professional mental health help-seeking behaviour itself.

Method

Participants

Data were collected as part of a randomized controlled trial (RCT) investigating mental health service utilisation in adolescent males (Hudson, Brockveld, Byrow, Stow, & Clark, 2016). Demographic data were collected at baseline. In order to participate in the trial, adolescents were required to be male and aged between 12 and 18 years of age. One thousand seven hundred and thirty seven adolescent males, aged 12-18 (M = 14.83, SD = 1.33) from six schools participated in the current investigation. The participants were recruited from six non-government schools, based in Sydney and Canberra, Australia. Schools were selected based on the following inclusion criteria: it educated pupils aged 12-18 years, was based in

Australia and being an independent organisation (i.e. not government funded). Schools were excluded if female students attended. All schools were Catholic with exception of one (Uniting Church). The schools had Index of Community Socio-Educational Advantage (ICSEA; a scale of socioeducational advantage computed for each Australian school) scores ranging between 1002 and 1175 (Australian Curriculum, Assessment and Reporting Authority, 2015). ICSEA values take into account factors which influence students' educational outcomes, such as family background and school-level factors. All schools involved in the study scored above the national average in terms of socio-educational advantage.

Demographics. Most participants (79%) had married parents. A total of 1422 participants provided data on maternal and paternal ethnicity. The largest portion of the sample identified their mother's and father's ethnicity (40% and 37% of participants) as Oceanic (e.g. Australian, Aboriginal, Torres Strait Islander, and New Zealander).

In general, parents were professionally employed, with 46% of mothers and 65% of fathers employed as a 'manager', 'professional' or 'technician' and only 17.5% of mothers and 3.6% fathers identified as 'not in employment'. The majority of participants (73%) had either one or two siblings.

Procedure

Ethical approval for this study was obtained from the Macquarie University Human Ethics Committee. The six schools recruited were selected based on being non-government and male pupil only. The school recruitment process involved simultaneously contacting the school counsellor and head teacher of the school initially through letter and/or email and then by phone. Approximately 5062 students' families from the six schools were sent a letter invitation to participate in the trial. The return of a signed consent form was required from both the adolescent participating and a parent prior to data collection in order for the young

person be included in the study. A total of 3276 (64.72%) adolescent males in grades 7-11 participated in the trial and 1737 (53%) of these students participated in the current study. Adolescents completed a series of online questionnaires during school time as part of the larger trial. Participants who had completed the follow-up trial measures were invited to participate in the current study which was also conducted online.

Measures

Participants were presented with an online, forced item response battery of self-report questionnaires and demographic data questions.

Mental Health Literacy. The Friend in Need Questionnaire (FIN; Burns and Rapee, 2006) was adapted to assess mental health literacy relevant to clinical levels of anxiety. The original questionnaire used depression vignettes containing both males and female adolescents but these were replaced with anxiety vignettes only describing males for the current study. The modified FIN presented three brief vignettes of adolescent males experiencing differing levels of anxiety along with their responses to the difficulties (see Appendix A). In two of the vignettes (Jack and Tony) adolescents with clinical levels of anxiety were described, with each having at least 5 symptoms of a clinical anxiety disorder, as described in the Diagnostic and Statistical Manual of Mental Disorders – Fifth Edition (DSM-5: American Psychiatric Association, 2013). Jack was experiencing symptoms consistent with social anxiety disorder (SAD) and Tony was experiencing symptoms consistent with generalized anxiety disorder (GAD). These disorders were chosen as both are common forms of anxiety in an adolescent population. The other vignette (Craig) described a normal anxiety-provoking event (leaving home to go to university). While this vignette described indications of anxiety, there was no evidence of clinical anxiety symptomatology. Participants were asked to answer questions about how worried they were about each young person in the vignettes; what they thought was the matter with each person; what parts of the

vignettes were the strongest hints that the young person was experiencing emotional difficulties; how long they thought it would take for each young person to feel better; and who they thought the young person needed help from to cope with their problems.

The participants' responses to the FIN were coded and a total mental health literacy score was calculated. Firstly, responses to the question "what do you think is the matter with Craig/Jack/Tony?" were coded as anxiety identified (one point) or anxiety not identified/inadequate response (no points). The responses 'worried', 'embarrassed', 'stressed', 'shy', 'self-conscious', 'scared', 'fearful', 'anxious', 'nervous', 'afraid', 'separation', 'stressed', 'no social skills' and 'do or say something stupid' were all coded as anxiety. Due to the current study wanting to capture data on all areas relating to anxiety, a broad range of anxiety indicators were coded. Responses to the question in each vignette "what parts of the vignette were the strongest hints that Craig/Jack/Tony was experiencing emotional difficulties" was coded firstly as a 'relevant response' (one point) or 'non-relevant response' (no points). Participants were then awarded points for identifying key characteristics of the clinical presentations in the SAD and GAD vignettes. Participants could score a maximum of 14 points for mental health literacy. The FIN data were coded by a secondary coder (25%) in order to establish inter-rater reliability. An intraclass correlation indicated high inter-rater agreement (.95).

Help Seeking. Formal help-seeking behaviour was measured by the question 'Have you or your parents seen any mental health professionals to get help with your mental health (for when you felt fearful, anxious, stressed out, down, depressed, angry etc)?' (yes/no). Consequently participants were divided into 'Help-Seeking' and 'Non-Help-Seeking' groups. Where participants indicated that they had sought help for a mental health problem, they were asked questions about the source of help and helpfulness of the experience.

A shortened version (10 items) of the Attitudes Towards Seeking Professional Help Scale (ATSPHS; Fischer & Farina, 1995) measured participants' general attitudes toward seeking help from formal sources. Items were rated on a 4-point Likert scale (0 = 'Disagree', 1 = 'Partly Disagree', 2 = 'Partly Agree' and 3 = 'Agree') combined to form a composite score with higher scores indicating more positive attitudes towards seeking professional help. The revised and original versions of the scale are correlated at .87 (Fischer & Farina, 1995). Good internal consistency (r = .84) and 1-month test–retest reliability (r = .80) have been reported for college student samples using the shortened version (Fischer & Farina, 1995). A Cronbach alpha of .67 was found in the current study. An additional 2 questions were added to the battery - 1) 'I wouldn't talk to friends or family when I felt down or upset' and 2) 'I don't think going online to get information about anxiety or depression would help if I had these problems'. These questions were designed to elicit participants' attitudes towards informal and online treatment sources of help.

Help-seeking intentions were measured using an adolescent version of the General Help Seeking Questionnaire (GHSQ; Wilson, Deane, Ciarrochi, & Rickwood, 2007). This measure taps the participant's own personal intentions rather than more general attitudes as assessed by the ATSPHS. The original measure includes two scales - suicidal problems and non-suicidal problems. The current study utilized only the non-suicidal subscale with the instruction 'If you were having a personal or emotional problem, how <u>likely</u> is it that you would seek help from each of the following sources?'. Participants rated their likelihood of seeking help from 14 sources of help (containing formal and informal help sources) on a 7-point scale (ranging from 1 = *extremely unlikely* to 7 = *extremely likely*). At the time of investigation the GHSQ was the only help-seeking measure found to be psychometrically valid in adolescents (Rickwood & Thomas, 2012; Wilson et al., 2007) and the sub-scale utilized (non-suicidal) has been demonstrated to have satisfactory reliability (Cronbach's

alpha = .70, test-retest reliability assessed over a three-week period = .86) (Wilson et al., 2007).

Exploratory Factor Analysis (EFA) using principal axial factoring (PAF) with an oblique rotation was used to uncover factor structure of the GHSQ. PAF was chosen because variance unique to individual items as well as error variance is excluded from the analysis (Tabachnick, Fidell, & Osterlind, 2001). Preliminary analysis identified a violation of assumptions (significant skewness) on several items. However, a significant Bartlett's test of Sphericity (x^2 = 12162.793, *df* = 105, p<.001) and a Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) of .88 suggested that an EFA was appropriate and the factors identified were considered theoretically informed. Four components with eigenvalues greater than one emerged and examination of the screeplot also revealed a four factor solution to be most optimal. The first factor, accounting for 35% of the variance, included items relating to 'Formal' help-seeking: Phone help-line, GP, Mental Health Professional, Youth Worker, Religious Figure, Teacher. The second factor, accounting for 12% of the variance, included seeking help from a website or an internet chat room and was termed 'Online'. The third factor, accounting for 6% of the variance, included seeking help from friends or partner and was labelled 'Informal Peer'. The final factor, labelled 'Informal Family', included seeking help from parents or other relatives and accounted for a further 4% of the variance.

During the factor analysis, the GHSQ items 'I would not seek help from anyone' and 'I would seek help from someone else' were found to load on to the second factor. However, including the former item significantly reduced the internal consistency of the subscale (α = .29). As neither item were felt to be a theoretical 'fit' with the other items they were removed from further analysis. Due to the significant research interest in online help-seeking for adolescent males the online items were explored independently. The internal consistencies

(α) of the subscales in this study were: α = .64 (informal peer), α = .85 (informal family), α = .90 (formal) and α = .69 (online).

Masculinity. The Adolescent Masculinity Ideology in Relationships Scale (AMIRS; Chu, Porche, Tolman, 2005) was used to measure participants' affiliation with traditional norms of masculinity (ATNM). The scale investigates the concept of masculinity within the context of interpersonal relationships where masculine norms are hypothesised to become personally meaningful and directly consequential to adolescent boys. The scale comprised of 12 belief statements and respondents indicated their agreement using a four-point anchor, ranging from disagree a lot (1) to agree a lot (4). Negatively worded items received a reversed score. Composite scores were calculated by taking the mean across items. Higher scores reflect greater alignment with norms of hegemonic masculinity. Acceptable internal consistency (Cronbach's alpha = .70) has been reported for adolescent male samples using the AMIRS (Chu et al, 2005). A Cronbach alpha of .78 was found in the current study.

Anxiety Symptoms. Participants completed the Spence Children's Anxiety Scale – Child Version (SCAS-C; Spence, Barrett, & Turner, 2003). This 45-item (including six positive filler items) questionnaire has six subscales measuring separation anxiety, social phobia, obsessions/compulsion, panic/agoraphobia, generalized anxiety and fear of physical injury. Symptoms are rated on a 4-point Likert scale (1 = Never, 2 = Sometimes, 3 = Often and 4 = Always). Responses were summed to a composite score; higher scores indicated higher levels of anxiety. The scale has been found to be psychometrically sound with good internal consistency (α = .92 child-report version) and convergent and divergent validity (Nauta et al., 2004; Spence, 1998). In this study, internal consistency was α = .90. According to normative data using the SCAS total scores, individuals scoring 33 points and higher are considered to have elevated levels of anxiety. Individuals scoring 42 points or higher are considered to have clinical levels of anxiety (Spence, Barrett, & Turner, 2003).

Depression. The Short Mood and Feelings Questionnaire (SMFQ) (Angold et al., 1995) was used to assess child reported depression symptoms. According to normative data using the SMFQ total scores, individuals scoring eight points or higher are experiencing elevated levels of depression, and individuals scoring 12 points or higher are likely to be experiencing clinical levels of depression. The measure has been found to have good psychometric properties (Angold et al., 1995; Kent et al., 1997). In this study, internal consistency was high ($\alpha = .90$).

Data Preparation and Analyses

Masculinity, formal, informal and online attitudes and informal peer, online, informal family and formal intentions were continuous variables. Formal help-seeking behaviour was categorical (yes/no). Outliers with a z-score > 3.29 were removed. The Kolmogarov-Smirnov test indicated that the study variables were not normally distributed. The removal of outliers and transformations (sqrt, Lg10 and reciprocal) were unsuccessful at improving the normality of the dataset. Consequently, the original dataset (including outliers) was utilized for all analyses except where regression analyses were conducted. Nonparametric tests were used (Spearman's correlations) to investigate the bivariate relationships between variables.

A binary logistic regression was conducted in order to investigate if help-seeking attitudes and intentions, mental health literacy, masculinity, anxiety and depression items predicted formal help-seeking behaviour. Finally, a series of bootstrapped moderation analyses (using significant associations identified in the bivariate analyses) were conducted using model 1 in Hayes (2013) PROCESS macro (version 2.13.2) in SPSS to examine if masculinity moderated the relationship between mental health literacy and help-seeking. Univariate outliers were removed for all regression and moderation analyses.

Results

Preliminary Analyses

Mental health literacy. In total, 964 (55%) and 1137 (65%) participants correctly identified anxiety in the SAD and GAD vignettes. The most common predicted recovery time for the non-clinical and GAD vignettes (55% and 37% participants) was 'one to two weeks'. The most common predicted recovery time (38% participants) was 'longer than a few months' for the SAD vignette. For the SAD vignette, 1153 (66%), 459 (26%) and 373 (21%) of participants respectively were able to correctly identify 'social fears', 'physical symptoms' and 'avoidance/safety behaviours' as key difficulties. For the GAD vignette, 894 (51%) and 589 (34%) of participants respectively were able to correctly identify 'worries' and 'physical symptoms' as key difficulties. For the non-clinical vignette, 735 (42%), 556 (32%) and 453 (26%) of participants respectively were able to correctly identify 'social fears', 'fears about self' and 'distance/parent fears' as key difficulties.

Anxiety and depression. Results from the SCAS suggested that 234 (13%) participants scored as having elevated anxiety and 112 (6%) participants scored in the clinical range. Results from the SMFQ indicated that 336 participants (19%) may be experiencing elevated symptoms of depression and 166 (10%) participants scored in the clinical range. Two hundred and eighteen participants (13%) scored in the clinical range for SMFQ (scores 12+) and/or SCAS (scores 42+) and of this group of participants 65 (30%) had sought professional help for mental disorders.

Help-Seeking Attitudes and Intentions

Mental health literacy scores were positively correlated with attitudes towards formal and informal help-seeking and intentions to seek help from informal and online sources (see Table 1). Higher masculinity scores were associated with adolescents having less favourable

attitudes towards formal, informal and online help-seeking and lower intentions to seek help from peers, family and formal sources.

Table 1.

Correlations between mental health literacy, masculinity and help-seeking variables

Variable	1	2	3	4	5	6	7	8	9
1.Mental health literacy		-.30**	.01	.05*	.03	.06*	.06*	.00	.17**
2. Masculinity			-.13**	-.16**	-.16**	.05	-.19**	-.07**	-.42**
Intentions									
3. Informal Peer				.28**	.25**	.20**	.08**	.040	.14**
4. Informal Family					.50**	.11**	.14**	-.01	.22**
5. Formal						.42**	.03	-.03	.32**
6. Online							-.10**	.07**	.04
Attitudes									
7. Informal								.35**	.22**
8. Online									.18**
9. Formal									

Note. Between-group difference significant at: * $p < .001$, ** $p < .05$, *** $p < .01$.

Mental health literacy was found to be negatively associated with masculinity (see Table 1). Continuous help-seeking variables which were found to be associated with mental health literacy were included in four separate moderation analyses to examine whether masculinity moderated these relationships. These variables were intentions to seek help from an online source or family members and attitudes towards formal or informal help-seeking. Mental health literacy was found to predict formal attitudes $R^{2 =} .18$ F (3, 1731) = 132.02 p<.05 but not attitudes towards informal help-seeking, intentions to seek help from family or online. Masculinity was not found to be a significant moderator between mental health literacy and attitudes towards seeking help from informal sources, intentions to seek help from either online or formal sources. However, masculinity was found to be a significant moderator between mental health literacy and attitudes towards formal help-

seeking $R^{2 =}$ *.18 F* (3, 1731) = 132.02 *p*<.01. Figure 1 demonstrates that for adolescents with low or average masculinity scores (participants scoring the mean of 0 or 1 SD less than the mean), higher mental health literacy was positively associated with more favourable attitudes towards formal help-seeking. In adolescents with high masculinity scores (participants scoring 1 SD above the mean), there was no significant relationship between mental health literacy and formal attitudes towards help-seeking.

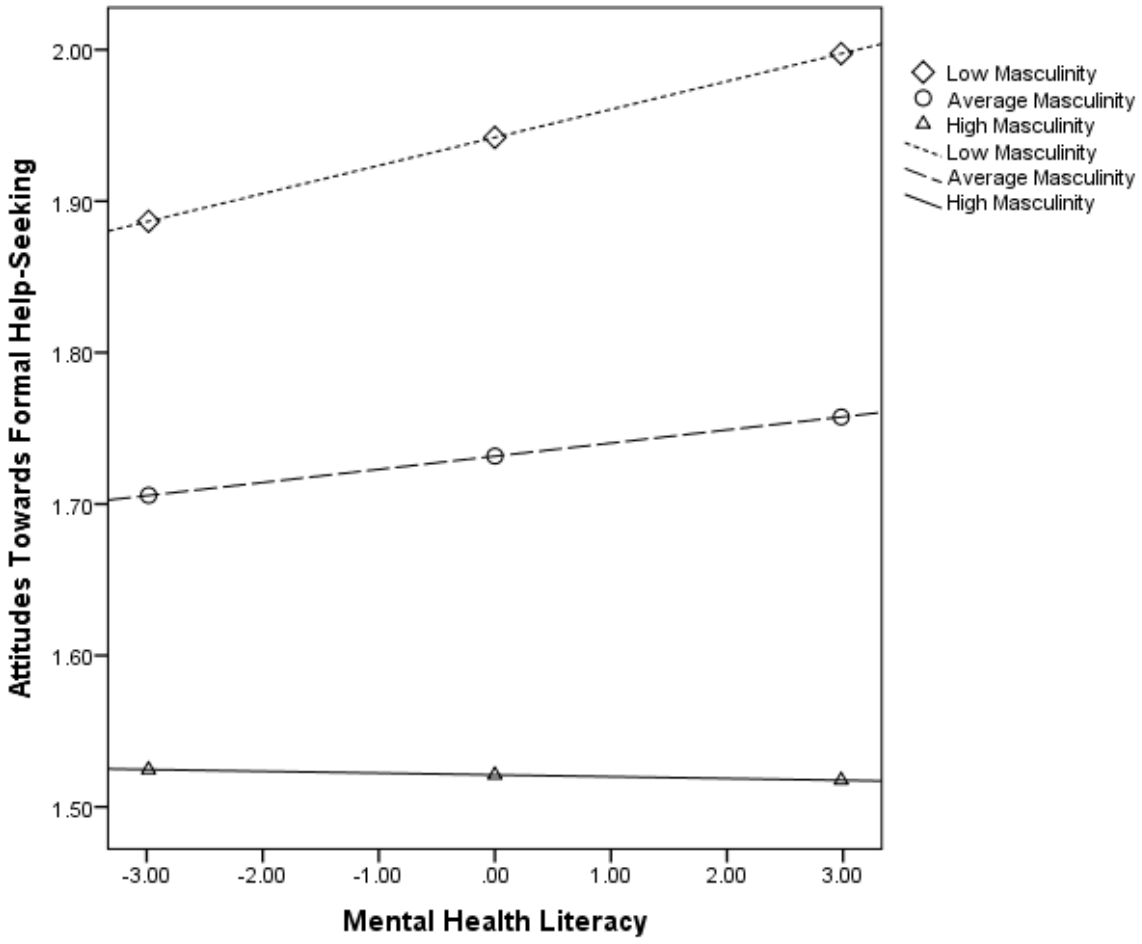

Figure 1. Adherence to traditional norms of masculinity moderates the relationship between mental health literacy and attitudes towards seeking help from formal sources.

Formal Help-Seeking Behaviour

A total of 165 (9%) participants had sought professional help for a mental health problem (see Table 2 for a breakdown of the type of help sought).

Table 2.

Forms of help-seeking by participants in the help-seeking-group

Help Sources	Assessed by		Treatment		Currently seeing	
	n	%	n	%	n	%
General Practitioner	40	24	17	10	20	12
Psychologist	52	32	45	27	25	15
Psychiatrist	20	12	16	16	8	5
School counsellor	69	42	48	48	31	19
Other counsellor	21	13	14	14	5	3
Mental health nurse	4	2	4	4	3	2

Table 3.

Descriptive statistics for help-seeking, non-help-seeking and combined participant groups

	Help-Seeking (n = 165)		Non-Help-Seeking (n = 1572)		Combined	
	Mean	*SD*	Mean	*SD*	Mean	*SD*
Mental health literacy	7.42	3.02	7.26	2.99	7.27	2.99
Masculinity	21.22	6.27	22.67	6.23	22.53	6.24
Intentions						
Informal Peer	4.35	1.64	4.31	1.68	4.32	1.68
Informal Family	4.32	1.78	4.99	1.75	4.92	1.03
Formal	2.90	1.49	2.89	1.55	2.89	1.54
Online	2.16	1.40	2.29	1.47	2.28	1.47
Attitudes						
Informal	1.96	1.04	2.02	1.03	2.02	1.03
Online	1.73	1.07	1.77	1.07	1.77	1.07
Formal	1.90	.53	1.72	.51	1.74	0.52
Anxiety	28.18	15.77	17.57	13.12	18.57	13.74
Depression	8.50	6.52	3.70	4.35	4.16	4.81

A logistic regression investigated whether help-seeking attitudes, intentions, mental health literacy, masculinity, anxiety and depression scores predicted professional mental health help-seeking behaviour. The regression model was statistically significant x^2 (*df* = 11, *N* = 1724) = 183.09, *p* <.001, Cox and Snell R^2 = .10, Nagelkerke R^2 = .22. As demonstrated in Table 4, participant attitudes towards formal help-seeking, intentions to seek help from a family member and from an online source, anxiety and depression scores were significant predictors in the model. The model explained 91% of the variance in participant formal help-seeking behaviour. Hosmer and Lemeshow test results confirmed that the model was a good fit for the data x^2 (*df* = 8, *N* = 1724) = 4.08, *p*>.950.

Table 4.

Predictor Coefficients for the Model Predicting Formal Help-Seeking Behaviour (*N*=1724)

	b	*SE (b)*	*p*	*Exp(B) [95% CI]*
Constant	-3.71			
Mental health literacy	.02	.03	.686	1.02 [0.95,1.08]
Masculinity	-.04	.02	.036	0.97 [0.93,1.00]
Intentions				
Informal Peer	.00	.03	.889	1.00 [0.95,1.06]
Informal Family	-.08	.02	.000	0.93 [0.89,0.97]
Formal	.02	.01	.160	1.02 [0.99,1.05]
Online	-.09	.04	.016	0.91 [0.85,0.98]
Attitudes				
Informal	.08	.10	.418	1.08 [0.89,1.31]
Online	-.07	.09	.470	0.94 [0.79,1.12]
Formal	1.02	.21	.000	2.76 [1.84,4.15]
Anxiety	.02	.01	.032	1.02 [1.00,1.03]
Depression	.14	.02	.000	1.15 [1.10,1.20]

Note. CI=Confidence Interval

Anxiety, Depression and Help-Seeking

Anxiety scores had a negative association with intentions to seek help from peers and family members (r_s = -.06, r_s = -.16, p>.01) but a positive association with intention to seek help from an online source (r_s = .13, p>.01). Similarly, depression scores had a negative association with intentions to seek help from peers, family members and from formal sources (r_s = -.05, r_s = -.26, r_s = -.06, p>.01) but a positive association with intention to seek help from an online source (r_s = .10, p>.001).

Discussion

In this study we examined the associations between anxiety mental health literacy, masculinity and mental health help-seeking. The findings with regards to masculinity were not consistent across help-seeking attitudes, intentions and behaviours. Masculinity was not found to moderate the relationship between anxiety mental health literacy and help-seeking intentions and was not found to be a significant predictor of formal help-seeking behaviour. Although masculinity was not associated with formal help-seeking behaviour, it was found to have a negative association with certain forms of help-seeking attitudes and intentions (attitudes towards formal, informal and online help-seeking and intentions to seek help from peer, family and formal sources). Masculinity was found to moderate the relationship between anxiety mental health literacy and attitudes towards formal help-seeking. More specifically, higher mental health literacy was positively associated with more favourable attitudes towards formal help-seeking in adolescents with low or average masculinity scores whereas no relationship between mental health literacy and help-seeking attitudes was found in adolescents with high masculinity scores. This is one of the first studies to directly investigate masculinity as a moderator of the relationship between mental health literacy and help-seeking. However, these findings are consistent with previous research which has found

associations between affiliation with traditional masculinity ideology and attitudes towards formal help-seeking in males (Pederson & Vogel, 2007; Yousaf et al., 2015). The study findings suggest that adolescent males high in affiliation with traditional masculinity may be more resistant to anxiety mental health initiatives designed to improve help-seeking and further work is needed to investigate if male-orientated mental health literacy programs would be more effective at improving help-seeking rates in this population. The findings also suggest that masculinity may only influence one specific element of help-seeking (attitudes) and consequently has an indirect association with help-seeking behaviour itself.

Consistent with studies that have found higher levels of mental health literacy to be positively associated with help-seeking attitudes and intentions in young adults (Battaglia et al., 1990; Paulus et al., 2009; Rickwood et al., 2004), the current study found mental health literacy scores to be positively associated with a number of help seeking attitude (towards formal and informal help-seeking) and intention (towards family and online sources) items. This study extends much of the current literature looking at help-seeking attitudes and intentions in young adults by investigating specific components of help-seeking attitudes and intentions. However, consistent with the systematic review by Gulliver et al. (2012), mental health literacy was not found to predict help-seeking behaviour itself. However, it should be noted that only formal help-seeking was investigated in the current study and the relationship between mental health literacy and informal help-seeking behaviour cannot be inferred. Again, as with masculinity, the study results suggest that mental health literacy is associated with only certain components of help-seeking (i.e. are affiliated with intentions to seek help from specific areas such as formal sources) and future research should aim to establish if these relationships exist in young adults generally or if these patterns are specific to adolescent males. In either case, the study findings suggest that, whether directly or indirectly, mental health literacy has an important role to play in terms of promoting service

use in adolescent males with emotional difficulties. Although it should be noted that, whilst significant associations were identified, the size of the effects would be considered small. Future research conducted in order to investigate if these associations are replicated.

The sample demonstrated low to moderate levels of overall mental health literacy for anxiety. Between 55-65% of the sample identified anxiety in the Friend in Need clinical vignettes. This is considerably higher than the 34% of participants who correctly identified depression in the male clinical vignette in the Burns and Rapee (2006) study. However, 80% of participants in the Burns and Rapee study said they would suggest/recommend one or more of formal sources of help (counsellor, psychologist, psychiatrist, GP, professional/therapist) in response to the depression vignettes. In the current study, formal sources of help were only suggested/recommended by 23% and 48% of the sample respectively in response to the GAD and SAD vignettes. This study did not include participant knowledge of appropriate sources of help in the computation of participant mental health literacy scores due to a potential confound with the help-seeking dependent variables. However, such knowledge is considered to be an important component of mental health literacy (Jorm, 2000). These findings suggest that adolescent males may not recognise anxiety (even in a severe form) as a disorder that requires formal interventions and that mental health literacy for GAD may be lower than that of SAD.

In regards to psychological help-seeking generally, although 13% of the sample scored in the clinical range on the anxiety and/or depression measures, only 30% of these participants had sought professional help for mental disorders. This is comparable to adolescent male service utilisation rates found in large epidemiological surveys (Merikangas et al., 2011; Slade et al., 2009) and suggests the sample was representative of help-seeking in this population. Participants were most willing to seek help from family for personal emotional problems which fits with existing research on male help-seeking behaviour

(Rickwood, 2015). Participant attitudes towards formal help-seeking, anxiety, depression, intentions to seek help from a family member and an online source were all found to predict help-seeking behaviour. Whereas, in addition to mental health literacy and masculinity, intention to seek help from a friend or professional and attitudes towards informal and online help were found to be non-significant predictors of help-seeking behaviour. These results give us a preliminary understanding of which factors have more of a direct association with help-seeking in adolescent males and which factors are associated with the help-seeking process more indirectly. Future research should aim to identify how each of these factors influence each other and the overall help-seeking process in adolescent males.

Increased anxiety and depression scores were found to be negatively associated with intentions to seek help from peers and family members (i.e. informal sources) but had no association with help-seeking attitudes. Conversely increased anxiety or depression were found to have a positive association with intention to seek help from an online source. This finding is consistent with evidence from Oh, Jorm and Wright (2009) that online methods of support and treatment may be highly distinct from other forms help-seeking. It also suggests that an online help-seeking approach may be more appealing to adolescent males with high levels of anxiety or depression. Consistent with existing research (Rickwood & Braithwaite, 1994), greater anxiety and depression scores were found to predict help-seeking behaviour, again suggesting that the relationship between help-seeking intentions and behaviour is not linear.

Strengths and Limitations

This study is one of the first to investigate anxiety specific mental health literacy and help-seeking in adolescents. It is also one of the first to investigate the impact of masculinity on the relationship between mental health literacy and help-seeking in adolescent males. However, a number of limitations of the study should be acknowledged. The topic of

masculinity is complex, multi-faceted and dynamic. In particular, how an individual conceptualises and adheres to masculine social norms is likely to develop and change over the period of adolescence. As identified by Wenger (2011), help-seeking research at present provides insufficient attention to a range of male experiences and attempts to understand how males navigate needs and supports across illness within a narrow conceptualization of help seeking. A significant limitation of the study is the use of a single measure (The Adolescent Masculinity Ideology in Relationships Scale) to generate a global score of masculinity. As a result, the study did not individually measure specific elements of masculinity that have been associated with help-seeking in adults (Coleman, 2015), such as such as assertiveness, mastery, limited emotionality, impulsiveness and counter-dependence. However, this measure was considered to be the most appropriate to address the aims of the study. The measure frames masculinity ideology within a relational paradigm and this was considered particularly relevant for adolescent males. Additionally, a psychometrically sound, short item measures of masculinity designed for adolescent samples has yet to be developed. Further research should aim to utilize more empirically established measures of masculinity in this population that also incorporate more specific elements of masculinity.

Secondly, the Friend in Need, although widely used in youth mental health literacy studies, is not a psychometrically established measure of mental health literacy. Furthermore, this study is one of very few studies (Rickwood et al., 2005) to develop and utilize a mental health literacy 'score' from a vignette survey where different aspects of mental health literacy are captured, coded and then combined to create a continuous score designed to be representative of a participants' overall anxiety mental health literacy. The current study incorporated participants' ability to identify the primary presenting problem and ability to recognize key symptoms of the disorder to generate a mental health literacy score. Existing mental health literacy studies using a vignette survey method have tended to be more

descriptive (e.g. reporting percentages of participants who correctly identified the primary disorder; Burns & Rapee, 2006) or alternatively used a questionnaire (Perry et al., 2014) to measure mental health literacy. The methodology was chosen for this investigation as we aimed to get as detailed understanding of mental health literacy in this population as possible, however the use of different methodologies to measure mental health literacy compromises our ability to compare results from different studies. Furthermore, some components of mental health literacy as identified by Jorm (2012), such as knowing how to prevent mental disorders and knowing about self-help strategies, were not measured in the study and consequently not included in participants' scores of mental health literacy. In order to reliably test the impact of mental health literacy on help-seeking, future research should include these additional elements of mental health literacy and attempt to use more standardised scoring systems for interpreting mental health literacy using vignette survey methods in order to facilitate comparisons between studies.

Implications for Research and Practice

Our findings suggest that social norms associated with masculinity are important to consider both in the design and execution of mental health literacy programs on clinical anxiety but also in the development of clinical services for adolescent males. The study results suggest that more research is needed to understand the impact of masculinity on adolescent males' development of mental health literacy and how this translates into facilitating appropriate forms of help-seeking in both themselves and others. In addition, the findings suggest that more work is needed to improve adolescent mental health literacy programs so that common forms of anxiety disorder (such as GAD and SAD) are recognisable to adolescent males as mental health problems and that help-seeking behaviour is encouraged both in adolescent males with and without high affiliation with masculinity. The development of programs that appeal to and are effective at increasing mental health

help-seeking in adolescent males with varying levels of affiliation with masculinity has the potential to significantly increase overall mental health help-seeking in young men.

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Chapter 4

The next chapter presents the paper "'He Needs to Man Up': Investigating Anxiety Specific Mental Health Stigma and Help-Seeking in Adolescent Males". Chapter three established the impact of social norms of masculinity on the relationship between anxiety specific mental health literacy and mental health help-seeking in adolescent males. As highlighted in Chapters one and two, a fear of being stigmatized as 'weak' or 'feminine' as a result of engaging help-seeking behaviour is a common concern amongst adolescent males experiencing psychological distress. The study described in Chapter four explores common forms of stigma towards clinical and non-clinical levels of anxiety in adolescent males. Further, the study investigates the relationship between anxiety stigma and mental health help-seeking.

‘He Needs to Man Up’: Investigating Anxiety Specific Mental Health Stigma and Help-Seeking in Adolescent Males

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Abstract

Background: Stigmatizing attitudes towards mental illness are a well-known barrier to professional help-seeking in young adults. However, current understanding of mental health stigma in adolescent males, and in particular how it influences psychological help-seeking for anxiety disorders, is limited. This study aimed to investigate the nature of personal mental health stigma expressed towards clinical and non-clinical presentations of anxiety and its relationship to help-seeking in a community sample of adolescent males. **Method:** 702 males (aged 12-18 years) completed an online vignette-based mental health literacy survey. Open-response items were coded for frequency, intensity and form of stigma. Measures of help-seeking attitudes, intentions and behaviour were also completed online. **Results:** Only a small percentage of responses to the mental health literacy survey were found to contain stigma. The stigma identified was predominantly related to a belief that a mental disorder is due to a personal weakness rather than an illness. Differences in mental health stigma across non-clinical and clinical forms of anxiety were identified. The presence of mental health stigma in relation to social anxiety disorder was found to have a negative association with attitudes towards formal help-seeking but unexpectedly predicted professional help-seeking behaviour. **Conclusions:** In order to improve help-seeking in adolescent males, youth mental health programs may need to address specific forms of stigma in relation to non-clinical and clinical forms of anxiety.

Keywords: Mental Health, Stigma, Help-Seeking, Males, Adolescents, Anxiety

Introduction

Stigma and mental health issues are intimately related. Mental health stigma relates to a negative perception of individuals with mental health problems where they are considered weak, flawed, dangerous and/or socially incompetent (Wahl & Harman, 1989; Wahl, 2003). Young adults (individuals typically aged 16–24 years-old) with mental health problems commonly report stigmatizing interactions (where they felt negatively judged or discriminated against) with peers, family members, teachers and even mental health service providers (Calear, Griffiths, & Christensen., 2011; Kranke, Floersch, Townsend, & Munson, 2010; McNair, Highet, Hickie, & Davenport, 2002; Mitten, Preyde, Lewis, Vanderkooy, & Heintzman, 2016; Moses, 2009; Moses, 2010; Star et al., 2005). Stigma has been found to negatively affect self-esteem, social relationships and willingness to engage in life opportunities (Corrigan, 2004).

Stigma towards youth mental health problems is a complex and multidimensional phenomenon. Pinfold et al. (2003) found that adolescents use an extensive vocabulary of 270 different words and phrases, mostly derogatory terms, to describe people with mental health problems. Stigma is typically differentiated in research by the following terms: 'Public or Perceived Stigma' which refers to one's belief that others (i.e. the public) perceive an individual as socially unacceptable, 'Personal Stigma' which refers to one's own negative beliefs about individuals with mental health disorders and 'Self-Stigma' which refers to a negative internalised perception of oneself as a mental health consumer (Yap, Wright, & Jorm, 2011). The main forms of stigma identified in young adults include: `social distance' (which refers to one's desire to maintain distance from the stigmatized individual), `dangerous/unpredictable' (one's belief the individual is dangerous) and `weak not sick'

(which refers to the belief that a mental disorder is due to a personal weakness rather than an illness; Jorm & Wright, 2008, Yap, Mackinnon, Reavley, & Jorm, 2014).

Stigmatizing attitudes towards mental illness is one of the most established barriers to professional help-seeking in young adults (Barker, Olukoya, & Aggleton, 2005; Chandra & Minkovitz, 2007; Guliver, Griffiths, & Christensen, 2010; Rickwood, Deane, Wilson, & Ciarrochi, 2005). Help-seeking is 'an adaptive coping process that is the attempt to obtain external assistance to deal with a mental health concern' (Rickwood & Thomas, 2012). However, research suggests that the majority of adolescents and young adults with mental health problems typically do not engage mental health treatment seeking behaviours (Slade, Johnston, Oakley Browne, Andrews, & Whiteford, 2009). A systematic review by Clement et al. (2015) investigated the impact of mental health-related stigma on help-seeking. The review included help-seeking studies for specific populations (such as depressed youth and veterans) across age groups including adolescents (13-18 years), adults and older adults. Stigma was found to have a small to moderate sized negative effect on mental health help-seeking.

Public, perceived and self-stigma have been found to be forms of stigma negatively associated with mental health help-seeking in young adults (Eisenberg, Downs, Golberstein, & Zivin, 2009). Furthermore, all three common forms of youth stigma (weak not sick, social distance, dangerous/unpredictable) have been found to negatively influence how a youth responds to another young person with a mental health problem (Yap & Jorm, 2011). Whilst it is clear that stigma has a negative impact on young adults' help-seeking, the exact relationship between specific forms of stigma and help-seeking in adolescents is yet to be established. In addition, these particular subtypes of stigma have yet to be established in relation to clinical anxiety disorders (as opposed to mental health difficulties generally). A study by Griffiths, Christensen and Jorm (2008) did not identify specific subtypes of stigma

in relation to depression in Australian adults. This investigation might suggest that depression stigma may be a unidimensional construct. Due to the significant impact of stigma on help-seeking in young adults, a better understanding of anxiety stigma in this population is required.

In particular, adolescent males have some of the lowest rates of mental health help-seeking rates in contrast to other populations (Reavley, Cvetkovski, Jorm, & Lubman, 2010) and stigma is believed to play a critical role in this trend. In the systematic review by Clement et al. (2015), adolescents and men (in addition to ethnic minorities, those in military and health professions) were found to be disproportionately deterred from mental health help-seeking by stigma. Specifically, adolescent males consistently demonstrate higher levels of mental health stigma compared to females (Calear et al., 2011; Chandra & Minkovitz, 2006; Danda 2003; O'Driscoll, Heary, Hennessy, & McKeague, 2012). Chandra and Minkovitz (2006) investigated stigma in adolescents (aged 14-15 years) in response to a series of mental health help-seeking statements (e.g. 'seeing a counsellor for emotional problems makes people think you are weird or different'). Stigma was found to be present in responses from 90% of the male participants. Further, Jorm and Wright (2008) also investigated stigmatizing attitudes of adolescents (aged 12-15 years) in relation to mental health. Participants were shown four vignettes of individuals experiencing specific mental health disorders (depression, depression with alcohol misuse, social anxiety disorder and psychosis). The study found most forms of stigma to be higher in male respondents (aged 12-25 years) compared to female respondents, although, male respondents tended to be less likely to perceive stigma in others. Despite these important gender differences in regards to adolescent mental health stigma being identified, there has been little research that has specifically investigated the nature of mental health stigma in adolescent males and what common patterns of stigma occur in this population.

A number of qualitative studies have identified that adolescent males are frequently concerned that they will be stigmatized for behaviour that is inconsistent with norms of traditional masculinity (i.e. they fear being perceived as less masculine or weak as a result of engaging in help-seeking behaviour; Ellis et al., 2013; Gair & Camilleri, 2003; Gilchrist & Sullivan, 2006; Timlin-Scalera, Ponterotto, Blumberg, & Jackson, 2003). Although being perceived as 'weak' by others (mostly other males and typically peers) is identified as a common concern in help-seeking adolescent males, it is not clear if these views towards help-seeking are commonly held beliefs amongst adolescent male populations. Although stigma has the potential to influence mental health outcomes of young males, the nature of mental health stigma (i.e. common forms, frequency and intensity) and, in particular, how it influences help-seeking in this population, is poorly understood.

The literature on mental health stigma also frequently neglects to explore youth stigma in relation to forms of anxiety. Forms of mental health stigma are influenced by disorder and research suggests that in order for youth stigma research to be effective investigations should be disorder-specific (Jorm & Wright, 2008; Reavley & Jorm, 2011). In particular, sufferers of social anxiety disorder (SAD) seem highly vulnerable to the 'Weak not Sick' form of mental health stigma. This particular form of stigma has been found to be more associated with SAD than other forms of mental disorder in adults (Schofield, 2015) and young adults (Reavley & Jorm, 2011; Yap et al., 2011). Additionally, Yap, Reavley and Jorm (2013) investigated associations between stigma and help-seeking intentions and beliefs in a national survey of Australian young adults using a vignette methodology. In the study, vignettes provided a textual description of an adolescent suffering from a specific mental health condition. Open-ended and closed-response questions were used in relation to the vignette to measure specific psychological concepts (such as mental health literacy or stigma). Respondents given a SAD vignette were more likely to be concerned about what

others might think of them seeking help from a specialist than when given a depression, depression with suicidal thoughts, depression with alcohol abuse, post-traumatic stress disorder (PTSD) or psychosis vignette. Consequently young adults with anxiety disorders may be at particular of risk of certain types of stigma that may inhibit or delay treatment seeking. However, despite anxiety disorders being one of the most common mental health problems in adolescence (Lawrence et al., 2015), little is known about youth stigma across specific forms of anxiety disorders. Mental health stigma studies have tended to focus on general mental health issues (Chandra & Minkovitz, 2006; Kranke et al., 2010; Moses, 2009; Watson, Miller, & Lyons, 2005), depression and ADHD (McKeague, Hennessy, O'Driscoll, & Heary, 2015; O'Driscoll et al., 2012; Pescosolido et al., 2008) or self-harm (Mitten et al., 2016). Where studies have included anxiety disorders (Reavley & Jorm, 2011; Yap et al., 2011; Yap et al., 2013), only SAD and PTSD have been investigated. In order to increase help-seeking behaviour in adolescent males with anxiety, there is a need for research that investigates youth mental health stigma across different forms of anxiety disorder.

Traditional methods of eliciting youth stigma attitudes include qualitative interviewing or questionnaire measures. These methodological approaches, whilst being extremely valuable, have limitations in regards to stigma research. Personal stigma in particular (as opposed to public or self-stigma) is particularly difficult to measure. By using an interview methodology, participants may be influenced by a social desirability bias and articulate opinions that are not necessarily representative of their personal view. Perceived stigma questionnaire items tend to receive higher endorsement than those assessing personal stigma (Calear et al., 2011; Eisenberg et al., 2009, Pederson & Paves, 2014; Reavley & Jorm, 2011) suggesting that young adults are highly influenced by others when reporting stigma. Stigma questionnaires tend to ask specific questions about stigma attitudes which, again, are likely to be influenced by global and abstract public views of mental health and are unlikely

to provide detailed information on specific forms of stigma. The current investigation analysed responses to a vignette-based mental health literacy survey conducted in a sample of adolescent males. Although the use of vignettes is increasingly common in stigma research, the approach utilised in this study is novel as it did not directly question participants on stigma attitudes (despite stigma being the main focus of the study) but rather aimed to determine the form, frequency and intensity of stigma that occurred spontaneously in participants' open-ended responses to a mental health literacy survey. The aim of this approach was to elicit a representative snapshot of mental health stigma in adolescent males. It was hoped that by minimising the influence of public perceptions relating to mental health during data collection that the participant's own stigma views towards individuals with mental health problems would be measured.

The primary aim of the current study was to investigate the frequency, intensity and form of personal stigma that occurred in a sample of non-clinical adolescent males (12-18 years) in response to two clinical mental health vignettes (describing individuals with SAD and Generalised Anxiety Disorder [GAD]) and one non-clinical mental health vignette. SAD and GAD were chosen as the most common forms of anxiety disorder in adolescence (Lawrence et al., 2015). A non-clinical vignette was included in order to provide a baseline level of stigma towards anxiety where a clinical level of disorder was not present. It was hypothesised that 'weak not sick' would be the most common form of stigma identified in relation to all three vignettes. A secondary aim of the study was to investigate the influence of mental health stigma on help-seeking in this population. The presence of stigma and greater stigma severity were hypothesised to have a negative association with help-seeking attitudes and intentions and to predict help-seeking behaviour. As mental health help-seeking behaviour has been found to be predicted by greater symptoms of psychological distress

(Rickwood & Braithwaite, 1994), anxiety and depression scores were controlled for in analyses examining help-seeking behaviour.

Method

Participants

Data were collected as part of a trial investigating mental health help-seeking in adolescent males (Hudson, Brockveld, Byrow, Stow, & Clark, 2016). Demographic data were collected at baseline. Participants were required to be male and aged between 12 and 18 years of age. A total of 702 adolescent males, aged 12-18 (M = 14.70, SD = 1.39) from 3 schools (based in Sydney, Australia) participated in the current investigation.

The schools were Catholic or Uniting Church orientation. The schools had Index of Community Socio-Educational Advantage (ICSEA; a scale of socioeducational advantage computed for each Australian school) of 1003, 1062 and 1192 (Australian Curriculum, Assessment and Reporting Authority, 2015). These scores indicate that all schools involved in the study scored above the national average in terms of socio-educational advantage.

Demographics. Most participants identified their mother's (39%) and father's (34%) ethnicity as Oceanic (e.g. Australian, Aboriginal, Torres Strait Islander, and New Zealander). The majority of participants had either one or two siblings (74%). Most participants had parents who were professionally employed. A total of 46% participants identified their mothers and 67% identified their fathers as 'manager', 'professional' or 'technician'.

Procedure

The ethical aspects of this study were approved by the Macquarie University Human Ethics Committee. The school recruitment process involved simultaneously contacting the school counsellor and head teacher of the school initially through letter and/or email and then by phone. Approximately 3206 students' families from the three schools (the control, non-

intervention arm of the trial) were sent a letter invitation to participate as part of the trial and 2119 adolescents participated (66%). In total, 702 (33%) students completed the measures necessary to participate in the current study. The return of a signed consent form was required from both the adolescent participating and a parent prior to data collection in order for the young person be included in the study. Participants completed a series of online, forced item response self-report questionnaires and demographic data questions questionnaires during school time.

Measures

Stigma. Responses to the Friend in Need Questionnaire (FIN; Burns & Rapee, 2006) were coded for stigma. The FIN, a measure of depression and psychosis mental health literacy in adolescents, was adapted to measure clinical anxiety mental health literacy (see Appendix A). The original questionnaire used male and female depression vignettes but, as the current study wished to explore stigma in relation to anxiety disorders in adolescent males, these were replaced with male-only anxiety vignettes in the current study. The modified FIN presented three brief vignettes of young males experiencing differing levels of anxiety along with their responses to the difficulties. In two of the three vignettes (Jack and Tony) there were clear indications of clinical levels of anxiety, with each having at least 5 symptoms of a clinical anxiety disorder, as described in the Diagnostic and Statistical Manual of Mental Disorders – Fifth Edition (DSM-5; American Psychiatric Association, 2013). Jack was experiencing symptoms consistent with social anxiety disorder (SAD) and Tony was experiencing symptoms consistent with generalised anxiety disorder (GAD). Both are common forms of anxiety in an adolescent population. The third vignette (Craig) described an adolescent experiencing a normative level of anxiety in response to an event which would typically be considered mildly anxiety-provoking (leaving home to go to university). Participants were asked to answer questions about how worried they were about each young

person in the vignettes; what they thought was the matter with each person; what parts of the vignettes were the strongest hints that the young person was experiencing emotional difficulties; how long they thought it would take for each young person to feel better; and who they thought the young person needed help from to cope with their problems.

The participants' responses to the FIN questions "what do you think is the matter with Craig/Jack/Tony?", "what parts of the vignette were the strongest hints that Craig/Jack/Tony was experiencing emotional difficulties" and "if yes, who do you think Craig/Jack/Tony needs help from?" were all coded for stigma (see Appendix B). The coding framework included coding for the 'presence of stigma' (presence/absence of stigma), 'stigma severity' and 'form of stigma'. A stigma severity scale was created which allowed qualitative responses to be coded as a numerical value that corresponded to severity of stigma. The first author reviewed participant responses in order to establish the range of responses and the relative degree of stigma present across each response. A 0-to-4 scale was generated, with the label attached to each value discussed and agreed upon with the second and third author. Participant responses were coded for stigma severity as follows: 0 - 'no stigma' (no evidence of stigmatizing views towards the individual in the vignette), 1 – 'mild stigma' (mild or potential negative evaluation such as 'overthinking' or 'take a chill pill'), 2 – 'moderate stigma' (implicit indication of negative evaluation through indicating that the subject should behave differently or is failing to live up to standards e.g. 'He has no friends', 'he has no resilience'), 3 – 'significant stigma' (explicit negative language about subject, clear negative evaluation but no or very mild pejorative language e.g. 'He needs to toughen up', 'mentally weak', 'he can't look after himself') or 4 – 'extreme stigma' (explicit negative language about subject, clear negative evaluation *with* pejorative language e.g. ', 'He shouldn't be so girly', 'He's weird', 'he's a sook'). A total stigma severity score was calculated by adding stigma severity scores from all three vignettes together (maximum of 36 points).

Form of stigma was coded as either 'social distance stigma' (a desire to maintain distance from the stigmatized individual), 'dangerous/unpredictable stigma' (a belief that the individual is dangerous), 'weak not sick stigma' (a belief that a mental disorder is due to a personal weakness rather than an illness) or 'Other' (another form of stigma or where the stigma was unable to be coded). These three forms of stigma were chosen as they have been identified as established forms of mental health stigma in young adults (Jorm & Wright, 2008, Yap et al., 2014). The database was coded by the third author for reliability purposes. Cohen's Kappa indicated good inter-rater reliability on the presence of and form of stigma across vignettes - κ ranged from was .75 – 1.00 on agreement (Viera & Garrett, 2005). Intraclass correlations indicated high inter-rater agreement (.99 for the non-clinical vignette, 1.00 for the SAD vignette and 1.00 for the GAD vignette) on ratings of stigma severity scores.

Attitudes towards help seeking. General attitudes towards formal help-seeking was measured using a shortened version (10 items) of the Attitudes Towards Seeking Professional Help Scale (ATSPHS; Fischer & Farina, 1995). Items were rated on a 4-point Likert scale (0 = 'Disagree', 1 = 'Partly Disagree', 2 = 'Partly Agree' and 3 = 'Agree') combined to form a composite score. Higher scores indicated more positive attitudes towards seeking professional help. The revised and original versions of the scale are correlated at .87 (Fischer & Farina, 1995). Good internal consistency (r = .84) and one-month test–retest reliability (r = .80) have been reported for college student samples using the shortened version (Fischer & Farina, 1995). A Cronbach Alpha of .75 was found in the current study. The two questions 'I wouldn't talk to friends or family when I felt down or upset' and 'I don't think going online to get information about anxiety or depression would help if I had these problems' were added to the battery in order to elicit participants' attitudes towards informal and online treatment sources of help.

Intentions towards help seeking. Personal intentions to seek help for a mental health problem (if the young person was to experience emotional distress) was measured using an adolescent version of the General Help Seeking Questionnaire (GHSQ; Wilson, Deane, Ciarrochi, & Rickwood, 2007). The current study utilised only one (the non-suicidal) of two subscales (suicidal problems and non-suicidal problems) included in the measure. Participants rated their likelihood of seeking help from 14 sources of help (containing formal and informal help sources) on a seven-point scale (ranging from 1 = *extremely unlikely* to 7 = *extremely likely*). At the time of investigation the GHSQ was the only help-seeking measure found to be psychometrically valid in adolescents (Rickwood & Thomas, 2012; Wilson, Deane, Ciarrochi, & Rickwood, 2007) and the sub-scale utilised (non-suicidal) has been demonstrated to have satisfactory reliability (Cronbach's alpha = .70, test-retest reliability assessed over a three-week period = .86;Wilson et al., 2007).

The results of an Exploratory Factor Analysis (EFA) on GHSQ data in a study by Clark, Hudson and Rapee (2016) indicated a four factor structure to be the most optimal in understanding the responses to the GHFQ. The first factor 'Formal Help-seeking' included the following items: Phone help-line, GP, Mental Health Professional, Youth Worker, Religious Figure, Teacher. The second factor 'Online Help-seeking' included items relating to seeking help from a website or an internet chat room. The third factor 'Informal Peer Help-Seeking' included items relating to seeking help from friends or a partner. The final factor labelled 'Informal Family Help-Seeking' included items relating to seeking help from parents or other relatives. A higher mean score for each subscale indicated higher levels of intention to seek help from this subset of sources. The internal consistencies (α) of the subscales in this study were: α = .59 (informal peer), α = .84 (informal family), α = .89 (formal) and α = .73 (online).

Help seeking behaviour. Formal help-seeking behaviour was measured by the question 'Have you or your parents seen any mental health professionals to get help with your mental health (for when you felt fearful, anxious, stressed out, down, depressed, angry etc)?' (yes/no).

Anxiety symptoms. Participants completed the Spence Children's Anxiety Scale – Child Version (SCAS-C; Spence, Barrett, & Turner, 2003). This 45 item (6 positive filler items) questionnaire has six subscales measuring separation anxiety, social anxiety disorder, obsessions/compulsion, panic/agoraphobia, generalised anxiety and fear of physical injury. Symptoms are rated on a 4-point Likert scale (1 = Never, 2 = Sometimes, 3 = Often and 4 = Always). Responses were summed to a composite score; higher scores indicated higher levels of anxiety. The scale has been found to be psychometrically sound with good internal consistency (α = .92 child-report version) and convergent and divergent validity (Nauta et al., 2004; Spence, 1998). In this study, internal consistency was α = .94. According to normative data using the SCAS total scores, individuals scoring 33 points and higher are considered to have elevated levels of anxiety. Individuals scoring 42 points or higher are considered to have clinical levels of anxiety (Spence, Barrett, & Turner, 2003).

Depression. The Short Mood and Feelings Questionnaire (SMFQ; Angold, Costello, Messer, & Pickles, 1995) was used to assess child reported depression symptoms. According to normative data using the SMFQ total scores, individuals scoring 8 points or higher are considered to be experiencing elevated levels of depression, and individuals scoring 12 points or higher are likely to be experiencing clinical levels of depression. The measure has been found to have good psychometric properties (Angold et al., 1995; Kent, Vostanis, & Feehan, 1997). In this study, internal consistency was α = .91.

Data Preparation and Analyses

A transformative mixed methods design (Creswell, Plano Clark, Gutmann, & Hanson, 2003) was utilised. A 'concurrent transformative design' in mixed methods is described as 'concurrent data collection of both qualitative and quantitative data'. For example, conducting a survey on a specific topic where participants are also interviewed on the same topic. As defined by the Center for Innovation in Research and Teaching (n.d.), the purpose of this approach is to evaluate a theoretical perspective at different levels of analysis. As described above, participant answers to open-response questions were coded. The first component of this approach is reflective of *directed content analysis* (e.g. Hsieh & Shannon, 2005) and pertinent theory was used to inform the coding of responses in conjunction with themes generated within participant responses. Following the development and application of the coding framework, a quantitative approach was used to generate response frequencies and statistically test differences between the response categories.

The Shapiro-Wilk test indicated that study variables were not normally distributed. The removal of outliers (scores with a *z*-score > 3.29) and transformations (sqrt and Lg10) were unsuccessful at improving the normality of the dataset. Consequently the original dataset (i.e. including outliers) and nonparametric tests (Spearman's correlations, Mann Whitney *U* tests and Friedmans One-Way ANOVA followed by Pairwise Wilcoxon Signed Ranks Tests) were used to investigate the relationships between stigma variables (presence of stigma, stigma severity and form of stigma) and help-seeking attitudes and intentions. A binary logistic regression (where outliers were removed prior to analysis) was conducted to examine if presence of stigma predicted formal help-seeking behaviour whilst controlling for anxiety and depression. Scores for anxiety and depression on the SCAS and SMFQ were entered into the first step of these regressions. Presence of stigma towards the non-clinical vignette, presence of stigma towards the SAD vignette and presence of stigma towards the GAD vignette were entered in at the second step. Due to the non-parametric nature of the

variables these regressions were bootstrapped. All coding and analysis was conducted using the Statistical Package for the Social Sciences (SPSS) version 23.0.

Results

Preliminary Analyses

Bivariate correlations indicated that participant's attitudes towards formal help-seeking were positively correlated with all other measures of help-seeking attitudes and intentions (see Table 1). Participant attitudes towards informal help-seeking were positively associated with intention to seek help from both informal sources of help-seeking but not formal or online sources. Participant attitudes towards online help-seeking were found to correlate with other attitude measures but not with measures of help-seeking intentions. Measures of help-seeking intentions from peers and family sources were all positively correlated with other measures of help-seeking attitudes and intentions with the exception of attitudes towards online help-seeking where no relationship was found. Measures of help-seeking intentions from formal and online sources were all positively correlated with other measures of help-seeking attitudes and intentions with the exception of attitudes towards informal and online help-seeking where no relationship was found.

Table 1.

Correlations between help-seeking variables

Variable	1	2	3	4	5	6	7
Attitudes							
1.Formal		.28**	.22**	.65**	.64**	.69**	.15**
2. Informal			.28**	.14**	.25**	.08	-.09
3. Online				.07	.02	-.04	-.02
Intentions							
4. Peer Informal					.75**	.73**	.16**
5. Family Informal						.87**	.14**
6. Formal							.16**
7. Online							

Note. Between-group difference significant at: * $p < .001$, ** $p < .05$, *** $p < .01$.

Mann Whitney *U* tests found no significant differences between participants who had sought help for mental health problems and non-help-seeking participants on any item measuring help-seeking attitudes or intentions ($p > .05$).

Presence of Stigma

A total of 11% of comments made towards the non-clinical vignette contained stigma and only 5% of comments made towards the GAD and SAD vignettes contained stigma. In regards to question 1 ('what do you think is the matter with Craig/Jack/Tony?'), 10% of responses in regards to the non-clinical vignette were coded as stigmatizing and 4% of responses towards the SAD and GAD vignettes. In regards to question 2 ('what parts of the vignette were the strongest hints that Craig/Jack/Tony was experiencing emotional difficulties'), 1% of responses in regards to the non-clinical and SAD vignettes were coded as stigmatizing and 0.7% of responses towards the GAD vignette. In regards to question 3 ('if yes, who do you think Craig/Jack/Tony needs help from?'), 0.4% and 0.1% of responses in regards to the SAD and GAD vignette were coded as stigmatizing and there was no stigma coded in the responses towards the non-clinical vignette.

Presence of stigma and help-seeking attitudes and intentions. Participants who exhibited stigma in response to the SAD vignette (*Mean Rank* = 271.78, *n* = 27) had more negative attitudes towards formal help-seeking than those who had not exhibited stigma (*Mean Rank* = 353.66, *n* = 673) *U* = 6960.00, *z* = -2.14 (corrected for ties), *p* = .033. However, participants who exhibited stigma towards the SAD vignette did not differ from non-stigmatizing participants on attitudes towards seeking help from informal or online sources or help-seeking intentions. Participants who exhibited stigma in response to the GAD vignette had more negative attitudes towards online help-seeking (*Mean Rank* = 140.43, *n* = 22) than participants who had not exhibited stigma (*Mean Rank* = 212.30, *n* = 22) *U* = 2836.50, *z* = -2.84 (corrected for ties), *p* = .005. However, participants who exhibited stigma

towards the GAD vignette did not differ from non-stigmatizing participants on attitudes towards seeking help from informal or formal sources or help-seeking intentions. No significant differences in help-seeking attitudes or intentions were found between participants who exhibited stigma towards the non-clinical vignette and those that had not.

Presence of stigma and help-seeking behaviour. A binary logistic regression with hierarchical entry of variables was used to investigate if presence of stigma predicted formal mental health help-seeking behaviour after controlling for anxiety and depression symptoms. Hosmer and Lemeshow test results confirmed that the model was a good fit for the data χ^2 (*df* = 8, *N* = 689) = -12.35, *p* = .136. The regression model was found to be significant χ^2 (*df* =5, *N* = 689) = 86.08, *p* < .001, Cox and Snell R^2 = .12, Nagelkerke R^2 = .17. The presence of stigma in response to the SAD vignette, anxiety and depression were all found to be significant predictors of help-seeking behaviour in the model (*p* < .05). In contrast to the relationship found with help-seeking attitudes, the presence of stigma towards the social anxiety disorder vignette increased the likelihood of help-seeking behaviour.

Table 2.

Predictor Coefficients for the Model Predicting Formal Help-Seeking Behaviour (N = 689)

Predictors	*B*	*SE (b)*	*p*	*Exp(B)* *[95% CI]*
Step 1.	2.25			
Depression	.08	.02	.001	1.08 [1.04, 1.14]
Anxiety	.04	.01	.000	1.04 [1.02, 1.06]
Step 2.				
Presence of Non-Clinical Stigma	.01	.31	.986	1.01 [-0.55, 1.83]
Presence of SAD Stigma	.86	.38	.025	2.36 [1.11, 5.00]
Presence of GAD Stigma	-.34	.43	.430	.715 [0.31, 1.65]

Note. CI = Confidence Interval

Stigma Severity

Stigmatizing comments were found to be more severe in relation to the non-clinical vignette (M = .18; SD = .61) than the SAD vignette (M = .11; SD = .53) or GAD vignette (M = .09; SD = .46). A Friedman Two-Way ANOVA indicated that the rankings of stigma severity varied significantly across the three vignettes χ_f^2 = 27.45 (corrected for ties), df = 2, N – Ties = 702, p , .001. Follow-up pairwise comparisons using Wilcoxon Signed Rank Tests and a Bonferroni adjusted α of .017 indicated that stigma severity in relation to the non-clinical vignette (*Mean Rank* = 47.53) was significantly higher than the GAD (*Mean Rank* = 49.11) vignette, T = 3585.00, z = -3.29 (corrected for ties), N-Ties = 702, p = .001. This effect can be described as 'small', r = .12. The difference between the ranked stigma severity of the non-clinical and SAD vignette (*Mean Rank* = 32.83) approached significance (p = .025).

Table 3.

Friend in Need Responses Coded for Stigma Severity by Vignette

	No Stigma		**Mild**		**Moderate**		**Significant**		**Extreme**	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
'Principal Problem' Question										
Craig (NC)	631	90	44	6	16	2	5	0.7	6	0.9
Jack (SA)	675	96	8	1	6	0.9	9	1	4	0.6
Tony(GA)	674	96	15	2	11	2	0	0	2	0.3
'Strongest Hints' Question										
Craig (NC)	694	99	6	0.9	2	0.3	0	0	0	0
Jack (SA)	694	99	4	0.6	3	0.4	0	0	1	0.1
Tony (GA)	697	99	2	0.3	1	0.1	0	0	2	0.3
'Help-Seeking' Question										
Craig (NC)	702	100	0	0	0	0	0	0	0	0
Jack (SA)	702	100	0	0	0	0	0	0	0	0
Tony (GA)	701	99.9	0	0	0	0	1	0.1	0	0

Note. NC = Non-Clinical, SA = Social Anxiety and GA = Generalised Anxiety Disorder.

Stigma severity and help-seeking attitudes and intentions. Mental health stigma severity was not found to be significantly associated with help-seeking attitude or intention items ($p > .05$). Consequently hierarchical regressions were not conducted in order to investigate if stigma severity predicted help-seeking attitudes and intentions whilst controlling for anxiety and depression.

Stigma severity and help-seeking behaviour. A binary logistic regression with hierarchical entry of variables was used to investigate if stigma severity predicted formal mental health help-seeking behaviour after controlling for anxiety and depression symptoms. Hosmer and Lemeshow test results confirmed that the model was a good fit for the data χ^2 ($df = 8$, $N = 87$) = 6.49, $p = .592$. Although the regression model was found to be significant χ^2 ($df = 6$, $N = 87$) = 24.40, $p < .001$, Cox and Snell $R^2 = .245$, Nagelkerke $R^2 = .338$, stigma severity was not found to be a significant predictor of help-seeking behaviour the model ($p > .05$).

Form of Stigma

The majority of stigmatizing comments ($n = 134$, 91%) identified were coded as 'Weak Not Sick'. The second most common form of stigma identified was 'Social' (4%), followed by 'Dangerous/Unpredictable' (3%) and 'Other' (2%). The most common form of stigma in relation to all vignettes was 'Weak Not Sick' (see Figure 1). Rates of 'Social' stigma and 'Dangerous/Unpredictable' stigma were found to be slightly higher for the SAD vignette (11% and 9% of comments) compared to the non-clinical (3% and 1%) and GAD vignettes (0% and 0.3%) but still much lower than 'Weak Not Sick' stigma. As such, a high percentage of stigma related to the 'weak not sick' form of stigma and it was not considered appropriate to conduct any further analysis into forms of stigma and help-seeking attitudes, intentions or behaviour.

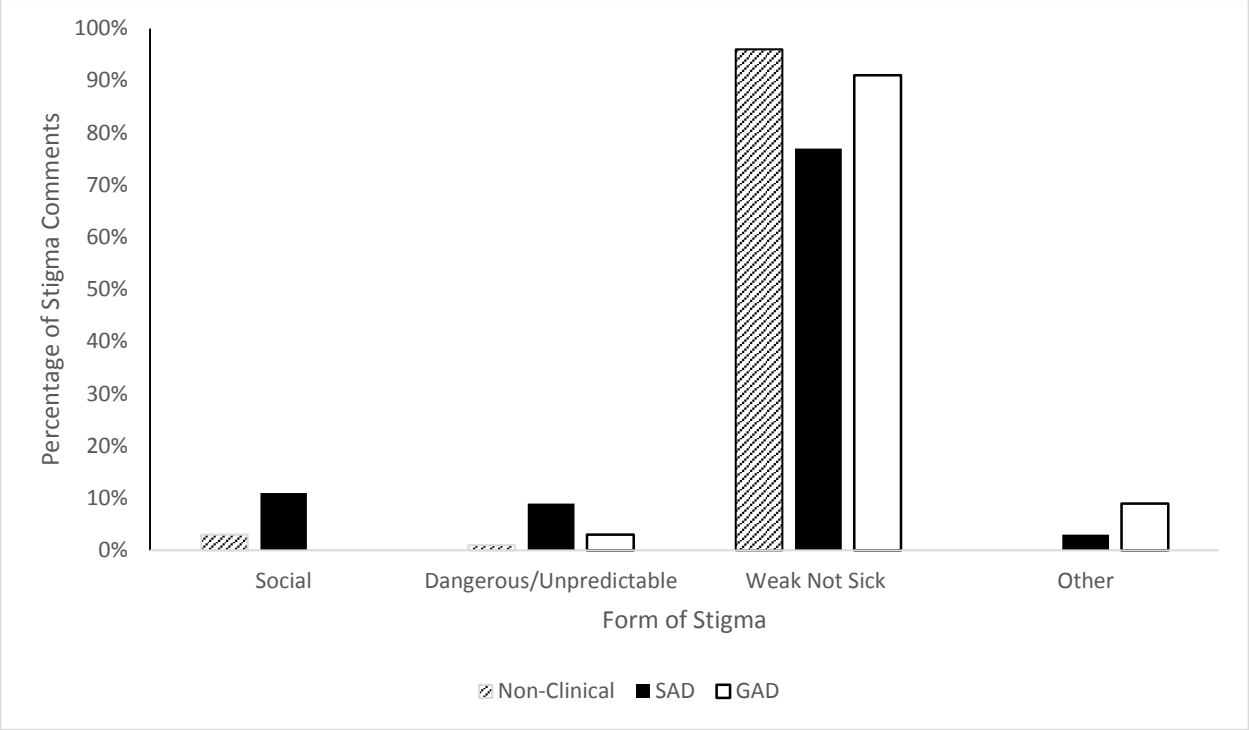

Figure 1. Rates of stigma form across vignettes

Discussion

The current study investigated the form, frequency and severity of mental health stigma elicited in response to vignettes of adolescents experiencing non-clinical, SAD and GAD forms of anxiety in a sample of adolescent males. The study also examined the relationship between anxiety specific mental health stigma and help-seeking attitudes, intentions and behaviour in this population. The results indicate that only a small percentage of adolescent males spontaneously report stigmatizing views towards anxiety as presented in the vignettes (5-11% of comments were identified as stigmatizing). In saying this, the current study captured unprovoked stigma (i.e., responses towards a mental health literacy vignette where no social pressure or questions directly related to stigma were present). An alternative interpretation of the percentage of stigma identified in the responses to the Friend in Need questionnaire is that up to one in ten boys hold stigmatizing views towards anxiety strong enough to express them without social or environmental provocation. In comparison to studies that have aimed to measure youth mental health stigma using questionnaires the

prevalence of stigma is low. Chandra and Minkovitz (2006) found 90% of male participants demonstrated stigma in response to a series of help-seeking statements. These differences in findings may suggest that previously reported mental health stigma is influenced by the social factors mentioned earlier (i.e. demand characteristics) or that rates of mental health stigma have changed as a result of the significant media campaigns to reduce mental health stigma by Beyondblue over the last 10 years. Another interpretation is that mental health stigma towards anxiety may be less common than mental health stigma towards other forms of mental health disorder. In particular contrast to the findings reported by Chandra and Minkovitz (2006), the current study found very little stigma (between 0 and 0.4% of statements) in response to the question most directly connected to help-seeking (question 3 – 'if yes, who do you think Craig/Jack/Tony needs help from?'). This may suggest that help-seeking for anxiety is considered more acceptable to adolescent males compared to help-seeking for other forms of disorders. Alternatively, these findings may again indicate that the different methodologies are eliciting different forms/presentations of stigma.

In particular, the highest frequency and severity of stigma was found in relation to the non-clinical vignette. It is not clear why this would be the case but one possible interpretation is that adolescent males are able to discriminate between clinical and non-clinical levels of anxiety and are more stigmatizing towards those expressing emotion in relation to a non-clinical need. Alternatively, these findings may be associated with methodological issues of the study. In particular, the rates of stigma identified may have been a result of the vignette sequencing (vignettes were presented in the following order: non-clinical, SAD and then GAD). The character in the non-clinical vignette was also older (aged 18) than the characters in the other vignettes (aged 12 and 16). Thus, the differences observed between the non-clinical and clinical vignettes could be due to the younger age of clinical participants rather than their clinical status (i.e. more stigma may be associated with an older adolescent

experiencing anxiety). Future studies utilising this approach should randomise the age and presentation of information on anxiety sufferers during data collection.

Consistent with existing literature (Eisenberg, Downs, Golberstein, & Zivin, 2009), individuals who exhibited stigma towards the SAD and GAD vignette, were likely to have more negative attitudes towards certain forms of help-seeking, in particular formal and online help-seeking. However, in contrast to this, greater levels of stigma towards the SAD vignette predicted history of having engaged in help-seeking behavior. The latter may suggest that symptoms of social anxiety are particularly embarrassing or unacceptable to this population and, as a result, even individuals who do not have a positive attitude towards professional help for emotional problems, are motivated to seek help to reduce these difficulties. In saying this, preliminary analysis of help-seeking variables found no association between measures of help-seeking attitudes and intentions and help-seeking behaviour. At present, the exact relationship between help-seeking attitudes, intentions and behaviour in young adults is unknown. However, a number of studies have indicated that help-seeking attitudes and/or intentions may only be weakly associated with help-seeking behaviour in young adults (Rickwood, Cavanagh, Curtis, & Sakrouge, 2004; Wilson & Deane, 2005; Wilson, Deane, Ciarrochi, & Rickwood, 2005). It should also be noted that the sample contained 190 adolescent males (27%) who had sought help for mental health problems and, out of these participants, only 18 adolescents (10%) demonstrated stigma towards the SAD vignette. Consequently, only limited generalisations can be inferred from the study findings and future research into anxiety mental health stigma and help-seeking using larger samples is needed.

As hypothesised, the most common form of stigma identified in the data was ‘weak not sick’. During coding, weak not sick stigma was noted to take two separate forms: (1) ‘Weak not Sick – Changeable’ (stigma that related to a sense that a change is within the individuals control e.g. ‘needs to toughen up’), which accounted for 76% of weak not sick

stigmatizing responses or; (2) 'Weak not Sick- Fundamental' (stigma that relates to a sense that the individual is somehow defective with change not being straightforward or within their control e.g. 'he can't look after himself', 'mentally weak') which accounted for 24% of weak not sick stigmatizing responses. In particular, 'weak not sick-changeable' stigma was seen most frequently in relation to the non-clinical and GAD vignettes whereas 'weak not sick – fundamental' stigma was identified more frequently in relation to the SAD vignette. The sample size prohibited detailed meaningful analysis on these two forms of stigma but further research into these specific forms of mental health stigma is needed. As expected, a large percentage (between 11 and 50%) of the stigma comments were found to be related to individuals in the vignettes failing to live up to the norms of traditional masculinity. Future research is needed to investigate the specific influence of masculinity stigma (beyond the belief that an individual is weak as a result of experiencing anxiety) on mental health help-seeking.

Strengths and Limitations

This study is one of the first investigate the frequency, form and severity of naturally occurring (i.e., without direct questioning on stigma issues) mental health stigma towards individuals with anxiety in adolescent males. A major strength of the study is that by utilising this methodology, a realistic representation of personal stigma (i.e. without the influence of perceived stigma) should have been elicited. However, although data collection was conducted in controlled conditions, the vignettes were completed in large class groups rather than individually. Consequently participants may still have been influenced by the presence of peers during data collection. Future research should investigate personal mental health stigma using this approach in combination with more traditional methods (such as standardised personal stigma questionnaires) in order to validate this method of stigma

assessment. The cross-sectional nature of the investigation also limits the extent to which the findings can be interpreted and longitudinal studies are needed to better understand causality.

Secondly, the use of vignettes may have influenced the results. The presence of stigma was elicited and coded in response to a written vignette character. Any stigma expressed may have been the result of participants struggling to relate to, or identify with, the individual described in the vignette. Future studies utilising this approach should consider other forms of presenting this information, such as the use of video. It should also be noted that stigma towards adolescent males with anxiety will come from more sources than just other adolescent males (in the current study only male anxiety vignettes were used).

Thirdly, exposure to mental disorders, help-seeking or campaigns on mental health in young adults have been shown to influence youth stigma and/or its relationship to help-seeking (Jorm & Wright, 2008). These variables were not controlled for in the current study. Future investigations should aim to elicit how these variables influence the relationship between anxiety mental health stigma and help-seeking in adolescent males.

Finally, an additional limitation of the study is the potential for multicollinearity in the measurement of SAD and GAD stigma. As the regression explored categorical variables (presence of SAD/GAD stigma), it was not possible to assess for this issue. We would expect SAD and GAD stigma to have a strong relationship, both being types of stigma, however future studies should aim to use more sophisticated measures of specific anxiety disorder stigma to rule out issues of multicollinearity.

Conclusion

This study contributes significantly to current understanding of the complex relationships between forms of stigma and youth help-seeking attitudes, intentions and behaviour. The investigation suggests that only a small percentage of adolescent males hold stigmatizing views towards individuals with anxiety but that, as a population, they exhibit a

greater level of and more severe stigma towards older individuals with non-clinical levels of anxiety. The findings also suggest that stigma has a greater influence on help-seeking behaviour for certain forms of anxiety disorder (namely SAD) suggesting that specific forms of anxiety should be addressed in mental health initiatives. Overall, the findings emphasise the need for further research into mental health stigma in relation to specific forms of clinical anxiety disorder.

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Chapter 5

The next chapter presents the paper "Capturing the Attitudes of Adolescent Males' Towards Computerised Help-Seeking for Anxiety". Chapter four explored common forms of stigma towards adolescent males with anxiety. Due to a fear of being stigmatized, adolescent males are hypothesised to find discrete methods of help-seeking, such as computerised help-seeking, to be more attractive than traditional methods of help-seeking. However, online help-seeking is a relatively new area of help-seeking and few studies have explored the attitudes of adolescent males in response to it. As established in chapters one and two, a wide variety of factors influence adolescent males with anxiety engaging in mental health help-seeking. The investigation described in chapter five investigates the attitudes of adolescent males towards computerised help-seeking for symptoms of anxiety.

Capturing the Attitudes of Adolescent Males' Towards Computerised Mental Health Help-Seeking

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Abstract

Objective: Adolescent males are often reluctant to seek help for mental health problems. Computerised psychological treatment may be a more appealing method of psychological intervention for this population because it minimizes many of the barriers to traditional treatment. However, it is not clear if current computerised mental health treatment programs both attract and engage adolescent males with anxiety disorders. A qualitative methodology was utilised to investigate adolescent males' attitudes to computerised mental health intervention generally and more specifically, computerised anxiety treatment programs. **Method:** The views of 29 adolescent males, both with and without experience of clinical anxiety symptoms, were elicited using semi-structured interviews and focus groups. Verbatim transcripts were analysed using content analysis. **Results:** The major themes identified related to computerised help-seeking involving 'risk', 'effort' and 'the need for a human connection'. **Conclusions:** The results of the study suggest that a number of barriers, such as unfamiliarity with this form of help, perceived control over decision making, effort and concerns around confidentiality, exist in relation to adolescent males utilizing computerised mental health interventions. However, the findings also suggest that an increased awareness of computerised mental health help-seeking, facilitated through schools, parents or social media, also has the potential to increase formal help-seeking in this population.

Keywords: Adolescence, Anxiety, Help-Seeking, Information Technology, Males, Mental Health.

Introduction

It is well established that young men are less inclined to seek help for mental health problems compared to young women (Burgess et al., 2009: Donald, Dower, Lucke, Raphael, 2000; Rickwood, Deane, & Wilson, 2007). This unmet treatment need is believed to contribute to young men having higher rates of antisocial behaviour, substance misuse problems and completed suicides than females of the same age (Eaton, et al., 2012; Slade, Johnston, Oakley Browne, Andrews, & Whiteford, 2009). Research investigating youth help-seeking (the act of communicating with others to obtain help in response to a problem or distressing experience; Rickwood, Deane, Wilson, & Ciarrochi, 2005) has increased over the last decade. However, limited progress has been made towards reducing the reluctance of adolescent males to access and utilise mental health services (Millar, 2003; Oh, Jorm, & Wright, 2009).

Despite young men's reticence to seek help for mental health problems from formal services, research suggests that males are seeking health information from online sources (Lohan, Aventin, Oliffe, Han, & Bottorff, 2015). Consequently technology-based interventions are believed to have the potential to increase mental health help-seeking in adolescent males (Barak & Grohol, 2011; Ellis, McCabe, Davenport, Burns, Rahilly, Nicholas, & Hickie, 2015; Farrer et al., 2013). Forms of online services available for young adults (individuals aged 16-24 years-old) include self-directed, low intensity internet based mental health support, national online counselling services, repositories for information and resources concerning mental health and structured self-directed online therapy (Kauer, Mangan, & Sanci, 2014). The anonymity of mental health support through the internet or on a computer program is believed to reduce established barriers to youth help-seeking, such as stigma and practical issues associated with cost and transport (Gulliver, Griffiths, & Christensen, 2010). The approach would also promote independence and autonomy, and it is

these factors that are believed to facilitate help-seeking in adolescent males (Timlin-Scalera, Ponterotto, Blumberg & Jackson, 2003). There are a number of advantages of computerised mental health support options over other forms of help-seeking (both to service providers and mental health consumers). Computerised mental health support programs are able to be accessed by individuals living in remote geographic locations or who move around regularly (such as military service personnel and their families). Services are easily maintained, low-cost to provide and accessible 24 hours a day. Computerised mental health programs can also be a completely anonymous method of receiving information/advice and the approach is often highly flexible in terms of personalisation and interactivity.

Preliminary studies suggest that computerised options for mental health support have the potential to appeal to young adults. Adolescents, both males and females, are active users of technology for personal and emotional problems (Gould, Munfakh, Lubell, Kleinman & Parker, 2002; Havas, de Nooijer, Crutzen, & Feron, 2011). In particular, a study of Australian young adults found that 55% of young men (aged 16 to 24 years) had sought help for their emotional problems online (Ellis et al., 2013). In a community sample of young adults, Oh, Jorm and Wright (2009) investigated young adult's preferences in regards to format of mental health support. Participants first read a vignette description of a young person with mental health problems and were then asked to rate the potential helpfulness of a website, self-help books and two face-to-face services (counselling and mental health services) for the person in the vignette. Both males and females rated websites and books as 'more helpful' for psychological distress than mental health services. This finding suggests that computerised options of mental health support, and similar autonomous methods of help-seeking (such as bibliotherapy), may be more accessible and/or appealing to young adults than traditional face-to-face services. Although the field of computerised mental health support is relatively new, it provides a promising intervention for young adults with mental health problems.

Consequently, despite significant investment, it is difficult to understand why the introduction of much computerised mental health support has not had a bigger impact in terms of increasing service utilisation rates in young adults. In particular, a number of computerised mental health programs for young adults have reported a high program dropout rate and difficulties with participant engagement (Ellis et al., 2015; Griffiths & Christensen, 2006).

The form of computerised mental health support most empirically evaluated is computerised or online mental health treatment programs. These programs are usually undertaken by the young person over a number of weeks with (or often the option of) indirect therapist involvement (typically through phone or email). A number of computerised treatment programs for children and adolescents, mostly informed by cognitive behavioural therapy (CBT) principles (such as MoodGYM, Cool Kids and BRAVE; Groves, Christensen, & Griffiths, 2003; Lyneham, Abbott, Wignall, & Rapee, 2003; Spence, Holmes, Donovan, & Kenardy, 2006), have been developed. These programs have been demonstrated to be clinically effective treatments for depression and anxiety (Calear, Christensen, Mackinnon, Griffiths, & O'Kearney, 2009; Griffiths & Christensen, 2006, Spence, Holmes, Donovan, & Kenardy, 2006; Wuthrich et al., 2012). However, much of the research on these mental health treatment programs has focused on efficacy of the treatment (i.e. symptom reduction) and there is a lack of literature evaluating whether these computerised treatment programs appeal to and engage adolescents. In the absence of factors associated with motivation in face-to-face help-seeking (such as motivational interviewing and client-therapist relationship) and the importance of practice in CBT treatment programs, a lack of engagement is likely to seriously compromise the efficacy of these computerised treatments. To date very few studies have directly investigated adolescent views on online treatment programs (Ellis et al., 2015; Oh et al., 2009). In a study by Oh et al. (2009) researchers obtained ratings of helpfulness

towards online treatment programs on a simple quantitative scale (respondents rated interventions as either 'helpful', 'harmful', neither', 'depends, 'don't know', or 'refused') and no detailed qualitative investigation took place. The process of seeking help for a mental health problem is believed to be a multi-faceted series of stages in young adults (Rickwood Deane, Wilson, & Ciarrochi, 2005). Due to the complexity of the mental health help-seeking process, more in-depth research around the barriers (i.e. factors which prevent or inhibit psychological help-seeking) and facilitating factors (i.e. factors which encourage or promote psychological help-seeking) associated with computerised mental health treatment help-seeking is required.

Specifically, computerised interventions appear to have the potential to improve help-seeking rates in adolescent males with anxiety. Anxiety disorders remain one of the most common mental health problems in adolescence (Lawrence et al., 2015) but stigma towards these disorders in young adults is a prevalent issue. A mental health stigma termed 'weak not sick' (a belief that mental disorder is to a personal weakness rather than an illness) has been associated with social anxiety disorder (SAD) more than other forms of common mental health disorders in young adults (Reavley & Jorm, 2011; Yap, Wright, & Jorm, 2011). As psychological treatment is often avoided by young men due to it being perceived as inconsistent with notions of hegemonic masculinity (Connell & Messerschmidt 2005), this form of stigma is likely to be particularly prohibitive to help-seeking in adolescent males with anxiety. Additionally, Oh et al. (2009) found that young adults rated a mental health website as more 'helpful' for someone with symptoms of SAD than an individual with depression. This finding suggests that computerised interventions may be considered by young adults to be a particularly appropriate method of support for anxiety. Overall, in theory, computerised mental health programs have specific features that should increase mental health help-seeking behaviour in adolescent males with anxiety. However, as yet, investigations designed to elicit

the views and attitudes of this specific population in relation to computerised help-seeking are limited.

Ellis et al. (2015) conducted one of the first studies to investigate attitudes towards a computerised mental health programs designed for young men. A sample of 15 young men participated in a one-on-one user testing of the program and were then interviewed about the experience. The results of this, and related, studies suggest that adolescent males have specific requirements in regards to computerised mental health support. For example, adolescent males were found to be drawn to websites with video/music content and games, suggesting that computerised treatment programs should be action orientated (rather than information or talk based; Ellis et al., 2012; Ellis et al., 2015). However, the program investigated (WorkOut) is a general mental health program (designed to 'build confidence, help-seeking, mastery and mental health') rather than a treatment program for specific mental health problem (Ellis et al., 2015). Furthermore, the interviews themselves were very specific to the Workout program and not generalisable to computerised mental health treatment programs. The aim of the present study was to explore the attitudes of adolescent males on the topic of computerised mental health treatment/support and towards an online anxiety disorder treatment program.

Method

Participants

The data were collected alongside another qualitative study investigating barriers and facilitating factors to mental health service utilisation in adolescent males (Clark, Hudson, Dunstan, & Clark, 2016) and the same adolescents participated in both studies. Purposive sampling was employed to recruit adolescent male participants ranging in age. To generate a sample representative of clinical and non-clinical experiences, participants who had and had not engaged in formal help-seeking (i.e. from professional mental health healthcare providers,

general practitioner sources) for anxiety disorders were recruited. The final sample comprised of 29 adolescent males aged 12-18 years (M = 15.17, SD = 1.91). All participants were in full-time school education.

'Clinical' participants (n = 8) were adolescent males that had experienced symptoms of clinical anxiety (either with or without a co-morbid diagnosis of depression) and were in the process of (i.e. had contacted a local mental health provider) or had already received formal mental health intervention. Clinical participants were recruited from child and adolescent mental health services across New South Wales, Gumtree (a nationwide internet classified advertisements and community website) and the Centre for Emotional Health, Macquarie University. Sources of professional help obtained by participants included a school counsellor (n = 1), a private local psychologist (n = 2) and a child and adolescent mental health clinic which offered online treatment (n = 2) in addition to face-to-face therapy (n = 2). 'Non clinical' participants (n = 21) were adolescent males who had not received treatment for mental health difficulties. Non-clinical participants were recruited from Gumtree and two independent schools in Armidale, a small rural town based in New South Wales. A variety of methods were used to recruit participants, including poster adverts, leaflets, email advertising and word of mouth. Using the Australian Rural, Remote and Metropolitan Areas (RRMA) classification, 4 (14%) participants lived in a Rem2 (remote area), 18 (62%) participants lived in a R2 (small rural centre) and 7 (24%) lived in an M1 (metropolitan city) area. Recruitment ceased when data saturation had been achieved.

Procedure

Ethical approval for the project was granted by the Macquarie University Committee for Ethics in Human Research in July 2012. Participants and their parents were required to sign information consent forms prior to their involvement in the interviews. A qualitative interview approach was adopted. All interviews, with the exception of one focus group, were

conducted by the first author. Interviews were conducted in psychology clinics, schools or at the participant's home and occurred either in four focus groups or individually. Due to the personal nature of the topic, participants with a history of clinical anxiety, or non-clinical participants opting not to participate in a group (*n*=1), were interviewed individually. The focus groups (FG) contained between 3 and 6 participants (FG 1: *n* = 3; FG 2: *n* = 6; FG 3: *n* = 4; FG 4: *n* = 7) with other adolescents of similar ages (FG 1: 13-14 years, FG 2: 16-17 years, FG 3: 12-13 years, FG 4: 15-16 years).

Interviews (focus group and individual) lasted between 43 and 67 minutes. All interviews were audio recorded for transcription purposes and video recorded in order to supplement the transcription with pertinent non-verbal communication. In-depth notes were taken during, and directly following, the interviews by the facilitator. The focus groups and individual interviews all followed the same format. Firstly, a vignette question was used to facilitate an open discussion regarding help-seeking options. The vignette contained details of 'Jack' an adolescent male experiencing symptoms of social anxiety disorder as described in the Diagnostic and Statistical Manual of Mental Disorders – Fifth Edition (DSM-5: American Psychiatric Association, 2013). Participants were then asked 'What would you do if you were Jack?' (a question deigned to facilitate open discussion regarding help-seeking behaviour). If the topic of online or computerised help-seeking did not occur spontaneously in the discussion this was raised by the facilitator in order to ascertain views towards computerised help-seeking generally. Participants were then given a short demonstration of an online psychological treatment program (Chilled Out; details below). Finally, an open discussion of computerised help-seeking methods was facilitated. All forms of help-seeking (computerised and non-computerised) that occurred within group discussion were written down on cards. At the end of the interview participants were asked to rank the help-seeking options in terms of preference.

Chilled out. The demonstration of Chilled Out typically lasted between 10 and 15 minutes. Young adults were encouraged to ask questions and explore the program during the demonstration. Chilled Out (previously named the Cool Teens treatment program) is an online program based on the Cool Kids anxiety management program. The program teaches cognitive behavioural therapy techniques for managing anxiety in eight therapy modules of 30 minutes, with a strong focus on cognitive restructuring and graded exposure. The program uses a combination of multi-media formats (text, audio, illustrations, cartoons, and live video) to deliver information, examples, activities, and homework. The program included six video case studies of adolescents discussing different anxiety problems and applying skills to their particular problem.

Data Analysis

The interviews were transcribed verbatim and analysed by the first author in accordance with the principles of thematic analysis (La Greca & Lopez, 1998). Thematic analysis was chosen as an accessible, widely-used and theoretically-flexible approach to analysing qualitative data (Braun & Clarke, 2006). Other qualitative studies investigating youth help-seeking have utilised this approach (Mazer & Rickwood, 2015). The six stages of thematic data analysis proposed by Attride-Sterling (2001) were followed. This process involved coding the material, identifying key themes then constructing, describing, exploring and summarising thematic networks (an analytic tool used to organise the thematic analysis of the data) before interpreting broader patterns across the data. In accordance with this process, the data was organised into ‘basic’ (the lowest order theme derived from the data), ‘organising’ (middle-order theme that organises the basic themes into clusters of similar issues) and ‘global’ (super-ordinate themes that encompass the principal metaphors in the data as a whole) themes. A method utilised by Mazzer and Rickwood (2015) to communicate the strength and hierarchical structure of the identified themes by the size of shape was

employed. The thematic maps depicts the organisation of themes with the global theme represented by a circle with bold font and basic themes (the lowest order of theme specifically representing specific aspects of organisational themes) represented by a circle with italic font. Organisational themes are represented by circles which do not include bold or italic text.

Initially transcripts from the clinical and non-clinical participants and then help-seeking and non-help-seeking participants were analysed separately. However, as highly similar themes emerged, these transcripts were integrated for analysis. Analysis was conducted across two main areas of interest: attitudes towards computerised mental health help-seeking (CMHHS) generally and attitudes towards a computerised treatment for anxiety (Chilled Out). To determine the level of representativeness of responses, four levels of frequency labels were applied, a method utilised in other qualitative youth help-seeking investigations (Mazzer, Rickwood, & Vanags, 2012). As proposed by Hill, Knox, Thompson, Williams, Hess and Ladany (2005) a theme that applied to all or all but one of the cases was considered *general*. A *typical* theme applied to more than half of the cases (up to the cutoff for general). A theme considered *variant* included at least two cases up to half of all cases. Responses from clinical and non-clinical responses were categorised separately (i.e. in order to qualify as a 'general' theme, it had to be present in all or all but one of the clinical interviews and in all or all but one of the non-clinical interviews/focus groups).

In order to establish inter-rater reliability, the interviews were coded using a three-stage process outlined by Cambell, Quincy, Osserman and Pedersen (2013). The thematic analysis was conducted by the primary investigator (LC). Then a second coder (GC) independently conducted a thematic analysis on 2 full-length transcripts (10% of the study transcripts). The results of the analysis and the diagrammatic conceptualisation of themes were refined/developed through discussion (and GC continuing to analyse more transcripts)

between the coders until high inter-rater agreement was reached. Once this had occurred LC returned to the full set of manuscripts to confirm that the final thematic analysis was representative of the full dataset.

Results

Adolescent Male Attitudes towards Computerised Mental Health Help-Seeking

The discussions relating to the topic of CMHHS created two thematic networks with global themes of ‘computerised mental health help-seeking is ‘risky’ and ‘computerised mental health seeking involves effort’. In regards to the former, participants expressed concerns relating to the ‘anonymity’ of help-seeking and the possibility that help-seeking would involve exposure to mental health stigma. Participants also highlighted concerns about whether the decisions relating to CMHHS were within the program user’s control. The thematic network relating to the global theme ‘computerised mental health help-seeking is risky’ can be seen in Figure 1.

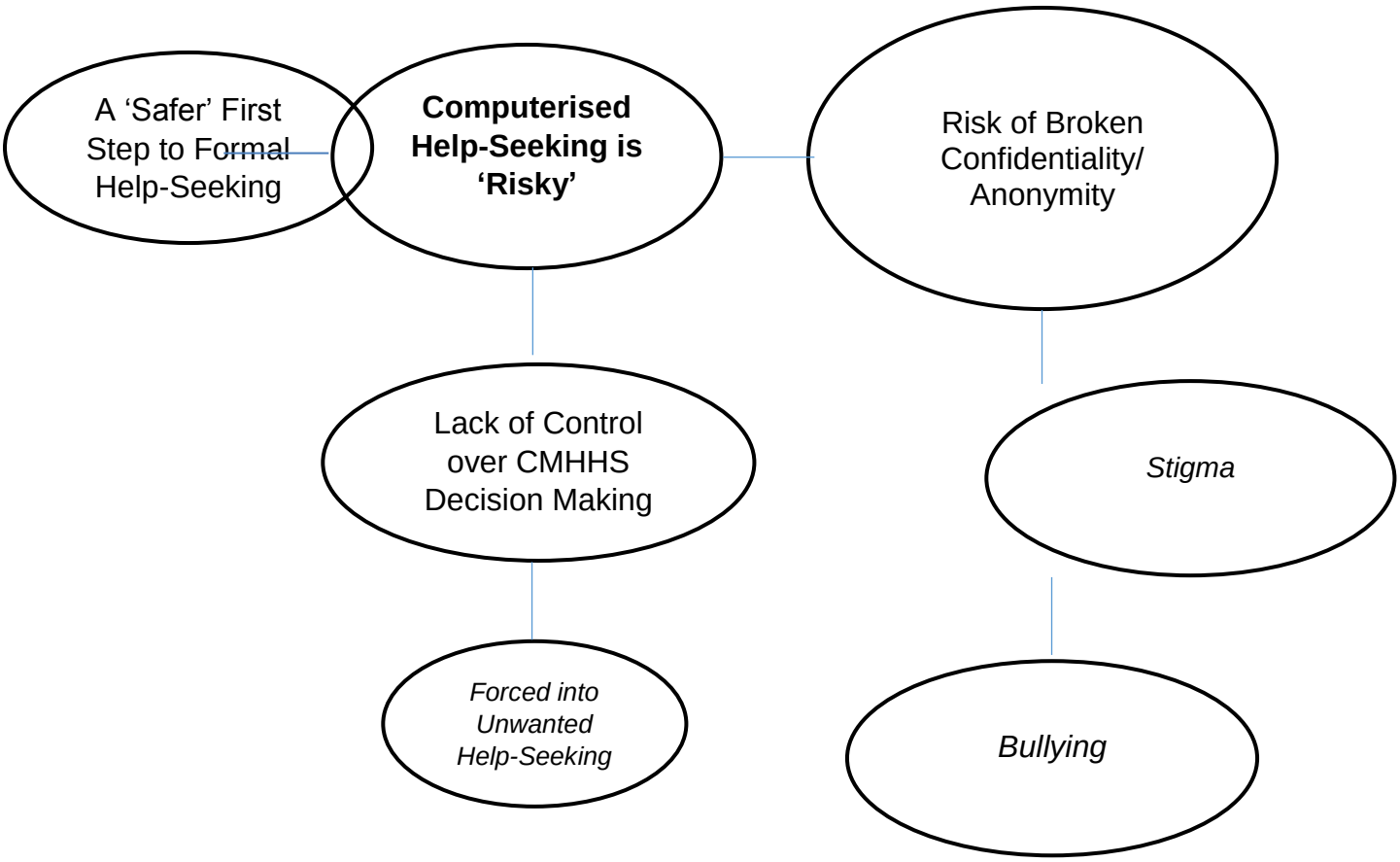

Figure 1. A thematic map of the global theme 'computerised help-seeking is risky'

Risk of broken confidentiality/anonymity. This theme (a general theme amongst non-clinical participants and a typical theme amongst clinical participants) centred on participants' need for high levels of reassurance that any computerised help-seeking was 'safe' in regards to confidentiality. Even when some assurances could be made as to the confidential nature of some CMHHS (such as security systems used in computerised treatment programs), participants remained concerned as to how 'private' CMHHS would be. According to this theme, help-seeking was conceptualised as involving 'risk', more specifically exposure to peer stigma and cyber bullying. Stigma was seen to be particularly likely from other adolescent males and being bullied or stigmatized for help-seeking conceptualised as being a natural component of being an adolescent male. Younger non-

clinical participants tended to express a greater level of concern regarding the likelihood of bullying. In older non-clinical participants, discussion tended to be less orientated towards threat, with a greater focus on methods to ensure that potential lapses in confidentiality, and consequent bullying/stigma, could be prevented (i.e. appropriate monitoring, anonymous Facebook chat).

'The problem with an online chatroom is you're going to get people who don't actually need help and they don't need to be on the website at all. They're like "Hey guys, you know what would be funny, making fun of these depressed kids' (non-clinical focus group member, aged 14)

It's just what guys do sometimes [make fun of you for seeking help] (clinical participant, aged 14, sought help from a child and adolescent mental health clinic).

Suggestions of how online computerised help-seeking could be kept 'safe' included online forums being monitored by either professionals or well-meaning volunteers, all online help-seeking to be generated/maintained by well-known organisations (such as an established university), developing extensive security systems for all forms of CMHHS and schools being alerted to 'trustworthy' forms of CMMHS which adolescents could learn about within school health classes.

'and you should have like safety, security systems and stuff for it [online treatment]' (non-clinical focus group member, aged 16).

Lack of control over computerised mental health help-seeking decision making.

Although the 'risks' of CMHHS help-seeking predominantly related to social threats (such as

stigma and bullying), participants highlighted concerns relating to decisions not being within the program user's 'control'. This was a typical theme amongst non-clinical participants and a variant theme amongst clinical participants. Participants were often divided over if, who and how much others should be involved in their computerised help-seeking (such as parents and/or professionals) and the format that this was offered (i.e. through phone, email, online etc). However, all felt very strongly that all decisions should be within the program users' control. This generated interesting discussion in which others (parents and professionals) were seen to hold the power in regards to a young person's mental health. Fundamentally, this sense of being limited in their control of CMHHS resulted in magnifying a sense of CMHHS being 'risky'. Conversations regarding parental involvement in treatment (as opposed to the online buddy or other support figures) appeared particularly emotionally charged and some participants expressed a concern about being "forced' by their parents into seeing a mental health professional (i.e. forced into 'unwanted' help-seeking).

'most of them won't want to have to go and talk to their parents, they'll find that embarrassing' (non-clinical focus group member, aged 14)
'just like do it on your own terms' (clinical participant, aged 14, sought help from a child and adolescent mental health clinic).

A 'safer' first step to formal help-seeking. Many participants (a general theme amongst non-clinical participants and a variant theme amongst clinical participants) suggested that CMHHS would be a useful initial source of help/support or first 'step' in managing clinical anxiety. Despite the fact that participant discussion focused on help-seeking as involving 'risk', CMHHS emerged as a 'safer' form of help-seeking than other methods of help-seeking. Help-seeking was conceptualised as a fluid and dynamic process

where adolescents moved between forms/sources of help according to need and desire at the time, generally moving from informal to more formalised methods of help-seeking. Consequently, participants felt that a helpful exposure to a 'safer' form of help-seeking would potentially facilitate other, potentially more risky, forms of help-seeking.

'So I think it would be helpful to get that information and maybe just looking at that he would try some of the things out and even come up to get the courage to like, maybe on the thing it should say like, you should talk to these people and this and that and might get encouraged to actually go and talk to someone' (clinical participant, had completed an online treatment through a child and adolescent mental health clinic, aged 13).

The second global theme identified in regards to computerised mental health help-seeking relates to the concept that this approach would require 'effort' (described in Figure 2). This theme centred on participants' perception that CMHHS would involve significant time and commitment.

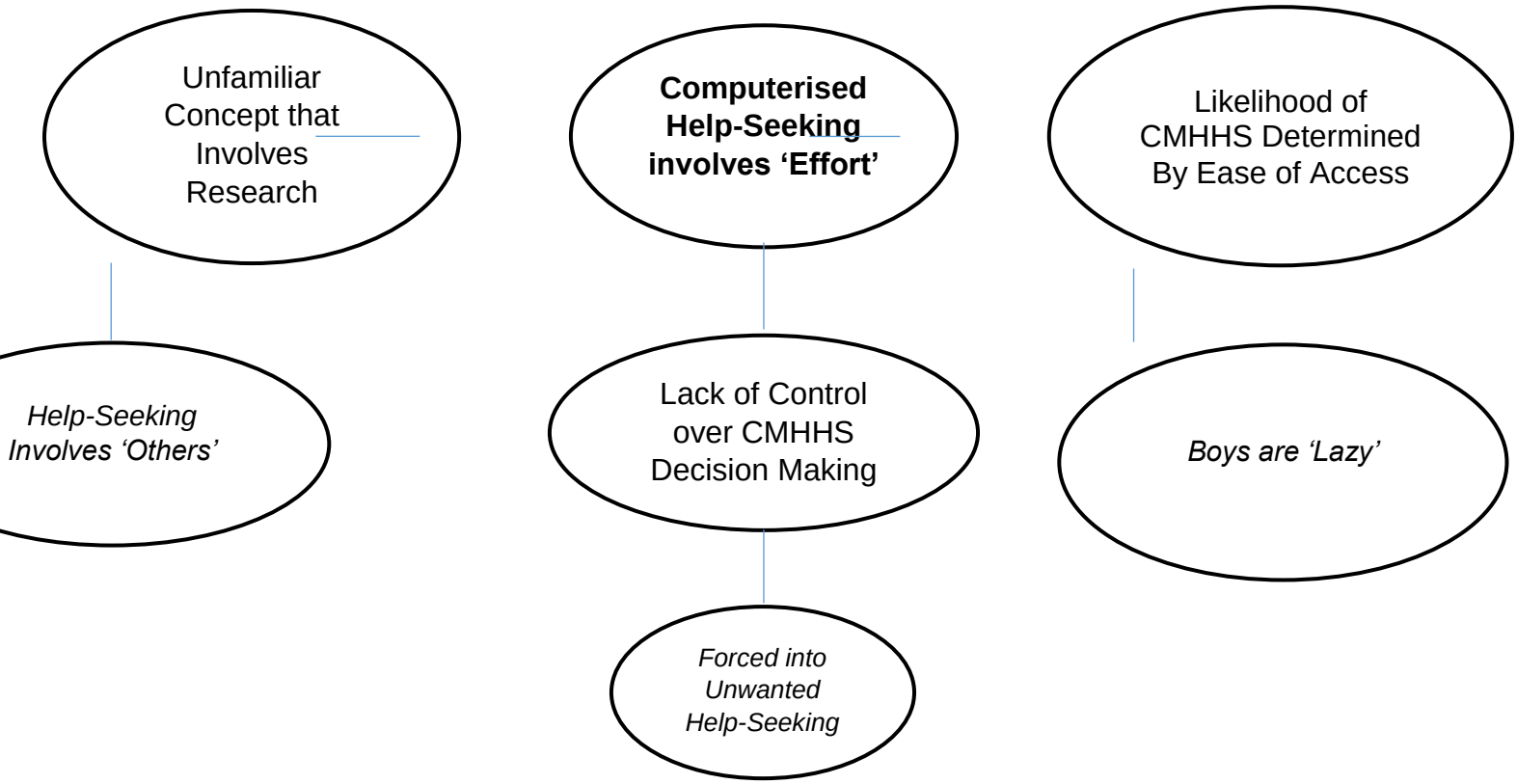

Figure 2. A thematic map of the global theme 'computerised help-seeking involves effort'

Likelihood of computerised mental health help-seeking determined by ease of access. A theme ingrained in the conversations around CMHHS (a general theme amongst clinical participants and a typical theme amongst non-clinical participants) related to participants perception that adolescents would be very unwilling to undertake any mental health intervention which was perceived to be 'work' or 'effort'. Exposure to CMHHS as part of school classes on mental health issues was considered helpful as adolescents are 'there anyway'. Several non-clinical participants suggested connecting Chilled Out to Facebook or another social media site in a way that would remind them to use it (e.g. real stories that come up on the adolescents' Facebook news feed) or be able to use it whilst still actively participating in social media. However, all participants who suggested this were keen to

emphasise that any contact with Chilled Out would have to be 'hidden' from all their social media 'friends' (i.e. there would be no way that contact with the Chilled Out interface could be visible to others through social media). A general 'laziness' regarding health matters (i.e. the need for interventions requiring little to no effort), like mental health help-seeking stigma, was seen by participants as being characteristically male and part of adolescence.

'erm, people wouldn't go and log on to a site I guess. You know if it's in their face, as we were talking about with...' (non-clinical focus group member, aged 17).
'if I'm bored I go onto Facebook, I don't go on to Chilled Out' (non-clinical focus group member, aged 17)

Motivation/effort invested in computerised mental health help-seeking moderated by symptom severity. The motivation to 'get help' was conceptualised as being directly associated with symptom severity and, more specifically, how much the anxiety was interfering a young person's life. Interestingly, this was particularly prominent in non-clinical participant interviews (a general theme) but less common in interviews with clinical participants (a variant theme). Participants felt that if they were feeling highly anxious or depressed then this would increase their motivation to seek help using computerised mental health treatments. In defining symptom severity, one of the essential components was 'desperation' and an individual facing a lack of other options. From this perspective motivation to use CMHHS, and the effort participants were willing to invest in help-seeking options, were conceptualised as being driven by the severity and life impact of anxiety symptoms.

Oh, probably not [asked if they thought adolescents would use Chilled Out], unless they're really desperate (clinical participant, had sought help from a school counsellor, aged 17).

Unfamiliar concept. In only one semi-structured interview and one focus group did discussion regarding engaging in computerised help-seeking occur spontaneously (i.e. without prompt from the interviewer). When the topic of CMHHS for anxiety was introduced by the facilitator (before Chilled Out was shown), many participants seemed unfamiliar with and/or confused by the concept. This theme was a variant theme in non-clinical participants and a typical theme in clinical participants. In most focus groups/interviews, when this topic was introduced, the participants naturally moved back to discussing more traditional methods of help-seeking (such as talking to the school counsellor, friends or family). Discussions suggested that help-seeking was conceptualised as 'involving others' (i.e. necessitating direct contact with other people). Although this was a variant theme amongst non-clinical participants, it was a general theme amongst clinical participants. Consequently many clinical and several non-clinical participants found the concept of CMMHS (which did not necessitate direct contact with other people) slightly confusing.

So this is like help online? (clinical participant, had sought help from a school counsellor, aged 17).

'Is it all on a web browser or do you have to download a program?' (non-clinical focus group member, aged 14)

Participants' initial responses to Chilled Out were almost exclusively moderate responses (i.e. there were no extremely positive responses and only two highly negative responses). The majority felt it was a potentially useful concept but appeared unfamiliar and

underwhelmed with the concept and, seemingly as a result, often seemed unsure about its potential use or helpfulness.

'it's alright' (clinical participant, had sought help from a school counsellor, aged 17).

Possibly, yeah…. I think ….yeah. I just don't like much on the internet with, with all this (clinical participant, aged 18, had sought help from a school counsellor and private local psychologist).

The 'unfamiliarity' of CMHHS was linked to discussions on both the 'safety' and 'effort' involved in CMHHS and so this theme is linked to both thematic networks. However, conversations around this theme tended to lead to discussions relating to effort. The two networks are inextricably linked due to the fact that any information gathering regarding CMHHS (i.e. become more familiar with CMHHS) and whether this approach is 'safe' would necessitate 'effort' and 'motivation'.

Adolescent Male Attitudes towards a Computerised Anxiety Treatment Program

The findings relating to computerised treatment program for anxiety disorder created one thematic network titled 'the need for human connection in computerised treatment'. The discussions relating to the Chilled Out program specifically, and computerised anxiety treatment programs generally, highlighted preconceptions of help-seeking 'involving others' (as mentioned above) and this experience being 'formal'.

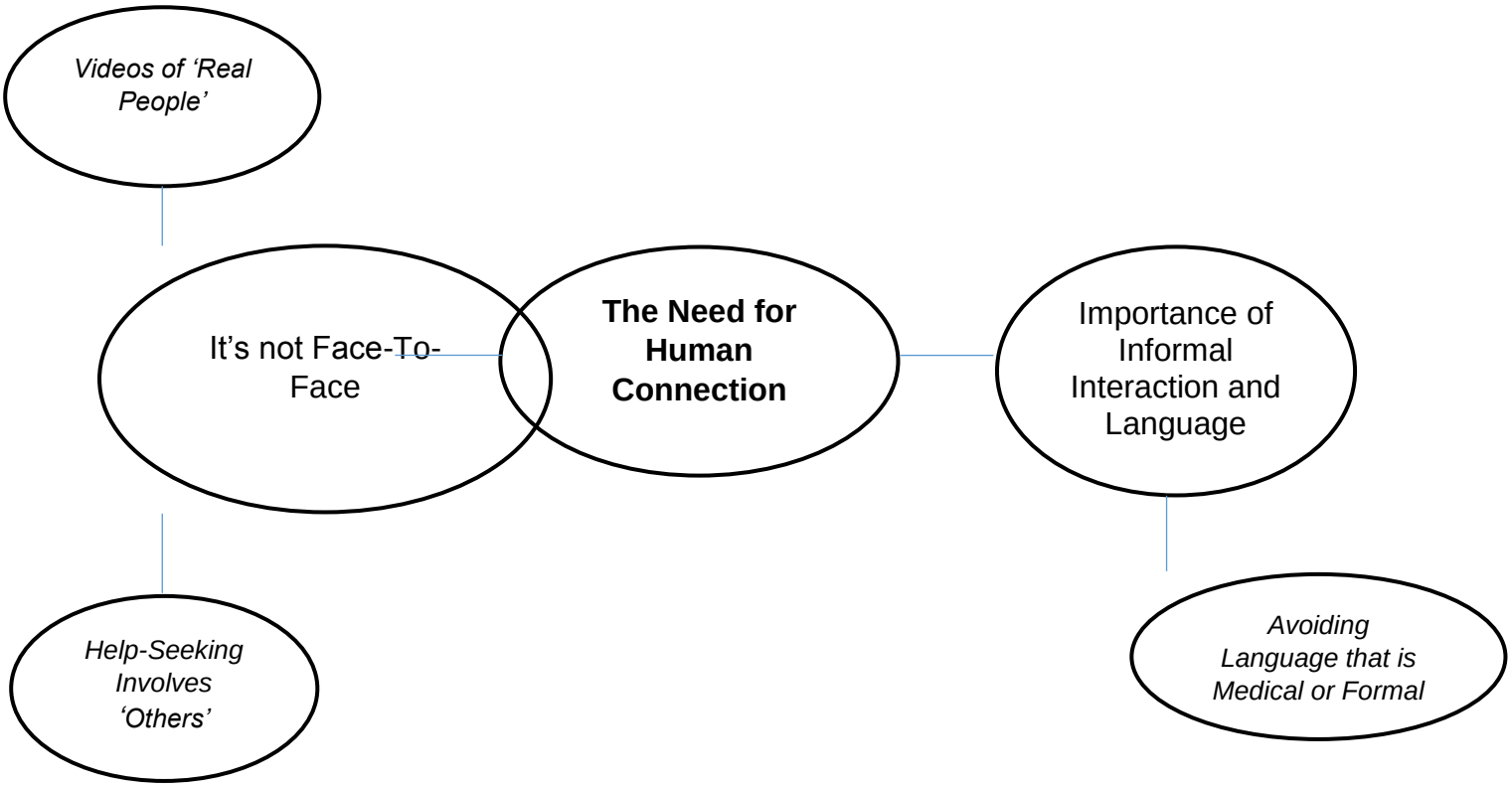

Figure 3. A thematic map of the global theme 'the need for human connection'

'It's not Face-To-Face'. The discussions around Chilled Out highlighted the strength of beliefs around help-seeking being conceptualised as involving other people (as mentioned above). Many participants' initial response to the Chilled Out program was to use the phrase 'it's not face-to-face'. This was a typical theme amongst the clinical participants but a variant theme amongst non-clinical participants. However, as discussions progressed, participants were divided on if this was an advantageous or prohibitive component to CMMHS. Again, despite identification of CMMHS as involving risk, many participants felt that the approach not being 'face-to-face' would make an adolescent male feel more comfortable, 'less judged' and less concerned about confidentiality in comparison to more traditional forms of help-seeking (i.e. seeing the school counsellor). Surprisingly, only one of the clinical participants and one of the non-clinical participants identified a preference for face-to-face over computerised help. Conversely several participants felt that a computerised approach,

although more desirable than a face-to-face meeting, would be experienced as impersonal. Interestingly participants did not report strong opinions regarding the inclusion/exclusion of an online buddy (i.e. indirect contact from a therapist; a method which may have potentially personalise the experience).

'adolescent males, we are drawn to the sort of Internet, the online approach to this sort of thing. The whole sort of concept of the Internet it's more impersonal and of course there are males rather than females don't want to be sort of more personal, more emotional about these sort of things. Being as blunt and indirect as possible is nice and the Internet provides the platform to do that' (clinical participant, had sought help from a school counsellor, aged 17).

Many participants felt that increased use of videos (rather than text) and the use of 'real' people (rather than actors, presenters or celebrities) in the videos would be helpful in encouraging adolescent males to use computerised anxiety treatments. This was a typical theme amongst both clinical and non-clinical participants. Participants felt that the addition of videos which feature adolescents who had successfully completed a computerised treatment program would be particularly helpful. From this perspective, help-seeking was seen as needing to involve others (albeit indirect human contact) and it needs to involve others where an adolescent feels they have a connection.

'There would definitely need to be some examples of people your own age…..leave the sort of professional speak the sort of thing you might hear from a counsellor or psychologist to the adults' (clinical participant, had sought help from a school counsellor, aged 17).

'That - because it-you-they can actually fake it [actors] and it wouldn't work…..I think it would work better if it was real people though' (non-clinical focus group member, aged 14).

Importance of informal interaction and language communication. A few participants commented on the need for computerised anxiety treatments to be experienced as highly informal in order to be appealing to adolescent males. This was a variant theme in non-clinical participants but a typical theme amongst clinical participants. According to these discussions, for an any form of mental health intervention to be acceptable to adolescent males, it needed to be non-clinical and non-labelling (i.e. replacing medical or diagnostic terms such as 'clinical anxiety' and 'treatment' with more informal terms such as 'a bit stressed' or 'support'). Formal processes were identified as permanent and not fitting with the fluid and changeable nature of help-seeking (discussed above) that participants identified with. Mental health disorders were conceptualised as 'bad' and likely to be stigmatized and so any formal processes associated with mental health added to the sense that help-seeking involved 'risk'. Comments relating to this theme referred to avoiding jargonistic, medical or formal language (i.e. use the term 'support' rather than 'treatment') and a preference for more informal methods of communication (i.e. Facebook chat, messenger or text as opposed to email) when communicating with the online buddy or other forum members.

'You watch it [a video] and at the end of it you finish it with, you know, it's got the story, you finish it with, you know, this is what's happened, this is what we've done for Jack, you know, send us a message. It can be that informal' (non-clinical focus group member, aged 17).

Table 1.

A summary of global and organising themes

Global and Organising Themes	Prevalence of Themes
Computerised Help-Seeking is Risky	
Risk of Broken Confidentiality/Anonymity	General Theme – Clinical Participants
	Typical Theme – Non-Clinical Participants
Lack of Control over CMHHS Decision Making	Variant Theme – Clinical Participants
	Typical Theme – Non-Clinical Participants
A 'Safer' First Step to Formal Help-Seeking	Variant Theme- Clinical Participants
	General Theme – Non-Clinical Participants
Computerised Help-Seeking involves 'Effort'	
Likelihood of CMHHS Determined By Ease of Access	General Theme – Clinical Participants
	Typical Theme – Non Clinical Participants
Motivation/Effort Invested in CMMHS Moderated by Symptom Severity	Variant Theme – Clinical Participants
	General Theme – Non Clinical Participants
Unfamiliar Concept That Involves Research	Typical Theme – Clinical Participants
	Variant Theme – Non Clinical Participants
The Need for Human Connection	
"It's not face-to-face"	Typical Theme – Clinical Participants
	Variant Theme – Non Clinical Participants
Importance of Informal Interaction and Language Communication	Typical Theme – Clinical Participants
	Variant Theme – Non Clinical Participants

Discussion

Despite the recent expansion of computerised treatments for youth clinical anxiety, the attitudes of adolescent males towards them (a population hoped to benefit from these forms of interventions) is relatively unexplored. The present study sought to investigate the attitudes of adolescent males on the topic of computerised mental health support and specifically a computerised anxiety disorder treatment program. The above series of thematic networks represent an exploration of adolescent males' conceptualisations of CMHHS. The

major global themes related to computerised mental health help-seeking involving 'risk' and 'effort'. Discussions around computerised anxiety treatments specifically connected to a global theme of 'the need for human connection'. Yet despite these seemingly negative or neutral themes, participants consistently reported that computerised help-seeking would be a 'safer' and more preferable option to initiate help-seeking for anxiety than other forms of help-seeking options. This finding is consistent with existing literature that has found computerised options of mental health support to be more accessible and/or appealing to young adults than traditional face-to-face services (Oh et al., 2009).

The results of the current study are consistent with the findings of the Ellis et al. (2015). In the investigation by Ellis and colleagues, male participants liked the use of videos with "everyday role models" (relating to a need for human connection) and referred to areas of the website being "too text-based", "time-consuming" and "overwhelming" (effort). Participants commented on being unsure if they would actually use it at home (effort) unless they had very serious anxiety (motivation/effort being moderated by symptom severity). The current study also identified themes relating to concern about confidentiality and potential stigma (CMHHS being risky) which are well established barriers to help-seeking in young adults (Gulliver et al., 2010). This finding suggests that, in adolescent males at least, computerised help-seeking is subject to similar barriers (such as stigma and concern about confidentiality) faced by other forms of help-seeking.

Overall, participants tended to have a positive response to the concept of computerised mental health help-seeking but this was tempered by significant concerns about the risk, effort and experience of this form of help-seeking. One explanation for participants' reserved response to computerised help-seeking may be unfamiliarity with this specific form of help-seeking (a theme identified in the data). This finding may suggest that adolescent males do not have sufficient exposure to computerised mental health help-seeking options

and, therefore, in order to use such an approach, adolescents believe they would have to invest significant effort. Participants were very positive about the concept being used as a preliminary step to help-seeking (to encourage/facilitate more formal help if required) when exposure was facilitated in a non-effortful manner. Further research is needed to identify whether greater exposure to computerised anxiety treatment programs (and information on the potential benefits such as clinical efficacy) through school health education or social media would increase adolescent male help-seeking behaviour (both computerised and non-computerised).

As found by previous studies of computerised help-seeking in young adults (Orlowski et al., 2016), participants indicated an expectation around and/or a desire for personal or human connection in the context of computerised help-seeking. Interestingly participants did not appear to have strong opinions regarding the inclusion/exclusion of an online buddy. Online buddies are the most common utilised method in evidenced based computerised treatments to offer support and a personal connection during the experience. Although many participants were divided on whether the direct involvement of other people would be helpful (such as an online therapist or parent), conversations suggested that adolescents would like CMMHS to feel as if they have a connection with others (even if this connection is indirect such as through textual information on and/or videos of anxiety sufferers or the online therapist). Ellis, Campbell, Sethi and O'Dea (2011) suggest that the large amounts of reading necessitated by current computerised mental health interventions, in the absence of interaction with others, may compromise program engagement in young adults. More research is needed to investigate how computerised mental health help-seeking interventions can give the illusion of a connection to other individuals. Investigations are also needed to establish if this sense of 'human connection' increases adolescent male help-seeking behaviour in regards to computerised treatment programs.

The inclusion of peer-to-peer online support as part of computerised mental health treatment programs may be another potential avenue to increasing this sense of 'human connection'. Ellis et al. (2011) investigated if participation in an online support group (MoodGarden) resulted in increased perceived social support compared to either an online CBT program (MoodGYM) or the control condition in university students with anxiety and/or depression. Participation in the online support group was found to have a significant positive impact on symptoms of anxiety and perception of online social support. Additionally, participants indicated that they enjoyed using the online support group whereas the majority of participants reported that they did not enjoy using the online CBT program. The topic of online peer-to-peer support (such as an online chat room) was not a prevalent theme in the current study but participants indicated that informal communication (i.e. using Facebook chat or messenger) through an online forum might be helpful if safety from stigma could be assured . Consequently the inclusion of online peer-to-peer support may have the potential to improve attitudes towards help-seeking and rates of help-seeking behaviour in regards to computerised mental health treatment.

Although the study results are specific to the Chilled Out Anxiety program, several findings are likely to be relevant to other CMHHS programs used by adolescent males. Firstly, it seems that all computerised mental health programs may experience an increase in utilisation as a result of greater exposure to such programs outside of a mental health context. This exposure could occur in contexts such as through schools, social media, television or awareness events. Secondly, all CMHHS programs aimed at anxious adolescent males are likely to benefit from clear and concrete assurances of how confidentiality will be maintained and for this information to be communicated as soon as the adolescent becomes exposed to the program. This is particularly important as anxiety sufferers are often highly vigilant towards 'danger' such as potential stigma or bullying (Westbrook, Kennerley, & Kirk, 2007).

Where CMHHS programs are addressing anxiety and depression (commonly co-morbid conditions), it may be particularly important to develop programs which young people find 'low effort' (for example using short videos instead of text where possible). Low energy and poor concentration are common features of depression (Westbrook et al., 2007) .

There were a number of discrepancies between common themes identified in clinical and non-clinical interviews that are worth noting. For example, the 'importance of informal interaction and language communication' organising theme was far more prevalent in the interviews with clinical participants (typical theme) than the non-clinical participants (variant theme). This suggests that individuals who have sought help for mental health problems may feel strongly (seemingly more so than individuals who have not experienced help-seeking) that language used in computerised treatment programs for anxiety is informal and avoids jargonistic or medicalised terms. This may be the result of personal experience accessing current mental health support interventions for young adults. Another example is the organising theme 'motivation/effort invested in CMMHS moderated by symptom severity', which was found to be a general theme in non-clinical participant interviews but a variant theme in clinical participant interviews. The majority of non-clinical participants appeared to hold the belief that any form of mental health intervention (even CMMHS which was considered by participants as a good first step) would be avoided unless anxiety symptoms were severe. Clinical participants were more likely to feel that mental health support could be accessed at a much earlier point of emotional distress. This discrepancy may represent a difference in mental health literacy between the clinical and non-clinical participants (i.e. non-clinical participants believing that it is necessary to wait until psychological distress becomes severe before it is appropriate to access mental health support). Non-clinical participants may also adopt this belief in order to maintain a distance (i.e. creating a sense of 'us and them') from mental health sufferers and issues due to a fear of being stigmatized.

This study is one of the first to investigate the attitudes of adolescent males on the topic of computerised help-seeking for anxiety. However, a number of limitations should be acknowledged. Firstly, the study contained a small sample of 29 participants. Although data saturation was achieved and a small sample size is considered appropriate for a qualitative investigation (DePaulo, 2000), it remains to be seen whether additional themes would have emerged from a larger more diverse sample. Secondly, a qualitative study examining the needs and views of adolescents regarding the development of online support for mental health problems in the Netherlands found that different levels of participant education (as a result of being in different schools) resulted in different preferences on interventions for online information and help (Havas et al., 2011). Most of the non-clinical participants (62%) in the current study came from the same school and would be expected to have similar levels of education. As a result, many of the study findings may only be generalisable to adolescent males from private schools. Thirdly, the generalisability of the findings specifically relating to the Chilled Out program may be limited by several factors. Participants were not given an opportunity to fully explore the Chilled Out program. Consequently, themes that were extracted from the study can only be applied to initial interpretation/thoughts of engagement with Chilled Out rather than factors associated with longer term program engagement. The non-clinical participants were also exposed to Chilled Out as a group and consequently responses may have been influenced by social norms. Lastly, although it was stressed to participants that the researcher was not involved in the development of the Chilled Out program, participants may not have expressed negative views towards the program for fear of offending the interviewer. However, as many participants did provide negative feedback on the program, this is not believed to be a significant limitation of the findings.

Conclusion

This investigation suggests that computerised help-seeking may be a more accessible form of help-seeking for adolescent males with anxiety than traditional formal sources. However, a number of barriers may need to be addressed in order for this form of treatment to be utilised widely by this population. The results suggest that adolescent males want the experience to feel familiar, to involve little/no effort, to indirectly involve others (whilst having full control over the actual people involved) and to be fully confident of the confidential/anonymous nature of the program. The findings also suggest that an increased awareness of computerised mental health help-seeking, facilitated through schools, parents or social media, may have the potential to increase formal help-seeking in this population.

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Chapter 6

The sixth chapter presents the paper “The Association between Parental Behaviour and Mental Health Help-Seeking in Adolescent Males”. Chapters one, two, four and five refer to a common preference for reliance in managing emotional distress amongst adolescent males. When adolescent males do seek help for mental health problems, this is often from their parents. Parents of adolescents are in a unique position to encourage adolescent males who would prefer to self-manage symptoms of emotional distress to get other forms of mental health support if needed. Additionally, levels of mental health literacy (as explored in chapters two, three and five) and mental health stigma (as explored in chapters two, four and five) are likely to be influenced by parents and their behavior towards emotional difficulties. The study described in this chapter investigates if controlling parenting behaviour influences mental health help-seeking in adolescent males.

The Association between Parental Behaviour and Mental Health Help-Seeking in Adolescent Males

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Abstract

Purpose: Research conducted in a number of countries suggest that adolescent males have some of the lowest rates of mental health service utilisation yet understanding of mental health help-seeking in this population is limited. Controlling parenting has been found to be associated with an increased risk of anxiety disorders and reduced help-seeking behaviour in young adults (aged 16-24 years-old). The present study aimed to identify whether over-controlling and autonomy granting parenting behaviours predicted mental health help-seeking intentions, attitudes and/or behaviour in a community sample of adolescent males, whilst controlling for symptoms of anxiety. The study also aimed to investigate if this relationship was mediated by adolescents' self-efficacy. **Methods:** 172 adolescent males (aged 12-18 years) participated in the study. Participants completed online questionnaires measuring parenting behaviours, symptoms of clinical anxiety and mental health help-seeking intentions and attitudes. **Results:** Increased maternal overcontrol predicted less favourable attitudes towards help-seeking from formal help sources whereas increased maternal autonomy granting predicted increased intentions to seek help from family members. Self-efficacy was not found to mediate the relationship between controlling parenting behaviours and help-seeking. **Conclusions:** The study findings suggest that controlling parental behaviours (particularly from mothers) are associated with mental health help-seeking in adolescent males. Significant increases in service utilisation amongst adolescent males could be achieved by raising awareness of the importance of autonomy granting in regards to health amongst parents.

Keywords: Help-Seeking, Parenting, Adolescents, Males, Anxiety

Introduction

Investigations of adolescent mental health help-seeking is considered to be a much needed area of research due to the high rates of psychopathology but low service utilisation within this age group. Mental health help-seeking refers to communicating with other people to obtain help in response to a problem or distressing experience (Rickwood, Deane, Wilson, & Ciarrochi, 2005). Help-seeking behaviour can be from a formal (i.e. mental health professional, general practitioner) or informal sources of help (i.e. friends, family). Help-seeking from online sources (i.e. chatrooms) is also being increasingly popular amongst young adults (Rickwood et al., 2005). Research into help-seeking in young adults has typically investigated attitudes towards mental health help-seeking, intentions towards help-seeking and/or help-seeking behaviour. Identified barriers to youth help-seeking include poor mental health literacy, perceived stigma and a preference for self-reliance (Gulliver, Griffiths, & Christensen, 2010). Gender differences in mental health literacy and willingness to seek help for a mental health condition are well established in young adults (Burns & Rapee, 2006; Chandra & Minkovitz, 2006; Cotton, Wright, Harris, Jorm, & McGorry, 2006). Adolescent males, in particular, often have lower rates of mental health service utilisation as compared to other populations (Merikangas et al., 2011; Slade et al., 2009). However, help-seeking research that is specific to adolescent males is limited.

Parents have been identified as the primary source of support for adolescents experiencing emotional difficulties (Rickwood & Braithwaite, 1994; Rickwood, Deane, & Wilson, 2007; Yap, Reavley, & Jorm, 2013). Adolescent males tend to turn to a family member before approaching other sources of help (Chandra & Minkovitz, 2006). As a consequence, parents are hypothesised to be highly influential in a young person's help-seeking for mental health problems (Logan & King, 2001). In a recent systematic review Ryan, Jorm, Tombourou and Lubman (2015) found parental burden, parental problem

perception and parental perception of need to be associated with youth service use. Parental disapproval of help-seeking and parental beliefs about the helpfulness of psychological interventions have also been found to be associated with young adults' attitudes or intentions to seek psychological help (Chandra & Minkovitz, 2006; Oh, Jorm, & Wright, 2009). As parents may be in a unique position to increase mental health service utilisation in adolescent males, a better understanding of the role of parents in youth help-seeking is required.

Two aspects of parenting behaviour - autonomy support and controlling parenting- have been hypothesised to be important in predicting youth service use. Parental overcontrol is excessive parental regulation of children's activities and routines (McLeod, Wood, & Weisz, 2007). Parents who are over-controlling are thought to reduce a young persons' sense of self-efficacy whilst contributing to an increase in their overall levels of anxiety (Hudson & Rapee 2001; Rapee, 1997). In contrast, autonomy granting parenting is described as acknowledging a child's feelings and providing opportunities for initiative taking (Joussemet, Landry, & Koestner, 2008; Koestner, Ryan, Bernieri, & Holt, 1984). Parents who are autonomy granting are thought to promote independence and autonomous decision making in adolescents (Hauser Kunz & Grych, 2013). Although controlling parenting is hypothesised to interfere with the development of autonomy, the absence of psychological control does not imply the presence of autonomy granting (Hauser Kunz et al., 2013).

Over-controlling parenting behavior is hypothesised to reduce help-seeking in children and adolescents whilst autonomy granting parenting behaviour is believed to promote it. Ryan, Toumbourou and Jorm (2014) found parental overcontrol to be associated with reduced likelihood of adolescent service use in Australian adolescents aged 12-14 years. However, the investigation by Ryan et al., (2014) included only one help-seeking outcome variable (help-seeking behaviour) and only investigated younger adolescents, limiting the inferences that can be made in regards to older adolescents. The study also did not include a

specific measure of parental autonomy granting. Jongerden, Simon, Bodden, Dirksen and Bogels (2015) investigated the odds of a referral for an anxious child in a sample of clinical and non-clinical children (aged 8-13 years) in the Netherlands. Consistent with the findings from Ryan et al. (2014), Jongerden and colleagues reported that child reported parental overprotection decreased the odds of referral of an anxious child. Additionally, child reported parental autonomy granting was found to increase the odds of referral. Although these studies suggest that parental control and autonomy granting are associated with reduced help-seeking in children and young adolescents, this has yet to be empirically established in older adolescent males.

A factor which may be particularly relevant to help-seeking in adolescence is self-efficacy. Bandura (1982) defined self-efficacy as "concerned with judgments of how well one can execute courses of action required to deal with prospective situations" (p. 122). When parents provide children with opportunities to experience control in age-appropriate contexts (i.e. provide autonomy), this is theorised to promote the development of a child or adolescents' sense of self-efficacy (Bush, Peterson, Cobas, & Supple, 2002; Bush, Supple, & Lash, 2004). Unlike children, adolescents are provided with help options (such as school counsellors) which they can easily access without the involvement of their parents. Consequently, adolescents with higher self-efficacy may more readily seek help for emotional distress independently. Greater perceived self-efficacy has been associated with more positive help-seeking attitudes in high school students (Garland & Zigler, 1994).

The present study aimed to examine whether child-reported parenting behaviour (associated with control) predicted help-seeking intentions, attitudes and/or behaviour for mental health problems among adolescent males. It was hypothesised that controlling parenting behaviours (high parental overcontrol, low autonomy granting) would be negatively associated with participant help-seeking attitudes and intentions (i.e. participants

would report more negative attitudes towards or lower rates of intending to seek help if they were to experience emotional difficulties). It was hypothesised that parenting behaviours would predict help-seeking behaviour after controlling for symptoms of anxiety. As controlling parenting behaviours have been associated with an increased risk of childhood anxiety (McLeod et al., 2007), anxiety was controlled for as a potential confound. Self-efficacy was hypothesised to mediate the relationship between parenting behaviour and continuous help-seeking (attitudes and intentions). Finally, it was predicted that less controlling parenting (i.e. increased autonomy granting/low parental overcontrol) would be associated with increased self-efficacy which, in turn, would be associated with more positive attitudes and higher intentions towards help-seeking.

Method

Participants

The data were collected as part of a larger study investigating mental health service utilisation in adolescent males (Hudson, Brockveld, Byrow, Stow, & Clark, 2016). Only two of the six schools involved were invited to participate in the current study as these schools had opted for parent and child active consent (as opposed to child only consent and opt-out parent consent). One hundred and seventy two adolescent males, aged 12-18 (M = 14.62, SD = 1.13) participated in the current investigation.

The schools were based in Sydney and Canberra and were selected based on being independent and male pupil only. The schools (of Catholic and Uniting Church orientation) have an Index of Community Socio-Educational Advantage (ICSEA; a scale of socioeducational advantage computed for each Australian school) of 1175 and 1097 (Australian Curriculum, Assessment and Reporting Authority, 2015). These ICSEA scores indicate that the schools involved in the study would be considered educationally advantaged.

Demographics. The largest portion (30%) of the sample identified their mother's ethnicity as Oceanic (e.g. Australian, Aboriginal, Torres Strait Islander, and New Zealander). In general, parents were professionally employed, with 23% of mothers and 39% of fathers employed as a 'manager' or 'professional'.

Procedure

This study was approved by the Macquarie University Human Ethics Committee and by the diocese ethics board for the Catholic schools. The school recruitment process involved simultaneously contacting the school counsellor and head teacher of the school initially through letter and/or email and then by phone. Approximately 2400 students' families from these schools were sent a letter invitation to participate in the trial. In order to participate in the study, a signed consent form from the adolescent and a parent was required ahead of the testing. Consent to participate was obtained from 584 (24%) parents and students. Adolescents completed a series of online questionnaires during school time. Participants were given a verbal reminder that they could withdraw from the study at any time prior to the commencement of the school screenings.

Measures

Participants were presented with an online, forced item response battery of self-report questionnaires.

Help seeking behaviour. Formal help-seeking behaviour was measured by the question 'Have you or your parents seen any mental health professionals to get help with your mental health (for when you felt fearful, anxious, stressed out, down, depressed, angry etc)?' (yes/no). The question was extracted from the General Help Seeking Questionnaire (GHSQ; details below) and amended for the present study. It has been utilised as an independent measure of behaviour in research investigating help-seeking (Gulliver, Griffiths, Mackinnon, Batterham, & Stanimirovic, 2015; Rickwood, Deane, & Wilson, 2007).

Help seeking attitudes. Participants' general attitudinal orientation toward seeking help from formal sources was measured using the short version (10 items) of the Attitudes Towards Seeking Professional Help-Seeking Scale (ATSPHS; Fischer & Farina, 1995). The ATSPHS involves responding to statements regarding seeking help on a four-point Likert scale (0 = disagree', 1 = partly disagree, 2 = partly agree and 3 = agree) combined to form a composite score, with higher scores indicating more positive attitudes towards seeking professional help. The revised and original versions of the scale are correlated at .87 (Fischer & Farina, 1995). Good internal consistency (r = .84) and one-month test–retest (r = .80) have been reported for college student samples using the shortened version (Fischer & Farina, 1995). A Cronbach alpha of .76 was found in the current study for the formal attitudes items. Two questions were added to the battery in order to elicit participants' attitudes towards informal and online sources of help: (1) 'I wouldn't talk to friends or family when I felt down or upset' and; (2) 'I don't think going online to get information about anxiety or depression would help if I had these problems'.

Help seeking intentions. The current study utilised the non-suicidal subscale of the adolescent version of General Help Seeking Questionnaire to measure participant help-seeking intentions (GHSQ; Wilson, Deane, Ciarrochi, & Rickwood, 2007). Participants rated their likelihood of seeking help for a personal or emotional problem from 14 sources of help on a seven-point scale (ranging from 1 = extremely unlikely to 7 = extremely likely). The results of an Exploratory Factor Analysis (EFA) on GHSQ data in a study by Clark, Hudson and Rapee (2016) indicated that a four factor structure to be the most optimal in understanding the responses to the GHFQ. Specifically, this structure involved including a greater number of help sources (see below) in the category of 'formal' help-seeking and 'informal' help-seeking analyses be divided into 'family' and 'peer' sources. Results were combined into composite scores for intentions to seek help from a 'formal source' (general

practitioner, help-line, mental health professional, teacher, youth worker, religious figure), a 'family source' (mother, father, other relative), 'a peer source' (friend, boyfriend/girlfriend) and an 'online source' (internet chat room, information from a website). The GHSQ sub-scale has been demonstrated to have satisfactory reliability (Cronbach's alpha = .70, test-retest reliability assessed over a three-week period = .86; Wilson et al., 2007). The internal consistencies (α) of the subscales in this study were: α = .89 (formal), α = .90 (family), α = .57 (peer) and α = .66 (online).

Parenting Rearing Behaviours. Parenting behaviours were measured using the child report mother and father versions of the Rearing Behaviour Questionnaire (RBQ; Bögels & van Melick, 2004). The RBQ measures the four main sub-constructs of parenting: acceptance, rejection, overcontrol, and autonomy granting but only the latter two were included in the current study. The 33-item questionnaire asks respondents to rate statements regarding parenting behaviour on a four-point Likert scale (1 = not true at all to 4 = very true). The RBQ has good internal consistency (α = .71 to .92) when children report about their parents (Bögels & van Melick, 2004; Verhoeven, Bögels, & van der Bruggen, 2012). The internal consistencies (α) of the subscales in this study were good: RBQ-mother α = .87 (autonomy granting), α = .79 (overprotection), α = .81 (acceptance) and α = .87 (rejection); RBQ- father α = .90 (autonomy granting), α = .86 (overprotection), α = .84 (acceptance) and α = .90 (rejection).

Anxiety Symptoms. Participants completed the 46-item Spence Children's Anxiety Scale – Child Version (SCAS-C; Spence, Barrett, & Turner, 2003) measuring specific forms and overall intensity of anxiety. The SCAS involves respondent reporting their experience of anxiety symptoms on a four-point Likert scale (1 = never, 2 = sometimes, 3 = often and 4 = always). Responses were summed to a composite score; higher scores indicated higher levels of anxiety. The scale has been found to be psychometrically sound with good internal

consistency (α = .92 child-report version) and convergent and divergent validity (Nauta et al., 2004; Spence, 1998). In this study, internal consistency was excellent, α = .93.

Self-Efficacy. The General Self-Efficacy Scale (GSE; Schwarzer & Jerusaleum, 2010) was used to measure perceived self-efficacy. Responses are made on a four-point Likert scale (1 = not at all true, 2 = hardly true, 3 = moderately true and 4 = exactly true) on 10 items to form a final composite score (higher score indicating higher perceived self-efficacy). The GSE has demonstrated good internal consistency (Cronbach's alphas ranging from .76 to .90) and criterion-related validity has been documented in numerous correlation studies (Schwarzer & Jerusalem, 2010). In this study, internal consistency was excellent, α = .94.

Data Preparation and Analyses

The Shapiro–Francia test indicated that the study variables were not normally distributed and transformations (sqrt, Lg10 and reciprocal) were unsuccessful at improving the normality of the dataset. Consequently, nonparametric tests were used (Spearmans correlations) to investigate bivariate relationships. Where correlations indicated that there was an association between parenting behaviours and help-seeking items, these items were entered into a series of regressions. Mann-Whitney *U* Tests were conducted to investigate the differences between help-seeking and non-help-seeking participants on measures of parenting behaviour, help-seeking and self-efficacy. Four hierarchical regression analyses were conducted to investigate the impact of parental behaviours on help-seeking attitudes and intentions whilst controlling for anxiety. Binary logistic regression was used to evaluate the relationship between parental behaviours and service use whilst controlling for anxiety. Finally, an indirect effect analysis was conducted using model 4 in Hayes (2013) PROCESS macro (version 2.13.2) in SPSS to examine if self-efficacy mediated the relationship between

parenting behaviour and help-seeking. Univariate outliers were removed for all regression and mediation analyses and bootstrapping applied.

Results

Preliminary Analysis

Twenty-five participants (15%) reported seeking help (or their parents seeking help on their behalf) from a mental health professional. Participants who attended sessions with a psychologist, psychiatrist or school counsellor described receiving help for anxiety (31%), depression (19%), co-morbid anxiety and depression (25%) and other (25%) which included bullying and family issues.

One hundred and seventy two participants completed the GHSQ, the ATSPHS (M = 17.22, SD = 9.15) and additional questions on attitudes towards informal (M = 2.03, SD = 0.98) and online help-seeking (M = 1.63, SD = 1.09). GHSQ subscale scores revealed that participants were most willing to seek help from family (M = 4.70, SD = 1.87) followed by peers (M = 4.31, SD = 1.70), formal (M = 2.87, SD = 1.52) and online (M = 2.24, SD = 1.42) sources of help. ATSPHS items measuring attitudes towards formal help-seeking were positively associated with participant's intentions to seek help from family and formal sources. Participant attitudes towards informal help-seeking positively correlated with intentions to seek help from peers, family and formal sources. Attitudes towards online help-seeking correlated with intentions to seek help from an online source. No differences were found between help-seeking and non-help-seeking participants on measures of help-seeking attitude or intention, with the exception of intention to seek help from a family member. Participants in the non-help-seeking group reported significantly higher intentions to seek help from a family member if they were to experience symptoms of emotional distress (U = 1093.00, z = -3.25 [corrected for ties], p = .001, two tailed).

Self-efficacy. Higher self-efficacy scores were associated with higher scores of maternal and paternal autonomy granting and a more positive attitude towards formal sources of help. Higher scores for paternal overcontrol and anxiety were associated with lower self-efficacy scores (see Table 1). Non-help-seeking participants had significantly higher self-esteem scores than help-seeking participants (U = 598.00, z = -3.59 [corrected for ties], p < .001,).

Parenting Behaviour and Help-Seeking Attitudes and Intentions

Help-seeking attitudes. Higher scores for maternal overcontrol were associated with adolescents having less favourable attitudes towards formal and informal help-seeking whereas a positive association was found between maternal autonomy granting and attitudes towards formal and informal help-seeking (see Table 1). Parental behaviours were not associated with attitudes towards online help-seeking.

Help-seeking intentions. A positive association was found between maternal autonomy granting and intention to seek help from family members. Higher paternal overcontrol was associated with greater intention to seek help from formal sources. Parental behaviours were not associated with intentions to seek help from peers or online.

Table 1.

Correlations between parenting variables, help-seeking intentions and attitudes

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1.MAG		-.28**	.54**	-.23**	.15*	.16*	-.00	.03	.28**	.08	.08	.27**
2. MOC			-.23**	.57**	-.25**	-.18*	-.09	.01	-.05	.03	.04	-.05
3. PAG				-.34**	.12	.13	-.10	.01	.10	-.05	-.08	.49**
4. POC					-.12	-.11	.11	-.03	.05	.16*	.06	-.17*
Attitudes												
5. Formal						.26**	.07	.13	.37**	.37**	.14	.16*
6. Informal							.33**	.22**	.27**	.18*	.03	.07
7. Online								.05	.01	.04	.25**	-.14
Intentions												
8. Peer									.26**	.17*	.12	.09
9. Family										.54**	.09	.08
10. Formal											.32**	.04
11. Online												-.08
12. Self-Eff												

Note. Between-group difference significant at: * $p < .001$, ** $p < .05$, *** $p < .01$. MAG = Maternal Autonomy Granting; PAG = Paternal Autonomy Granting; MOC = Maternal Overcontrol; POC = Paternal Overcontrol; Self-Eff = Self-Efficacy.

Parenting and help-seeking attitude or intention variables which were found to be significantly associated during the correlational analysis were entered into four multiple hierarchical regressions. In all of the regression analyses anxiety (SCAS scores) was entered as step 1. Anxiety was found to be a non-significant predictor of help-seeking in all regressions with the exception of the regression evaluating below maternal overcontrol and autonomy granting predicting attitudes towards informal help-seeking, where anxiety accounted for 4% of the variance, adjusted $R^2 = .04$, $F(1, 168) = 7.54$, $p < .05$.

Maternal overcontrol and maternal autonomy granting predicting attitudes towards informal help-seeking. In this regression, maternal overcontrol and maternal

autonomy granting scores were added in step 2 and although the model remained significant R^2 = .08, F(3,166) = 4.46, p < .01, neither parenting variable was a significant predictor.

Maternal overcontrol and maternal autonomy granting predicting attitudes towards formal help-seeking. Maternal overcontrol and maternal autonomy granting scores accounted for an additional 6% (total of 6%) of the variance in attitudes (towards formal help-seeking) scores, adjusted R^2 = .05, F(3, 166) = 3.69, p < .05, a small effect size (f^2 = .08). Maternal overcontrol was the only significant predictor in the regression accounting for 5% of the variance.

Paternal overcontrol predicting intentions towards help-seeking from formal sources. Paternal overcontrol was not found to predict intentions towards help-seeking from formal sources, adjusted R^2 = .01, F(2, 148) = 1.07, p > .05.

Maternal autonomy granting predicting intentions to seek help from family sources. Maternal autonomy granting was found to predict intentions to seek help from family sources adjusted R^2 = .08, F(2, 167) = 8.16, p < .01 with the regression model accounting for 9% of the variance or a small effect size (f^2 = .10).

Parenting Behaviour and Help-Seeking Behaviour

Non-help-seeking participants reported higher scores for maternal autonomy granting (Mean Rank = 89.56, n = 147) than help-seeking participants (Mean Rank = 68.52, n = 25) U = 1388.00, z = -1.96 (corrected for ties), p = .05. Non-help-seeking participants also reported higher scores on paternal autonomy granting (Mean Rank = 79.91, n = 133) than help-seeking participants (Mean Rank = 57.65, n = 20) U = 943.00, z = -2.106 (corrected for ties), p = .04.

A bootstrapped binary logistic regression with hierarchical entry of variables was used to evaluate the relationship between maternal and paternal autonomy granting and service use, whilst controlling for anxiety. Although the model was significant x^2 (3, 151) =

17.23, $p < .05$, both maternal and paternal autonomy granting were non-significant predictors of service use.

Parenting Behaviours and Help-Seeking Mediated by Self-Efficacy

Two mediation analyses were conducted. Self-efficacy was examined as a mediator between parenting and help-seeking variables identified as associated as part of the earlier bivariate and regression analyses. First, maternal overcontrol and attitudes towards formal help-seeking was examined in a mediation analyses. Second, maternal autonomy granting and intentions to seek help from family members was examined in a mediation analyses. Self-efficacy was not found to mediate the relationship between maternal overcontrol and attitudes towards formal help-seeking 95% CI [-.06, .02]. Maternal overcontrol was found to predict formal attitudes toward help-seeking ($p = .02$) but self-efficacy did not predict attitudes towards formal help-seeking ($p = .40$) after controlling for maternal overcontrol. Secondly, self-efficacy did not mediate the relationship between maternal autonomy granting and intentions to seek help from family members 95% CI [-.06, .05]. Intentions to seek help from family members were significantly predicted by maternal autonomy granting ($p < .01$) but not self-efficacy ($p = .99$).

Discussion

The present study examined the associations between parenting behaviours and help-seeking in male adolescents and whether these relationships altered as a result of the adolescents' level of self-efficacy. As hypothesised, less controlling parenting behaviours (i.e. low levels of overcontrol and high levels of autonomy granting) were found to predict more favourable help-seeking attitudes and intentions in the adolescents. The findings support previous research (Jongerden et al., 2015; Ryan et al., 2014) that have found that controlling parenting behaviours reduce the likelihood of youth help-seeking. The study findings suggest that maternal parenting behaviours may be particularly important in

adolescent male mental health help-seeking. After controlling for anxiety, increased maternal overcontrol was found to predict less favourable attitudes towards formal sources of help and increased maternal autonomy granting predicted higher intentions to seek help from family sources.

As found in other studies (Bush et al., 2002; Bush et al., 2004), self-efficacy was found to be associated with parenting behaviours. Greater maternal and paternal autonomy granting was associated with more positive attitudes towards formal help and paternal overcontrol was associated with lower self-efficacy. Also, consistent with the findings of Garland and Zigler (1994), self-efficacy was found to have a positive association with formal help-seeking attitudes. However, self-efficacy was not found to be related to attitudes towards formal help-seeking after controlling for maternal overcontrol. Additionally self-efficacy did not mediate the relationship between forms of controlling parenting and help-seeking attitudes and intentions. It may be hypothesised that adolescent males with less controlling parenting and higher self-efficacy feel more confident at managing their own problems/distress rather than being more inclined towards help-seeking. A larger sample is required to explore a potential interaction effect between self-efficacy and help-seeking attitudes that may mediate the relationship between parenting and help-seeking behaviour in adolescents.

The study found that participants were most willing to seek help for personal emotional problems from family members. Peers were the second most popular choice of help source followed by formal and, finally, online sources of help. These findings fit with existing research. Young adults (aged 16-24 years) often report a preference for informal versus formal sources of help and males have been found to prefer seeking help from family members over peers (Rickwood, Deane, Wilson, & Ciarrochi, 2005). The exception to current research is the presence of online help-seeking which is a relatively newly defined

area of help-seeking. Researchers are still investigating young adults' preferences relating to online help-seeking in comparison to other forms of help-seeking.

The above findings imply that adolescents experiencing positive parenting would have more positive attitudes towards professional help-seeking and represent a larger proportion of adolescents in mental health services. However, the help-seeking participants in the current study did not fit this pattern. In fact, participants in the help-seeking group had significantly lower scores for maternal autonomy granting and paternal autonomy granting than the non-help-seeking group. These results suggest that adolescents who enter mental health services may not necessarily have positive beliefs about help-seeking and, in this case, the process is facilitated by other factors such as controlling parenting behaviours. The latter may have important implications in regards to the adolescent's engagement/success in treatment. However, it should be noted that maternal autonomy granting and paternal autonomy granting parenting behaviours did not significantly predict help-seeking behaviour after controlling for anxiety. The participants who had engaged in formal help-seeking in the past reported higher rates of anxiety, a clinical feature associated with parental overcontrol. Consequently, it could be suggested that these participants are predisposed to needing mental health services. The study also contained a small sample of help-seeking participants (n = 25). Future extensions of this research should therefore include a larger sample of help-seeking participants and control for the impact of anxiety symptomology.

As highlighted by the discussion above, help-seeking behaviours were not found to be associated with participant intentions and attitudes towards formal help-seeking. Although participant scores for help-seeking attitudes and intentions were highly correlated, the help-seeking group did not have significantly more favourable attitudes or higher rates of intention towards formal help-seeking than the non-help-seeking group. In fact the groups did not differ at all in regards to attitude and intention subscale scores with the exception of intention

to seek help from a family member, where non-help-seeking participants reported significantly higher scores. At present, research suggests that the relationship between stated help-seeking intentions and future help-seeking behaviour is variable (Rickwood et al., 2005). The findings of the present study further highlights that the relationship between help-seeking attitudes, intentions and behaviour in adolescents is yet to be established.

Strengths and Limitations

This study is one of the first to investigate the relationship between parenting and help-seeking in adolescent males. A strength of the study is that it did not utilise a retrospective method (as identified as a common limitation in parenting research; McLeod, 2007). However, a number of limitations of the study should be acknowledged. The study sample size was modest and the absence of a mediation effect may be the result of the investigation being under powered. Analyses that investigated age as a potential moderator between parenting and help-seeking would have been highly appropriate if a larger sample size had been achived.The help-seeking group in particular contained a small number of participants (15%) limiting the generalisability of the findings specifically in relation to help-seeking behaviour. However, the help-seeking sample in the present study is representative of the wider adolescent male population (Merikangas et al., 2011; Slade et al., 2009). Large epidemiological studies indicate that approximately 15% and 32% of adolescent males experiencing symptoms of anxiety and depression, respectively, utilise mental health services (Merikangas et al., 2010; Reavley, Cvetkovski, Jorm, & Lubman, 2010. Additionally, although participant attitudes and intentions towards informal help-seeking were captured, the study failed to capture data on participant informal help-seeking behaviour. The use of a single forced response question item to categorise help-seeking and non-help-seeking behaviour did not allow for capturing information on informal or attempted help-seeking.

Further research is needed to develop more sophisticated measures of help-seeking behaviour itself.

Implications and Contributions

Our findings suggest that parenting is associated with help-seeking attitudes and intentions towards mental health issues in adolescent males. However, this is likely to be an indirect association as parenting was not found to influence help-seeking behaviour itself. As adolescents are highly influenced by their systemic environment, parents have the potential to play a vital role in supporting adolescent males to access and engage with appropriate formal sources of support for mental health conditions. Significant increases in service utilisation could be achieved by raising awareness of the pathways to formal mental health services in parents. The findings may suggest that assisting parents in effectively promoting positive attitudes towards help-seeking in adolescent males and supporting mental health help-seeking may be important avenues to explore when addressing adolescent mental health. By understanding the risk factors for unmet clinical need, schools and clinicians may also be able to facilitate the help-seeking process earlier and for a greater number of adolescent males.

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Chapter 7

Discussion

The research detailed in this thesis sought to extend existing knowledge on mental health help-seeking for anxiety in adolescent males. The low rates of mental health service utilisation in this population, despite high rates of unmet mental health need and suicidal behaviour, emphasise the importance of research in this area. The thesis comprises five research papers which have been prepared for publication and report the results of a mixed methods research program.

Thesis Research Aims and Main Findings

A primary goal of this research was to investigate the attitudes of adolescent males (both with and without experience of mental health help-seeking) towards help-seeking for symptoms of clinical anxiety. Chapter two describes an investigation into barriers and facilitators of help-seeking for anxiety in adolescent males. Consistent with existing youth help-seeking research (Gulliver, Griffiths, & Christensen, 2010), the results of this study identified stigma, limited anxiety mental health literacy and a preference for self-reliance as barriers to mental health help-seeking. However, the study also identified barriers which have not been previously reported in the help-seeking literature, these include the need for effort and a sense of being 'confronted' by help-seeking processes. Consequently, such barriers may be specific to adolescent males. A number of important facilitating factors to help-seeking were also identified. These included the need to increase the accessibility of school-based mental health by providing a greater range of formal and informal help-seeking options/information (such as the option to send an instant online messenger to school counsellors) and altering the manner in which mental health information is presented. The findings from this investigation, along with current knowledge of youth help-seeking, facilitated the development of a preliminary model of help-seeking in this population. The model incorporates a number of barriers and facilitating factors to help-seeking in the context

of informal and formal help-seeking processes. The results of this study also suggest a number of avenues for future help-seeking research in this population (such as investigations into the use of online messenger as part of communication methods offered by mental health services).

As part of a broader aim to gain a better understanding of the barriers and facilitators to help-seeking in anxious adolescent males, the research in the thesis also sought to obtain the attitudes of this population towards computerised help-seeking, a method widely predicted to increase help-seeking in young adults. Overall, the investigation described in chapter five suggests that computerised help-seeking has the potential to be a highly accessible form of help-seeking for adolescent males with anxiety. Consistent with other qualitative investigations into computerised help-seeking in young adults, chapter five identified a strong need for personal or human connection with another individual in the context of computerised help-seeking (Orlowski et al., 2016). Participants made a number of suggestions about how this could be achieved outside of options typically offered in computerised mental health programs (such as the increased use of videos which contained stories from adolescents who had experienced anxiety as opposed to celebrities).

Other chapters in this thesis support the notion that investigation into computerised help-seeking for adolescent males with anxiety should be actively pursued. The participants in chapter two highlighted several options (such as communicating with a mental health professional by online messenger and monitored online forums) that would facilitate 'high speed' and 'low effort' help-seeking in this population. In chapter three, participant intentions to seek help from an online source were found to predict formal help-seeking behaviour itself. Increased anxiety and depression scores were also found to have negative associations with intentions to seek help from peers and family members (i.e., the sources of help adolescent males are most likely to use) but a positive association with intention to seek help

from an online source. The results from chapter four suggest that computerised or online help-seeking may be particularly appropriate for certain forms of anxiety disorder. For example, participants who exhibited stigma in responses towards the Generalised Anxiety Disorder (GAD) vignette had significantly more negative attitudes towards online help-seeking than participants who had not exhibited stigma. Following careful development and investigation, computerised help-seeking approaches could be a highly appealing and engaging form of support to adolescent males with clinical anxiety in the future. However, the findings of chapter five also suggest that significant barriers to engagement with computerised mental health help-seeking still exist. In particular, the results described in chapter five suggest that unfamiliarity with this form of help, a lack of perceived control over decision making, the need for high levels of effort and concerns around confidentiality could act as barriers to utilising this source of help. Further investigation into how to reduce these barriers and increase facilitating factors to computerised help-seeking is required in order to facilitate the development and evaluation of youth computerised mental health programs.

A secondary aim of this thesis was to investigate the influence of factors associated with reduced youth mental health help-seeking in relation to adolescent males with anxiety. Specifically, the thesis sought to investigate poor mental health literacy, stigma and parenting behaviour. Poor mental health literacy, controlling parenting behaviours (i.e. high levels of overcontrol and low levels of autonomy granting) and mental health stigma were all found to have a mostly negative impact on help-seeking attitudes and intentions in this population. These findings are consistent with those from the general youth help-seeking literature and confirm the importance of these specific barriers to help-seeking in relation to adolescent males with anxiety.

An additional finding of this research was that social norms of masculinity were highly associated with poor mental health literacy and stigma in relation to help-seeking in

adolescent males. The importance of social norms of masculinity was a consistent and prominent theme across all thesis chapters (with the exception of chapter six). Specifically, chapter three found higher mental health literacy to be positively associated with more favourable attitudes towards formal and informal help-seeking in adolescents with low/average masculinity scores. However, this relationship was not found in adolescents with high masculinity scores suggesting that such individuals may be more resistant to anxiety mental health initiatives designed to improve help-seeking. Additionally, a key finding from chapter four was that anxiety mental health stigma in adolescent males was most commonly associated with a belief that a mental disorder is due to a personal weakness rather than an illness. The importance of independence and self-reliance is stressed in traditional conceptualisations of traditional masculinity (Coleman, 2015). These findings are important as they emphasise the need for help-seeking research that tailors mental health programs and/or services to the specific needs of adolescents with a high affiliation with social norms of masculinity.

The results from chapter six highlight the importance of considering systemic and/or environmental influences when developing mental health initiatives for adolescent males. In chapter six, maternal overcontrol was found to predict less favourable attitudes towards help-seeking from formal help sources whereas maternal autonomy granting predicted increased intentions to seek help from family members. Participants in chapters two and five reported that more should be done to increase anxiety mental health literacy in parents and teachers in order to facilitate low effort exposure to information and help on anxiety disorders in adolescent males. Consequently, structured initiatives that develop the mental health literacy of parents relating to anxiety disorders may have the potential to significantly increase mental health help-seeking behaviour in this population. Results of chapter three also suggest that

such initiatives should provide guidance, particularly to mothers, on how to effectively support a young person to access help options.

Surprisingly, despite clear associations with help-seeking attitudes and/or intentions, only one of the main study variables in chapters three, four and six (mental health stigma) was found to predict formal help-seeking behaviour itself. Across investigations, predictors of help-seeking behaviour included anxiety, depression, participant attitudes towards formal help-seeking and participant intentions to seek help from a family member and from an online source. Across the thesis chapters, there was an inconsistent relationship between the three types of help seeking measurement. The lack of understanding on the relationship between the help-seeking attitudes, intentions and behaviour has significant theoretical implications. Whilst it is currently assumed that interventions which promote help-seeking attitudes and intentions will increase the likelihood of mental health help-seeking behaviour when required, this may not be the case in reality. Current knowledge of barriers and facilitating factors to mental health help-seeking may apply to only one area of help-seeking. It is much easier to measure global attitudes towards help-seeking in large samples of adolescents' than it is to gain a clear understanding of past and current mental health help-seeking behaviour. Consequently, it is not uncommon for school based mental health literacy and/or stigma interventions designed to increase help-seeking to be evaluated for efficacy only using a measure of help-seeking attitudes. As a result, school based interventions labelled as effective in improving youth help-seeking may have limited impact on improving help-seeking behaviour. It is also evident from chapter 3 that individual differences (such as a strong affiliation with social norms of masculinity) will change the relationship between specific barriers/facilitators to help-seeking and individual forms of help-seeking. In order to effectively promote youth mental health help-seeking behaviour, the facilitation of

longitudinal and experimental research in specific populations (such as adolescent males) which includes all three components of help-seeking is required.

Primary Contributions to the Literature

This thesis contributes to the existing literature on adolescent youth help-seeking in a number of important ways. Firstly, a major over-arching contribution of this thesis is a greater knowledge of how traditional norms of masculinity impact upon help-seeking in anxious adolescent males. As discussed earlier, there is a great need for further help-seeking research that specifically investigates the distinctive needs of adolescent males. As stated by Smith and Robertson (2008), there has been increased activity specifically relating to men's health promotion in both Australia and the UK in recent decades. There has, however, been a reticence to critically examine men's health promotion work within a broader discourse relating to gender and gender relations. The majority of health-related gender discussion, to date, has been focused on women's health practices.

Secondly, chapter two describes one of the first empirical papers to provide a preliminary model of adolescent male anxiety help-seeking. This investigation, plus a number of other findings in the thesis, confirms the need for a specific conceptualisation of adolescent male help-seeking for anxiety and consequently is a major contribution to the literature. The proposed model aims to address other limitations in current conceptualisations of help-seeking, such as the inclusion of facilitating factors of help-seeking and separate processes for informal and formal help-seeking. These contributions will enable more focused help-seeking research into methods that promote help-seeking in adolescent males and other vulnerable populations.

Thirdly, the thesis has contributed indirectly to several vital areas of knowledge and research in youth mental health. Chapter three describes one of the first investigations to provide detailed information on the mental health literacy of adolescent males in regards to

different forms of anxiety disorder, in particular GAD. Chapter 2 also suggests that adolescent males have low levels of mental health literacy in regards to the different forms of anxiety disorder. The findings indicate that adolescent males' are unlikely to recognise specific forms of anxiety disorders (both in themselves and others) and that mental health literacy for GAD (one of the most common forms of anxiety in young adults) may be considerably lower than for other disorders. This has significant implications for the development and evaluation of sources of information on anxiety disorders in young adults. The thesis also provides detailed information on the form, intensity and frequency of common mental health stigma in adolescent males across different presentations of anxiety (chapter four). As a result, both chapters three and four contribute to the wider knowledge on important concepts associated with youth mental health.

Finally, the quantitative investigations included in the thesis contribute to the broader literature describing the application of standardised help-seeking measures (the General Help Seeking Questionnaire [GHSQ] and Attitudes Towards Seeking Professional Help Scale [ATSPHS]) in adolescents. In particular, an exploratory factor analysis, described in chapter three, extends knowledge on the application and interpretation of the GHSQ in adolescent males. Sources of help, as categorised by Rickwood and Bradford (2012), include 'formal', 'informal' and 'semi-formal'. However, analyses conducted on the GHSQ suggested that a more representative interpretation of the items would be to divide 'informal' into two forms of help: *peer informal* and *peer family*. Additionally, a number of items that would previously have been categorised into semi-formal (phone help-line, youth worker, religious figure and teacher) were found to be better represented in the 'formal help-seeking' category.

Theoretical Implications

The findings in this thesis provide evidence for both the models proposed by Rickwood, Deane, Wilson and Ciarrochi (2005) and by Martínez-Hernáez, DiGiacomo,

Carceller-Maicas, Correa-Urquiza and Martorell-Poveda (2014). As identified in the thesis introduction, each study investigated different parts of the help-seeking process (awareness, expression, availability and willingness) as conceptualised by Rickwood et al. (2005) and all were found to be associated with help-seeking in some form (i.e. attitudes, intentions or behaviour). However, the findings from chapter two suggest that the help-seeking process is not linear and one-directional as suggested by the existing models (i.e. adolescent males may repeatedly move backwards and forwards between the stages in a non-sequential manner) and that the process seems to be distinct for informal and formal help-seeking behaviours. The chapters in this thesis also suggest that the help-seeking process may be influenced by particular barriers and facilitating factors that are specific to different phases of help-seeking. Evidence is also provided for current conceptualisations of youth help-seeking in which mental health literacy and mental health stigma feature as important barriers to youth help-seeking (such as the model by Martínez-Hernáez et al., 2014). However, in their application to adolescent males, these help-seeking models should include reference to the fact that mental health literacy and stigma influence help-seeking attitudes and do not specifically operate on the level of help-seeking behaviour.

Despite the fact that the barriers of mental health literacy and stigma feature prominently in the help-seeking literature, these factors are not particularly present in the help-seeking model proposed by Logan and King (2001). These factors are only minimally referred to within the broader category of 'barriers to services'. Furthermore, parenting behaviour, as opposed to general parenting style, is not included in this conceptualisation of youth help-seeking. The studies presented in this thesis provide further evidence that the absence of mental health literacy and stigma from this model might be considered a notable limitation of this conceptualisation. The results from chapter six, whilst supporting the notion that parents play an important role in youth help-seeking (as emphasised in the Logan and

King conceptualisation of help-seeking), also suggest that existing models need to be extended to incorporate the potential importance of parental autonomy (particularly in regards to the adolescent's mother).

Overall, the findings within the thesis suggest that conceptualisations of help-seeking should distinguish between factors which influence help-seeking attitudes, intentions and behaviour. Across the investigations described in this thesis, many variables were found to influence only one of these help-seeking components (principally attitudes). Additionally, findings from chapter two also suggest the importance of including (and clearly defining) processes that influence formal and informal help-seeking separately. The research described in chapter five suggests that online help-seeking is distinct to traditional help-seeking and that traditional models of youth help-seeking should be adapted in order to conceptualise this form of help-seeking.

A number of findings in this thesis suggest a need for further investigation in to how to define and conceptualise semi-formal help-seeking. Rickwood and Thomas (2012) acknowledged the importance of recognising non-health professionals (such as teachers, clergy, and community and youth workers) in a semi-formal role in regards to mental health help-seeking. Fitting with this conceptualisation, participants in the study described in chapter two believed that greater exposure to semi-formal options (such as an online treatment program or talking to a dual-role teacher) would facilitate more adolescent males to consider formal help-seeking options. However, as mentioned above, a number of semi-formal items on the GHSQ (phone help-line, youth worker, religious figure and teacher) were found in a factor analysis in chapter three to be better represented in the formal help-seeking category than as a separate category. Consequently, the investigations in chapters three, four and six did not use the term 'semi-formal'. In future conceptualisations of semi-formal help-seeking, it may be helpful to include a description of the behaviour (in addition to the person

involved) when defining semi-formal help-seeking. For example, seeing a school counsellor would be defined as formal help-seeking, however speaking to a school counsellor by online messenger was conceptualised by participants in chapter two as semi-formal help-seeking. It should also be noted that adolescent males may conceptualise options for formal help-seeking in a flexible way when discussing mental health help-seeking as a global and abstract concept. However, when considering help-seeking in relation to their own psychological health (as done in the GHSQ), adolescent males may consider any form of help-seeking outside of their friends and family as formal. This would again suggest fundamental differences between mental health help-seeking attitudes, intentions and behaviour in adolescent males. In order to measure attitudes, intentions and behaviours in relation to semi-formal help-seeking effectively, further research is needed to establish how these options are defined and conceptualised by adolescent males.

Finally, and perhaps most importantly, the investigations emphasise the need for adolescent male specific models of help-seeking. As discussed earlier, affiliation with traditional norms of masculinity have a powerful impact on adolescent male help-seeking in a number of different ways. The findings described in all of the chapters, particularly chapter two, illustrate that adolescent males are a group with distinctive needs in regards to help-seeking. The development of adolescent male specific models of mental health help-seeking could inform the development of male-specific mental health interventions, such as ones designed to increase mental health literacy and reduce stigma. This could also guide the development of mental health services where supporting young men is more common (such as mental health services in forensic settings).

Clinical Implications

The chapters in this thesis, and specifically the findings from the investigations, have a number of important clinical implications. Firstly, all forms of treatment should follow the

same principles recommended to increase help-seeking in this population. Treatments for adolescent anxiety need to use language that is non-labelling and that does not isolate adolescents who have a stronger affiliation with traditional masculinity. Treatments should be able to be accessed quickly with little effort and involve some sort of exposure to individuals that adolescent males can relate to (i.e. such as videos of adolescent males who have completed the program). Anxiety interventions for adolescent males may also need to address the issue of stigma and masculinity early in treatment. Any concerns relating to stigma or social status could be framed within the context of an anxious cognition (e.g. 'I worry that other boys will bully me if they see me doing this program on the computer'). At that point, techniques commonly used in an anxiety disorder CBT protocol (such as normalisation, cognitive restructuring, behavioural experiments and problem solving) could then be applied. This process would reduce specific concerns relating to stigma and masculinity and enable the adolescent to practice key CBT skills/techniques. Research, such as the study described in chapter 4, could also be incorporated into anxiety treatments in order to normalise common fears about stigma in adolescent males and highlight mental health stigma being relatively uncommon in this population. This may be particularly helpful for certain forms of anxiety, such as social anxiety disorder, where fears about others perception of the individual are prominent in the maintenance of the disorder. Finally, clinicians following anxiety treatments with adolescent males should aim to identify the role of an adolescent's parents when they first present for help. As over-controlling parenting is associated with anxiety in children and adolescents (McLeod, Wood, & Weisz, 2007), it is likely for that many adolescents, a parent may be the primary force behind them entering formal mental health services. In order to maximise opportunities for engagement in anxiety treatments, it is essential to establish the adolescent's views on formal help-seeking and if they felt 'rushed into' or 'confronted' by conversations on this topic with their parents prior to formal help-seeking.

Strengths and Limitations

The studies in this thesis aimed to address a number of methodological limitations identified in current youth help-seeking research. The investigations described utilised a clear definition of help-seeking, measured all three components of help-seeking (i.e. attitudes, intentions and behaviours) and individual sources of help (which also included online help-seeking, a new area of help-seeking research) using standardised measures. Consequently, a greater knowledge of the relationship between help-seeking attitudes, intentions and behaviour in adolescent males has been developed as a result of these studies.

A principal limitation of this thesis is that study participants may not be fully representative of the Australian adolescent male population. Participants in the quantitative studies (chapters 3, 4 and 6) attended independent schools based in metropolitan areas and tended to identify their cultural background as Oceanic (e.g. Australian, Aboriginal, Torres Strait Islander, and New Zealander). The majority of the participants included in the qualitative studies also mostly attended independent schools and typically identified their cultural background as Oceanic. Consequently, the data may not represent the views of Australian adolescent males from cultural minority groups, living in remote areas or attending public schools. However, it should be noted that participants comprised a representative range in terms of age, help-seeking behavior and clinical psychopathology.

Although the use of standardised measures that captured specific help-seeking components is a strength of this thesis, participant attitudes towards informal and online sources of help and help-seeking behavior itself could have been measured more effectively. Due to a lack of psychometrically established measures, participant attitudes towards informal and online sources of help were each measured using single item questions added to the GHSQ (measuring attitudes towards formal help-seeking). Established measures of these concepts may have led to more in-depth knowledge of adolescent males' attitudes towards

these specific sources of help-seeking. However, despite the limitations of the method used to measure these concepts, a number of important findings relating to attitudes towards informal and online help-seeking (as discussed in each of the chapters) were elicited.

In accordance with a number of published help-seeking studies (Gulliver, Griffiths, Mackinnon, Batterham, & Stanimirovic, 2015; Rickwood, Wilson, & Deane, 2007), help-seeking behavior was measured by asking participants if professional help had been sought in the recent past. This particular issue (levels of engagement in help-seeking behavior) is discussed in more detail in the 'future directions' section below. Nevertheless, considering the complexity of mental health help-seeking, it is acknowledged that a single item measure of help-seeking behavior reflects a limitation of this research. Overall, there is a general need for the development of standardised measures that measure these additional components of youth help-seeking.

Future Directions

The findings extracted from the studies in this thesis lend themselves to a number of recommendations for future research. Firstly, there is significant need for investigation into the efficacy of mental health literacy interventions, mental health services and treatment options which take into account social norms of traditional masculinity. At present, there is very little in terms of health care specifically targeted at adolescent males. As the potential of online mental health treatment help-seeking has been highlighted in this discussion, an example of this is BRAVE, an online CBT treatment program designed to reduce symptoms of clinical anxiety in children and adolescents (Spence, Holmes, Donovan, & Kenardy, 2006). BRAVE stands for Body signs, Relaxation, Active helpful thoughts, Victory over your fears and Enjoy! Reward yourself. At present BRAVE is one of the most empirically investigated online treatments for anxiety in Australian adolescents (Spence et al., 2011; Spence et al., 2006). This program does not take gender differences of participating

adolescents into account (either in options for language, presentation or activity content). As described in the 'clinical implications' section above, psychological interventions for adolescent male anxiety should use follow the same recommendations/suggestions applied to mental health literature/information for adolescents in this thesis. For example interventions should use language that has a masculine tone, facilitates a preference for reliance, avoids using emotive language too soon (to avoid participants feeling 'confronted by emotion') and that stresses the serious yet treatable nature of anxiety disorders. The studies also highlight the importance of having some form of 'human connection' (such as producing videos of the 'online buddy' therapist) and making information about the help-seeking experience (confidentiality policies, characteristics of the provider) transparent from the beginning. Adolescents should also be exposed to anxiety interventions in a manner that does not require effort (such as being part of school education programs on mental health) and information on specific types of anxiety should be provided. The research described in this thesis suggests that any interventions for adolescent males should specifically address fears of stigmatisation associated with anxiety 'not being a real illness', being perceived as 'weak' rather than unwell and potentially giving young adults' practical advice on how to manage such stigma.

Secondly, as mentioned above, the current help-seeking literature is limited in how help-seeking behaviour is often measured. Specifically, current methods used to measure help-seeking behaviour tend not to measure help-seeking beyond an individuals' initial engagement with formal mental health services. This is significant as differing levels of engagement with formal help-seeking options is likely to influence the current and future help-seeking behaviour of the individual and those that they are in contact with. Factors which indicate engagement in formal mental health help-seeking include motivation, appointment attendance, in-session engagement and participation during therapeutic activities, active reflection and homework compliance. For example, current help-seeking

research tends not differentiate between a young adult who has attended a single GP appointment to discuss mental health issues and decides not to pursue further help-seeking and one who has actively participated in treatment with a mental health professional. Consequently, there will be significant differences in adolescents' exposure to factors which are likely to influence current and future mental health help-seeking. These factors might include level of treatment dosage, levels of psychological distress, and the number of opportunities to develop personally meaningful relationships with care providers as well as positive experiences of help-seeking. An individual who receives a formal psychological treatment (as opposed to a one-off meeting with a GP) is likely to have a far greater understanding of the specific form of mental health disorder that they are experiencing and greater opportunities to experience, a discrete, confidential and non-stigmatizing mental health service. Consequently, the level of engagement in help-seeking behaviour has major implications, both in terms of the attitudes towards help-seeking generally (for themselves and for others) and future help-seeking intentions/behaviour. The level of engagement in informal mental health help-seeking behaviour is particularly unexplored in the help-seeking literature.

The need for a greater understanding of adolescent engagement with the help-seeking process (i.e. past the initial point of help-seeking behaviour) is suggested by two specific results identified in this thesis. Firstly, chapter six identified the role of parental autonomy (particularly maternal) in promoting help-seeking attitudes. Participants in chapter two qualitative investigations highlighted the potentially detrimental effect of 'being forced' into formal help-seeking options. Consequently, adolescent males who are 'taken' to appointments by less autonomy granting parents are likely to have less engagement with the process and a potentially more negative attitude towards future help-seeking. Adolescents in this position are far less likely to engage with formal help-seeking options in a meaningful

and clinically effective way. Secondly, chapters two and five highlight that adolescent males are particularly unfamiliar with online mental health treatments and this lack of knowledge has significant clinical implications. With the recent increase in funding into computerised mental health treatment options for adolescents, more adolescents will be exposed to computerised mental health treatment programs either through schools or online. In order to benefit from any cognitive behavioural intervention, regardless of its form of delivery, a commitment to the program, practice and application to the adolescent's specific difficulties is needed (Westbrook, Kennerley, & Kirk, 2007). It is important to monitor youth help-seeking behaviour and (short and long term) engagement with computerised help-seeking treatment. It is essential that adolescents do not mistakenly believe that they have 'tried a CBT treatment' as a result of undertaking one session on a computerised program. Adolescents in this situation believing that they have undertaken CBT treatment are likely to dismiss it as ineffective which will discourage them from help-seeking using evidenced-based psychological interventions in the future.

Specifically, future intervention research should ideally consist of large longitudinal experimental studies such as randomised controlled trials. Such investigations would be able control for and manipulate participant exposure to specific help-seeking variables. Firstly, the level of exposure to mental health interventions in a non clinical setting (for example through schools) could be manipulated. Secondly, the use of material that identifies with traditional masculine norms could be delivered in several trial conditions. A longitudinal study would facilitate a greater understanding of how help-seeking attitudes and intentions impact on behaviour over time and consequently a greater understanding of these relationships overall. It would also enable researchers to capture information on the nature and outcome of formal and informal help-seeking behaviours, rather than just the presence of help-seeking behaviours. From a public health perspective, these future studies, and the specific findings

detailed in this thesis, will help to further inform strategies to combat masculine norms, reduce stigma, increase mental health literacy, increase knowledge of online programs and reduce barriers to care.

Concluding Remarks

This thesis employed a mixed methods research program to investigate help-seeking attitudes, intentions and behavior in adolescent males with anxiety. It provides a unique contribution to the literature by furthering the conceptual knowledge of help-seeking, empirically investigating key concepts associated with youth help-seeking in adolescent males and highlighting several important areas for future research. Future longitudinal and experimental research is essential to further our current understanding of the relationships between help-seeking components and to investigate mental health initiatives that consider the needs of adolescent males. These investigations have the potential to significantly increase rates of mental health help-seeking in adolescent males and reduce the burden of anxiety disorders in Australian adolescents as a whole.

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Appendix A

A Friend in Need Questionnaire

Being a good friend involves knowing when our friends are upset. Would you know when your friends are going through a really hard time? Or, would you know when or where your friends should get help about their problems?

This questionnaire contains a brief description of 3 young people. Your job is to read each description and then decide whether you think that this person has a serious problem, and if so, what they should do about it. There are no right or wrong answers – we just want to get some different points of view about what different people would think and do.

Craig

Craig is 18 and about to leave home to go to university. He likes the university he is going to and thinks his course (computer software design) will be interesting. However Craig is worried about what it will be like to leave home and look after himself. He is also concerned about whether he will make new friends and like the people he will be living with. He is starting to think he may have chosen one a bit too far away from home (around 8 hours drive).

If Craig was your friend, how worried would you be about his overall emotional well-being? (Circle the letter next to the answer that best describes how you feel)

(a) I would not be at all worried about his emotional well-being
(b) I would be a little bit worried about his emotional well-being
(c) I would be quite worried about his emotional well-being
(d) I would be extremely worried about his emotional well-being

In five words or less, what do you think is the matter with Craig?

_____

Which parts of Craig's story are the strongest hints to you that he might be experiencing emotional difficulties? (Please quote the words from the scenarios that are the strongest hints.)

_____

_____

_____

_____

_____

How long do you think it will take for Craig to feel better again?

(a) One or two days

(b) One or two weeks

(c) One or two months

(d) Longer than a few months

Do you think Craig needs help from another person to cope with his problems?

( ) No

( ) Don't Know

( ) Yes If yes, who do you think she needs help from?

_____

Jack.

Jack is 16. He gets very worried about saying or doing something stupid in front of other people and it interferes with him going to school and seeing friends. To make sure he sounds interesting, Jack will look up interesting things to say on the internet before going to school and avoids conversations with what he considers to be 'interesting and popular' kids in case he doesn't know what to say. He worries that if people notice that he is anxious when talking to them then they will think he is stupid and odd. Jack has noticed that he gets really red when he worries and so to keep himself cool he will only ever wear a thin t-shirt or shirt (even in winter). He also carries a bottle of water with him at all times and splashes his face with water several times a day. He finds all this worrying about looking stupid really tiring and time-consuming and it stops him from doing things he likes to do, such as basketball, as he fears someone will talk to him or he will go red. Jack wishes he was more like his friends who don't seem to get as worried about things.

If Jack was your friend, how worried would you be about his overall emotional well-being?

(a) I would not be at all worried about his emotional well-being

(b) I would be a little bit worried about his emotional well-being

(c) I would be quite worried about his emotional well-being

(d) I would be extremely worried about his emotional well-being

In five words or less, what do you think is the matter with Jack?

_____

Which parts of Jack's story are the strongest hints to you that he might be experiencing emotional difficulties? (Please quote the words from the scenarios that are the strongest hints.)

_____

_____

_____

_____

_____

How long do you think it will take for Jack to feel better again?

(a) One or two days
(b) One or two weeks
(c) One or two months
(d) Longer than a few months

Do you think Jack needs help from another person to cope with his problems?

( ) No
( ) Don't Know
( ) Yes If yes, who do you think he needs help from?

_____

Tony

Tony is 12. Everyone describes him as a 'worrier'. Tony is particularly worried at the moment because he has a piano grade exam which he thinks he is likely to fail, even though his piano teacher tells him he is very good and ready to take the exam. Tony will often say he had difficulties sleeping and sometimes gets headaches. He worries about things happening to his parents, his friends at school being cross with him and what will happen to the environment if people don't do more about climate change.

If Tony was your friend, how worried would you be about his overall emotional well-being?

(a) I would not be at all worried about his emotional well-being
(b) I would be a little bit worried about his emotional well-being
(c) I would be quite worried about his emotional well-being
(d) I would be extremely worried about his emotional well-being

In five words or less, what do you think is the matter with Tony?

_____

Which parts of Tony's story are the strongest hints to you that he might be experiencing emotional difficulties? (Please quote the words from the scenarios that are the strongest hints.)

_____

_____

_____

_____

_____

How long do you think it will take for Tony to feel better again?

(a) One or two days
(b) One or two weeks
(c) One or two months
(d) Longer than a few months

Do you think Tony needs help from another person to cope with his problems?

( ) No
( ) Don't Know
( ) Yes If yes, who do you think he needs help from?

Appendix B

Stigma Coding Framework

Craig (Non-Clinical Anxiety)

Presence-absence of stigma

0- absence of stigma

1-presence of stigma

NOTE: Craig is a non-clinical vignette so any comments where it is suggested that he is worrying is excessive should be coded as 1.

Stigma Severity

0 – No stigma- no evidence of stigmatizing views towards the individual in the vignette

1 – Mild stigma – mild or potential negative evaluation e.g. ‘gets worried easily’, ‘worrying too much’ ‘overthinking’ ‘take a chill pill’

2 – Moderate stigma – implicit indication of negative evaluation through indicating that the subject should behave differently or is failing to live up to standards e.g. ‘He has no friends’, ‘He has no resilience’ or ‘He has social issues’

3 – Significant stigma- explicit negative language about subject, clear negative evaluation but none or very mild pejorative language e.g. ‘He needs to toughen up’, ‘Mentally weak’, ‘he can’t look after himself’

4 – Extreme stigma- explicit negative language about subject, clear negative evaluation with pejorative language e.g. ‘, ‘He shouldn’t be so girly’, ‘He’s weird’, ‘he’s a sook’

Form of stigma

1 - Social distance stigma (a desire to maintain distance from the stigmatized individual)

2 - Dangerous/unpredictable stigma (a belief that the individual is dangerous)

3 – Weak not sick stigma (a belief that a mental disorder is due to a personal weakness rather than an illness) – form 1 – stigma that relates to a sense that a change is within the individuals control e.g. 'needs to toughen up', 'doesn't wasn't to grow up'

4 – Weak not sick stigma (a belief that a mental disorder is due to a personal weakness rather than an illness)- form 2 – stigma that relates to a sense that the individual is somehow defective or change may not be in their control or straightforward e.g. 'he is homewick easily', 'he can't look after himself', 'mentally weak

5- Other - form of stigma not clear or able to be coded

Jack (Social Anxiety Disorder)

Presence-absence of stigma

0- absence of stigma

1-presence of stigma

NOTE: Jack and Tony are clinical vignettes so any comments where it is suggested that the participants are worrying excessively would not be coded as 1. However please code items which have a negative connotation as a result of severity: 'extremely insecure', 'over-reacting', 'scared of everything'.

Stigma Severity

0 – No stigma- no evidence of stigmatizing views towards the individual in the vignette

1 – Mild stigma – mild or potential negative evaluation e.g. 'take a chill pill'

2 – Moderate stigma – implicit indication of negative evaluation through indicating that the subject should behave differently or is failing to live up to standards

3 – Significant stigma- explicit negative language about subject, clear negative evaluation but no or very mild pejorative language e.g. ‘He needs to toughen up’, ‘Mentally weak, ‘he can’t look after himself’

4 – Extreme stigma- explicit negative language about subject, clear negative evaluation with pejorative language e.g. ‘, ‘He shouldn’t be so girly’, ‘He’s weird’, ‘he’s a sook’

NOTE: Unfounded assumptions by participants relating to social skills (e.g. 'he makes a bad impression', ‘he has social issues’ or he doesn't fit in) should be coded as 2.

Form of stigma

1 - Social distance stigma (a desire to maintain distance from the stigmatized individual)

2 - Dangerous/unpredictable stigma (a belief that the individual is dangerous)

3 – Weak not sick stigma (a belief that a mental disorder is due to a personal weakness rather than an illness) – form 1 – stigma that relates to a sense that a change is within the individuals control e.g. ‘needs to toughen up’ or ‘doesn’t wasn’t to grow up’

4 – Weak not sick stigma (a belief that a mental disorder is due to a personal weakness rather than an illness)- form 2 – stigma that relates to a sense that the individual is somehow defective or change may not be in their control or straightforward e.g. ‘he is homesick easily’, ‘he can’t look after himself’, ‘mentally weak’

5- Other - form of stigma not clear or able to be coded

Tony (GAD)

Presence-absence of stigma

0- absence of stigma

1-presence of stigma

Stigma Severity

0 – No stigma- no evidence of stigmatizing views towards the individual in the vignette

1 – Mild stigma – mild or potential negative evaluation e.g. ‘take a chill pill’

2 – Moderate stigma – implicit indication of negative evaluation through indicating that the subject should behave differently or is failing to live up to standards

3 – Significant stigma- explicit negative language about subject, clear negative evaluation but no or very mild pejorative language

4 – Extreme stigma- explicit negative language about subject, clear negative evaluation with pejorative language

Form of stigma

1 - Social distance stigma (a desire to maintain distance from the stigmatized individual)

2 - Dangerous/unpredictable stigma (a belief that the individual is dangerous)

3 – Weak not sick stigma (a belief that a mental disorder is due to a personal weakness rather than an illness) – form 1 – stigma that relates to a sense that a change is within the individuals control e.g. ‘needs to toughen up’ or ‘doesn’t wasn’t to grow up’

4 – Weak not sick stigma (a belief that a mental disorder is due to a personal weakness rather than an illness)- form 2 – stigma that relates to a sense that the individual is somehow defective or change may not be in their control or straightforward e.g. ‘he is homesick easily’, ‘he can’t look after himself’, ‘mentally weak.

5- Other - form of stigma not clear or able to be coded

Appendix C

From: Ethics Secretariat <ethics.secretariat@mq.edu.au>

Date: Mon, Jul 29, 2013 at 11:55 AM

Subject: Approved- Ethics application- Hudson (Ref No: 5201300162)

To: Professor Jennie Hudson <jennie.hudson@mq.edu.au>

Cc: Mrs Laura Clark <laura.wheen@students.mq.edu.au>

Dear Associate Professor Hudson

Re: "Increasing utilisation of mental health services for adolescent males with anxiety disorders" (Ethics Ref: 5201300162)

Thank you for your recent correspondence. Your response has addressed the issues raised by the Human Research Ethics Committee (Human Sciences and Humanities), effective 29-Jul-13. This email constitutes ethical approval only.

This research meets the requirements of the National Statement on Ethical Conduct in Human Research (2007). The National Statement is available at the following web site:

http://www.nhmrc.gov.au/_files_nhmrc/publications/attachments/e72.pdf.

The following personnel are authorised to conduct this research:

Associate Professor Jennie Hudson

Dr Heidi Lyneham

Dr Viviana Wuthrich

Mrs Laura Clark

Prof Ron Rapee

NB. STUDENTS: IT IS YOUR RESPONSIBILITY TO KEEP A COPY OF THIS APPROVAL EMAIL TO SUBMIT WITH YOUR THESIS.

Please note the following standard requirements of approval:

1. The approval of this project is conditional upon your continuing compliance with the National Statement on Ethical Conduct in Human Research (2007).

2. Approval will be for a period of five (5) years subject to the provision of annual reports.

Progress Report 1 Due: 29 July 2014

Progress Report 2 Due: 29 July 2015

Progress Report 3 Due: 29 July 2016

Progress Report 4 Due: 29 July 2017

Final Report Due: 29 July 2018

NB. If you complete the work earlier than you had planned you must submit a Final Report as soon as the work is completed. If the project has been discontinued or not commenced for any reason, you are also required to submit a Final Report for the project.

Progress reports and Final Reports are available at the following website:

http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/human_research_ethics/forms

3. If the project has run for more than five (5) years you cannot renew approval for the project. You will need to complete and submit a Final Report and submit a new application for the project. (The five year limit on renewal of approvals allows the Committee to fully re-review research in an environment where legislation, guidelines and requirements are continually changing, for example, new child protection and privacy laws).

4. All amendments to the project must be reviewed and approved by the Committee before implementation. Please complete and submit a Request for Amendment Form available at the following website:

http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/human_research_ethics/forms

5. Please notify the Committee immediately in the event of any adverse effects on participants or of any unforeseen events that affect the continued ethical acceptability of the project.

6. At all times you are responsible for the ethical conduct of your research in accordance with the guidelines established by the University. This information is available at the following websites:

http://www.mq.edu.au/policy/

http://www.research.mq.edu.au/for/researchers/how_to_obtain_ethics_approval/human_research_ethics/policy

If you will be applying for or have applied for internal or external funding for the above project it is your responsibility to provide the Macquarie University's Research Grants Management Assistant with a copy of this email as soon as possible. Internal and External funding agencies will not be informed that you have approval for your project and funds will not be released until the Research Grants Management Assistant has received a copy of this email.

Please retain a copy of this email as this is your official notification of ethics approval.

Yours sincerely

Dr Karolyn White
Director of Research Ethics
Chair, Human Research Ethics Committees

Office of the Deputy Vice Chancellor (Research)

Ethics Secretariat

Research Office

Level 3, Research Hub, Building C5C East

Macquarie University

NSW 2109 Australia

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http://www.mq.edu.au/research

Appendix D

Office of the Deputy Vice-Chancellor (Research)

Research Office
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MACQUARIE UNIVERSITY NSW 2109 AUSTRALIA

Phone **+61 (0)2 9850 4194**
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Email ethics.secretariat@mq.edu.au

07 February 2014

Professor Jennifer Hudson
Centre for Emotional Health
Department of Psychology
Faculty of Human Sciences
Macquarie University
NSW 2109

Dear Professor Hudson

RE: *Increasing utilisation of mental health services for adolescent males with anxiety disorders*

Thank you for your email dated 18 December 2013 responding to the issues raised by the Executive of the Macquarie University Human Research Ethics Committee (HREC (Medical Sciences)).

The Committee Executive delegated review of your responses to the Ethics Secretariat and your application was approved. This research meets the requirements set out in the *National Statement on Ethical Conduct in Human Research* (2007).

Details of this approval are as follows:

Reference No: 5201300531

Approval Date: 07 February 2014

This letter constitutes ethical and scientific approval only.

Before commencing research at this site, please contact the Research Governance Manager on 9850 4446.

The following documentation has been reviewed and approved by the HREC (Medical Sciences):

Documents reviewed	Version no.	Date
Macquarie University HREC Application Form: Active Consent	2.2	May 2013
Correspondence from Professor Hudson addressing the Executive of the HREC's feedback		18/12/2013
Research Protocol - Increasing Utilisation of Mental Health Services for Adolescent Males with Anxiety Disorders	1	17/12/2013
MQ Participant Information and Consent Form - Parent	1	17/12/2013
Letter to Parent and Child	No Version	undated
Letter to Headteacher	No Version	undated

Letter to Child: Feedback on anxiety and worry – pre-assessment scores	No Version	undated
Letter to Child: Feedback on low mood/managing behaviour/anger – pre-assessment scores	No Version	undated
Letter to Child: Completion of Cool Teens Program and Assessment Reminder	No Version	undated
Advertisement: Centre for Emotional Health		
Advertisement: Centre for Emotional Health – SU Version	No Version	undated

Standard Conditions of Approval:

1. Continuing compliance with the requirements of the *National Statement,* which is available at the following website:

http://www.nhmrc.gov.au/book/national-statement-ethical-conduct-human-research

2. Approval is for five (5) years, subject to the submission of annual reports.

First Annual Report Due: 1 February 2014

3. All adverse events must be reported to the HREC within 72 hours.

4. Proposed changes to the protocol must be submitted to the Committee for approval before implementation.

It is the responsibility of the Chief investigator to retain a copy of all documentation related to this project and to forward a copy of this approval letter to all personnel listed on the project.

Please do not hesitate to contact the Ethics Secretariat should you have any questions regarding your ethics application.

The HREC (Medical Sciences) wishes you every success in your research.

Yours sincerely

Dr Karolyn White
Director, Research Ethics
Chair, Human Research Ethics Committee (Medical Sciences)

This HREC is constituted and operates in accordance with the National Health and Medical Research Council's (NHMRC) National Statement on Ethical Conduct in Human Research (2007) (the National Statement) and the CPMP/ICH Note for Guidance on Good Clinical Practice.