Understanding psychological help-seeking Behaviour: the application of the Theory of Planned Behaviour to medical professionals in training

Thesis submitted to the University of Leicester
Faculty of Medicine & Biological Sciences
School of Psychology, Clinical Section
for the degree of
Doctorate in Clinical Psychology

By

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Declaration

I, James Rathbone, declare that the research reported within this document for the award of Doctorate in Clinical Psychology is my own work and has not been submitted for any other academic award.

Thesis Abstract

Literature Review

A critical review of the literature was made to investigate what influences an individual's intention to seek psychological help for mental ill health. Nineteen articles were retrieved that met the inclusion criteria. The articles were reviewed, critiqued and synthesised to answer the review question. Four key themes were identified: ; a) mental health services are underutilised and understanding help-seeking intentions and behaviour is of paramount importance for mental health professionals, b) current measures of help-seeking have significant shortcomings and comprehensive, theory driven instruments are needed, c) help-seeking is more likely to be a global concept and does not vary in relation to type of problem, although it may vary with population specific characteristics, and d) instruments used to measure help-seeking intention should be constructed with the development of interventions in mind. Clinical implications and direction for future research are discussed.

Research Report

In order to understand psychological help-seeking intention for mental health problems in medical students the Theory of Planned Behaviour (TPB) model was used. Thirty-nine medical students took part in an elicitation study to obtain attitudes, subjective norms, and perceived behavioural control for psychological help-seeking. Eighty medical students took part in the quantitative TPB questionnaire that was developed as part of the methodology. The TPB model was found to significantly predict help-seeking intentions. The limitations of the research are discussed and suggestions for future research presented

Critical Appraisal

Finally, an appraisal of the research process as a whole was made with a critique of the research methodology. The author's reflections on conducting an independent research project are presented and learning points highlighted.

Acknowledgments

Conducting an independent research project on this scale would not have been possible without the support of my family.

To my Mum and Dad, I am extremely grateful for the love and support during this process and for everything you have done to help me get to this point. I appreciate so much that you are always there for me and I could not have achieved what I have without you.

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For: Nikola & Doreen Backo and Arthur Victor & Doris May Rathbone.

I dedicate my doctoral thesis to my grandparents who played such an important role in my upbringing but are no longer here to celebrate the completion of this work.

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Section A

Literature Review

A systematic review of the literature on help-seeking behaviour in Student Populations.

Submitted 8th May 2014

By

James Rathbone

To the University of Leicester, School of Psychology, Clinical Section

In partial fulfilment of the degree of

Doctorate in Clinical Psychology

Abstract

A significant amount of research has highlighted that prevalence rates of mental health problems is high in student populations. Despite this, help-seeking behaviour is relatively low resulting in underutilisation of professional services. This review aimed to systematically explore and critique the recent literature pertaining to why and how individuals access professional psychological support. Five electronic databases (PsycINFO, PsychARTICLES, Web of Science, Scopus, and Medline) were searched between December 2013 and January 2014 for studies published since the last significant review on help-seeking in 2003. Of the searched literature 19 articles were deemed to meet the inclusion criteria. Synthesis of the 19 articles elicited four key themes; a) mental health services are underutilised and understanding help-seeking intentions and behaviour is of paramount importance for mental health professionals, b) current measures of help-seeking have significant shortcomings and comprehensive, theory driven instruments are needed, c) help-seeking is more likely to be a global concept and does not vary in relation to type of problem, although it may vary with population specific characteristics, and d) instruments used to measure help-seeking intention should be constructed with the development of interventions in mind. The findings of the current review provide clear direction for future research and as such this and the implications for clinical practice are discussed

Introduction

Background and prevalence

Mental ill health will affect 1 in 4 people during their life time (The Office for National Statistics Psychiatric Morbidity Report, 2001). Problems can range from severe and enduring conditions such as bipolar disorder and schizophrenia which are relatively uncommon (around 1 in 100 people) to less severe but more common problems like depression, anxiety and stress. In Britain, the most common mental health problem is mixed anxiety and depression, with almost nine per cent of people meeting the diagnosable criteria and between 8-12% of the population suffering an episode of depression in any year (The Office for National Statistics Psychiatric Morbidity report, 2001). Common mental health problems such as anxiety and depression are treatable and in some cases preventable (Barrera, Torres, & Munoz, 2007; Bienvenu & Ginsburg, 2007; Waddel, Hua, Garland, Peters & McEwan, 2007). Seeking help from appropriate professionals is therefore highly important to aid in early detection and treatment of mental health problems (Dawson, Grant, Stinson & Chou, 2006; Yung et al., 2007). In spite of this, evidence highlights that the utilisation of mental health services is relatively poor with professional help-seeking as low as one third in those with diagnosable conditions (Andrews, Issakidis, & Carter, 2001).

Mental Illness in Higher Education

A number of studies have explored the prevalence of mental illness within student populations. Bewick, Gill and Mulhern (2008) conducted an internet-based survey of mental distress in student populations and found 29 per cent described clinically significant levels of psychological distress with eight per cent moderate to severe or severe. Andrews and

Wilding (2004) assessed UK undergraduates using the Hospital Anxiety and Depression Scale one month prior to starting university and again mid-way through their second year of study. The authors found that nine per cent of previously symptom-free students had higher scores for depression and 20 per cent experienced symptoms of anxiety at a clinically significant level. However, 36 per cent of individuals with symptoms of anxiety or depression initially had lower HADS scores at assessment in their second year.

In general student populations evidence highlights that prevalence rates are comparable to those of the general population for a variety of mental health problems such as Bipolar Disorder (Smith, Harrison, Muir & Blackwood, 2005), eating disorders (McClelland & Crisp, 2001), and drug and alcohol abuse (MacCall et al, 2001). Whilst the estimated prevalence for any anxiety or depressive disorder is around 15 per cent for undergraduates and 13 per cent for postgraduates (Eisenberg, Gollust, Golberstein & Hefner, 2007) evidence suggests the figures to be higher, around 28 per cent, for depression in medical students (Mehanna & Richa, 2006). Furthermore, Rab, Mamdou and Nasir (2008) found that as many as 43 per cent of female medical students reported experiencing anxiety.

Help-seeking for Mental Health

Help-seeking in psychology has received a significant amount of attention focussing mainly on attitudes and individual differences. In particular, scientist practitioners have sought to understand gender differences (Good, Dell, & Mintz, 1989), cultural diversity (Nickerson, Helms, Terrell, 1994), impact of the level of psychological distress (Cramer, 1999), and motivation and power (Lee, 1997). Leong and Zachar (1999) explored opinions about mental health as predictors of attitudes toward seeking psychological help. They found that when

individual opinions about mental illness were more benevolent, less socially restrictive, and less authoritarian they accounted for a significant percentage of positive help-seeking attitudes towards psychological support.

Evidence suggests there is a relationship between suicidal thinking and intention to seek help from a mental health professional but that this correlation does not exist for individuals with anxiety/depression or personal/emotional concerns (Deane, Wilson & Ciarrochi, 2001). Ludwikowski, Vodel and Armstrong (2009) found a mediating role for self-stigma in the relationship between public stigma, 'close other' stigma, and attitude. When psychological and interpersonal, academic, and drug use concerns were compared the authors found a significant relationship between positive attitude and likelihood to seek help for all three concerns, with psychological and interpersonal providing the strongest relationship (Cepeda-Benito & Short, 1998). This empirical evidence suggests that help-seeking intentions vary according to the concerns one is seeking help for.

Theory of Help-seeking

Theory in psychological help seeking falls into one of two categories; a global approach in which academics view all help-seeking as similar (e.g. Cepeda-Benito & Short, 1998) or a distinct approach in which help-seeking behaviour is viewed as problem specific (e.g. Di Fabio & Bernaud, 2008). Within these categories a number of theories and models on help-seeking to facilitate early illness detection have been developed by health psychologists (Scott, Walter, Webster, Sutton, & Emery, 2012). However, currently none of the models has been widely accepted by researchers.

In health-related research the Health Belief Model (HBM) suggests that individuals appraise perceived threat of illness and its severity in order to make a decision to perform a behaviour or not (Rosenstock, 1966). Furthermore, it states that the individual evaluates the perceived barriers and benefits of the behaviour itself. In recent years the Health Belief Model has been used to explore the general population's help-seeking behaviour for mental health problems (Henshaw & Freedman-Doan, 2009). Another approach, the Behavioural Model (Anderson & Newman, 1973; Anderson, 1995) proposes a three stage model for health services use focussing on predisposing characteristics, enabling resources and need for help. The model describes characteristics such as an individual's demographic information and beliefs, cost and access to care, and perceived illness level. It has been applied in research exploring enrolment behaviour in a general practitioner model in Germany (Kurschner, Weidmann, & Muters, 2011), factors associated with use of HIV primary care among newly diagnosed patients (Anthony, et al., 2007), and adults seeking community based treatment for panic attacks (Goodwin & Andersen, 2002).

Finally, the Theory of Planned Behaviour (TPB; Ajzen, 1991) has been utilised in numerous studies to help understand health-related behaviours (see Godin & Krok, 1996) and found to be an effective predictor for both behavioural intentions and behaviour (see Armitage and Conner, 2001). TPB posits that behaviour can most accurately be determined by intentions to do the particular behaviour in questions. What is more, intention can be predicted by three kinds of considerations: beliefs about likely consequences or other attributes of the behaviours (behavioural beliefs), beliefs about normative expectations of others (normative beliefs), and beliefs about factors that may further or hinder performance of the behaviour (control beliefs). Smith, Tran & Thompson (2008) used TPB to demonstrate that attitude

towards help-seeking mediates men's psychological help-seeking intentions. A full review of the breadth of help-seeking models is beyond the scope of this paper. The models mentioned above represent some of the models currently being used to explore help-seeking behaviour in the literature. However, the current review does privilege one in particular, instead exploring the literature more generally.

Help-seeking Interventions

In general, research into help-seeking focuses on three main areas: attitudes (beliefs and willingness) towards help-seeking, intention to seek help, and actual help-seeking behaviour (Gulliver, Griffiths, Christensen & Brewer, 2012). Evidence suggests attitudes and intentions are predictors of behaviour; Armitage and Conner (2001) conducted a meta-analysis which reviewed 161 published papers of different behaviours and found a significant relationship between intention and behaviour, and ten Have, de Graff, Ormel, Vilagut, Kovess & Alsonso (2010) found attitudes towards mental health help-seeking are significantly associated with service utilisation. As a result, a large proportion of intervention research aims to bring about behavioural change by improving help-seeking attitudes and intentions.

Intervention research has encompassed a wide range of theoretical models including those highlighted above. They focus on a variety of mental health problems and modes of intervention to improve help-seeking behaviour both within the general population and clinical samples (Gordon, 1983). These include exploring the impact of reducing stigma and discrimination (Corrigan & Watson, 2002), evaluating mental health specific educational programmes (Rickwood, Cavanagh, Curtis & Sakrouge, 2004), comparison of demographic characteristics such as gender (Hale, Grogan & Willott, 2007), providing information on how

and where to find professional help (Walters, Fisher & Tylee, 2007), and investigating the effectiveness of web-based interventions for depression on help-seeking (Christensen, Leach, Barney, Mackinnon & Griffiths, 2006).

Aims and Scope

Research in the area of help-seeking and psychology uses a variety of standardised quantitative questionnaires as well as qualitative methodologies. The growing evidence increases understanding of why and how individuals access psychological support and give insight into some of the barriers that exists. It is important however to better understand the formation of help-seeking intentions in order to truly recognise how decisions to perform a particular behaviour are made. This review seeks to synthesise the findings of existing literature to gain an improved understanding of what influences individuals' intentions to seek psychological help for mental ill health. Specifically, it will focus on research using student populations for two reasons; first, because prevalence rates for mental health problems is comparable with those of the general population, and secondly, due to the very real time constraints of the current study a focus on student populations was chosen as being relevant to the empirical paper.

Methodology

Search Strategy

A systematic review of the literature in the area of psychological help-seeking intentions among students was conducted. In order to ensure a wide range of psychological literature five databases were selected; PsycINFO, PsychARTICLES, Web of Science, Scopus, and Medline. Key search terms were entered into the five databases to identify papers relating

to psychological help-seeking; Psycholog*, Help* and Seek* or Health* Service* Utili* [sation], student* or universit* or college*, and intent*. In addition, organic backwards (manual search of the references found) and forward (database search for relevant papers citing the included papers) searches were conducted to identify additional relevant papers.

Screening and Eligibility Criteria

Initial screening of identified papers took place using the PICO (Population, Intervention, Comparator, Outcome) prompting technique to find suitable papers for further screening. The resulting papers were screened using a pro forma (see Appendix A) against the inclusion criteria.

The eligibility criteria for inclusion in the current review were;

(1) Population: conducted on a student sample.
(2) Psychological help-seeking: Papers measuring actual or intended psychological help seeking, identifying barriers to help seeking, or development of scales to measure help-seeking.
(3) Papers using quantitative methodologies
(4) Papers relating to mental health or physical health problems
(5) Language: published in the English language.

Exclusion Criteria

(1) Theoretical articles on help-seeking
(2) Articles on non-psychological help-seeking behaviours (e.g specifically medical)
(3) Articles published before 2003 in order to capture recent literature since the last published review focusing on help-seeking.

The systematic approach of this search resulted in 62 unique articles being identified. This comprised 56 papers from five databases and six additional papers identified by backward and forward citation search. Following initial screening, 44 full text articles were scrutinised further for eligibility for inclusion in the current review. Nineteen papers met the criteria for inclusion and were found to be appropriate for review (see Figure 1).

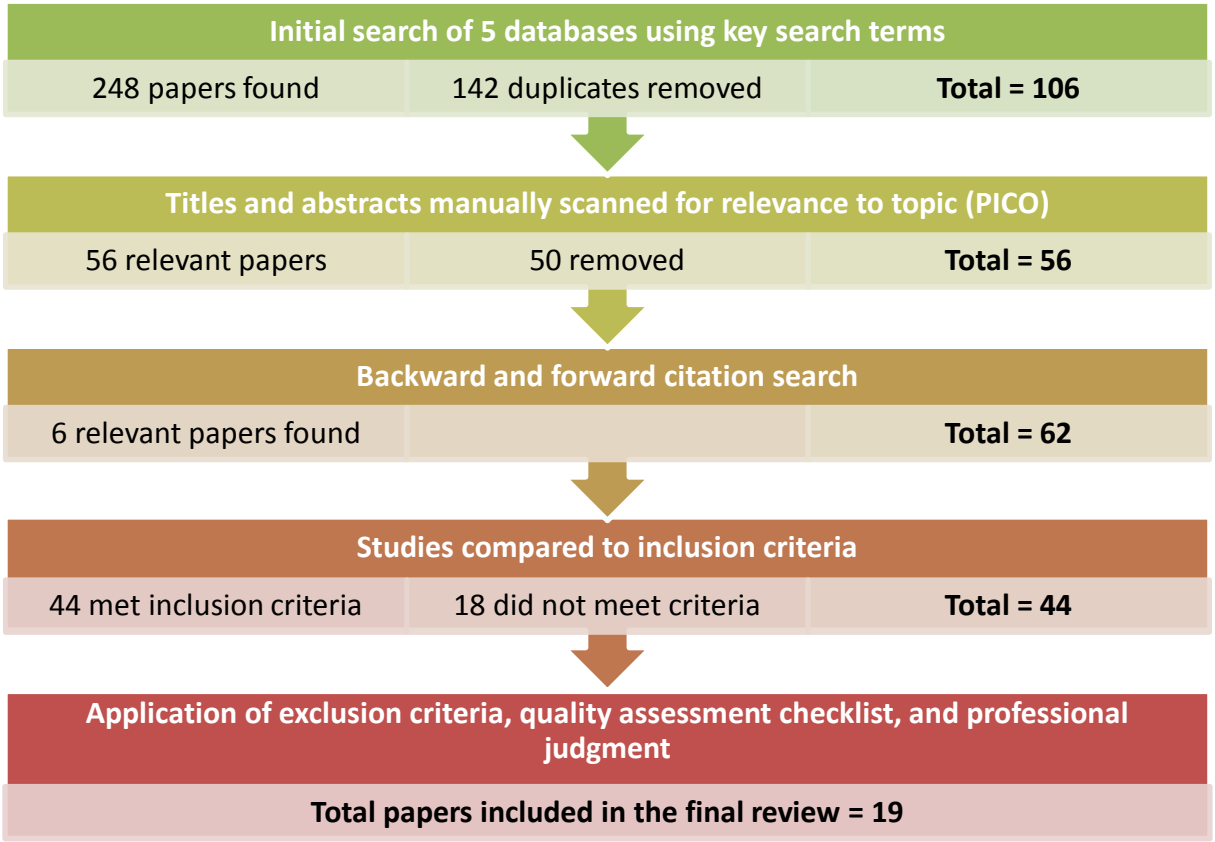

Figure 1. Flow chart for shortlisting process

Quality Assessment

The current review used items from the Strengthening the Reporting of Observational studies in Epidemiology (STROBE) checklist for quantitative articles to appraise the quality of the identified studies (see Appendix B). The STROBE recommendations comprise a checklist of 22 items relating to the studies' title and abstract, introduction, methods, results,

discussion, and funding. Scores were allocated on a three-point rating scale for each item on the checklist (0 = "*poorly addressed/not reported on"*; 1 = "*Adequately addressed*/some elements reported on"; 2 = "*Well covered/fully reported on"*). The total score for each study was achieved which represented an overall judgement of quality. Higher scores represented studies with greater quality of reporting, reliability and validity. A maximum score of 44 could be achieved and the weightings were used for shape discussion points during the review of the literature.

It is important to note that, whilst quality is usually established using structured checklists designed to assess reliability and rigor on studies, some authors using qualitative methodologies have argued that there is little advantage of standardised tools over expert judgement of the researcher (Dixon-Woods et al., 2006; Miller, Bonas, & Dixon-Woods, 2007). However, it was decided that approaching the appraisal of studies in a systematic way would be of benefit to the current study as it focusses on quantitative research.

Analysis Plan

Analysis began with the production of a matrix to identify key themes within the papers and specific examples of the themes being discussed by the authors (see Appendix C). These were then classified into broad categories of relevance to psychological help-seeking in student populations. Identified studies were then reclassified into one or more of these categories with demographic factors combined between categories to form the basis of the analysis for the review.

Results

Study characteristics

All of the papers identified for this review addressed key constructs relevant to the area of psychological help-seeking among student samples. Of the 19 papers identified for this review, 15 were prospective cohort studies, one was a retrospective cohort study, two were scale development and analysis, and one was a meta-analysis. For the 15 papers comprising prospective cohort studies, 12 explored attitudes for psychological help-seeking, seven contained measures for intentions to seek help, two explored other-stigma and social norms, and two measured perceived behavioural control. The retrospective cohort study explored attitudes, behavioural control and actual help-seeking behaviour, while the meta-analysis comprised a variety of historical studies relevant to psychological factors in attitudes to seeking professional psychological help. The study characteristics of included papers are presented in Table 1.

Year and location of studies

The studies were published between 2003 and 2013 with 13 conducted in the United States [1, 3, 4, 5, 6, 7, 9, 10, 12, 16, 17, 18, 19] and one each in Australia [15], Canada [8], Israel [14], Taiwan [2], and Turkey [13].

Table 1

Studies included in the review

No	Study Author	Title	Country	Aim(s)	Design	Sample	Measures	Findings
1	Ægisdóttir, S., & Gerstein, L. H. (2009)	Beliefs about psychological services (BAPS): Development and psychometric properties.	United States of America	To construct and evaluate the BAPS and it's psychometric properties	Scale Development (3x studies)	243 m=86 f=149	Beliefs about psychological services	The measure was valid and reliable and three factors emerged including stigma tolerance as a component of attitude
2	Chang, H. (2007)	Psychological distress and help-seeking among Taiwanese college students: Role of gender and student status.	Taiwan	Examine the relationship between psychological distress and attitudes towards seeking professional psychological help by comparing gender and student status	Prospective cohort study	961 m=403 f=558	Anxiety, depression, attitudes towards seeking professional psychological help	Even when outside help is sought, there is a reluctance to use mental health services By including student status (i.e. traditional vs non-traditional) in an analytical model mental health symptoms are predictors of attitudes toward help-seeking
3	Cheng, H., Kwan, K. K., & Sevig, T. (2013)	Racial and ethnic minority college students' stigma associated with seeking psychological help: Examining psychocultural correlates.	United States of America	Explore perceived racial/ethnic discrimination, ethnic identity, and other-group orientation as potential psychocultural correlates of stigma associated with seeking psychological help	Prospective cohort study	709 m=168 f=439 transgender=2	Psychological distress, perceived discrimination, ethnic identity, other-group orientation, perceived stigmatisation by others for seeking psychological help, self-stigma of seeking psychological help	Higher levels of psychological distress predicted more perceived stigmatisation by others and self-stigma associated with psychological help help-seeking intentions are influenced by attitudes and inclination to establish relationships with people from other ethnic groups and their perceptions of how family, friends and professors stigmatise psychological help seeking

4	Eisenberg, D., Golberstein, E., & Gollust, S. E. (2007).	Help-seeking and access to mental health care in a university student population.	United States of America	Access help-seeking and mental health care among students using clinically validated instruments while adjusting for nonresponse bias	Retrospective cohort study	2785 no information on gender	anxiety and depression, mental health service utilisation	Service use was much higher for students who screened positive for depressive or anxiety disorders, but potential unmet needs for services still seemed substantial Campus communities are different to from communities in the general population in ways that may be important for mental health service utilisation Variety of factors were related to help-seeking behaviour and access to services; including awareness of service (control) and beliefs about treatment outcome
5	Hess, T. R., & Tracey, T. J. G. (2013)	Psychological help-seeking intention among college students across three problem areas.	United States of America	Access differences in help-seeking behaviour across different problem types (anxiety and depression, career choice concerns, and alcohol or drug use)	Scale development Prospective cohort study	839 m=338 f=548	Attitude, subjective norms, perceived behavioural control (therapy and self), and intention	Provided support for a view of a more global nature of help-seeking intention

6	Kim, B. S. K. (2007)	Adherence to Asian and European American cultural values and attitudes toward seeking professional psychological help among Asian American college students.	United States of America	Examine Asian American college students' attitudes toward seeking professional psychological help in the context of both enculturation and acculturation to cultural values	Prospective cohort study	146 m=49, f=97	Values enculturation, values acculturation, attitudes towards seeking professional psychological help	Individuals who are highly enculturated have fewer professional help seeking attitudes
7	Levant, R. F., Wimer, D. J., & Williams, C. M. (2011)	An evaluation of the health behavior inventory-20 (HBI-20) and its relationships to masculinity and attitudes towards seeking psychological help among college men.	United States of America	Explore the factor structure of the HBI-20 scores, and to assess its reliability and relationships with measures of masculine gender socialisation constructs and psychological help-seeking attitudes	Scale reliability Prospective cohort study	323 m=323	Health behaviours, endorsement of masculine ideology, conformity to masculine norms, personal restriction to gender roles, attitudes to psychological services	When providing health behaviour counselling to men who endorse traditional masculinity ideology it is possible to rely on willingness to follow health recommendations. Interventions aimed at modifying the endorsement of traditional masculinity ideology, specific aspects of the conformity to masculine norms (dominance, self-reliance, status, risk taking), and gender role conflict (restrictive emotionality) might be needed

8	Mackenzie, C. S., Knox, V. J., Gekoski, W. L., & Macaulay, H. L. (2004)	An adaptation and extension of the attitudes toward seeking professional psychological help scale.	Canada	Address conceptual and methodological limitations of ATSPPHS and extent the ATSPPHS to include new items according to TPB in order to better predict mental health service use	Scale adaptio n and extensio n Prospec tive cohort study	297 m=144 f=153	Help-seeking intentions, previous service utilisation	Addressed several of the ATSPPHS's conceptual and methodological limitations, resulting in the theoretically and psychometrically superior IASMHS
9	Miller, M. J., Yang, M., Hui, K., Choi, N., & Lim, R. H. (2011).	Acculturation, enculturation, and Asian American college students' mental health and attitudes toward seeking professional psychological help.	United States of America	Test whether behavioural acculturation, behavioural enculturation, values acculturation, and acculturation gap family conflict would exhibit direct and indirect effects through acculturative stress on mental health and attitudes toward seeking-professional psychological help	Prospec tive cohort study	296 m=163 f=132	Behavioural acculturation and enculturation, values enculturation and acculturation, acculturative stress, acculturation gap family conflict, mental health, attitudes towards seeking professional psychological help	It would be beneficial to explore both behaviour and value domains of acculturation and enculturation when working with Asian Americans

10	Miville, M. L., & Constantine, M. G. (2006).	Sociocultural predictors of psychological help-seeking attitudes and behavior among Mexican American college students.	United States of America	Explore sociocultural predictors of psychological help-seeking attitudes and behaviours among Mexican-American college students	Prospective cohort study	162 m=59, f=103	Attitudinal and behavioural aspects of acculturation and enculturation, cultural congruity, perceived social support and attitudes towards professional psychological help seeking	Provides empirical support for the need to assess sociocultural variables when working with Mexican American clients – impact of help seeking
11	Nam, S. K., Choi, S. I., Lee, J. H., Lee, M. K., Kim, A. R., & Lee, S. M. (2013).	Psychological factors in college students' attitudes toward seeking professional psychological help: A meta-analysis.		To consolidate the results of various studies into psychological help-seeking using meta-analysis	MIX (Meta-analysis with Interactive eXplanations)	7397 from 19 studies	Anticipated benefit, anticipated risks, depression, distress, self-concealment, self-disclosure, social support, public stigma, self-stigma	More diverse instruments for measuring attitudes (and behaviours) should be developed to explore other variables that might be relevant to attitudes
12	Ruzek, N. A., Nguyen, D. Q., & Herzog, D. C. (2011).	Acculturation, enculturation, psychological distress and help-seeking preferences among Asian American college students.	United States of America	Explore how Asian American college students seek help when faced with mental health concerns by focussing on preferences for specific treatment modalities, including both traditional Western and non-traditional treatment approaches	Prospective cohort study	584 m=280 f=291 13=non responses	Levels of acculturation and enculturation, acculturation and enculturation values, depression, anxiety and stress, help-seeking preference	Other factors might be at play in help-seeking preference, which would further explain how patterns of acculturation and enculturation relate to psychological distress or well-being in the population

13	Seyfi, F., Poudel, K. C., Yasuoka, J., Otsuka, K., & Jimba, M. (2013).	Intention to seek professional psychological help among college students in Turkey: Influence of help-seeking attitudes.	Turkey	Examine the role of psychological (i.e. perceived social support) and demographic (i.e. prior counselling experience, gender) factors in predicting students' attitudes toward seeking help	Prospective cohort study	456 no information on gender	Intentions to seek professional psychological help, attitudes towards help-seeking, perceived social support, social-demographic characteristics, prior experience of counselling, sources of psychological help, awareness of on-campus counselling centre	Positive attitudes were associated with intentions to seek help along with perceived social support from family, friends, and significant others
14	Shechtman, Z., Vogel, D., & Maman, N. (2010).	Seeking psychological help: A comparison of individual and group treatment.	Israel	Explore differences in help-seeking attitudes between individual and group treatment and examine the extent to which cultural factors are associated with the model	Prospective cohort study	307 m=153 f=154	Public stigma, self-stigma, attitudes towards psychological help-seeking, intentions to seek counselling	Public stigma may not be an important factor in the underutilisation of individual or group treatment – people form their own opinions regardless of the opinions of others

15	Smith, C. L., & Shochet, I. M. (2011).	The impact of mental health literacy on help-seeking intentions: Results of a pilot study with first year psychology students.	Australia	Conduct a pilot study evaluating the relation between mental health literacy and intentions to seek professional help for mental health issues	Prospective cohort study	150 m=32, f=118	General help-seeking questionnaire, mental health literacy	Higher levels of mental health literacy were associated with greater intentions to seek-help from professional sources should the individual develop a mental illness
16	Smith, J. P., Tran, G. Q., & Thompson, R. D. (2008).	Can the theory of planned behavior help explain men's psychological help-seeking? Evidence for a mediation effect and clinical implications.	United States of America	Provide preliminary evidence that the TPB can help explain men's psychological help-seeking	Prospective cohort study	307 m=307	Masculinity ideology, attitudes and intentions to seek psychological help	Additional factors must be evaluated to augment our understanding of men's help-seeking intentions – such as subjective norm and perceived behavioural control
17	Tillman, K. S., & Sell, D. M. (2013).	Help-seeking intentions in college students: An exploration of eating disorder specific help-seeking and general psychological help-seeking.	United States of America	Investigate help-seeking intentions for eating disorders and general psychological problems in college students	Prospective cohort study	108 m=14, f=94	Attitudes towards professional psychological help-seeking, perceived availability of treatment for students, perceived knowledge of eating disorders, eating disorder specific help-seeking behaviours for self	Tendency of people with ED to isolate from loved ones and deny symptomology may impact others help-seeking motivation and perception of effectiveness Psychologists can train students to be aware of the signs and symptoms of eating disorders, these students may seek help for friends who may be unwilling or unable to seek help for themselves

18	Tsan, J. Y., Day, S. X., Schwartz, J. P., & Kimbrel, N. A. (2011).	Restrictive emotionality, BIS, BAS, and psychological help-seeking behavior.	United States of America	Examine the relationships among gender role conflict, attitudes toward seeking psychotherapy, and behavioural inhibition system (BIS) and behavioural activation system (BAS) sensitivity	Prospective cohort study	289 m=289	Gender role conflict, behavioural inhibition system and behavioural activation system sensitivity, attitudes towards professional psychological help-seeking	Restrictive emotionality may play a key role in the development of attitudes towards psychotherapy
19	Vogel, D. L., & Wei, M. (2005).	Adult attachment and help-seeking intent: The mediating roles of psychological distress and perceived social support.	United States of America	Examine the mediating roles of perceived social support and psychological distress on the relationship between adult attachment and help-seeking intentions	Prospective cohort study	355 m=118 f=237	Attachment, psychological distress, social support, intentions to seek help	Individuals with different types of insecure attachment do not report the same willingness to seek-help

Sampling and participant characteristics

There was a total sample size 16,714 with participant numbers ranging from 108 to 7,397 in the meta-analysis [10]. The sample comprised 3,073 women and 2,926 men with no information on sex being provided for 10,715 participants. All participants were obtained from university student populations. Questionnaires were delivered in a variety of formats including paper form, online survey and face-to-face contact.

Measures used in the literature

The included studies used a number of different measures to explore the domain help-seeking. Attitudes toward help-seeking was most commonly measured with the Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPH-S; Fischer & Farina, 1995) utilised 11 times [2, 6, 7, 8, 9, 10, 13, 14, 16, 17, 18], and the Self-Stigma of Seeking Psychological Help scale (SSOSH; Vogel, Wade, & Haake, 2006) [3], the Beliefs About Psychological Services (BAPS) [1], the Inventory of Attitudes Towards Mental Health Services (IASMHS) [8] and the Theory of Planned Behaviour (TPB; Ajzen, 1985) [5] all utilised once.

Intention to seek help was measured in seven of the studies with the General Help-Seeking Questionnaire (GHSQ; Rickwood, Deane, Wilson, & Ciarrochi, 2005) [15, 16], the Intention to Seek Counselling Inventory (ISCI; Cash Begley, McCown & Weise, 1975) [14, 19] was utilised in two papers, the TPB once [5], and single item questions in two papers [12, 13]. Similarly, there were seven papers that explored help-seeking behaviours including behavioural control [5, 13, 15, 17], actual help-seeking behaviour [10, 13] and perceived need [4]. Finally, three studies examined perceived stigma of others and societal beliefs about help-seeking [3, 5, 14].

Authors' justification for research

The current review explored the justification for research cited by the authors. Of the 19 papers identified, 13 [1, 2, 4, 6, 8, 9, 10, 12, 13, 15, 16, 18, 19] highlighted that whilst prevalence of mental health problems is high the proportion of people seeking help is much lower. The authors argued that the underutilisation of services means that clinicians and researchers need to explore what influences help-seeking behaviour. A number of studies emphasised that low uptake of services was a particular problem in student populations [2, 4, 13, 15] while others highlighted associations with ethnicity [6, 9, 10, 12] and gender [16, 18]. In general, Chang (2007) put forward that even though some individuals would chose to seek external help if they experienced a mental health problem they would be reluctant to seek it from mental health services. Miville and Constantine (2006) highlighted that underutilisation of services was a significant problem affecting the general health of the population. Based on the identified problem the authors developed research in an attempt to understand what influences help-seeking intentions.

Approaches to explore help-seeking intentions

A variety of methodologies and measures were used. As reported earlier, the majority of the studies identified used existing measures to understand what influences help-seeking. All but four studies [3, 12, 15, 19] focused on attitudes towards help-seeking. Of the studies exploring attitude, only five studies [4, 5, 8, 10, 11] included additional non-demographic measures of potentially influential factors. The additional variables were; behavioural control [4, 5], normative beliefs [5, 11], psychological openness, help-seeking propensity, and indifference to stigma [8], actual help-seeking behaviour [10]. The variables included in

the studies not investigating attitude were; self-stigmatisation and perceived stigmatisation by others [3], help-seeking preference [12], and intentions [15, 19].

Overview of findings from studies using Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPH-S)

Information about the ATSPPH-S

The ATSPPH-S is a 10-item unidimensional version of Fischer and Turner's 29-item scale for measuring attitudes toward seeking professional psychological help. Responders are asked to rate 10 items relating to how positively or negatively they view seeking counselling for a psychological problem. The ATSPPH-S has been repeatedly reported to have good reliability and validity.

Attitudes (ATSPPH-S) - Gender

Of the 11 studies using the ATSPPH-S a number of demographic comparisons were made. One such characteristic explored was the influence of gender differences [2, 7, 16, 18]. Chang (2007) investigated the impact of psychological distress levels on psychological help-seeking and whether this relationship was moderated by gender and student status. A multiple regression analysis indicated higher levels of depression were adversely correlated with help-seeking attitudes. The author also found more favourable attitudes towards help-seeking in female students. Finally, an interaction was observed between gender and depression and anxiety scores highlighting a mediating effect. However, the factors explored accounted for less than 10% of the variance of help-seeking attitudes and the

author noted that the results are limited as other variables not assessed may play a role in attitudes toward help-seeking.

In contrast to Chang's research, three studies examined gender specific characteristics within male populations [7, 16, 18]. Tsan, Day, Schwartz and Kimbrel (2011) examined relationships among gender role conflict (restrictive emotionality and restrictive affectionate behaviour), behavioural inhibition system (BIS) and behavioural activation system (BAS), and attitudes toward seeking psychotherapy. Structural equation modelling found no evidence for a mediation effect for BIS on restrictive emotionality and restrictive affectionate behaviour between men on attitudes towards psychotherapy. The authors reported evidence that dimensions of the BAS and restrictive emotionality uniquely predict men's attitudes toward psychotherapy. Tsan et al. (2011) recommended that clinicians consider gender role conflict when developing and providing services.

Furthermore, Levant, Wimer and Williams (2011) assessed the Health Behaviour Inventory-20 (HBI-20) and its relationship with psychological help-seeking and several measures of masculine gender socialisation constructs. The authors found that the relationship between masculine gender socialisation and health behaviour varies according to the specific health behaviour dimension and gender socialisation construct. It was argued that different elements of masculinity are associated with health risk factors and others with health protective factors. However, potential overlap of the three measures of masculinity may have confounded the findings by inflating the R^2 statistic. The authors proposed that interpretation should be done with caution with variance explained by masculinity ranging from 4% to 23%. Moreover, they reasoned that there is a need for an easy to administer

behaviour measure for men due to the questionable psychometric properties of existing measures.

Finally, to assess a number of variables that might predict help-seeking behaviour intentions Smith, Tran and Thompson (2008) used the Theory of Planned Behaviour to explore men's psychological help-seeking. Similarly to Tsan et al. (2001) the authors adopted structural equation modelling to investigate the relationship between traditional masculinity ideology and help-seeking. A mediation effect for attitudes toward help-seeking was found for the relationship between traditional masculinity ideology and psychological help-seeking intentions. From these results, Smith et al. (2008) came to the same conclusion as Chang and argued that research must evaluate additional factors to augment our understanding of help-seeking intentions. They further proposed that multi factor measures should aim to provide opportunities for the development of interventions.

Attitudes (ATSPPH-S) – Cultural Differences

Another comparison made in the studies using the ATSPPH-S was with cultural differences. A number of studies explored the impact on help-seeking of the process of cultural and psychological change following the meeting of different cultures (acculturation) [6, 9, 10]. They also investigated the process by which people learn the requirements of their surrounding cultural (enculturation). The findings of these studies are somewhat inconsistent.

Miller, Yang, Hui, Choi and Lim's (2011) highlighted indirect and direct ways acculturation and enculturation factors related to professional help-seeking attitudes. In this study the

authors proposed a partially indirect effects model to demonstrate the impact of acculturation and enculturation on psychological help-seeking in Asian American students. They found that lower values enculturation and higher values acculturation were associated with positive help-seeking attitudes. It was argued that a protective element to engaging in enculturation behaviours (i.e., receiving support from interaction with others of one's culture of origin) may limit opportunities to engage in the second culture and therefore increase acculturative stressors (i.e., pressure to act less Asian or speak English), which in turn may lead to poorer mental health and less help-seeking. However, the study did not collect information on year of study and therefore was unable to account for differences in individual variable or model fit across academic levels.

In contrast to Miller et als. findings, Kim (2007) found an inverse relationship between enculturation to Asian values and psychological help-seeking only existed when using bivariate correlation and not when analysed with hierarchical multiple regression. The author controlled for previous experience of services. Furthermore, no relationship was found between acculturation and professional help-seeking attitudes. The authors concluded that there was no observable relationship between values acculturation or enculturation and professional help-seeking. This could have been due to the study only sampling introductory psychology course students. What is more, almost 50% reported having a counselling experience which is particularly high. The authors proposed that this could be due to the inclusion of academic, career and personal counselling in the criteria.

Finally, Miville and Constantine (2006) examined sociocultural variables (acculturation, enculturation, cultural congruity and perceived social support) as predictors of psychological

help-seeking attitudes of Mexican American students. Higher acculturation into a dominant society and lower perceived social support from friends and family predicted greater help-seeking behaviour. However, the authors used a single item measure of help-seeking behaviour which may have limited the sensitivity of the assessment this variable. The authors argued that the results highlighted the need for more visible mental health agencies in Mexican American communities and the need to assess sociocultural variables.

One thing these studies had in common was that they all explored only a single culture. This limits the ability to generalise the findings to the wider population, and hampers the conclusions that can be drawn about the impact of acculturation and enculturation. What is clear is that the impact of cultural differences on help-seeking warrants further study as there is some variation in current findings.

Attitudes (ATSPPH-S) – Other Associations

One study explored a number of variables and their impact on attitudes toward help-seeking [13]. Seyfi, Pudel, Yasuoka, Otsuka, and Jimba (2013) used self-administered, structured questionnaires and analysed the results using both descriptive and multivariate methods. They found a positive association between attitudes and intentions to seek help. Furthermore, age, perceived social support from family, perceived social support from friends, and perceived social support from significant others were all positively associated with help-seeking attitudes. The study also found that being male and lack of awareness of services was associated with less positive attitudes toward help-seeking. The study used a comprehensive battery of assessment tools and robust statistical analysis. However, the authors used a cross-sectional approach which limited the interpretation of causality.

Nevertheless, the authors reported consistent findings with a number of longitudinal studies. It was suggested that interventions to improve attitudes on help seeking might be warranted as a way to increase service utilisation.

Overview of findings from studies developing new measures for use in help-seeking research

A number of studies sought to develop and validate new measures for use in the help-seeking literature [1, 5, 8]. Mackenzie, Knox, Gekoski and Macaulay (2004) argued the inconsistency seen in the results of the studies above is due to capricious evaluations and a failure to ground approaches in theory. As a result they sought to develop a new Inventory of Attitudes toward Seeking Mental Health Services (IASMHS). The measure comprised 24 items and 3 factors: psychological openness, help-seeking propensity, and indifference to stigma. In their study the authors replicated the three factor model in a sample of 293 undergraduates. They found the measure to be valid by its ability to distinguish between those who had and had not accessed mental health services in the past as well as intentions to seek help in the future. Furthermore, the authors were able to demonstrate gender differences in help-seeking attitudes. Mackenzie et al. (2004) posited that the IASMHS addressed the limitations of exiting measures, provided information regarding reliability and validity of attitude measurement, and proved to be a theoretically and psychometrically superior measure. Despite this, further work would need to be done to see if the findings could be replicated.

In an attempt to acknowledge both the strengths and limitations of the existing measures Ægisdóttir and Gerstein (2009) developed the Beliefs About Psychological Services (BAPS) questionnaire. The authors asked students and colleagues about common positive and

negative attitudes towards psychologists and services. They gathered together these responses and combined them with items based on Fischer and Turner's (1970) Attitudes toward Seeking Professional Psychological Help Scale (ATSPPHS) to form the BAPS. Ægisdóttir and Gerstein reported three studies describing the construction and evaluation of the BAPS and its psychometric properties. They found the 18 item scale to have good internal consistency for the three factors identified; intent (Cronbach Alpha = 0.82), stigma tolerance (0.78), and expertness (0.72). The authors also assessed stability over time and found the scale to have good test-retest reliability both as a total measure (0.87) and for the sub-scales (0.87, 0.79, and 0.75 respectively). However, the study has limited external validity as the sample comprised a low frequency of male participants and may not reflect men's attitudes towards help-seeking.

Finally, Hess and Tracey (2013) used Ajzen's (1985) Theory of Planned Behaviour (TPB) to understand psychological help-seeking intention for anxiety or depression, career choice concerns, and alcohol or drug use. The authors sampled 889 university students to explore the impact of attitudes, normative beliefs, and perceived behavioural control and their impact on help-seeking intentions. The authors found that correlations for similar constructs were positive and moderate in value. Path analyses were conducted for each concern and it was found that the TPB variables do not vary based on the type of concern measured. The study found the relationship to help-seeking intention for attitude, social norm, and perceived behavioural control to be moderate (.14), large (-.53) and minimal (.08) respectively.

In summary, the approaches to research into help-seeking in the identified literature included significant debate about the appropriateness and utility of measures. While the ATSPPH-S appears to have been adopted as the primary tool for measuring attitudes it has come under criticism from other researchers. The main criticism being that the tool is not comprehensive enough to be used in this domain and has significant psychometric limitations. In some cases this has resulted in attempts to develop new scales that incorporate psychosocial theory and provide a more suitable base to explore relationships across different demographics. It is clear that the research evidence is inconsistent and that the adoption of the ATSPPH-S may be premature and more work is needed in this area to add to the evidence base.

Overview of Research examining factors other than attitude

Of the identified studies, two explored other-stigma and societal norms in relation to help-seeking [3, 14]. Shechtman, Vogel and Maman (2010) investigated public stigma, as well as self-stigma, its relationship with attitudes and intentions to seek help for both group and individual treatment. Furthermore, the authors examined the influence of gender, ethnicity, level of religion, educational orientation, and age. Shechtmen et al. found that no relationship existed between public stigma and attitudes or intentions to seek help. This was not the case with self-stigma for which significant relationships existed, indicating that public stigma plays less of a role in help-seeking than self-stigma. The authors argued that individuals form their own opinions on whether to seek individual or group help regardless of the opinions of others. One limitation of the study was that it used a public stigma questionnaire which was not developed for the specific culture studied. This may have

resulted in lower validity and mean the findings cannot necessarily be applied to diverse cultures.

Shechtman and colleagues' (2010) findings were contrasted with the results of research conducted by Cheng, Kwan and Sevig (2013) into stigma associated with seeking psychological help in racial and ethnic minorities. Cheng et al. (2013) used structural equation modelling to explore the effects of psychocultural variables (i.e., ethnic identity, other-group orientation, perceived discrimination), psychological distress, perceived stigmatisation by others, and self-stigma on psychological help-seeking. It was found that racial/ethnic discrimination and psychological distress predicted higher levels of perceived stigmatisation by others and therefore greater self-stigma for help-seeking. The study highlights the potential impact of other-stigma on help-seeking intention. Moreover, stigmatisation by others was found to mediate the relationship between psychological distress and self-stigma. Despite the findings, the study had a low completion rate (22%) with significantly more females than males. What is more, the authors did not monitor actual psychological help-seeking behaviour or intentions and therefore it is difficult to conclude that the findings would translate in the real world.

In contrast to this, a number of studies explored behavioural intentions [5, 13, 14, 15, 16, 17, 19], actual help-seeking behaviour [4, 10], and behavioural preference [12]. Very few made distinctions between help-seeking behaviour for different mental health conditions. Hess and Tracey (2013) did explore different concerns and found that no difference existed between anxiety and depression, career choice concerns, and alcohol or drug use. They found significant associations with intentions for perceived behavioural control for therapy

and for self. In contrast Tillman and Sell (2013) found that intentions to seek help for a friend were influenced by condition type with friends more likely to seek help for friends with an eating disorder than for themselves. As a result the authors argued that outreach programmes should be developed with this in mind. In contrast, Smith and Shochet (2011) argued that higher levels of mental health literacy predict greater intentions to seek professional help with four mental health literacy components making significant unique contributions; knowledge about helpfulness of interventions, knowledge about confidentiality, knowledge about affordability, and beliefs about mental illness. With the exception of the Tillman and Sell study, the evidence provided in the identified studies appears to show help-seeking as being more of a global issue that is influenced by individual characteristics rather than being condition specific.

Whilst mental health literacy appears to play a significant role in help-seeking intentions, Vogel and Wei (2005) argued that other factors may play an important role. They examined whether perceived social support and psychological distress mediated the relationship between adult attachment and help-seeking intentions observed in early studies (Florian, Mikulincer & Bucholtz, 1995; Hazan & Shaver, 1987; Kobak & Sceery, 1988). Vogel and Wei utilised a structural equation model and found that attachment anxiety was positively associated with acknowledging distress and to seeking help. There was a negative impact of attachment anxiety and avoidance on perceived social support which contributed to negative experiences of distress and subsequently positively contributed to intentions to seek help. It was concluded that individuals who are attachment avoidant are less likely to seek help from a professional and those that are attachment anxious are more likely.

Finally, Ruzek, Nguyen and Herzog (2011) examined the relationship between levels of enculturation, acculturation, and psychological distress and help-seeking preferences. They found Asian American students preferred a more covert approach to treatment of mental health problems. The authors underlined the importance of attempts to understand why mental health services are underutilised by Asian Americans and what could be done to develop strategies to improve access.

Implications of the identified studies

From the identified literature there appears to be a growing need to understand what impacts on help seeking behaviour. So far the majority of the research has focused on attitudes but highlighted the need for more comprehensive measures. Common across all of the studies was that the results had implications for clinical practice and for improving access to psychological help. When reviewing the implications in greater detail a number of studies called for their findings, and that of future research, to be incorporated into the development of interventions [11, 13, 16, 17, 18]. Whilst some of the authors have argued that measures of attitude are sufficient, others acknowledge the limitations of using a single measure and highlight the complexity of help-seeking behaviours. Nam, Choi, Lee, Lee, Kim, and Lee's (2013) meta-analysis of literature exploring attitudes towards help-seeking comprised nine variables; anticipated benefit, anticipated risks, distress, depression, self-concealment, self-disclosure, self-stigma, public stigma, and social support. It was found that most variables, distress being the exception, were significant predictors of psychological help-seeking across the 19 studies included. Self-stigma, anticipated benefits, and self-disclosure were found to have the largest effect sizes. Nam et al. proposed that more should be done to develop strategies to communicate what mental health services do

as well as how effective they are. Furthermore, they argued that strategies to reduce stigma would likely improve help-seeking behaviour.

Discussion

From reviewing the literature in this area it is clear that a number of factors influence intention to perform a behaviour and subsequently frequency with which that behaviour is performed. A total of four key themes emerged from the review of the literature and these will be discussed individually. The key themes were; a) mental health services are underutilised and understanding help-seeking intentions and behaviour is of paramount importance for mental health professionals, b) current measures of help-seeking have significant shortcomings and comprehensive, theory driven instruments are needed, c) help-seeking is more likely to be a global concept and does not vary in relation to type of problem although it may be population specific, and d) instruments used to measure help-seeking intention should be constructed with the development of interventions in mind.

Mental health services are underutilised and understanding help-seeking intentions and behaviour is of paramount importance for mental health professionals. Researchers almost unanimously agree that there is significant underutilisation of services provided for individuals with mental health difficulties. Ægisdóttir and Gerstein (2009) posit that this is a direct impact of people's attitudes towards help-seeking with more negative attitudes often being associated with males rather than females. Support for this comes from Smith, Tran and Thompson (2008) and Tillman and Sell (2013) who argue that more needs to be done to understand men's help-seeking intentions after finding associations with traditional masculinity traits and gender role conflict. However, other authors argue that services are

underutilised more in specific populations, and that a number of factors can impact on decisions as to whether to seek help or not. Low uptake of services was reported in general student populations (Chang, 2007; Seyfi, Pudel, Yasuoka, Otsuka & Jimba, 2013; Smith & Shochet, 2011) and in ethnic minority populations (Miller, Yang, Hui, Choi & Lim, 2011; Miville & Constantine, 2006; Ruzek, Nguyen & Herzog, 2011). The studies identified generally focused on the underutilisation by specific demographics but it should be noted that poor uptake of services has been found more generally and is a problem across all populations. An explanation for these articles being identified in the current review could be the use of 'student populations' in the inclusion criteria which limits studies looking at more general population trends. This limitation may not be reflected in the appraisal process as studies would have achieved higher scores for 'setting' and 'population' by exclusively focussing on student populations.

There appeared to be significant evidence for measureable differences in service uptake. Eisendberg, Golberstein, and Gollust (2007) highlighted that despite much higher service use in those who screened positive for depressive and anxiety disorders there was still substantial unmet need. Chang (2007) stated that there is reluctance for individuals to use mental health services even when they are prepared to seek out outside help. This reluctance could be exaggerated depending on the type of condition with Tillman and Sell (2013) finding that friends and family are less likely to recommend professional help-seeking to those with eating disorders. The authors argued that this is a direct result of the tendency of people with an eating disorder to deny symptoms and isolate from loved ones. When considering these findings together it is evident that there is a need to improved knowledge and access to information about services. Certainly, Smith and Shochet (2011) found greater

professional help-seeking intentions were associated with higher levels of mental health literacy.

The second theme identified was that current measures of help-seeking have significant shortcomings and comprehensive, theory driven instruments are needed. There is agreement that measures of help-seeking intentions have some benefits but also limitations. For example, attitude has commonly been found to be associated with intentions whilst using the Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS) with high reliability and validity of the scale reported in the studies. However, a number of authors (Eisendberg, Golberstein & Gollust, 2007; Levant, Wimer & Williams, 2011; Mackenzie, Knox, Gekoski & Macaulay, 2004) argue that existing measures have questionable psychometric properties and that there is a general failure to incorporate social psychological theories developed. In many cases, it appears that, in addition to attitudes, consideration should be given to specific population variables such as gender (Ægisdóttir & Gerstein, 2009; Levant, Wimer & Williams, 2011; Smith, Tran & Thompson, 2008), cultural factors such as acculturation and enculturation (Kim, 2007; Miller, Yang, Hui, Choi & Lim, 2011; Miville & Constantine, 2006; Ruzek, Nguyen & Herzog, 2011), the existence of stigma and discrimination (Nam, Choi, Lee, Lee, Kim & Lee, 2013; Shechtman, Vogel & Maman, 2010), and control over seeking help (Eisendberg, Golberstein & Gollust, 2007). In contrast, other researchers argue that the importance of demographic variables can be over-estimated and limits the usability of any potential tools and the ability to generalise to the wider population (Hess & Tracey, 2013; Tillman and Sell (2013).

Thirdly, help-seeking is more likely to be a global concept and does not vary in relation to type of problem although it may be population specific. With the exception of the study examining eating disorders, there appeared to be a degree of consensus that help-seeking behaviour can be measured as a global entity rather than varying according to specific problems. For example, Hess and Tracey (2013) purport that their findings provide unequivocal support for the global nature of help seeking intentions as no difference was found in associations across three problem types. Despite Tillman and Sell's (2013) position that help-seeking intentions for eating disorders is different to other conditions the majority of studies identified report significant findings using the more global construct of help-seeking intentions. However, Tillman and Sell concede that their findings may be due to characteristics of the sample population as a whole rather than representing a condition specific association. There are significant differences between the two studies with Hess and Tracey making a direct comparison between condition types and this was reflected in the scores during quality appraisal. Similarly, Cheng, Kwan and Sevig (2013) argued that incorporating issues relating to the specific population being studied was of far greater importance than what help was being sought for.

Finally, instruments used to measure help-seeking intention should be constructed with the development of interventions in mind. All research seeks to improve understanding of a particular topic, help to develop theory, and have real world implications. This is certainly true of research exploring help-seeing intentions. The studies identified the complexity of what influences intentions to seek help but highlighted the importance of developing interventions with this complexity in mind. Nam, Choi, Lee, Lee, Kim & Lee (2013) proposed that future studies should explore variables that might be relevant to attitudes such as

stigma and subsequently be incorporated into stigma-reducing and knowledge increasing intervention strategies. A similar conclusion was reached by Seyfi, Pudel, Yasuoka, Otsuka and Jimba (2013) who stated that interventions should be developed to increase positive attitudes towards help-seeking behaviours. Smith, Tran, and Thompson (2008) believed their research provided three intervention windows that incorporated gender specific characteristics; changing adherence to traditional masculine ideology, altering traditional men's attitudes towards therapy, and to increase congruence between traditional masculinity ideology and service provided by changing the nature of therapy. Whilst Tillman and Sell (2013) maintained that by training students to recognise symptoms of eating disorders psychologists could increase the willingness of friends to seek help for individuals unwilling to seek help for themselves.

A limitation of the current review is the potential confound that exists between studies that provide a focused examination of students as a target group by contrast to incidental use of students to explore help-seeking. Despite this, the current review of the literature identified that mental health services are underutilised and that help-seeking intentions is an important area for exploration, there is a clear direction for future research. Existing measures appear to have a number of limitations in terms of their over reliance on attitudes and failure to incorporate characteristics of the populations being researched. The shortcomings appear to be accentuated by the lack of underlying psychosocial theory in the area of help-seeking intentions. Despite this there is consensus that any tools developed should be used to guide interventions and evaluate outcomes with the primary focus being on improving access to psychological services. Based on the findings of this literature review research should be conducted exploring help-seeking intentions using an underlying theory

that incorporates a wider set of variables than just attitudes. It should focus specifically on the population of interest and explore the characteristics that are unique to them. The method used should seek to answer a specific question and provide psychometrically valid and reliable measures of variables. Finally, the research should be applicable to clinical practice today and usable in the development of interventions designed to improve help-seeking intentions in a given population.

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Section B

Research Report

Determining intentions to seek psychological help for mental health problems among medical students: Applying the Theory of Planned Behaviour

Submitted 8th May 2014
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Doctorate in Clinical Psychology

Abstract

The Theory of Planned Behaviour (TPB) was used to understand psychological help-seeking intention for mental health problems in medical students. The study explored the relationship between the TPB variables of attitude, subjective norm, and perceived behavioural control and intentions to seek professional psychological help. The impact of sex, ethnicity, and year of study on intentions was also assessed. A total of 39 medical students took part in an elicitation study to guide the development of a quantitative questionnaire. A final sample of 80 medical students completed the online TPB questionnaire. Regression analysis found the TPB model significantly predicted the variance in help-seeking intentions. What is more, the model was able to account for this variance over and above that explained by differences in sex, ethnicity, and year of study. Discriminant analysis on the model demonstrated that 68.8 per cent of cases were correctly reclassified into their original categories of low versus high intenders. The measure was found to have good internal consistency and test-retest reliability. Understanding why people seek help and what influences their decisions enables clinicians to offer better training and support to individuals with mental health problems. The results of the current study are discussed along with the limitations and opportunities for future research.

Introduction

There is a growing literature examining determinants of help-seeking behaviours in the area of mental health. In particular, research has focused on beliefs and attitudes towards mental disorders centring on particular professions or interventions (Wrigley, Jackson, Judd, & Komiti, 2005; Jorm, Medway, Christensen, Korten, Jacomb & Rodgers, 2000b; Komiti, Judd & Jackson, 2006), mental health literacy (Wright, Jorm, Harris, & McGorry,2007), and stigmatisation and negative stereotypes (Barney, Griffiths, Jorm, Christensen, 2006; Jorm, Medway, Christensen, Korten, Jacomb & Rodgers, 2000a). However, these studies often do not use an underlying theoretical framework for the formation of help-seeking intentions and instead examine selected beliefs. An existing model that has a growing evidence base is the Theory of Planned Behaviour (TPB; Ajzen, 1991)

Theory of Planned Behaviour

The Theory of Planned Behaviour has been used in numerous studies to help understand health-related behaviours (see Godin & Krok, 1996) and found to be an effective predictor for both behavioural intentions and behaviour (see Armitage and Conner, 2001).

TPB posits that behaviour can most accurately be determined by intentions to do the particular behaviour in question (see Figure 2). What is more, intention can be predicted by three kinds of considerations: beliefs about likely consequences or other attributes of the behaviours (behavioural beliefs), beliefs about normative expectations of others (normative beliefs), and beliefs about factors that may further or hinder performance of the behaviour (control beliefs) (Azjen, 1991). Favourable or unfavourable attitudes towards the behaviour result from the individuals' behaviour beliefs, perceived social pressure (subjective norm) results from the individuals' normative beliefs, and control beliefs give rise to the

individuals' perceptions of behavioural control. In addition, due to difficulties in the execution of some behaviours influencing volitional control, Azjen hypothesised that perceived behavioural control exerts direct influence on behaviour.

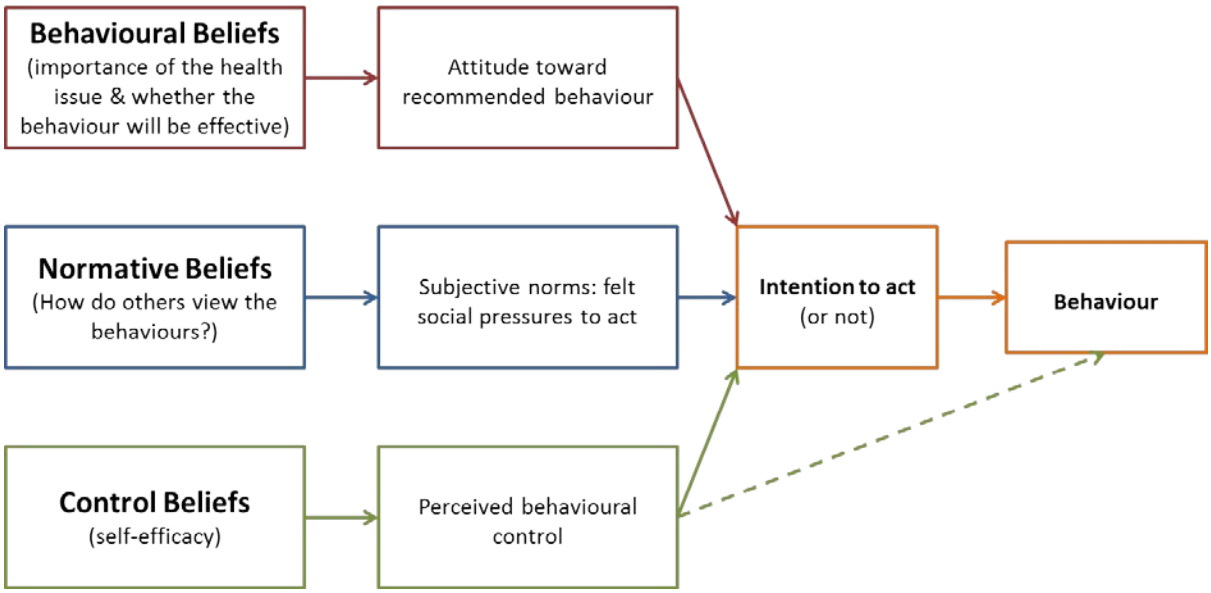

Figure 2. Theory of Planned Behaviour Model

Theory of Planned Behaviour in the Health Literature

Behaviour change related to health has been extensively researched in the domains of cognitive-behavioural approaches, operant conditioning, and self-management methods (e.g. Kanfer & Goldstein, 1986). However, much of this evidence, and the methods used, focus on facilitation of behaviour change in those that already have an intention to change. Significantly fewer studies have been conducted exploring determinants of intention in health. Theory of planned behaviour has been adopted to better understand intentions to change in a number of different health-related settings. Hardeman, Johnston, Johnston, Bonetti, Wareham, and Kinmonth (2002) conducted a systematic review of the literature

and identified 24 papers applying Theory of Planned Behaviour to behaviour change interventions. The authors highlighted that the studies found demonstrated potential for Theory of Planned Behaviour in developing behaviour change interventions but concluded that more comprehensive studies are needed.

One health-related study conducted by Brubaker and Wickersham (1990) explored intentions to perform testicular self-examination among students in dormitories. The authors provided information with a description of testicular cancer, statement on importance of early detection, and a description of testicular self-examination. They found intention to perform testicular self-examination was correlated with attitudes and subjective norms and consideration of self-efficacy. The authors also reported intentions to perform the behaviour to be stronger in those that were exposed to posters reminding them to perform the exam. Similarly, Orbell, Hodgkins, and Sheeran (1997) adopted Theory of Planned Behaviour to explore intentions to perform breast self-examination in female students and university staff. Participants were either given specifications on when and where breast self-examinations would be performed in the following month or no instruction. The authors found that implementation intentions, supplemented by when and where a behaviour should take place, increases the likelihood of them being performed.

In addition to the studies indicated above, Theory of Planned Behaviour has been applied a variety of other physical health-related behaviours such as; weight loss (Porzelius, Houston, Smith & Arfken, 1995), binge eating (Smith, Sondhous & Porzelius, 1995), condom use (Bowen, 1996; Jemmott, Jemmott, & Fond, 1998), smoking cessation (Babrow, Black & Tiffany, 1990), oral hygiene behaviours (Tedesco, Keffer, Davis & Christersson, 1993) and

taking vitamins (Sheeran & Orbell, 1999). In recent years Theory of Planned Behaviour's has been more applied to understand help-seeking in the mental health literature. However, the main focus has been on psychiatric diagnosis models of mental ill health such as seeking psychiatric help for depression (Schomerus, Matschinger & Angermeyer, 2009). Classification is fundamental in medicine, however the categorisation of clinical phenomena and application of physical disease models to psychological distress has received much debate in recent years. Whilst Clinical Psychologists do not deny the mediating role of biology in human experience, behaviour and distress (Cromby, Harper & Reavey, 2013) they would highlight the need to explore the complexity of the relationship between psychological, social and biological factors.

Theory of Planned Behaviour has been used in an attempt to understand the underutilisation of professional care for mental health problems among Chinese populations (Mo & Mak, 2009). Barriers to seeking help were examined along with the effect of suffering from a mental health problem on intentions to seek help. The authors found that presence of a mental health problem did not impact on help-seeking intentions but that they could be predicted by attitudes, subjective norms, perceived behaviour control, and perceived barriers for actual help-seeking. Mo and Mak posited that Theory of Planned Behaviour variables could be used to understand help-seeking behaviours in Chinese populations. In addition, Smith, Tran and Thompson (2008) applied the Theory of Planned Behaviour to an all-male sample in order to help understand why men as a group are less likely to seek psychological help. The authors explored the impact of traditional masculinity ideology on help-seeking intentions and found support for a mediation effect of attitudes on this relationship. Smith, Tran and Thompson argued that their findings demonstrated the need

to facilitate help-seeking among traditionally masculine men and that Theory of Planned Behaviour was a useful model to help understand help-seeking behaviours in men.

Mental Ill Health in Higher Education

In general student populations evidence highlights that prevalence rates are comparable to those of the general population for a variety of mental health problems such as Bipolar Disorder (Smith, Harrison, Muir & Blackwood, 2005), eating disorders (McClelland & Crisp, 2001), and drug and alcohol abuse (MacCall et al, 2001). Whilst male undergraduates are at a higher risk of suicide (Silverman, Meyer, Sloane, Raffel, & Pratt, 1997), female students are more likely to be identified with major depression and anxiety problems (Eisenberg, Gollust, Golberstein & Hefner, 2007). What is more, mental ill health in students is associated with lower socioeconomic status (Cuellar & Roberts, 1997; Weitzman, 2004), relationship stressors (Blanco, et al., 2008; Kisch, Leino, & Silverman, 2005), low social support (Hefner & Eisenberg, 2009), and victimisation by sexual violence (Stepakoff, 1998). There is also evidence that personality traits can moderate the amount of psychological distress university students report (Miquelon, Vallerand, Grouzet, & Cardinal, 2005; Rice, Leever, Christopher & Porter, 2006).

Interestingly, despite evidence suggesting attitudes towards seeking treatment for mental health problems has improved in young adults above that of the general population (Mojtabai, 2007), rates of untreated mental illness is comparable with that of the general population, with a median delay of 11 years between onset and presenting for treatment (Kessler, et al., 2005; Wang, Berglund, Olfson & Kessler, 2004; Wang, Berglund, Olfson, Pincus, Wells & Kessler, 2005). As a result of this finding researchers and clinicians have

sought to identify barriers to help seeking in student populations. A number of barriers have been reported such as lack of time, lack of emotional responsiveness, privacy concerns, lack of perceived need for help, scepticism about treatment effectiveness, and being unaware of services available (Eisenberg, Golberstein & Gollust, 2007; Givens & Tjia, 2002; Komiya, Good & Sherrod, 2000; Megivern, Pellerito & Mowbray, 2003; Mowbray, et al., 2006). Moreover, lower help-seeking behaviour in university students is associated with stigmatising attitudes about mental illness and in students from ethnic minority backgrounds (Eisenberg, Downs, Golberstein & Zivin, 2009).

Hess and Tracey (2013) sampled 889 university students and used the Theory of Planned Behaviour model to explore the impact of attitudes, normative beliefs, and perceived behavioural control on intentions to seek help for anxiety or depression, career choice, and alcohol or drug use. The authors used path analyses for each concern and found that the TPB variables do not vary based on the type of concern measured. In addition, Hess and Tracey found that perceived behavioural control for therapy (from a professional) was a significant antecedent to help-seeking intention, and that intentions were significantly related to TPB variables.

In the general student population the estimated prevalence for any anxiety or depressive disorder is around 15 per cent for undergraduates and 13 per cent for postgraduates (Eisenberg, Gollust, Golberstein & Hefner, 2007) but evidence suggests the figures to be higher, around 28 per cent, for depression in medical students (Mehanna & Richa, 2006). Furthermore, Rab, Mamdou and Nasir (2008) found that as many as 43 per cent of female medical students reported experiencing anxiety.

Mental Illness in Medical Students

Medical students are potentially more likely, to experience mental ill health as other individuals in higher education. Benitez, Quintero and Torres (2001) posited that higher levels of stress caused by high physical, intellectual and emotional demands for medical students increased their susceptibility to the development of mental health problems. The authors explored risk for mental health disorders among 207 medical students and using the General Health Questionnaire (GHQ 12) and found that 41 per cent were at risk, with students in their first year more susceptible to mental ill health than those in their fourth year of training. In a further assessment of medical students, Strous, Shoenfeld, Lehman, Wolf, Snyder and Barzilai (2012) investigated subjective presence of a range of mental health conditions and compared these self-reports for preclinical and clinical training. Of the 110 participants, 55 per cent reported that they had experienced some form of mental health condition and several conditions were comorbid with other mental illnesses. Most common were mood disorders (38% in year 1 and 35% in year 5) and obsessive compulsive traits (41% in year 1 and 46% in year 5). The authors stated that the results demonstrated the need for on-going support programmes for those studying medicine.

The Royal College of Psychiatrists (2011) stresses that there is a need to ensure that its workforce is able to practice safely and competently and highlights that medical students are future NHS professionals. What is more, as medical students come into contact with vulnerable patients on a regular basis there is a need to identify and support students with mental health difficulties. The General Medical Council (GMC) provides information to medical students on what is expected of them in the document *Medical Students: Professional Behaviour and Fitness to Practise (GMC, 2009a)*. This outlines how medical

schools should try to detect problems at an early stage and deal with students that pose a significant risk to patient safety. However, there is also an expectation that medical students are to be aware of their own poor health which may put patients and colleagues at risk.

The Royal College of Psychiatrists draws attention to the concerns students might have of suspension or exclusion from their course and the impact this has on help-seeking behaviour for mental ill health despite protection under disability discrimination legislation. They emphasise that this may lead to a significant problem of undetected and untreated mental health problems and cause unnecessary suffering to the student. As a result the GMC expects medical schools to put in place pastoral care, mentoring and support for all its students with the aim of providing a confidential arena for them to express their concerns. However, there is little evidence available on the level of uptake for this type of support. Moreover, for students seeking this type of support, there may be a conflict of interest and issues with confidentiality if students are being seen in services which host placements for fellow students.

Most empirical evidence has focussed on prevalence of mental health problems in medical students and the impact of studying medicine on mental well-being. However, very little has explored intentions to seek psychological help for common mental health problems in medical students. Some evidence has suggested that doctors experiencing high levels of stress resist help-seeking and instead take an ad hoc approach to dealing with distress (Caplan, 1994; Chambers, 1992). Qualitative research has explored attitudes of medical students to help-seeking behaviour for stress (Chew-Graham, Rogers & Yussin, 2003), reporting emerging themes of perceived stigma associated with mental ill health

contributing to the avoidance of help-seeking behaviour. What is more, help-seeking was perceived as a weakness despite students reporting their course requirements contributed to higher levels of stress. The authors argued that support and mentoring should be provided to aid in the early identification of stress.

Aims and Objectives

The TPB has been used to explore help-seeking behaviour in general health settings (Babrow, Black & Tiffany, 1990; Bowen, 1996; Jemmott, Jemmott, & Fond, 1998; Porzelius, Houston, Smith & Arfken, 1995; Sheeran & Orbell, 1999; Smith, Sondhous & Porzelius, 1995; Tedesco, Keffer, Davis & Christersson, 1993), and specifically for mental health problems (Cramer, 1999; Good, Dell, & Mintz, 1989; Schomerus, Matschinger, Angermeyer, 2009). However, to date it has not been applied to explore help-seeking behaviour for mental health problems in relation to the medical profession, specifically medical students. With a substantial literature indicating higher rates of mental health problems in medical students than the general population, and given that these difficulties are perceived to continue throughout the medical profession (Chew-Graham, Rogers & Yussin, 2003), there is a need to develop an appropriate measure to identify those less likely to seek help.

By applying the TPB to help-seeking, the purpose of the current study is to (1) find out to what extent medical students intend to seek psychological help for mental ill health, (2) explore the relationship between the TPB components and help-seeking intentions, and (3) explore the relationship between the TPB components and intentions while controlling for the impact of individual characteristics, specifically; sex, ethnicity, and year of study.

Method

Design

The research applied a mixed methods design comprising an elicitation study (part one) and the development of a quantitative questionnaire (part two). For part one, a web-based survey was administered to medical students attending an urban university with a demographic profile similar to the national student population. Content analysis was performed and frequently recurring themes were converted into questions and used to develop the Theory of Planned Behaviour questionnaire. Similarly for part two, a web-based survey was administered to medical students to test the reliability and validity of the developed scale and to explore the relationship between the Theory of Planned Behaviour variables and intentions to seek help.

Procedure

Approval was gained from the University of Leicester's Departmental Ethical Review Panel for the elicitation study (part one) and quantitative questionnaire (part two) (see Appendix Y). Further opinion and approval was sought from the medical school's department of medical research and education. The head of medical research and education gave approval to contact students within the medical school and requested the surveys were advertised at specific points in the academic year to maximise recruitment, minimise impact on other projects underway, and avoid busy exam schedules.

For the elicitation study an advert was placed on the university's virtual learning environment (Blackboard) as well as circulated in a medical school wide email (see Appendix D). Participants were informed in the advert that two £25 book vouchers would be raffled

for participants. The elicitation study was completed online using eSurvey Creator. Participants answered demographic questions and nine open ended questions to elicit general attitudes, normative beliefs, and control beliefs for seeking professional help for mental health problems.

For the quantitative questionnaire participants who contributed to the elicitation study were contacted and invited to complete the second part of the study. Similarly to the elicitation study an advert was placed on Blackboard and an email sent out to all students at the medical school (see Appendix E). Further to this the same advert was placed on online medical student forums and social media sites with a link to the survey. The quantitative survey was also completed online using eSurvey Creator. A further two £25 book vouchers were raffled for participants. In order to conduct Test-Retest reliability, participants from part two were contacted two weeks after taking the initial survey and invited to take the survey again. An additional raffle for a single £25 book voucher took place for participation in the retest sample.

Sample

Participants were recruited from various medical schools across the UK during the winter of 2013/14. The final sample for the elicitation study was 39 medical students for questions relating to attitude, 38 for questions relating to subjective norms, and 34 for questions relating to perceived behavioural control. A power calculation was conducted using Tabachnick and Fidell's (1996) formula for calculating sample size requirements in regression analysis which takes into account the number of independent variable being used [$N > 50 + 8m$ (where m = number of independent variables)]. The calculation resulted in a

required sample size of 74 participants for the quantitative questionnaire. Furthermore, consideration was given to specific guidance on sample size requirements set out for Theory of Planned Behaviour studies, which recommends a sample of 80 participants (Francis, et al., 2004). The final sample for the TPB questionnaire consisted of 80 medical students accessed through various methods of advertising including; medical student online forums, blackboard online learning environment, medical school email lists, and online social networks. A total of 24 participants completed the full questionnaire again two weeks after the original to provide data for test-retest analysis.

Measure

An instrument underpinned by the Theory of Planned Behaviour (TPB) was developed to assess the level of professional psychological help-seeking of medical students for a mental health problem. The author used the recommendations by Ajzen (2006) to design a measure assessing attitude, subjective norm, perceived behavioural control, and intention. The items for the survey were constructed and created with the guidance of the Ajzen document and a health services researcher specific document (Francis, et al., 2004) (see Appendix F for stages of development). A number of previous studies have demonstrated success in constructing instruments with this method (see Codd & Cohen, 2003; Hess & Tracey, 2013; Rhodes & Courneya, 2005). The construction method allowed a total sum score to be calculated to represent each variable construct with reverse-coded items being recalculated in this process.

Elicitation Study

The elicitation study comprised nine questions designed to elicit positive and negative attitudes towards help-seeking, the most important people or groups of people that would

approve or disapprove of help-seeking, and the perceived barriers or facilitating factors which could make it easier or more difficult to seek help. The content of the responses was assessed and frequency of common themes calculated. The information gathered from the elicitation study was then used to develop the Theory of Planned Behaviour indirect measures of attitude, subjective norm, and perceived behavioural control. These items were added to the direct measure of the three constructs and a pilot test of the questionnaire given to five of the elicitation study sample. Items were reworded where necessary on the basis of feedback from the pilot test. The direct and indirect measures were added to demographic information gathering questions and the General Help-Seeking Questionnaire – Vignette Version (GHSQ-V; Wilson, Rickwood, Bushnell, Caputi, & Thomas, 2011) to form the full Theory of Planned Behaviour Questionnaire (see Appendix G)

Direct Measures

Attitude was assessed using the following prompt: "seeking psychological help for a mental health problem is . . . ." Five adjective pairs were used to gain a seven-point Likert direct rating of attitude: *harmful-beneficial, bad-good, pleasant-unpleasant, and useful-worthless.* Attitude was summed across the four items so that higher scores indicated more positive attitudes toward psychological help-seeking.

Subjective norm was assessed using four items with seven-point Likert ratings: "Most people who are important to me would think that I *should-should not* seek psychological help for a mental health problem"; "It is expected of me that I seek psychological help for a mental health problem"; "I feel under social pressure to seek psychological help for a mental health problem"; and "People who are important to me want me to seek

psychological help for a mental health problem" with the final three items rated as *strongly disagree-strongly agree*.

Perceived behavioural control was assessed by seven-point Likert ratings using four items: "For me to seek psychological help for a mental health problem would be *easy-difficult*"*;* "I am confident that I could seek psychological help for a mental health problem if I wanted to"; "The decision to seek psychological help for a mental health problem is beyond my control"; and "Whether I seek psychological help for a mental health problem is not entirely up to me" with the final three items rated as *strongly disagree-strongly agree*. Perceived behavioural control was summed so that higher scores reflected higher control over an individual's ability to seek psychological help

Indirect Measures

Items to measure attitude, subjective norms, and perceived behavioural control were developed from content analysis of the responses given in the elicitation study and rated on seven-point Likert scales. The scale for attitude consisted of 12 items from the identified themes (behavioural beliefs; BB) to give adequate coverage of the 'belief population'. Each of the belief statements were then converted into the form of an incomplete sentence to assess outcome evaluations (OE). Therefore, the final indirect measure of attitude comprised 24 items; 12 to assess behavioural beliefs and 12 to assess outcome evaluations, where behavioural beliefs were assessed with a scale ranging from 1 (*unlikely*) to 7 (*likely*) and outcome evaluations assessed with a scale ranging from -3 (*extremely undesirable*) to +3 (*extremely desirable*).

The measure for subjective norms comprised seven items from the identified themes (normative beliefs; NB) to assess sources of social pressure. Each of the sources of social pressure were converted into the form of a statement about the importance of the various sources of social pressure to indicate the strength of the motivation to comply (MtC) with each group or individual. Therefore, the final indirect measure of subjective norms consisted of 14 items; seven to assess normative beliefs and seven to assess motivation to comply, where normative beliefs were assessed with a scale ranging from 1 (*should not* or *disapprove*) to 7 (*should* or *approve*) and motivation to comply assessed with a scale ranging from -3 (*not at all*) to +3 (*very much*).

Finally, themes for perceived behavioural control were identified from the elicitation study and six items were developed to assess the strength of the control beliefs (control belief strength; CBS). Each of the control belief statements were converted into the form of an incomplete statement about whether this makes it more or less likely that the individual would seek help or makes seeking help easier or more difficult to do (control belief power; CBP). Therefore, the final indirect measure of perceived behavioural control consisted of 12 items; six to assess control belief strength and six to assess control belief power, where control belief strength was assessed with a scale ranging from 1 (*unlikely*) to 7 (*likely*) and control belief power assessed with a scale ranging from -3 (*less likely* or *more difficult*) to +3 (*more likely* or *less difficult*).

Intention

Intention to seek psychological help was assessed using five items on the General Help-Seeking Questionnaire – Vignette Version (GHSQ-V; Wilson, Rickwood, Bushnell, Caputi, & Thomas, 2011). The GHSQ-V combines a series of vignettes to describe mental health problems (classified in the Diagnostic and Statistical Manual for Mental Disorders Fourth Edition Text Revision (DSM-IV-TR; APA, 2000), with standard General Help Seeking Questionnaire stem questions (GHSQ; Wilson, Deane, Ciarrochi & Rickwood, 2005). The result is a measure of help-seeking intentions for a number of different symptom types based on the vignettes.

To assess general help-seeking intentions for mental health problems participants rated the likelihood they would seek assistance from eight different source types; intimate partner, friend, parent, other relative, mental health professional, phone helpline, doctor/GP and minister of religion. Item 'e' (mental health professional (e.g. psychologist)) was used to assess psychological help-seeking intentions. The five vignettes and stem questions have been demonstrated to have good validity, reliability and internal consistency (Wilson, et al., 2011). Participants rated their intentions for each vignette on seven-point Likert scales ranging from 1 (*extremely unlikely*) to 7 (*extremely likely*). Scores from the item in the five vignettes were summed to provide a help-seeking intention score with higher scores reflecting higher intention to seek help.

Analysis

Internal consistency for direct and indirect measures of attitude, subjective norms, and perceived behavioural control was conducted and Cronbach's coefficient alpha reported. Responses on the three indirect measures were weighted (multiplied) for attitude (*Behavioural Believe x Outcome Expectations*), subjective norms (*Normative Beliefs x Motivation to Comply*), and perceived behavioural control (*Control Belief Strength x Control Belief Power*). The weighted scores were then summed to create a composite score for attitude, subjective norms, and perceived behavioural control (see Appendix H for the scoring key). For attitude, a positive (+) score represented a participant who is in favour of seeking psychological help, and a negative (-) score a participant who is against seeking help. For subjective norms, a positive (+) score means that, overall, the participant experiences social pressure to seek psychological help, and a negative (-) score means that, overall, the participant experiences social pressure not to seek psychological help. Finally, for perceived behavioural control, a positive (+) score represented a participant who feels in control of seeking psychological help, and a negative (-) score a participant who does not feel in control of seeking psychological help.

Bivariate correlations were conducted between the direct and indirect measures of attitude and of perceived behavioural control to confirm the validity of the indirect measures. A multiple regression procedure was then used to explore the predictive power of the weighted behavioural beliefs on the direct measure of attitude. Similarly, the approach was used to explore the predictive ability of normative beliefs on the single item direct measure of subjective norms and for control belief strength on the direct measure of perceived behavioural control. Sequential multiple regression was used to explore the predictive

power of attitudes, subjective norms, perceived behavioural control on help-seeking intentions when controlling for the effects of sex, year of study, and ethnicity.

Discriminant analyses were used to determine the specific constructs that have the greatest influence on intentions to seek help. The intention variable was dichotomised using a median split (i.e. low intenders versus high intenders) and attitude, subjective norms, and perceived behaviour control inputted to identify the constructs that discriminate between the two groups. Finally, test-retest analysis was conducted using Pearson product-moment correlation to assess the questionnaire's reliability over time.

Results

Construction of the Measure

Internal Consistency of the Measures (Reliability)

Reliability analysis was conducted on the direct measures of attitude, subjective norms, and perceived behavioural control (see Appendices I, J, & K). The direct measures of attitude and perceived behavioural control were internally consistent with Cronbach alpha of .788 and .607 respectively. The Cronbach alpha for the direct measure of subjective norms was .312 indicating that the scale was not internally consistent for the sample and could not be used to form a composite variable. To explore whether this was due to the small number of items in the scale inter-item correlation was calculated. Of the four items in the direct measure of subjective norms a small correlation was found between two items (Q42 & Q64), $r = .23$, $n=80$, $p<.05$. Due to the lack of internal consistency within the direct measure of subjective norms items the author, in collaboration with colleagues, selected a single item to represent

the construct of subjective norms; “I feel under social pressure to seek psychological help for a mental health problem”. The limitations of using a single item scale are discussed later.

Reliability analysis was conducted on the indirect measures of attitude (behavioural beliefs), subjective norms (normative beliefs), and perceived behavioural control (control belief strength) (see Appendices L, M, & N). The Cronbach alpha for behavioural belief items was .523. A total of five items were removed to improve internal consistency of the scale with the remaining seven items showing good internal consistency, with a Cronbach alpha of .719. The Cronbach alpha for normative belief items was .576. A single item was removed to improve internal consistency of the scale with the remaining six items showing good internal consistency, with a Cronbach alpha of .709. The Cronbach alpha for control belief strength items was .525. A total of two items were removed to improve internal consistency of the scale with the remaining four items showing acceptable internal consistency, with a Cronbach alpha of .602.

Test-retest Reliability

The relationship between test and retest scores on the direct measures of attitude, subjective norms, and perceived behavioural control were investigated using Pearson product-moment correlation coefficient (see Appendix O). Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. There was a large positive relationship between test-retest direct measures of attitude, r=.84, n=24, p<.001, with higher scores for attitude in the initial sample associated with higher scores at retest. There was a medium positive relationship between the test-retest single item direct measure if subjective norms, r=.43, n=24, p<.05,

with higher levels of perceived social pressure in the initial sample associated with higher scores at retest. Finally, there was a large positive relationship between test-retest direct measures of perceived behavioural control, r=.78, n=24, p<.001. The coefficient of determination indicated a shared variance between test-retest scores on direct measures of 70.56 per cent for attitude, 18.49 per cent for subjective norms, and 61.31 per cent for perceived behavioural control.

The relationship between test and retest scores on the indirect measures of attitude, subjective norms, and perceived behavioural control were investigated using Pearson product-moment correlation coefficient (see Appendix P). Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. There was a large positive relationship between the indirect measures of attitude, r=.80, n=24, p<.001, with higher scores on the indirect measure of attitude in the initial sample associated with higher scores at retest. There was a large positive relationship between the indirect measure subjective norms at test and retest, r=.58, n=24, p<.005, with higher scores subjective norm scores in the initial sample associated with higher scores at retest. Finally, there was large positive relationship between scores on the indirect measure of perceived behavioural control at test and retest, r=.76, n=24, p<.001. The coefficient of determination indicated a shared variance between test-retest scores on indirect measures of 63.84 per cent for attitude, 33.29 per cent for subjective norms, and 57.91 per cent for perceived behavioural control.

Correlations between Direct and Indirect Measures (Validity)

The relationship between direct and indirect measures of attitude, subjective norms, and perceived behavioural control were investigated using Pearson product-moment correlation coefficient (see Appendix Q). Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. There was a large positive relationship between direct and indirect measures of attitude, r=.66, n=80, p<.001, with higher scores on the direct measure of attitude associated with higher scores on the indirect measure. There was a medium positive relationship between the single item direct measure and composite indirect measure of subjective norms, r=.30, n=80, p<.005, with higher levels of perceived social pressure on the direct single item associated with higher levels on the indirect measure. Finally, there was a medium positive relationship between direct and indirect measures of perceived behavioural control, r=.44, n=80, p<.001. The coefficient of determination indicated a shared variance between direct and indirect measures of 43.56 per cent for attitude, 9 per cent for subjective norms, and 19.36 per cent for perceived behavioural control.

In summary, the indirect measures were found to have good internal consistency once items appropriate items we removed. Furthermore, they were found to be reliable over time with strong correlations between the test and retest data. The direct measures of attitude and perceived behavioural control were found to be internally consistent, but this was not the case for the direct measure of subjective norms. A single item was used to represent social pressure and this, along with the direct measures of attitude were found to have good test-retest reliability. The indirect measure variables developed in the current

study had good validity, being significantly correlated with the corresponding direct measure.

TPB Variables and Intentions to Seek Help

Multiple Regression Analysis

Multiple linear regression analysis was used to explore a model for predicting professional help-seeking intentions using direct measures of attitude, subjective norms, and perceived behavioural control (see Appendix R). Basic descriptive statistics and regression coefficients are shown in Table 2. The direct measure of attitude and of perceived behavioural control had a significant (p<.005) zero-order correlation with help-seeking intentions. The zero-order correlation for the single subjective norm item did not reach statistical significance (p=.052) and none of the predictor variables has significant partial effects in the full model. The three variable predictor model was able to account for 13.4 per cent of the variance in help-seeking intentions, $F(3,76) = 3.918$, p<.05, R^2=.134.

Table 2
Professional Help-seeking Intentions Related to Theory of Planned Behaviour Direct Measures of Attitude, Subjective Norms, and Perceived Behavioural Control

	Zero-Order *r*				β
Variable	PBC	SN	Att	Intentions	
Att				.308*	.188
SN			.125	.183	.149
PBC		.062	.605*	.291*	.168
Mean	17.46	4.85	21.23	16.51	
SD	4.43	1.58	3.62	6.06	R^2=.134

*p<.005

Multiple linear regression analysis was used to explore whether the sum of weighted behavioural beliefs on the indirect measure of attitude could predict directly measured attitudes (see Appendix S). The indirect measure of attitude was significantly correlated with directly measured attitudes, r=.662, n=80, p<.001). The indirect measure of attitude was able to account for 43.8 per cent of the variance in directly measured attitudes, $F(1,78)$ = 60.855, p<.001.

Multiple linear regression analysis was used to explore whether the sum of weighted normative beliefs on the indirect measure of subjective norms could predict directly measured subjective norms (see Appendix T). The indirect measure of subjective norms was significantly correlated with the single item direct measure of subjective norms, r=.297, n=80, p<.005). The sum of weighted normative beliefs was able to account for 8.8 per cent of the variance in the single item directly measured subjective norms, $F(1,78)$ = 7.525, p<.01.

Multiple linear regression analysis was used to explore whether the sum of weighted control belief strength items on the indirect measure of perceived behavioural control could predict directly measured perceived behavioural control (see Appendix U). The indirect measure of perceived behavioural control was significantly correlated with directly measured perceived behavioural control, r=.444, n=80, p<.001). The sum of weighted control belief strength items was able to account for 19.7 per cent of the variance in directly measured perceived behavioural control, $F(1,78)$ = 19.17, p<.001.

Table 3

Sequential Regression of Demographic and TPB variables on Help-seeking Intentions

Model	Variables	PBC	SN	Att	Ethnicity	Year of Study	Sex	Intentions	*B*	*SE B*	β
1	Sex								2.055		.158
	YoS								-.404	.054	-.111
	Eth								.656		.051
2	Sex							.201	1.703		.131
	YoS						-.380	-.175	-.404		-.111
	Eth					-.076	.007	.061	.069		.005
	Att				.120	-.030	.102	.308**	.308	.119	.184
	SN			.125	.138	-.012	-.090	.183	.618		.161
	PBC		.062	.605***	.012	-.047	.163	.291**	.196		.143
									R^2 = .174*		
	M	17.46	3.15	21.23		2.95		16.51	Adjusted R^2 = .106*		
	SD	4.43	1.58	3.62		1.66		6.06	*R* = .417*		

*p<.05

**p<.005

****p<.001*

Sequential Multiple Regression

Sequential multiple regression was employed to determine if the TPB constructs improved prediction of help-seeking intentions when controlling for the influence of sex, year of study, and ethnicity (see Appendix V). Table 3 displays the correlations between the variable, the unstandardised regression coefficients (*B*), the standard error for *B* for each model, the standardised regression coefficients (β), and *R*, R^2, and adjusted R^2 after entry of all IVs. *R* was significantly different from zero at the end of step 2. With all of the IVs in the equations, R^2 = .174, $F(6,73) = 2.557$, p<.05. The adjusted R^2 value of .174 indicates that more than 15 per cent of the variability in help-seeking intentions is predicted by the TPB

constructs. After step 1 with sex, year of study, and ethnicity in the equation, R^2 = .054 $F(3,76) = 1.453$, p=.234. This pattern of results suggests attitudes, subjective norms, and perceived behavioural control predicts over 15 per cent of the variability in intentions to seek help even when sex, year of study and ethnicity are controlled for.

Multiple Discriminant Analyses

Discriminant function analysis was used to conduct a multivariate analysis of variance test to explore the predictive ability of the Theory of Planned Behaviour constructs on intentions to seek-help (see Appendix W). The overall Chi-square test was significant (Wilks λ = .902, Chi-Square = 7.878, df = 3, Canonical correlation = .313, p<.05); the one function extracted was statistically significant and accounted for nearly 10 per cent of the variance in help-seeking intentions. Table 4 presents the standardised discriminant function coefficients. Function 1 is labelled "intentions". Table 5 shows the function at the group centroids. Reclassification of cases based on the new canonical variables was successful with 68.8 per cent of the cases correctly reclassified into their original categories.

Table 4

Standardized Canonical Discriminant Function Coefficients

	Function 1
AttitudesIndirectMeasure	1.060
SNIndirectMeasure	.352
PBCIndirectMeasure	-.622

Table 5

Functions at Group Centroids

Intentions to seek professional help for a mental health problem	Function 1
Low Intention	-.317
High Intention	.333

Unstandardized canonical discriminant functions evaluated at group means

The discriminant function coefficients in Table 4 can now be used to calculate an individual's score on the discriminant function; for example,

DF = 1.060*attitude + .352*Subjective Norm + -.622*Perceive Behavioural Control.

Comparison can be made between the discriminant function score and the Group Centroids in Table 5. If an individual's score on the discriminant function is closer to -.317, then those answer most likely from someone with low help-seeking intentions. If an individual's score on the discriminant function is closer to .333, then the data most likely came from someone with high help-seeking intentions. A "cut score" can be calculated halfway between the two centroids and used to predict group membership:

Cut Score = (-.317 + .333) / 2 = .008

Therefore, an individual's score on the DF, calculated by adding their scores on attitude, subjective norm, and perceived behavioural control to the equation, is above .008 then they are most likely to be a high intender. If their score is below .008, then they are most likely to be low intenders.

Stepwise Discriminant Analyses

In order to explore which variable best predicts to which group (low intention or high intention) an individual belongs, a model of discrimination was built step-by-step (see

Appendix X). The overall Chi-square test was significant (Wilks λ = .939, Chi-Square = 4.854, df = 1, Canonical correlation = .246, p<.05); the one step model was statistically significance, incorporating the indirect measure of attitude, and accounted for 6 per cent of the variance in help-seeking intentions. Table 6 shows the variables excluded from the analysis. Table 7 shows the function at the group centroids. Reclassification of cases based on the new canonical variables was successful with 63.8 per cent of the cases correctly reclassified into their original categories.

Table 6.

Variables not in the Analysis

Step		Tolerance	Min. Tolerance	F to Enter	Wilks' Lambda
0	AttitudesIndirectMeasure	1.000	1.000	5.042	.939
	SNIndirectMeasure	1.000	1.000	1.150	.985
	PBCIndirectMeasure	1.000	1.000	.059	.999
1	SNIndirectMeasure	.998	.998	.869	.929
	PBCIndirectMeasure	.760	.760	2.204	.913

Table 7.

Functions at Group Centroids for Stepwise Analysis

Intentions to seek professional help for a mental health problem	Function 1
Low Intention	-.245
High Intention	.257

Unstandardized canonical discriminant functions evaluated at group means

The stepwise discriminant analysis tells us that attitude is the best predictor of intentions. This indicates that attitude could be used as a single predictor of intentions. If just attitudes were used then an individual's discriminant function score could be compared to the group centroids seen in Table 7. If their score on the measure of attitude is closer to -.245, they are

most likely to be low intenders. If their score is closer to .245, they are most likely to be high intenders.

In summary, the Theory of Planned Behaviour model was able to significantly account for the variation in help-seeking intentions. The variables of attitude and perceived behavioural control were significant in their own right but this was not the case for the single item for subjective norm. The results indicate that higher scores on the TPB questionnaire would be associated with higher intention to seek help. What is more, the effect is still present when controlling for sex, year of study, and ethnicity. The TPB model was able to successfully predict group membership (low verses high intenders). When the TPB variables were entered one by one, subjective norm and perceived behavioural control were excluded indicating that the variable 'attitude' is the best predictor of help-seeking intentions.

Discussion

When medical students consider seeking professional help for a mental health problem, the Theory of Planned Behaviour (TPB) variables are important. Attitude, subjective norm, and perceived behavioural control together are notable. The sample in the current study was evenly split between low and high professional help-seeking intentions with around 15 per cent of the variance in intention explained by the TPB model. However, this is comparatively low; a meta-analysis of 185 studies which used TPB to explain a variety of behaviours found, on average, 39% of variance in intention could be explained by attitudes, subjective norms and perceived behavioural control (Armitage & Conner, 2001). Despite this, when the variance explained by individual characteristics such as sex, ethnicity, and year of study is

controlled for the TPB model is still a significant predictor of help-seeking intentions. These results indicate medical students' attitudes, normative beliefs and perception of behavioural control about professional help-seeking can predict their intentions to seek help. What is more, the results suggest that by measuring attitudes, subjective norms, and perceived behavioural control medical students can be successfully classified into low versus high intenders.

The indirect measures of attitude, subjective norm, perceived behavioural control and the direct measures of attitude and perceived behavioural control were found to be internally consistent and reliable over time. However, the direct measure of subjective norms was not internally consistent and therefore a single item measure was used to represent social pressure experienced. The use of single items measures has been debated with some authors arguing that there is little difference between single item measures and Likert-type constructs (see Gardner, Cummings, Dunham, & Pierce, 1998) and others highlighting the limitations when measuring relatively complex constructs (see Loo, 2002). Therefore, the current study acknowledges these limitation and interpretation is made with caution due to the potentially lower reliability of the direct measure of subjective norms. The indirect measures of attitude, subjective norm, and perceived behavioural control were valid measures of these constructs being significantly correlated with the direct measures.

Theory of Planned Behaviour's ability to predict intentions

The TPB model significantly predicted professional help-seeking intentions in medical students. This finding supports previous health related research conducted by Brubaker and

Wickersham (1990) who explored intentions to perform testicular self-examination using the TPB model. Brubaker and Wickersham used the model to compare intentions between participants who were given information about the behaviour with those that were not. In the current study general intentions were explored and no information was provided to participants relating to psychological help-seeking for mental health problems. It is therefore hard to make a direct comparison between the studies. However, the methodology can be compared and significant correlations between TPB components and the behaviour were found in both studies. Orbell, Hodgkins, and Sheeran (1997) took this process on a step and found that greater intentions to perform a behaviour increased the likelihood of the behaviour being performed. The current study explicitly stated that it was not seeking to measure actual help-seeking behaviour for mental health problems, in line with The Ethic Review Panel's recommendations. However, Orbell et al's (1997) study, and the growing literature (Eisenberg, Gollust, Golberstein & Hefner, 2007; Miville & Constantine, 2006) which highlights a direct relationship between intentions and actual behaviour, provides evidence that the scale developed in the current study could be used to predict actual help-seeking behaviour.

The previous research (Babrow, Black & Tiffany, 1990; Bowen, 1996; Jemmott, Jemmott, & Fond, 1998; Porzelius, Houston, Smith & Arfken, 1995; Sheeran & Orbell, 1999; Smith, Sondhous & Porzelius, 1995; Tedesco, Keffer, Davis & Christersson, 1993) that applied TPB to physical health related behaviours supported the use of attitude, subjective norm, and perceived behavioural control when predicting intention to seek professional help. The current study adds further weight to this evidence and adds to the literature on mental health related behaviours. What is more, the current study avoided the use of diagnostic

labels for mental health problems in the development of the TPB questionnaire and instead focused on general interpretations of mental ill health and wellbeing. This was a key difference of the current study when compared with existing evidence in the field of mental health help-seeking intentions. Despite this, the current findings were consistent with Schomerus, Matschinger, and Angermeyer's (2009) study which found the TPB components to be significantly correlated to help-seeking intentions which used a psychiatric diagnostic model of mental ill health.

In line with a number of themes identified in previous research (Eisenberg, Golberstein & Gollust, 2007; Givens & Tjia, 2002; Komiya, Good & Sherrod, 2000; Megivern, Pellerito & Mowbray, 2003; Mowbray, Megivern, et al., 2006) as barriers to help seeking, the current study found similar obstacles for medical students. Analysis of the elicitation study identifies common themes of stigmatisation, lack of time, poor access to services, and privacy concerns. In addition, medical students were concerned about negative views of future employers and appearing weak in front of colleagues. It should be noted that the current study did not require full qualitative analysis and themes were classified in terms of frequency with more common responses used in the development of the quantitative questionnaire. Nevertheless, the similarity of the themes to those found in the qualitative literature adds to the validity of the current measure. The current study did not compare intentions across ethnic minorities but found that when ethnicity was added to the model the TPB components still significantly accounted for the variance in intentions. Eisenberg, Downs, Golberstein and Zivin (2009) found lower help-seeking behaviour in ethnic minorities and whilst this may or may not have been the case for the current sample the

TPB behaviour model was able to explain the variance in intentions over and above the influence of ethnicity.

The current study focused on mental health problems in general; the findings were consistent with those of Hess and Tracey (2013) who found the TPB variables impact on intentions to seek help for anxiety or depression, career choice, and alcohol or drug use. Hess and Tracy argued that the TPB variables do not vary based on the type of concern measured and the current study found no impact of individual characteristics on the model. When considering these findings together we can conclude that attitudes, subjective norms, and perceived behavioural control are of great importance when understanding medical students' intentions to seek help. This is important given the evidence that rates of mental health problems are higher in medical students than in other student populations (Benitez, Quintero & Torres, 2001; Mamdou & Nasir, 2008; Mehanna & Richa, 2006; Strous, Shoenfeld, Lehman, Wolf, Snyder & Barzilai, 2012) and the need to identify those less likely to seek help.

This study was not without limitations. As previously highlighted there was a lack of internal consistency with the direct measure of subjective norm resulting in the use of a single item direct measure of this variable. Despite evidence supporting the efficacy of single item measures it is important to consider the potential impact on the model as a whole when interpreting the results. However, the current study represents an initial attempt to develop a measure of variables that influence help-seeking intentions in medical students and this limitation highlights the complexity in measuring and understanding complex constructs such as stigma and social pressure. The indirect measure of subjective norms was found to

be reliable and represents the views on subjective norms of the population under study. However, the sample consisted primarily of students from one university in the United Kingdom (75 per cent), and given that universities have different course requirements and levels of education and support for mental health problems, a national study would be required to ensure that the TPB measure can be used across a variety of medical schools. At this time it would be appropriate to redevelop and test a new direct measure of subjective norms. Finally, although statistical power analysis for the TPB study design requires sample size of 80 participants assuming a moderate effect size (see Cohen, 1988; Francis et al., 2004) a systematic attempt to determine appropriate sample size for a TPB survey resulted in a suggested sample size of 148 (Rashidian, Miles, Russell & Russell, 2006). However, the authors acknowledge that adjustments would need to be made in different settings and for the type of regression model used. Therefore, the sample achieved in the current study is considered sufficient for the initial development of the measure.

Implications of the research

Hardeman, Johnston, Johnston, Bonetti, Wareham and Kinmonth's (2002) systematic review of papers applying TPB to intervention studies highlighted the potential for TPB in the initial development of interventions designed to foster behaviour change. In view of prevalence rates for mental ill health in medical students and as today's students are tomorrows NHS doctors the ability to identify help-seeking intentions is an important finding. Not only could the TPB model developed in the current study be used to distinguish between those with high and low intentions to seek help, it could be used to enhance and advance intervention design within medical schools. If medical schools would seek to improve help-seeking

behaviour in their students, training and education could focus on matters of attitude, subjective norm, and behavioural control. Outcomes of these interventions could be successfully monitored using the measure of TPB variables. Therefore, creating a culture within medical schools that promotes positive attitudes, challenges stigma, increases peer support, and ease of access to psychological services.

Future research will benefit from applying the Theory of Planned Behaviour variables to different medical courses for comparison and even to different university subjects. It may be possible to generalise these findings to other medical students, and even to students on courses with similar pressure and demands. However, it should not be generalised too widely as the purpose of this research was to focus specifically on opinions of medical students. Some research has explored whether the perceived behavioural control variable could be split in order for control for self to be separate from control related to available services. That is, an individual might perceive that they have high self-control over seeking help but low behavioural control due to a genuine lack of psychological services available and the impact of this difference on intentions may warrant further investigation. Furthermore, research is required to gain a better understanding of the TPB variable subjective norm due to the complexity of the way individuals experience and react to social pressure. The variable subjective norm has been identified as particular problematic to measure in TPB studies with participants finding some questions difficult to interpret (see Darker & French, 2009). This could explain the pattern of results for the subjective norm variable in the current study and therefore, a study focusing specifically on the development of normative questions should be considered.

Theory and Practice for Clinical Psychology

As a developing profession, Clinical Psychology is continually looking for ways to reduce the impact of mental ill health, improve access and uptake of psychology services, and find methods of early intervention to address psychological distress at the earliest possible opportunity. To do this valid and reliable methods of detection are required as well as a deeper understanding of barriers to psychological help. Using the Theory of Planned Behaviour provides opportunities by which to achieve these goals and provides a process by which interventions can be developed and evaluated. Of particular importance is the ability of TPB to explore the variables by targeting specific populations. The current study demonstrated the effectiveness of the model with medical students but the methodology could be, and has been, used to research other populations of interest to clinical psychology. The greatest strength of the approach is that it can be used in a proactive way to identify vulnerable individuals that have low intentions to seek psychological help. It is important to note that psychological help can come in a variety of forms and from professionals or individuals other than clinical psychologists, for example; nurses, psychiatrists, teachers, support workers, friends and family. This is important because the term 'psychological help' is general rather than specific and can have a range of meanings, such as; talking to a friend, counselling, or religious confession to name a few. Individuals' understanding of psychological help-seeking could also be an avenue for future research.

The current study focused of medical students for three reasons; 1) the evidence that points towards higher prevalence of mental health problems in medical students than the general student population, 2) this higher level of mental ill health has been found to continue post qualification, and 3) today's medical students are tomorrow's NHS doctors who will see

patients with mental health problems and have the responsibility of referring to appropriate services. The results of the study demonstrate influence of behavioural beliefs, normative believes and control beliefs on help seeking intentions. If clinical psychologists can engage with trainee doctors at an earlier point in their professional development there is opportunity to reduce the prevalence of mental ill health, reduce the expense of sickness absence in NHS staff, and improve understanding of psychological services.

Conclusion

This study adds to the evidence base for psychological help-seeking. The Theory of Planned Behaviour variables of attitude, subjective norm, and perceived behavioural control were able to predict help-seeking intentions in medical students and distinguish between low and high intenders. Although there will be continued debate about different approaches for measuring and monitoring help-seeking intentions and behaviour, there is now more support for TPB as valid and reliable methodology. A key advantage of TPB is that it allows for a more global understanding of help-seeking intention without losing sight of the idiosyncrasies of the populations in question. As a result it can be tailored to be as broad or as specific as the researcher wishes. In addition, due to the theory-based approach of TPB there is a strong basis from which to continue research in the area of help-seeking in a systematic manner. This would allow researchers to make direct comparisons across individuals and groups of individuals in a variety of settings. Psychological help-seeking is an area of research worthy of the attention of Clinical Psychologists, both for its empirical benefits and for the potential application to practice. By applying the TPB method researchers and clinicians can identify barriers to help-seeking and improve the likelihood that individuals access the support they require.

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Section C

Critical Appraisal

Development and learning through conducting an independent research project

Submitted 8th May 2014
By
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In partial fulfilment of the degree of
Doctorate in Clinical Psychology

Critical Appraisal Introduction

Outline

The process of conducting an independent research project during the course of training has thrown up some interesting challenges and learning opportunities. In this section I aim to appraise and reflect upon some on these experiences as well as provide a detailed critique of the methodology employed. I will use some of the space to consider the implications of the study for the future direction of research into psychological help-seeking. The appraisal is founded on the notes taken along the research journey in a reflective journal. It will be an opportunity to reflect on the research process as a whole and the impact on my approach to research in the future. Extracts from the reflective diary will be included at key points in the research process and learning points highlighted.

Background and context to current thesis selection

Prior to starting the Doctorate in Clinical Psychology I had a background of working in mental health research. This gave me the confidence to approach the doctoral thesis with vigour and seek to develop a study that would have a significant impact on clinical practice. With this in mind a two-part joint project was agreed with a fellow trainee exploring, 1) the development of a scale to measure levels of consciousness under anaesthesia and 2) the psychological implications of anaesthetic awareness during traumatic surgery. The project required the supervision of a member of staff with specialist knowledge in the area of anaesthetic awareness.

*Reflective Diary Extract 1: Supervisor meeting today to discuss the methodological approach to measuring consciousness under anaesthetic. This was a productive meeting and it feels like there is a clear direction to the project. I have some concerns about the scale of the project but these are reduced by the knowledge that recruitment will be shared with ***** and that ***** has a number of contacts within surgical teams. We also agreed to use a volunteer student sample which should make the process easier to recruit to.*

There was significant excitement around the project at this time despite the concerns about the amount of work that would be required. Unfortunately, an unforeseen illness for the supervisor meant the project could no longer continue and had to be stopped after one year of invested time and work.

*Reflective Diary Extract 2: Meeting with clinical and academic tutor. ***** and I have been advised to discontinue the project due to lack of specialist supervisory input. I am extremely disappointed. There are now only 13 months until the thesis deadline and I don't feel this will be enough time to produce a thesis with the type of impact was hoping for.*

Despite the disappointment of losing the project I had a number of areas of research interest and I was aware that time would now be of critical importance. I produced a new proposal based in the area of psychological help-seeking which had always interested me, especially in populations where prevalence was high but uptake of services was low. I reflected on how fortunate I was that a number of staff took the time to discuss the

proposal with me to help develop the project in to something I could be equally proud of. I was allocated a new supervisor and this provided me with the opportunity to enhance my knowledge of the types of methodologies used to explore psychological help seeking. Following discussions with my supervisor and exploration of the literature a decision was taken to use the Theory of Planned Behaviour (TPB). I felt this was a methodology I could engage with and gave a good theoretical underpinning to the thesis.

> *Reflective Diary Extract 3: Upon finalising plans for new thesis topic. I feel somewhat relieved today that the planning is over and I can move forward with the new project. The process so far has been extremely stressful and worrying and I have noticed the impact on my mood and relationships. The support from the staff has been excellent. Past experience has taught me that the research process is often not straight forward but there seems to be an added dimension when qualification and my career are at stake. I am more aware of my response to high levels of stress now and feel the difficulties so far have taught me to be more resilient.*

Research Design – Evaluating the Theory of Planned Behaviour

Using a research methodology that has a strong theoretical underpinning was significantly important to me. I wanted to the capture the underlying constructs that influence the decision of whether to seek help or not. Initial exploration of the literature highlighted the importance of attitudes in the decision making process but this seems somewhat limiting as a lot of the research highlighted the limitations of only looking at the influence of attitude

on behaviour. Often, published material was used to emphasise the validity and reliability of attitude scales without really considering the impact of stigma in society or taking in to consideration the current national policies on service provision. Theory of Planned Behaviour not only provided the opportunity to explore these domains, the methodological approach used the words and experiences of the population being sampled. This felt more comfortable than taking an "expert" approach to the development of a measure of help-seeking intentions and instead offered insight into the lived experience of medical students.

It was evident that a number of sources offering advice on the construction of TPB questionnaires were available. After reviewing these I decided to use (Francis et al., 2004) which provided streamlined guidance that integrates information from a range of sources. However, there is a significant amount of diversity in the approaches to TPB questionnaire construction. The variation in approaches required careful comparison and there were five considerations to highlight for the method I selected; 1) why the questionnaire uses both direct and indirect measures of the predictor variables, 2) the choosing appropriate endpoints in the construction of response formats for measuring beliefs, 3) the practice of using multiplicative composite approach for scoring indirect measures, and 4) the argument that by completing a TPB questionnaire the participants could be considered to be taking part in an intervention that may change behaviour, therefore confounding the questionnaire's ability to be used as an intervention evaluation.

The first consideration; why the questionnaire uses both direct and indirect measures of the predictor variables. The direct questions in TPB allows for direct comparison between different behaviours whereas the indirect questions are only applicable to the behaviour

being studied. As a result the indirect approach makes a series of assumptions; that people can accurately report beliefs in a probabilistic way and also that they can report relative weightings. In addition, there is an assumption that attitudes are composed of a rational combination of weighted probabilities and that measurement of the items together has sufficient content validity to correlate with the direct measure. There is likely to be some variation in TPB questionnaires as length and quality is determined by the content of the elicitation study. This makes it somewhat difficult to compare TPB studies as results could differ substantially and is a limitation of the methodological approach. However, the inclusion of both direct and indirect measures means it is possible to explain more of the variance in intentions than by using a single type of measure.

The second consideration; choosing appropriate endpoints in the construction of response formats for measuring beliefs. This topic has been widely discussed in TPB circles (e.g. Ajzen, 1988; Godin & Kok, 1996) and consideration given to whether participants can make valid distinctions between, say, 5, 6 or 7 levels of likelihood. In Osgood, Suci and Tannenbaum's (1957) paper they argue that the ideal number of endpoints depends on the sample with more motivated people and highly educated individuals able to manage a greater number of options. With this in mind, and considering that using fewer options would have reduced the potential variance in the data set, I decided to use a seven-item scale. Although a great amount of time was spent matching the stem of the question to the endpoint options, including piloting the questions on a small sample of medical students, there was a lack of internal consistency in the direct measure of subjective norm. This indicated there may have been low face validity for the items. It also could have represented the complex nature of

understanding perceived social pressure. Regardless, I feel the area of subjective norms would require a great deal more focus to ensure its accurate measurement.

The third consideration; the practice of using multiplicative composite approach for scoring indirect measures. This is arguably the most debated and contested area of TPB methodology. Historically authors have argued that using multiplicative composites is statistically unsatisfactory because entities are multiplied by zero, when zero is not a true score but an arbitrary scale (e.g. Bagozzi, 1984; Schmidt, 1973). The full extent of this argument is beyond the scope of this appraisal but the issues are outlined, discussed and responded to in Francis, Johnston, Eccles, Grimshaw and Kaner's (2004) TPB discussion paper. They maintain that the multiplicative composite approach in TPB is statistically valid as the items represent weighting procedures rather than interactions and result in easily interpretable composite scores with positive scores representing favourable attitudes, social pressure to behaviour, and control factors that increase the likelihood of behaviour, and negative scores reflecting unfavourable attitudes, social pressure, and behavioural control factors.

The final consideration; the argument that by completing a TPB questionnaire the participants could be considered to be taking part in an intervention that may change behaviour, therefore confounding the questionnaire's ability to be used as an intervention evaluation. This argument, put forward by some authors (e.g. Ogden, 2003) represents, in simple terms, the Heisenberg's Uncertainty Principle which states that by observing something you change the behaviour. Although the original concept was applied in the world of physics it has been substantially researched in the domain of psychology, for

example, order effects in questionnaires, priming, and types of self-regulation. One of the main findings of the literature review was the utility of TPB to develop interventions and measure outcomes and therefore the impact of the questionnaire being an intervention needs to be considered. However, the test-retest results of the study highlight reliability of the measure over time without an intervention.

In general, the TPB was relatively easy to operationalise with the guiding document. However, it was important to consider the different approaches available and the strengths and limitations of each of these. The approach I chose provided a useful framework for the research I was conducting and the results supported the model whilst using valid and reliable measurement tools and methods.

Ethical Review Process

Following discussions with my research supervisor and the Trust's Research and Development team I sought ethical approval from the University Research Ethics Panel. At this time, and due to starting the process much later, I was aware of the difficulties some of my peers had with this process. However, I felt confident that my experience with working in an NHS research department would help me through the process. I submitted my ethics form electronically and expected a successful response. Unfortunately the proposal was sent back with requests for clarification on a number of issues relating to the elicitation study. I was disappointed to receive this delay as I was keen to move forward with the process of recruitment. On reflection, I feel I may have been over confident with the ethical approval process as well as rushing to move forward. Despite this, I was able to take on

board the feedback from the ethics panel and make appropriate changes to the research. The main concern focused on fitness to practice guidelines for medical students which state that any disclosure of mental health problems by a student would need to be reported to the medical school by a fellow student. This resulted in the switching of the elicitation study from a focus group to an online survey. Initially I was frustrated by this as I felt that it would limit the depth and detail of responses and result in a lower quality elicitation study. I also reflected on how interesting it was that medical students are not able to talk freely with their peers about mental health problems without fear of being reported, although I was unsure how aware they would be of the fitness to practice guidelines. Following the changes the University Ethics Panel approved the study and I was able to start recruiting.

Recruitment

The study was promoted to medical students through the online virtual learning environment 'Blackboard' and in a repeated email to current medical students at the medical school. The study was also promoted on online forums for current medical students. The response to both the elicitation study and the TPB questionnaire was excellent. This was a surprise to me given that research studies can be hard to recruit to. The minimum recommended participant number for the elicitation study is 25 and this number was surpassed. The minimum required participant number for power on the TPB questionnaire is 80 and this was reached in sufficient time. When I started recruiting I was concerned that I would not reach the required number of participants due to the limited amount of time I had available. The process was not easy and I felt I needed to trouble staff at the medical school regularly to promote the study. In addition a lot of time was spent

managing the posts on online forums to respond to queries about the study. Ultimately the time and effort invested was beneficial and I thought about how my experience in recruiting to mental health research studies before I started the course had helped me to stay focused and do what needed to be done. I wondered how different this could have been if I hadn't had this experience to know that 'hassling' is often required when other people aren't as invested in the research as you are.

Data Collection

The data collection process was somewhat different to anything I have experienced in research. I realised that I was extremely fortunate to be experienced with technology as well as sampling a population that are familiar with computers. This meant I was able to use the online process of data collection to my full advantage. Questionnaires were easily developed using online software and participants were able to complete them from any location with an internet connection. What is more, I was able to use a free-for-students survey site that allowed secure transfer of data straight to SPSS format. Although the raw data required some work this was relatively straight forward to do.

One concern I had was the length of the questionnaire following a wealth of information gathered during the elicitation study. I attempted to address this by splitting the questionnaire in to smaller sectioned pages the participants clicked through and by updating participants on the amount of items remaining. However, for the TPB questionnaire, around 50 people started the questionnaire but did not complete it. Around half of these did not start the full questionnaire but just confirmed they had read the information sheet. It is not

possible to know why these individuals decided not to consent to the research and I feel this is a limitation of the online approach to data collection. That being said, I feel this method boosted recruitment due to the ease of use for participants.

During this process I was aware of the support I had been given by the medical school. Their agreement to post the survey to Blackboard and promote via an email to students was invaluable. I was extremely grateful for their support and that they always responded to me in a positive way when I pushed for extra promotion of the study. I believe with more time it would have been possible to gain additional responses to the questionnaire, especially if I had been able to directly access other medical schools around the country. However, I was able to achieve the required number of participants for power and was satisfied with this number.

Data Analysis

I had mixed feelings about the process of data analysis. On one hand I felt that my familiarity with a range of statistical techniques would be an advantage but also realised that it would be a large undertaking and that I would have to learn some new approaches along the way. The analysis turned out to be somewhat harder than I had expected. Specifically, learning and understanding the process discriminant analysis took longer than I had expected as the output from SPSS was vast. One option would have been to use a series of simpler t-tests to answer the same question but the conclusions that could have been drawn from the output would have been limited. Therefore, I feel it was worth spending the time learning a new statistical technique as it allowed me to extract more information from

the data. I learnt that the process of data analysis must not be rushed and should seek to answer the question in the best way possible.

Writing Up

As I approached the point where I was to start writing up I did so with a great deal of trepidation. I was aware of the limited time I had available to do this and I noticed that my approach to the writing up became quite disjointed. Often my focus was on getting words on a page where I could and the result was drafts that did not come together particularly well. At this point I found my research supervision extremely helpful to refocus me on producing work of the standard required. On occasion this meant small changes but often resulted in me revisiting whole sections of the thesis. At times this could be frustrating as I was aware that I really wanted to hear that my work was adequate. Looking back I can see that this was the wrong attitude and actually hindered my work. However, I felt I was able to listen to the constructive feedback of my supervisor and make the changes appropriately resulting in fewer drafts being required. I have learnt that the process of writing up is as important as the research itself and by investing the time at the start to set goals and structure is vitally important. In future, I aim to keep this in mind rather than getting too preoccupied with the end goal.

One significant influence on my approach to the write up was the use of study leave. As I knew that I would be writing up quite close to the deadline having started the new project behind my peers I took the majority of my leave in a block in the weeks leading up to the deadline. This had its advantages and disadvantages. The main advantage was that it fitting my style of working as I prefer to focus on one thing at a time. I was able to put my work on

clinical placement to one side and focus on the research. The main disadvantage was that it meant there was little time for drafts to be reviewed and amendments made. On this occasion there was very little that could have been done to change this as my early efforts needed to focus on data collection and analysis. If I was to conduct the thesis again with more time in general I feel I may have staggered the research leave and ensured earlier drafts could have been submitted to my supervisor and discussed.

Learning Points

Conducting an independent research project has taught me a number of things. The first is that taking a flexible and adaptive approach is essential. Whilst it would not have been possible to predict the health issues with my first supervisor it was essential that I was able to adjust to a new research project as soon as possible. I think that it would have been possible to become stuck focusing on my original research idea and tried to complete it without the expert supervisor. I wonder if I had not adapted whether I would have been anywhere near handing in at the deadline. More than this though, taking a flexible approach during the process allowed me to gain ethical approval, recruit successfully and deal with issues during the write up. The second learning point for me was benefit of supervision. I found that I could often get so focused on what I was writing I could miss obvious mistakes. At these times it was extremely helpful to have a supervisor to question the work and discuss issues with. The final key learning point was to not get concerned with the endpoint too early as it takes attention away from the research process. This made me more prone to mistakes and also increased my levels of stress and anxiety. I found that by pausing and breaking down the steps that are needed meant I was able to make fewer mistakes and produce a higher standard of work.

Conclusion

The process of conducting an independent research project has been challenging, not just because of the time pressures, but also because of the scale of the task. It has required good time management and planning as well as the need to make time for things outside of work to reduce stress. I feel I have been able to maintain quite a healthy work/life balance during this process but I have had to work very hard at this. I found this even harder to do when making the inevitable comparisons with fellow trainees who through the whole process were ahead of me. However, I was able to acknowledge that it was not helpful for me to use my peers as markers and instead tried to remain focusing on what was required of me. The whole process has been rewarding and I have always believed in the importance of clinicians conducting research. I feel I have a new appreciation of what this entails and how hard it can be when you have other commitments. I believe that I will be able to move forward with this experience and use the learning points to successfully conduct research in the future.

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Section D

Appendices

Submitted 8th May 2014

By

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In partial fulfilment of the degree of

Doctorate in Clinical Psychology

Appendix A

Data Extraction Pro-Forma

Article Number:		
Title:		
Author (1st only):		
Publication Date:	Place of publication:	
Journal:		
Volume:	Number:	Pages:
Keywords / Definitions:		
Aims:		
Sampling / Participants: *(Total number of participants? who was studied, Age range, how was the sample recruited? Response rate?)*		
Study Type / Design: *(Randomized allocation? Is a control group used?)*		
Outcomes and Measures: *(What outcomes are being measured? What measurements are used? Are measures validated? At what time points are measures completed self-report or clinician-rated?)*		
Intervention: (T*ype of intervention? Control group comparable? Format of the intervention? Staff delivering it?)*		
Analysis: *(Was power calculated? What statistical methods were used?)*		
Findings:		
Controls/ Validity / Reliability:		
Conclusions: (W*hat do the findings mean? Can they be Generalised? Implications & Recommendations?)*		
Additional Comments:		

Appendix B

Appendix C

Matrix for synthesis of papers

		1	2	3
Main Idea/Finding		**Aegisdottir & Ger (2009)**	**Chang (2007)**	**Cheng, Kwan Sevig (2013)**
WRITE DOWN WHAT YOU THINK THE MAIN IDEAS FOR EACH PAPER ARE (There maybe two or three or more!)		Current measures of help-seeking have significant shortcomings, a more comprehensive instrument is needed (1)	Take up of professional help for psychological difficulties is low in student populations. (3)	Current measures don't consider racial/ethnic discrimination, ethnic identity, and other-group orientation as potential psychocultural correlates of stigma associated with psychological help-seeking (1)
Current measures of help-seeking have significant shortcomings, a more comprehensive instrument is needed (1)		Attitudes influence intentions but due to gender difference. Impacting on utilization of services (2) (3)	Mental-health services are underutilised (3)	Importance of ethnic identity and stigma towards psychological help-seeking (2)
Help-seeking behaviour is more likely to be a global concept (ie.does not vary in relation to a specific problem) Therefore research needed on individual differences and populations etc (2)			Difference in personalities between traditional and non-traditional Chinese and their approach to seeking help – Difference in populations? (2)	
		"Measure was valid and reliable and three factors emerged including stigma tolerance as a component of attitude." In line with TPB	"even when outside help is sought, there is a reluctance to use mental health services"	"higher levels of psychological distress predicted more perceived stigmatisation by others and self-stigma associated with psychological help"
Mental-health services are under utilised Especially in minorities or populations where prevalence is higher. (3)			"by including student status (i.e. traditional vs non-traditional) in an analytical model mental health symptoms are predictors of attitudes toward help-seeking"	"help-seeking intentions are influenced by attitudes and inclination to establish relationships with people from other ethnic groups and their perceptions of how family, friends and professors stigmatise psychological help seeking"
Development of interventions and further testing of measures (4)				

Appendix C continued

4	5	6
Eisenberg, Golb, Goll (2007)	**Hess & Tracey (2013)**	**Kim (2007)**
Low utilisation of mental health services. Especially in students Substantial unmet needs. (3)	Help-seeking behaviour is more likely to be a global concept (i.e. does not vary in relation to a specific problem) (2)	Underutilisation of psychological services. With increased need in ethnic minorities. (3)
Highlights differences in populations – Variety of barriers to service use (2)		Enculturation and acculturation are different – can have more of one and less of the other. Enculturation influences help seeking but acculturation doesn't (2)
Need for validated instruments to measure mental health status (1)		Different approach to improving help seeking is needed to incorporate the individual differences (1) (2)
"Service use was much higher for students who screened positive for depressive or anxiety disorders, but potential unmet needs for services still seemed substantial"	"This study….. does…. provide support for a view of a more global nature of help-seeking intention"	
"campus communities are different to from communities in the general population in ways that may be important for mental health service utilisation"	"Understanding why people seek help from mental health professionals.. will enable researchers and practitioners to help people with a variety of concerns"	
"variety of factors were related to help-seeking behaviour and access to services" including awareness of service (control) and beliefs about treatment outcome		"counsellors need to work toward reaching individuals who are highly enculturated and therefore have less professional help seeking attitudes

Appendix C continued

7	8	9
Levent, Wimer…(2011)	**Mack,Knox,Gekoksi (2004)**	**Miller, Yang… (2011)**
Male help-seeking avoidant behaviours increase risk for disease, injury and death. Men's lack of engagement (2)	Influence of attitudes on mental health service utilisation is unclear Underutilisation of services (3)	Professional services underutilised by Asian Americans (3)
Need for an easy to administer behaviour measure for men. Existing measures have questionable psychometric properties. (1)	Current forms of measurement have resulted in inconsistent findings. Two problems: 1) Failure to incorporate social psychological theories 2)inconsistency in evaluations (1)	Studies don't include all factors associated with acculturation and enculturation in relation to help seeking attitudes (1)
	Adaption of existing scales required (1)	There is an influence of acculturation and enculturation. (2)
" when providing health behaviour counselling to men who endorse traditional masculinity ideology, can rely of willingness to follow health recommendations"		"given the diversity of the Asian American college student population and the dynamic nature of acculturation and enculturation experiences, there are few if any universally appropriate guidelines for counselling-related work with this population.
"It is essential to have an easy to administer behaviour measure with good psychometric properties, designed for use with me"	"…a general failure to incorporate theory when measuring the influence of attitudes on the use of services, and a lack of information regarding reliability and validity of attitude measurement"	"it would be beneficial to explore both behaviour and value domains of acculturation and enculturation when working with Asian Americans"
"Interventions aimed at modifying the endorsement of traditional masculinity ideology, specific aspects of the conformity to masculine norms (dominance, self-reliance, status, risk taking), and gender role conflict (restrictive emotionality) might be needed.	"Several of the ATSPPHS's conceptual and methodological limitations were addressed, resulting in the theoretically and psychometrically superior IASMHS."	

Appendix C continued

10	11	12
Miville & Constantine (2006)	**Nam, Choi, Lee… (2013)**	**Ruzek, Nguen, Herzog (2011)**
Underutilisation of mental health services by Mexican Americans (3)	Psychological variables are associated with help-seeking attitudes 1)self-stigma and anticipated benefits 2)Self-disclosure, anticipated risks, public stigma 3)self-concealment, social support and depression (2)	Look at population specific sample – exploring acculturation and enculturation as variables to explain preferred methods of seeing help (2)
acculturation impacts on help seeking As well as other characteristics such as level of social support (2)	Development of strategies to address stigma and increase accurate understanding of mental health issues (4)	Only partially explain distress
	Limited results as only ATSPPHS studies used. Other measures of attitudes required (1)	Asians seen as having less challenges but actually experience more don't utilise services (3)
"The underutilisation of mental health services by Mexican Americans has long been recognised by multicultural scholars as a significant problem affecting the general health of the population"		
"our findings provide empirical support for the need to assess sociocultural variables when working with Mexican American clients" – impact of help seeking	"given that stigma often stems from a lack of or inaccurate information, stigma-reducing strategies and strategies to increase accurate understanding of benefits should go hand in hand"	"It appears that other factors might be at play, which would further explain how patterns of acculturation and enculturation relate to psychological distress or well-being in the population
	"future studies should use diverse instruments for measuring attitudes (and behaviours) rather than the ATSPPHS to explore other variables that might be relevant to attitudes"	

Appendix C continued

13	14	15
Seyfi, Poudel… (2013)	**Shechtman, Vogel.. (2010)**	**Smith, Shochet (2011)**
Underutilisation of mental health services in student populations (3)	Stigma about psychological help prevents help-seeking from psychological services (2)	Mental health literacy can explain low help-seeking behaviour in students. Importance of knowledge about mental health (3)
Multiple factors that are associated with help seeking intentions – not just attitudes (1) (2)	Other variables impact on help seeking and stigma – gender, age etc (2)	
Development of interventions to improve attitudes (4)	Public stigma and self-stigma are not the same – not associated (1)	
"To improve utilisation of services interventions are necessary to improve student attitudes towards seeking professional psychological help – in particular among young male students"		"the study found higher levels of mental health literacy were associated with greater intentions to seek-help from professional sources should the individual develop a mental illness"
"positive attitudes were associated with intentions to seek help along with perceived social support from family, friends, and significant others.		
	"the results suggest that public stigma may not be an important factor in the underutilisation of individual or group treatment" – "people form their own opinions regardless of the opinions of others"	

Appendix C continued

16	17	18	19
Smith, Tran, Thompson (2008)	**Tillman, Sell (2013)**	**Tsan. Day… (2011)**	**Vogel & Wei (2005)**
Males seek psychological help at lower rates than women – TPB on specific population (males) (2) (3)	Global vs problem specific (2) characteristics of help-seeking Eating disorders are different to other psychological problems for others to recommend help seeking	Underutilisation of services by men caused by gender role conflict (being perceived as feminine) (3)	Psychological services are underutilised despite high prevalence rates (3)
Attitude mediates the relationship between traditional masculinity traits and help-seeking intentions (2)	Development of outreach programmes that are more effective at encouraging help-seeking behaviour (4)	Clinicians should consider gender role conflict (and other forms of conflict) when providing services. (4)	A better understanding of individual differences is needed to improve access to services – clinicians should be aware of and focus on attachment styles to improve utilisation. (2)
Development of interventions (3 intervention windows) (4)		Negative vs positive reinforcement for this population (2)	Lower perception of social support in both anxious and avoidant attachment styles (2)
"earlier findings on men's help-seeking can be placed in the context of the TPB."	"a potential explanation for this is that the tendency of people with ED to isolate from loved ones and deny symptomology may impact others help-seeking motivation and perception of effectiveness"	"the present research provides additional support for the idea that restrictive emotionality may play a key role in the development of attitudes towards psychotherapy"	
"the collective results suggest that additional factors must be evaluated to augment our understanding of men's help-seeking intentions" – such as subjective norm and perceived behavioural control"	"if psychologists can train students to be aware of the signs and symptoms of eating disorders, these students may seek help for friends who may be unwilling or unable to seek help for themselves"		"individuals with different types of insecure attachment do not report the same willingness to seek-help"
"1) changing men's adherence to traditional masculine ideology, 2) altering traditional men's attitudes towards therapy, 3) changing the nature of therapy to increase congruence between traditional masculinity ideology and services provided"			

Appendix D

Advert for Elicitation Study

RESEARCH SURVEY OF MEDICAL STUDENTS
Exploring Psychological Help Seeking for Mental Health Problems
*** 2x £25 book vouchers raffled for participants ***

Dear Medical Student,

I would like to invite you to take part in a survey exploring psychological help seeking for mental health problems.

Current government figures highlight that 1 in 4 people will experience a mental health problem in any given year. What is more, mental ill health is more common in people that experience high levels of stress in their daily lives. Medicine is one of the most intensive university courses offered in the UK and students undertake long days of lectures as well as gaining practical experience in highly emotive health care settings. The current study seeks to explore medical students' intentions to seek psychological help should they encounter mental health problems throughout their training. This study focuses on general intentions to seek help and does not require you to disclose personal experiences of mental health problems.

The study will be in two parts. Part One is a free response online questionnaire and we are looking to recruit 25 participants. Part Two will be available later in the year and will be a closed response online questionnaire for a wider sample. Completing Part One does not mean you have to complete Part Two but you will receive an invite to do so.

If you are interested in taking part then please go to https://www.esurveycreator.com/s/990b938 for more information and to complete the survey. You will automatically be entered in to the raffle for the book vouchers upon completion.

Many thanks in advance for your time.

Kind regards

James Rathbone
Clinical Psychologist in Training
Leicester Partnership NHS Trust &
University of Leicester

Appendix E

Advert for Quantitative Questionnaire

RESEARCH SURVEY OF MEDICAL STUDENTS
Exploring Psychological Help Seeking for Mental Health Problems
*** 2x £25 book vouchers raffled for participants ***

Dear Medical Student,

I would like to invite you to take part in a survey exploring psychological help seeking for mental health problems.

Current government figures highlight that 1 in 4 people will experience a mental health problem in any given year. What is more, mental ill health is more common in people that experience high levels of stress in their daily lives. Medicine is one of the most intensive university courses offered in the UK and students undertake long days of lectures as well as gaining practical experience in highly emotive health care settings. The current study seeks to explore medical students' intentions to seek psychological help should they encounter mental health problems throughout their training. This study focuses on general intentions to seek help and does not require you to disclose personal experiences of mental health problems.

This is part two of the study. Part one took place in December 2013 and collected qualitative responses from medical students to questions related to psychological help-seeking. This data was then analysed and used as the basis to develop a quantitative questionnaire for a broader sample of medical students. You **do not** have to have completed part one to take part in this survey.

If you are interested in taking part then please go to;

https://www.esurveycreator.com/s/14a6a5f

for more information and to complete the survey. You will automatically be entered in to the raffle for the book vouchers upon completion.

Many thanks in advance for your time.

Kind regards

James Rathbone
Clinical Psychologist in Training
Leicester Partnership NHS Trust &
University of Leicester

Appendix F

Theory of Planned Behaviour – Stages in Development of Questionnaire

1) Define the population of interest. Decide how best to select a representative sample from this population.

   Medical Students from UK universities

   Advertising in the school of medicine - volunteer study

2) Carefully define the behaviour under study. Use this definition to construct a general introductory statement for the start of the questionnaire.

   Behaviour – intentions to seek psychological help for mental health problems

   T (target) – medical student experiencing mental health problem

   A (action) – seeking psychological help for mental health problem

   C (context) – mental health problems in medical students (high pressure degree)

   T (time) – during the course of their degree

   Each question in this section refers to help-seeking behaviour in times of psychological distress.

3) Decide how to measure intentions

   The General Help-Seeking Questionnaire (GHSQ) (Wilson, Deane, Ciarrochi & Rickwood, 2005). The GHSQ is a 14-item measure constructed to formally assess help-seeking intentions.

4) Determine the most frequently perceived advantages and disadvantages of performing the behaviour. (Elicitation study)

5) Determine the most important people of groups of people who would approve or disapprove of the behaviour. (Elicitation study)

6) Determine the perceived barriers or facilitating factors which could make it easier or more difficult to adopt the behaviour (Elicitation study)

7) For a standard TPB-based study, include items to measure ALL of these constructs in the first draft questionnaire

8) Pilot test the draft and reword items if necessary

9) Assess the test-retest reliability of the indirect measures by administering the questionnaire twice to the same group of people, with an interval of at least two weeks.

Appendix G

TPB Questionnaire

Thank you for your interest in completing this survey of medical students in the UK.

On the next page you will see an information sheet for participants. Please take the time to read this carefully and if you have any questions before you start the survey you can contact the researcher at jnr6@leicester.ac.uk

*** If you have cookies enabled on you computer you can close down the survey and return to it at a later time to complete your responses ***
*** Make a note of the code so you can come back to the survey later - you'll find it in the top right hand corner when you start the survey***

The survey itself should take around 30-40 minutes to complete. It is important that you answer all the questions as you will not be able to progress to the next page without doing so.

Appendix G continued

Information Sheet for Participants

Research Ethics Committee Reference Number: jnr6-20e7

Exploring Help-Seeking Behaviour in Medical Students: Gaining Psychological Support for Mental Health Problems

I would like to invite you to participate in this postgraduate research project. You should only participate if you want to; choosing not to take part will not disadvantage you in any way. Before you decide whether you want to take part, it is important for you to understand why the research is being done and what your participation will involve. Please take time to read the following information carefully and discuss it with others if you wish.

Current government figures highlight that 1 in 4 people will experience a mental health problem in any given year. What is more, mental ill health is more common in people that experience high levels of stress in their daily lives. Medicine is one of the most intensive university courses offered in the UK and students undertake long days of lectures as well as gaining practical experience in highly emotive health care settings. The current study seeks to explore medical students' intentions to seek psychological help should they encounter mental health problems throughout their training.

The study is recruiting medical students from a number of different UK universities. You do not have to have experienced mental ill health to take part in the survey. The survey consists of around 50 questions which you should answer honestly. It should take around 20 minutes to complete. All responses will be anonymised and data will be kept confidential in accordance with the UK Data Protection Act 1998. Only the researcher will have access to your information and no individual will be identifiable in the final report which will be submitted for publication in a peer reviewed journal.

It is up to you to decide whether to take part or not. If you decide to take part you are still free to withdraw from the study at any time and without giving a reason.

If you have any questions or require more information about this study, please contact the researcher using the following contact details: James Rathbone [jnr6@leicester.ac.uk]

If you feel this study has harmed you in any way, you can contact University of Leicester using the details below for further advice and information:

Ms Mary O'Reilly
University of Leicester, 104 Regent Road, Leicester, LE1 7TY
[mjo11@mail.cfs.le.ac.uk] Tel: 0116 223 1639

If you wish to withdraw your responses from the analysis you can do so by contacting the researcher at the email address listed above.

Please confirm you have read information sheet above *

Please choose...

CONSENT FORM FOR PARTICIPANTS IN RESEARCH STUDIES

Title of Study: Exploring Help-Seeking Behaviour in Medical Students: Gaining Psychological Support for Mental Health Problems

University of Leicester Ethics Committee Ref: jnr6-20e7

Thank you for considering taking part in this research. If you have any questions arising from the information sheet or explanation already given to you, please ask the researcher before you decide whether to join in.

The information you have submitted will be published as a report; please indicate whether you would like to receive a summary of the results. *

- ○ yes
- ○ no

I understand that confidentiality and anonymity will be maintained and it will not be possible to identify me in any publications. *

- ○ yes
- ○ no

Appendix G continued

I agree that the research team may use my data for future research and understand that any such use of identifiable data would be reviewed and approved by a research ethics committee. (In such cases, as with this project, data would not be identifiable in any report). *

- ○ yes
- ○ no

I understand that if I decide at any time during the research that I no longer wish to participate in this project, I can notify the researchers involved and withdraw from it immediately without giving any reason. Furthermore, I understand that I will be able to withdraw my data up to the point of analysis. *

- ○ yes
- ○ no

I consent to the processing of my personal information for the purposes explained to me. I understand that such information will be handled in accordance with the terms of the UK Data Protection Act 1998. *

- ○ yes
- ○ no

PARTICIPANT STATEMENT:

I [enter name] *

agree that the research project named above has been explained to me to my satisfaction and I agree to take part in the study. I have read both the notes written above and the Information Sheet about the project, and understand what the research study involves.

Date: *

University of Leicester email address *

Demographic Information

Are you

Please choose...

How old are you?

years

How would you describe your ethnicity?

Please choose...

What year of your medical degree are you in? (Including BSc year if taken)

Please choose...

Appendix G continued

SECTION 1 - Vignettes

In each of next 5 pages you will read a short vignette and be asked to answer 3 questions. Please answer all of the questions honestly.

Each question in these sections refers to INTENTIONS TO SEEK HELP FOR PERSONAL AND EMOTIONAL PROBLEMS.

1. In the past two weeks Jake has found it hard to wind down or relax. He's also been feeling pretty overwhelmed, "twitchy", and intolerant. He's been over-reacting to things that are going on.

If you were feeling like Jake, how likely is it that you would seek help from the following people?

Please indicate your response by selecting the number that best describes your intention to seek help from each help source that is listed. *

	Extremely Unlikely 1	2	Unlikely 3	4	Likely 5	6	Extremely Likely 7
a. Intimate partner (e.g., girlfriend, boyfriend, husband, wife, de' facto)	○	○	○	○	○	○	○
b. Friend (not related to you)	○	○	○	○	○	○	○
c. Parent	○	○	○	○	○	○	○
d. Other relative/family member	○	○	○	○	○	○	○
e. Mental health professional (e.g. psychologist, social worker, counsellor, psychiatrist)	○	○	○	○	○	○	○
f. Phone helpline (e.g. The Samaritans)	○	○	○	○	○	○	○
g. Doctor/GP	○	○	○	○	○	○	○
h. Teacher (lecturer, professor, advisor)	○	○	○	○	○	○	○
i. I would not seek help from anyone	○	○	○	○	○	○	○

*

	Extremely Unlikely 1	2	Unlikely 3	4	Likely 5	6	Extremely Likely 7
j. I would seek help from another not listed above (please list in the space provided, (e.g., work colleague. If no, leave blank)	○	○	○	○	○	○	○

If you gave a rating for item (j.) please indicate who you would seek help from.

2. What, if anything, is wrong with Jake? *

Appendix G continued

3. Do you think Jake needs help? *

- ○ yes
- ○ no

Vignette 2

4. In the past two weeks Jane has noticed that she has felt worried or scared without any particular reason, and her hands have trembled a lot even though she doesn't drink coffee or caffeine drinks. On a few occasions she has felt close to panic, and at the same time become aware that her mouth has got really dry and that she has difficulty breathing.

If you were feeling like Jane, how likely is it that you would seek help from the following people? *

	Extremely Unlikely 1	2	Unlikely 3	4	Likely 5	6	Extremely Likely 7
a. Intimate partner (e.g., girlfriend, boyfriend, husband, wife, de' facto)	○	○	○	○	○	○	○
b. Friend (not related to you)	○	○	○	○	○	○	○
c. Parent	○	○	○	○	○	○	○
d. Other relative/family member	○	○	○	○	○	○	○
e. Mental health professional (e.g. psychologist, social worker, counsellor, psychiatrist)	○	○	○	○	○	○	○
f. Phone helpline (e.g. The Samaritans)	○	○	○	○	○	○	○
g. Doctor/GP	○	○	○	○	○	○	○
h. Teacher (lecturer, professor, advisor)	○	○	○	○	○	○	○
i. I would not seek help from anyone	○	○	○	○	○	○	○

*

	Extremely Unlikely 1	2	Unlikely 3	4	Likely 5	6	Extremely Likely 7
j. I would seek help from another not listed above (please list in the space provided, (e.g., work colleague. If no, leave blank)	○	○	○	○	○	○	○

If you gave a rating for item (j.) please indicate who you would seek help from.

Appendix G continued

5. What, if anything, is wrong with Jane? *

6. Do you think Jane needs help? *

- ○ yes
- ○ no

Vignette 3

7. John has been feeling unusually sad and down-hearted for most of the day for nearly two weeks. He doesn't feel like eating and has lost weight. He can't keep his mind on his studies and his marks have dropped. He has put off making decisions and feels that even day-to-day tasks are too much for him. To him, life feels meaningless and he doesn't feel he is worth much as a person.

If you were feeling like John, how likely is it that you would seek help from the following people? *

	Extremely Unlikely 1	2	Unlikely 3	4	Likely 5	6	Extremely Likely 7
a. Intimate partner (e.g., girlfriend, boyfriend, husband, wife, de' facto)	○	○	○	○	○	○	○
b. Friend (not related to you)	○	○	○	○	○	○	○
c. Parent	○	○	○	○	○	○	○
d. Other relative/family member	○	○	○	○	○	○	○
e. Mental health professional (e.g. psychologist, social worker, counsellor, psychiatrist)	○	○	○	○	○	○	○
f. Phone helpline (e.g. The Samaritans)	○	○	○	○	○	○	○
g. Doctor/GP	○	○	○	○	○	○	○
h. Teacher (lecturer, professor, advisor)	○	○	○	○	○	○	○
i. I would not seek help from anyone	○	○	○	○	○	○	○

*

	Extremely Unlikely 1	2	Unlikely 3	4	Likely 5	6	Extremely Likely 7
j. I would seek help from another not listed above (please list in the space provided, (e.g., work colleague. If no, leave blank)	○	○	○	○	○	○	○

Appendix G continued

If you gave a rating for item (j.) please indicate who you would seek help from.

8. What, if anything, is wrong with John? *

9. Do you think John needs help? *

- ○ yes
- ○ no

Vignette 4

10. In the last four weeks Jess has found herself thinking about how easy it would be to end it all, and she knows that at least once a week during this time she has thought about how and when she could kill herself.

If you were having thoughts like Jess, how likely is it that you would seek help from the following people? *

	Extremely Unlikely 1	2	Unlikely 3	4	Likely 5	6	Extremely Likely 7
a. Intimate partner (e.g., girlfriend, boyfriend, husband, wife, de' facto)	○	○	○	○	○	○	○
b. Friend (not related to you)	○	○	○	○	○	○	○
c. Parent	○	○	○	○	○	○	○
d. Other relative/family member	○	○	○	○	○	○	○
e. Mental health professional (e.g. psychologist, social worker, counsellor, psychiatrist)	○	○	○	○	○	○	○
f. Phone helpline (e.g. The Samaritans)	○	○	○	○	○	○	○
g. Doctor/GP	○	○	○	○	○	○	○
h. Teacher (lecturer, professor, advisor)	○	○	○	○	○	○	○
i. I would not seek help from anyone	○	○	○	○	○	○	○

Appendix G continued

*

	Extremely Unlikely 1	2	Unlikely 3	4	Likely 5	6	Extremely Likely 7
j. I would seek help from another not listed above (please list in the space provided, (e.g., work colleague. If no, leave blank)	○	○	○	○	○	○	○

If you gave a rating for item (j.) please indicate who you would seek help from.

11. What, if anything, is wrong with jess? *

12. Do you think jess needs help? *

○ yes

○ no

Appendix G continued

Vignette 5

13. In the last couple of months Jack has found himself doing things when he is drinking alcohol that he later regrets and which he's been getting into trouble for. He knows he's needing more and more to feel the same way after drinking and to complete his daily tasks. When he's not drinking, he's been feeling more and more wound up, sad and confused. He's falling behind in his uni work.

If you were relying on a substance like Jack, how likely is it that you would seek help from the following people? *

	Extremely Unlikely 1	2	Unlikely 3	4	Likely 5	6	Extremely Likely 7
a. Intimate partner (e.g., girlfriend, boyfriend, husband, wife, de' facto)	○	○	○	○	○	○	○
b. Friend (not related to you)	○	○	○	○	○	○	○
c. Parent	○	○	○	○	○	○	○
d. Other relative/family member	○	○	○	○	○	○	○
e. Mental health professional (e.g. psychologist, social worker, counsellor, psychiatrist)	○	○	○	○	○	○	○
f. Phone helpline (e.g. The Samaritans)	○	○	○	○	○	○	○
g. Doctor/GP	○	○	○	○	○	○	○
h. Teacher (lecturer, professor, advisor)	○	○	○	○	○	○	○
i. I would not seek help from anyone	○	○	○	○	○	○	○

*

	Extremely Unlikely 1	2	Unlikely 3	4	Likely 5	6	Extremely Likely 7
j. I would seek help from another not listed above (please list in the space provided, (e.g., work colleague. If no, leave blank)	○	○	○	○	○	○	○

If you gave a rating for item (j.) please indicate who you would seek help from.

14. What, if anything, is wrong with Jack? *

15. Do you think Jack needs help? *

- ○ yes
- ○ no

Appendix G continued

Please read this definition of mental health

What is mental illness and what is mental health?

The term 'mental illness' is generally used when someone experiences significant changes in their thinking, feelings or behaviour. The changes need to be bad enough to affect how the person functions or to cause distress to them or to other people.

The terms 'mental health problem' and 'mental disorder' have a similar meaning.

If a person has always had a problem in their thinking, feeling or behaviour, then this is not usually called a mental illness. It may then be called a developmental problem or a difficulty with their personality.

Mental Health is the opposite - it means mental wellbeing, good mental functioning or having no problems in thinking, feelings or behaviour.

All of us experience changes from time to time in our feeling, thinking and behaviour, and there is no cut off between illness and health as some people may have problems which fit a definition of mental illness but may be very healthy mentally in other ways.

Some common mental health problems people experience are; depression, anxiety, and stress.

We are conducting a study of medical students in Leicester. We are interested in determining intentions to seek psychological help for mental health problems. We would appreciate your responses to some questions about this. There are no right or wrong answers so please tell us what you really think.

SECTION 2 - Questionnaire

Each question in this section refers to INTENTIONS TO SEEK PSYCHOLOGICAL HELP FOR PERSONAL AND EMOTIONAL PROBLEMS.

Please answer honestly - there are 21 items on this page - 62 items in total and then the questionnaire is finished.

16) Managing symptoms and preventing deterioration of mental health problems is: *

	-3	-2	-1	0	1	2	3	
extremely undesirable	○	○	○	○	○	○	○	extrmely desirable

17) Information on psychological services that are available for me to access is readily available *

	-3	-2	-1	0	1	2	3	
Unlikely	○	○	○	○	○	○	○	Likely

18) My friends would *

	1	2	3	4	5	6	7	
disapprove	○	○	○	○	○	○	○	approve * of me seeking psychological help for a mental health problem

19) If I seek psychological help, I believe it will help to resolve the problem *

	1	2	3	4	5	6	7	
Unlikely	○	○	○	○	○	○	○	Likely

20) Appearing weak because I sought psychological help is: *

	-3	-2	-1	0	1	2	3	
Extremely Undesirable	○	○	○	○	○	○	○	Extremely Desirable

21) Feeling stigmatised about having a mental health problem is: *

	-3	-2	-1	0	1	2	3	
extremely undesirable	○	○	○	○	○	○	○	extrmely desirable

Appendix G continued

22) I would need to know that my seeking psychological help would be kept confidential *

1 2 3 4 5 6 7

Unlikely ○ ○ ○ ○ ○ ○ ○ Likely

23) If I seek psychological help, the service I get will not be targeted for me as an individual *

1 2 3 4 5 6 7

Unlikely ○ ○ ○ ○ ○ ○ ○ Likely

24) My family would think I *

1 2 3 4 5 6 7

should not ○ ○ ○ ○ ○ ○ ○ should * seek psychological help for a mental health problem

25) What people from cultures where mental health is more stigmatised think I should do matters to me *

-3 -2 -1 0 1 2 3

Not at all ○ ○ ○ ○ ○ ○ ○ Very much

26) Most people who are important to me would think that I *

1 2 3 4 5 6 7

should ○ ○ ○ ○ ○ ○ ○ should not * seek psychological help for a mental health problem

27) The time consuming nature of seeking psychological help while I'm a medical student is: *

-3 -2 -1 0 1 2 3

extremely undesirable ○ ○ ○ ○ ○ ○ ○ extrmely desirable

28) Psychological services are easy to access (i.e. fast referrals, flexible appointment booking, short waiting lists) *

1 2 3 4 5 6 7

Unlikely ○ ○ ○ ○ ○ ○ ○ Likely

29) Being judged by others for seeking psychological help is: *

-3 -2 -1 0 1 2 3

extremely undesirable ○ ○ ○ ○ ○ ○ ○ extrmely desirable

30) My GP would think I *

1 2 3 4 5 6 7

should not ○ ○ ○ ○ ○ ○ ○ should * seek psychological help for a mental health problem

31) Seeking psychological help for a mental health problem is; *

1 2 3 4 5 6 7

Useful ○ ○ ○ ○ ○ ○ ○ Worthless

32) The decision to seek psychological help for a mental health problem is beyond my control *

1 2 3 4 5 6 7

Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree

Appendix G continued

33) When I know my seeking psychological help will be kept confidential I am *

-3 -2 -1 0 1 2 3

less likely ○ ○ ○ ○ ○ ○ ○ more likely * to seek psychological help

34) Doing what the medical school thinks I should do is important to me *

-3 -2 -1 0 1 2 3

Not at all ○ ○ ○ ○ ○ ○ ○ Very Much

35) Easy to access psychological services (i.e. fast referrals, flexible appointment booking, short waiting lists) would make me less likely/more likely to seek psychological help *

-3 -2 -1 0 1 2 3

less likely ○ ○ ○ ○ ○ ○ ○ more likely * to seek psychological help

36) Having limited time available due to my course requirements means I am *

-3 -2 -1 0 1 2 3

less likely ○ ○ ○ ○ ○ ○ ○ more likely * to seek psychological help

Page 11

Each question in this section refers to INTENTIONS TO SEEK PSYCHOLOGICAL HELP FOR PERSONAL AND EMOTIONAL PROBLEMS.

Please answer honestly - there are 21 items on this page and 20 on the final page, then you are done!

37) A potential employer's approval of psychological help-seeking is important to me *

-3 -2 -1 0 1 2 3

Not at all ○ ○ ○ ○ ○ ○ ○ Very much

38) Potential future employers would *

1 2 3 4 5 6 7

disapprove ○ ○ ○ ○ ○ ○ ○ approve * of my seeking psychological help for a mental health problem

39) It is expected of me that I seek psychological help for a mental health problem *

1 2 3 4 5 6 7

Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree

40) Seeking psychological help will facilitate management of symptoms and prevent deterioration *

1 2 3 4 5 6 7

Unlikely ○ ○ ○ ○ ○ ○ ○ Likely

41) Getting psychological perspectives on mental health problems will be helpful for me *

1 2 3 4 5 6 7

Unlikely ○ ○ ○ ○ ○ ○ ○ Likely

42) I feel under social pressure to seek psychological help for a mental health problem *

1 2 3 4 5 6 7

Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree

Appendix G continued

43) People who are poorly informed/uneducated about mental health problems would *

1 2 3 4 5 6 7

disapprove ○ ○ ○ ○ ○ ○ ○ approve * of my seeking psychological help for a mental health problem

44) Getting a psychological perspective on the problem is: *

-3 -2 -1 0 1 2 3

Extremely undesirable ○ ○ ○ ○ ○ ○ ○ Extremely desirable

45) My family's approval of my seeking psychological help is important to me *

-3 -2 -1 0 1 2 3

Not at all ○ ○ ○ ○ ○ ○ ○ Very much

46) Feeling supported with the mental health problem is: *

-3 -2 -1 0 1 2 3

Extremely undesirable ○ ○ ○ ○ ○ ○ ○ Extremely desirable

47) If I seek psychological help, I would feel stigmatised *

1 2 3 4 5 6 7

Unlikely ○ ○ ○ ○ ○ ○ ○ Likely

48) My GP's approval of my seeking psychological help is important to me *

-3 -2 -1 0 1 2 3

Not at all ○ ○ ○ ○ ○ ○ ○ Very much

49) Seeking psychological help would help me to feel supported with the problem *

1 2 3 4 5 6 7

Unlikely ○ ○ ○ ○ ○ ○ ○ Likely

50) For me to seek psychological help for a mental health problem would be *

1 2 3 4 5 6 7

Easy ○ ○ ○ ○ ○ ○ ○ Difficult

51) People from cultures where mental health is more stigmatised would think *

1 2 3 4 5 6 7

I should not ○ ○ ○ ○ ○ ○ ○ should * seek psychological help for a mental health problem.

52) GPs are knowledgeable about the types of psychological services available *

1 2 3 4 5 6 7

Unlikely ○ ○ ○ ○ ○ ○ ○ Likely

53) Whether I seek psychological help for a mental health problem is not entirely up to me *

1 2 3 4 5 6 7

Strongly disagree ○ ○ ○ ○ ○ ○ ○ Strongly agree

Appendix G continued

54) I would feel judged by others for seeking psychological help *

1 2 3 4 5 6 7

Unlikely ○ ○ ○ ○ ○ ○ ○ Likely

55) What my friends think I should do matters to me *

-3 -2 -1 0 1 2 3

Not at all ○ ○ ○ ○ ○ ○ ○ Very much

56) Readily available information on the types of psychological services accessible makes it *

-3 -2 -1 0 1 2 3

much more difficult ○ ○ ○ ○ ○ ○ ○ much easier * to seek psychological help.

57) Doing what people who are poorly informed/uneducated about mental health think I should do matters to me *

-3 -2 -1 0 1 2 3

Not at all ○ ○ ○ ○ ○ ○ ○ Very much

Page 12

Each question in this section refers to INTENTIONS TO SEEK PSYCHOLOGICAL HELP FOR PERSONAL AND EMOTIONAL PROBLEMS.

Please answer honestly - there are only 20 items left to answer!

58) The Medical School would *

1 2 3 4 5 6 7

disapprove ○ ○ ○ ○ ○ ○ ○ approve * of me seeking psychological help for a mental health problem

59) Resolving a mental health problem is: *

-3 -2 -1 0 1 2 3

Extremely undesirable ○ ○ ○ ○ ○ ○ ○ Extremely desirable

60) Seeking psychological help for a mental health problem is *

1 2 3 4 5 6 7

Harmful ○ ○ ○ ○ ○ ○ ○ Beneficial

61) A mental health problem going on my medical record is: *

-3 -2 -1 0 1 2 3

Extremely undesirable ○ ○ ○ ○ ○ ○ ○ Extremely desirable

62) I am concerned that seeking psychological help would go on my medical record and jeopardise my career in medicine *

1 2 3 4 5 6 7

Unlikely ○ ○ ○ ○ ○ ○ ○ Likely

63) Changing locations during study (i.e. out-block placements) makes it *

-3 -2 -1 0 1 2 3

much more difficult ○ ○ ○ ○ ○ ○ ○ much easier * to seek psychological help

Appendix G continued

64) People who are important to me want me to seek psychological help for a mental health problem *

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

65) I have limited time available to seek psychological help due to my course requirements *

	1	2	3	4	5	6	7	
Unlikely	○	○	○	○	○	○	○	Likely

66) GP knowledge about what psychological services are available makes it *

	-3	-2	-1	0	1	2	3	
much more difficult	○	○	○	○	○	○	○	much easier * to seek psychological help.

67) Getting treatment for the mental illness is: *

	-3	-2	-1	0	1	2	3	
Extremely undesirable	○	○	○	○	○	○	○	Extremely desirable

68) I feel safe seeking help from a psychologist because they are a mental health professional *

	1	2	3	4	5	6	7	
Unlikely	○	○	○	○	○	○	○	Likely

69) I am confident that I could seek psychological help for a mental health problem if I wanted to *

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

70) A psychological service that is not targeted at me as an individual is: *

	-3	-2	-1	0	1	2	3	
Extremely undesirable	○	○	○	○	○	○	○	Extremely desirable

71) Changing location during study (i.e. out-block placements) means I couldn't do psychological therapy *

	1	2	3	4	5	6	7	
Unlikely	○	○	○	○	○	○	○	Likely

72) Seeking psychological help would be too time consuming for me as a medical student *

	1	2	3	4	5	6	7	
Unlikely	○	○	○	○	○	○	○	Likely

73) Seeking psychological help for a mental health problem is *

	1	2	3	4	5	6	7	
Pleasant	○	○	○	○	○	○	○	Unpleasant

74) If I seek psychological help, I would appear weak *

	1	2	3	4	5	6	7	
Unlikely	○	○	○	○	○	○	○	Likely

Appendix G continued

75) Seeking psychological help for a mental health problem is *

	1	2	3	4	5	6	7	
Bad	○	○	○	○	○	○	○	Good

76) Feeling safe because I know the psychologist is a mental health professional is: *

	-3	-2	-1	0	1	2	3	
Extremely undesirable	○	○	○	○	○	○	○	Extremely desirable

77) If I seek psychological help, I will receive treatment for the mental illness *

	1	2	3	4	5	6	7	
Unlikely	○	○	○	○	○	○	○	Likely

Thank you for completing this survey on psychological help-seeking for mental health problems.

It is hoped that the results of this study can be used to improve psychological services and identify barriers to help-seeking in medical students. If you have indicated that you would like to receive a summary of the results you will receive an email in due course.

Thank you once again for your participation. If you have any further questions then please do not hesitate to contact the researcher James Rathbone at jnr6@le.ac.uk

You have completed the survey. Thank you very much for your participation.

You can now close the window.

Appendix H

Scoring Key for TPB Questionnaire

TBP Component	Construct Measured	Question Numbers	Response Format	Items Requiring Reverse Scoring	Items Requiring Multiplication	Items Requiring Internal Consistency Analysis
Intention	Generalised Intention (GHSQ-V)	1 to 15				
Attitudes	Attitudes Direct Measure	16 to 19 (items 31, 60, 73, 75)	1 to 7	31 and 73		16 to 19 (items 31, 60, 73, 75) after recoding
	Behavioural Beliefs	20 to 31 (items 19, 23, 40, 41, 47, 49, 54, 62, 68, 72, 74, 77)	1 to 7		19x59; 23x70; 40x16; 41x44; 47x21; 49x46; 54x29; 62x61; 68x76; 72x27; 74x20; 77x67	
	Outcome Evaluations	32 to 43 (items 16, 20, 21, 27, 29, 44, 46, 59, 61, 67, 70, 76)	-3 to +3			
Subjective Norms	Subjective Norms Direct Measure	44 to 47 (items 26, 39, 42, 64)	1 to 7	26, 42		44 to 47 (items 26, 39, 42, 64 after recoding)
	Normative Beliefs	48 to 54 (items 18, 24, 30, 38, 43, 51, 58)	1 to 7		18x55; 24x45; 30x48; 38x37; 43x57; 51x25; 58x34	
	Motivation to Comply	55 to 61 (items 25, 34, 37, 45, 48, 55, 57)	-3 to +3			
Perceived Behavioural Control	PBC Direct Measure	62 to 65 (items 32, 50, 53, 69)	1 to 7	32, 50, 53		62 to 65 (items 32, 50, 53, 69 after recoding)
	Control Belief Strength	66 to 71 (items 17, 22, 28, 52, 65, 71)	1 to 7	22, 65, 71	17x56; 22x33; 28x35; 52x66; 65x36; 71x63	
	Control Belief Power	72 to 77 (items 33, 35, 36, 56, 63, 66)	-3 to +3			

Appendix I

Internal consistency for direct measure of attitude

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.788	.805	4

Item Statistics

	Mean	Std. Deviation	N
Q31	5.6375	1.25531	80
Q60	6.0875	.91671	80
Q73	3.4250	1.39416	80
Q75	6.0750	1.00347	80

Inter-Item Correlation Matrix

	Q31	Q60	Q73	Q75
Q31	1.000	.743	.480	.534
Q60	.743	1.000	.406	.529
Q73	.480	.406	1.000	.357
Q75	.534	.529	.357	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q31	15.5875	6.802	.723	.607	.664
Q60	15.1375	8.550	.694	.578	.706
Q73	17.8000	7.453	.488	.247	.811
Q75	15.1500	8.787	.558	.334	.756

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
21.2250	13.113	3.62123	4

Appendix J

Internal consistency for direct measure of subjective norm

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.312	.350	4

Item Statistics

	Mean	Std. Deviation	N
Q26	5.4875	1.88259	80
Q39	5.4875	1.30232	80
Q42	3.1500	1.57593	80
Q64	5.2500	1.39166	80

Inter-Item Correlation Matrix

	Q26	Q39	Q42	Q64
Q26	1.000	.124	-.102	.127
Q39	.124	1.000	.143	.190
Q42	-.102	.143	1.000	.231
Q64	.127	.190	.231	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q26	13.8875	8.405	.061	.048	.408
Q39	13.8875	9.038	.241	.060	.178
Q42	16.2250	9.139	.104	.084	.322
Q64	14.1250	8.313	.295	.095	.106

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
19.3750	12.617	3.55205	4

Appendix K

Internal consistency for direct measure of perceived behavioural control

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.607	.613	4

Item Statistics

	Mean	Std. Deviation	N
Q32	5.2375	1.54464	80
Q50	3.0625	1.54546	80
Q53	4.4250	1.82649	80
Q69	4.7375	1.60493	80

Inter-Item Correlation Matrix

	Q32	Q50	Q53	Q69
Q32	1.000	.222	.278	.235
Q50	.222	1.000	.192	.558
Q53	.278	.192	1.000	.220
Q69	.235	.558	.220	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q32	12.2250	13.442	.335	.117	.574
Q50	14.4000	12.319	.453	.322	.490
Q53	13.0375	12.340	.307	.106	.607
Q69	12.7250	11.822	.473	.332	.471

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
17.4625	19.619	4.42931	4

Appendix L

Internal consistency for indirect measure of attitude

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.719	.696	7

Item Statistics

	Mean	Std. Deviation	N
Q47	4.4875	1.62258	80
Q48	.3875	1.73201	80
Q54	4.5125	1.69880	80
Q62	5.2500	1.84528	80
Q72	5.0375	1.61044	80
Q74	4.0375	1.63385	80
Q77	4.7875	1.30911	80

Inter-Item Correlation Matrix

	Q47	Q48	Q54	Q62	Q72	Q74	Q77
Q47	1.000	.315	.666	.415	.385	.533	-.094
Q48	.315	1.000	.327	.108	.154	.290	.065
Q54	.666	.327	1.000	.589	.382	.700	-.207
Q62	.415	.108	.589	1.000	.389	.358	-.193
Q72	.385	.154	.382	.389	1.000	.298	-.134
Q74	.533	.290	.700	.358	.298	1.000	-.174
Q77	-.094	.065	-.207	-.193	-.134	-.174	1.000

Appendix L continued

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q47	24.0125	34.215	.652	.482	.629
Q48	28.1125	39.038	.332	.156	.711
Q54	23.9875	31.987	.746	.695	.599
Q62	23.2500	35.405	.474	.396	.675
Q72	23.4625	38.353	.415	.220	.690
Q74	24.4625	35.214	.584	.508	.647
Q77	23.7125	50.764	-.175	.077	.794

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
28.5000	49.215	7.01535	7

Appendix M

Internal consistency for indirect measure of subjective norm

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.709	.701	6

Item Statistics

	Mean	Std. Deviation	N
Q18	5.3500	1.33217	80
Q30	5.8250	1.30989	80
Q38	4.2375	1.73018	80
Q43	2.2000	1.01133	80
Q51	2.2375	1.04632	80
Q58	5.6875	1.48915	80

Inter-Item Correlation Matrix

	Q18	Q30	Q38	Q43	Q51	Q58
Q18	1.000	.246	.348	.192	.012	.349
Q30	.246	1.000	.387	.227	.188	.478
Q38	.348	.387	1.000	.435	.101	.525
Q43	.192	.227	.435	1.000	.373	.235
Q51	.012	.188	.101	.373	1.000	.121
Q58	.349	.478	.525	.235	.121	1.000

Appendix M continued

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q18	20.1875	20.256	.367	.168	.692
Q30	19.7125	19.119	.488	.273	.655
Q38	21.3000	15.478	.584	.415	.618
Q43	23.3375	21.264	.444	.303	.674
Q51	23.3000	23.251	.206	.168	.727
Q58	19.8500	17.167	.571	.386	.624

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
25.5375	26.429	5.14091	6

Appendix N

Internal consistency for indirect measure of perceived behavioural control

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.602	.616	4

tem Statistics

	Mean	Std. Deviation	N
Q28	2.5375	1.78562	80
Q52	4.7125	1.55241	80
Q65	2.1500	1.20232	80
Q71	3.2500	1.66498	80

Inter-Item Correlation Matrix

	Q28	Q52	Q65	Q71
Q28	1.000	.230	.363	.265
Q52	.230	1.000	.240	.263
Q65	.363	.240	1.000	.354
Q71	.265	.263	.354	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q28	10.1125	10.304	.385	.168	.535
Q52	7.9375	11.958	.329	.110	.571
Q65	10.5000	12.582	.454	.215	.502
Q71	9.4000	10.775	.398	.173	.519

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
12.6500	17.901	4.23099	4

Appendix O

Test-retest correlations for direct measures

Attitudes

Descriptive Statistics

	Mean	Std. Deviation	N
AttitudesDirectMeasure	21.2250	3.62123	80
rAttitudesDirectMeasure	21.4583	3.29663	24

Correlations

		AttitudesDirect Measure	rAttitudesDirect Measure
AttitudesDirectMeasure	Pearson Correlation	1	.844**
	Sig. (1-tailed)		.000
	N	80	24
rAttitudesDirectMeasure	Pearson Correlation	.844**	1
	Sig. (1-tailed)	.000	
	N	24	24

**. Correlation is significant at the 0.01 level (1-tailed).

Subject Norms

Descriptive Statistics

	Mean	Std. Deviation	N
SNDirectMeasure	17.0750	3.75103	80
rSNDirectMeasure	20.2917	3.49508	24

Correlations

		SNDirectMeasure	rSNDirectMeasure
SNDirectMeasure	Pearson Correlation	1	.396*
	Sig. (1-tailed)		.028
	N	80	24
rSNDirectMeasure	Pearson Correlation	.396*	1
	Sig. (1-tailed)	.028	
	N	24	24

*. Correlation is significant at the 0.05 level (1-tailed).

Appendix O continued

Perceived Behavioural Control

Descriptive Statistics

	Mean	Std. Deviation	N
PBCDirectMeasure	17.4625	4.42931	80
rPBCDirectMeasure	17.0833	4.19022	24

Correlations

		PBCDirectMeasure	rPBCDirectMeasure
PBCDirectMeasure	Pearson Correlation	1	.783**
	Sig. (1-tailed)		.000
	N	80	24
rPBCDirectMeasure	Pearson Correlation	.783**	1
	Sig. (1-tailed)	.000	
	N	24	24

**. Correlation is significant at the 0.01 level (1-tailed).

Appendix P

Test-retest correlations for indirect measures

Attitudes

Descriptive Statistics

	Mean	Std. Deviation	N
AttitudesIndirectMeasure	14.8125	30.08852	80
rAttitudesIndirectMeasure	56.4167	41.10000	24

Correlations

		AttitudesIndirectMeasure	rAttitudesIndirectMeasure
AttitudesIndirectMeasure	Pearson Correlation	1	.799**
	Sig. (1-tailed)		.000
	N	80	24
rAttitudesIndirectMeasure	Pearson Correlation	.799**	1
	Sig. (1-tailed)	.000	
	N	24	24

**. Correlation is significant at the 0.01 level (1-tailed).

Subject Norms

Descriptive Statistics

	Mean	Std. Deviation	N
Q42	3.1500	1.57593	80
Q42r	3.4167	1.24819	24

Correlations

		Q42	Q42r
Q42	Pearson Correlation	1	.434*
	Sig. (1-tailed)		.017
	N	80	24
Q42r	Pearson Correlation	.434*	1
	Sig. (1-tailed)	.017	
	N	24	24

*. Correlation is significant at the 0.05 level (1-tailed).

Appendix P continued

Perceived Behavioural Control

Descriptive Statistics

	Mean	Std. Deviation	N
PBCIndirectMeasure	10.6000	12.96890	80
rPBCIndirectMeasure	17.9583	17.98182	24

Correlations

		PBCIndirectMeasure	rPBCIndirectMeasure
PBCIndirectMeasure	Pearson Correlation	1	.761**
	Sig. (1-tailed)		.000
	N	80	24
rPBCIndirectMeasure	Pearson Correlation	.761**	1
	Sig. (1-tailed)	.000	
	N	24	24

**. Correlation is significant at the 0.01 level (1-tailed).

Appendix Q

Relationship between direct and indirect measures

Attitudes

Descriptive Statistics

	Mean	Std. Deviation	N
AttitudesDirectMeasure	21.2250	3.62123	80
AttitudesIndirectMeasure	14.8125	30.08852	80

Correlations

		AttitudesDirect Measure	AttitudesIndirect Measure
AttitudesDirectMeasure	Pearson Correlation	1	.662**
	Sig. (1-tailed)		.000
	N	80	80
AttitudesIndirectMeasure	Pearson Correlation	.662**	1
	Sig. (1-tailed)	.000	
	N	80	80

**. Correlation is significant at the 0.01 level (1-tailed).

Subjective Norms

Descriptive Statistics

	Mean	Std. Deviation	N
Q42	3.1500	1.57593	80
SNIndirectMeasure	5.8000	22.89182	80

Correlations

		Q42	SNIndirectMeasure
Q42	Pearson Correlation	1	.297**
	Sig. (1-tailed)		.004
	N	80	80
SNIndirectMeasure	Pearson Correlation	.297**	1
	Sig. (1-tailed)	.004	
	N	80	80

**. Correlation is significant at the 0.01 level (1-tailed).

Appendix Q continued

Perceived Behavioural Control

Descriptive Statistics

	Mean	Std. Deviation	N
PBCDirectMeasure	17.4625	4.42931	80
PBCIndirectMeasure	10.6000	12.96890	80

Correlations

		PBCDirectMeasure	PBCIndirectMeasure
PBCDirectMeasure	Pearson Correlation	1	.444**
	Sig. (1-tailed)		.000
	N	80	80
PBCIndirectMeasure	Pearson Correlation	.444**	1
	Sig. (1-tailed)	.000	
	N	80	80

**. Correlation is significant at the 0.01 level (1-tailed).

Appendix R

Direct measures predicting intentions (multiple regression analysis)

Descriptive Statistics

	Mean	Std. Deviation	N
ProfessionalHelpSeekingIntention	16.5125	6.05877	80
AttitudesDirectMeasure	21.2250	3.62123	80
Q42	3.1500	1.57593	80
PBCDirectMeasure	17.4625	4.42931	80

Correlations

		ProfessionalHelpSeekingIntention	AttitudesDirectMeasure	Q42	PBCDirectMeasure
Pearson Correlation	ProfessionalHelpSeekingIntention	1.000	.308	.183	.291
	AttitudesDirectMeasure	.308	1.000	.125	.605
	Q42	.183	.125	1.000	.062
	PBCDirectMeasure	.291	.605	.062	1.000
Sig. (1-tailed)	ProfessionalHelpSeekingIntention	.	.003	.052	.004
	AttitudesDirectMeasure	.003	.	.135	.000
	Q42	.052	.135	.	.291
	PBCDirectMeasure	.004	.000	.291	.
N	ProfessionalHelpSeekingIntention	80	80	80	80
	AttitudesDirectMeasure	80	80	80	80
	Q42	80	80	80	80
	PBCDirectMeasure	80	80	80	80

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.366[a]	.134	.100	5.74867	.134	3.918	3	76	.012

a. Predictors: (Constant), PBCDirectMeasure, Q42, AttitudesDirectMeasure

b. Dependent Variable: ProfessionalHelpSeekingIntention

Appendix R continued

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	388.398	3	129.466	3.918	.012[b]
	Residual	2511.589	76	33.047		
	Total	2899.987	79			

a. Dependent Variable: ProfessionalHelpSeekingIntention

b. Predictors: (Constant), PBCDirectMeasure, Q42, AttitudesDirectMeasure

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	90.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	4.030	3.947		1.021	.310	-2.542	10.603					
	AttitudesDirectMeasure	.314	.226	.188	1.391	.168	-.062	.690	.308	.158	.148	.626	1.597
	Q42	.572	.414	.149	1.383	.171	-.117	1.261	.183	.157	.148	.984	1.016
	PBCDirectMeasure	.230	.183	.168	1.255	.213	-.075	.536	.291	.142	.134	.634	1.578

a. Dependent Variable: ProfessionalHelpSeekingIntention

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	AttitudesDirectMeasure	Q42	PBCDirectMeasure
1	1	3.801	1.000	.00	.00	.01	.00
	2	.157	4.914	.01	.01	.94	.03
	3	.030	11.315	.38	.01	.04	.69
	4	.012	18.092	.61	.98	.00	.28

a. Dependent Variable: ProfessionalHelpSeekingIntention

Appendix S

Weighted behavioural beliefs on the indirect measure of attitude predicting directly measured attitudes

Descriptive Statistics

	Mean	Std. Deviation	N
AttitudesDirectMeasure	21.2250	3.62123	80
AttitudesIndirectMeasure	14.8125	30.08852	80

Correlations

		AttitudesDirectMeasure	AttitudesIndirectMeasure
Pearson Correlation	AttitudesDirectMeasure	1.000	.662
	AttitudesIndirectMeasure	.662	1.000
Sig. (1-tailed)	AttitudesDirectMeasure	.	.000
	AttitudesIndirectMeasure	.000	.
N	AttitudesDirectMeasure	80	80
	AttitudesIndirectMeasure	80	80

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.662[a]	.438	.431	2.73142	.438	60.855	1	78	.000

a. Predictors: (Constant), AttitudesIndirectMeasure

b. Dependent Variable: AttitudesDirectMeasure

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	454.018	1	454.018	60.855	.000[b]
	Residual	581.932	78	7.461		
	Total	1035.950	79			

a. Dependent Variable: AttitudesDirectMeasure

b. Predictors: (Constant), AttitudesIndirectMeasure

Appendix S continued

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	20.045	.341		58.817	.000		
	AttitudesIndirectMeasure	.080	.010	.662	7.801	.000	1.000	1.000

a. Dependent Variable: AttitudesDirectMeasure

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions	
				(Constant)	AttitudesIndirect Measure
1	1	1.444	1.000	.28	.28
	2	.556	1.611	.72	.72

a. Dependent Variable: AttitudesDirectMeasure

Appendix T

Weighted normative beliefs on the indirect measure of subjective norm predicting directly measured subjective norm

Descriptive Statistics

	Mean	Std. Deviation	N
Q42	4.8500	1.57593	80
SNIndirectMeasure	5.8000	22.89182	80

Correlations

		Q42	SNIndirectMeasure
Pearson Correlation	Q42	1.000	-.297
	SNIndirectMeasure	-.297	1.000
Sig. (1-tailed)	Q42	.	.004
	SNIndirectMeasure	.004	.
N	Q42	80	80
	SNIndirectMeasure	80	80

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.297[a]	.088	.076	1.51461	.088	7.525	1	78	.008

a. Predictors: (Constant), SNIndirectMeasure

b. Dependent Variable: Q42

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17.264	1	17.264	7.525	.008[b]
	Residual	178.936	78	2.294		
	Total	196.200	79			

a. Dependent Variable: Q42

b. Predictors: (Constant), SNIndirectMeasure

Appendix T continued

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4.968	.175		28.431	.000		
	SNIndirectMeasure	-.020	.007	-.297	-2.743	.008	1.000	1.000

a. Dependent Variable: Q42

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions	
				(Constant)	SNIndirectMeasure
1	1	1.247	1.000	.38	.38
	2	.753	1.287	.62	.62

a. Dependent Variable: Q42

Appendix U

Weighted control belief strength items on the indirect measure of perceived behavioural control predicting directly measured perceived behavioural control

Descriptive Statistics

	Mean	Std. Deviation	N
PBCDirectMeasure	17.4625	4.42931	80
PBCIndirectMeasure	10.6000	12.96890	80

Correlations

		PBCDirectMeasure	PBCIndirectMeasure
Pearson Correlation	PBCDirectMeasure	1.000	.444
	PBCIndirectMeasure	.444	1.000
Sig. (1-tailed)	PBCDirectMeasure	.	.000
	PBCIndirectMeasure	.000	.
N	PBCDirectMeasure	80	80
	PBCIndirectMeasure	80	80

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.444[a]	.197	.187	3.99370	.197	19.174	1	78	.000

a. Predictors: (Constant), PBCIndirectMeasure

b. Dependent Variable: PBCDirectMeasure

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	305.817	1	305.817	19.174	.000[b]
	Residual	1244.071	78	15.950		
	Total	1549.888	79			

a. Dependent Variable: PBCDirectMeasure

b. Predictors: (Constant), PBCIndirectMeasure

Appendix U continued

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	15.854	.578		27.423	.000		
	PBCIndirectMeasure	.152	.035	.444	4.379	.000	1.000	1.000

a. Dependent Variable: PBCDirectMeasure

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions	
				(Constant)	PBCIndirectMeasure
1	1	1.635	1.000	.18	.18
	2	.365	2.117	.82	.82

a. Dependent Variable: PBCDirectMeasure

Appendix V

TPB constructs prediction of help-seeking intentions when controlling for the influence of sex, year of study, and ethnicity

Descriptive Statistics

	Mean	Std. Deviation	N
ProfessionalHelpSeekingIntention	16.5125	6.05877	80
Sex	1.6875	.46644	80
Year_of_Study	2.9500	1.66041	80
EthnicitySplit	1.3250	.47133	80
AttitudesDirectMeasure	21.2250	3.62123	80
Q42	3.1500	1.57593	80
PBCDirectMeasure	17.4625	4.42931	80

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.233[a]	.054	.017	6.00736	.054	1.453	3	76	.234
2	.417[b]	.174	.106	5.72952	.119	3.517	3	73	.019

a. Predictors: (Constant), EthnicitySplit, Sex, Year_of_Study

b. Predictors: (Constant), EthnicitySplit, Sex, Year_of_Study, AttitudesDirectMeasure, Q42, PBCDirectMeasure

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	157.275	3	52.425	1.453	.234[b]
	Residual	2742.712	76	36.088		
	Total	2899.987	79			
2	Regression	503.589	6	83.931	2.557	.026[c]
	Residual	2396.399	73	32.827		
	Total	2899.987	79			

a. Dependent Variable: ProfessionalHelpSeekingIntention

b. Predictors: (Constant), EthnicitySplit, Sex, Year_of_Study

c. Predictors: (Constant), EthnicitySplit, Sex, Year_of_Study, AttitudesDirectMeasure, Q42, PBCDirectMeasure

Appendix V continued

Correlations

		ProfessionalHelpSeekingIntention	Sex	Year_of_Study	EthnicitySplit	AttitudesDirectMeasure	Q42	PBCDirectMeasure
Pearson Correlation	ProfessionalHelpSeekingIntention	1.000	.201	-.175	.061	.308	.183	.291
	Sex	.201	1.000	-.380	.007	.102	-.090	.163
	Year_of_Study	-.175	-.380	1.000	-.076	-.030	-.012	-.047
	EthnicitySplit	.061	.007	-.076	1.000	.120	.138	.012
	AttitudesDirectMeasure	.308	.102	-.030	.120	1.000	.125	.605
	Q42	.183	-.090	-.012	.138	.125	1.000	.062
	PBCDirectMeasure	.291	.163	-.047	.012	.605	.062	1.000
Sig. (1-tailed)	ProfessionalHelpSeekingIntention	.	.037	.060	.297	.003	.052	.004
	Sex	.037	.	.000	.475	.184	.213	.075
	Year_of_Study	.060	.000	.	.251	.397	.459	.340
	EthnicitySplit	.297	.475	.251	.	.145	.111	.458
	AttitudesDirectMeasure	.003	.184	.397	.145	.	.135	.000
	Q42	.052	.213	.459	.111	.135	.	.291
	PBCDirectMeasure	.004	.075	.340	.458	.000	.291	.
N	ProfessionalHelpSeekingIntention	80	80	80	80	80	80	80
	Sex	80	80	80	80	80	80	80
	Year_of_Study	80	80	80	80	80	80	80
	EthnicitySplit	80	80	80	80	80	80	80
	AttitudesDirectMeasure	80	80	80	80	80	80	80
	Q42	80	80	80	80	80	80	80
	PBCDirectMeasure	80	80	80	80	80	80	80

Appendix V continued

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	13.367	4.003		3.339	.001	5.395	21.340					
	Sex	2.055	1.567	.158	1.312	.194	-1.065	5.176	.201	.149	.146	.855	1.169
	Year_of_Study	-.404	.441	-.111	-.916	.363	-1.284	.475	-.175	-.105	-.102	.850	1.176
	EthnicitySplit	.656	1.439	.051	.456	.650	-2.209	3.521	.061	.052	.051	.994	1.006
2	(Constant)	2.840	5.155		.551	.583	-7.433	13.113					
	Sex	1.703	1.523	.131	1.118	.267	-1.333	4.738	.201	.130	.119	.823	1.215
	Year_of_Study	-.404	.422	-.111	-.957	.342	-1.244	.436	-.175	-.111	-.102	.848	1.179
	EthnicitySplit	.069	1.396	.005	.049	.961	-2.715	2.852	.061	.006	.005	.959	1.043
	AttitudesDirectMeasure	.308	.227	.184	1.357	.179	-.144	.760	.308	.157	.144	.616	1.624
	Q42	.618	.418	.161	1.477	.144	-.216	1.451	.183	.170	.157	.957	1.045
	PBCDirectMeasure	.196	.185	.143	1.059	.293	-.173	.564	.291	.123	.113	.620	1.613

a. Dependent Variable: ProfessionalHelpSeekingIntention

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics		
						Tolerance	VIF	Minimum Tolerance
1	AttitudesDirectMeasure	.290[b]	2.665	.009	.294	.975	1.026	.846
	Q42	.194[b]	1.739	.086	.197	.971	1.030	.847
	PBCDirectMeasure	.267[b]	2.433	.017	.271	.973	1.028	.834

a. Dependent Variable: ProfessionalHelpSeekingIntention

b. Predictors in the Model: (Constant), EthnicitySplit, Sex, Year_of_Study

Appendix V continued

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions						
				(Constant)	Sex	Year_of_Study	Ethnicity Split	AttitudesDirectMeasure	Q42	PBCDirectMeasure
1	1	3.650	1.000	.00	.00	.01	.01			
	2	.238	3.914	.00	.04	.63	.04			
	3	.092	6.284	.01	.22	.00	.75			
	4	.020	13.629	.99	.73	.36	.20			
2	1	6.391	1.000	.00	.00	.00	.00	.00	.00	.00
	2	.250	5.054	.00	.02	.68	.01	.00	.03	.00
	3	.175	6.042	.00	.04	.00	.00	.00	.87	.01
	4	.100	7.988	.00	.04	.00	.85	.00	.03	.03
	5	.054	10.914	.00	.52	.07	.00	.03	.02	.27
	6	.019	18.133	.26	.24	.16	.12	.25	.04	.52
	7	.010	24.882	.74	.15	.09	.01	.72	.01	.17

a. Dependent Variable: ProfessionalHelpSeekingIntention

Appendix W

Discriminant function analysis exploring the predictive ability of the TPB constructs on intentions to seek-help

Eigenvalues

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	.108[a]	100.0	100.0	.313

a. First 1 canonical discriminant functions were used in the analysis.

Wilks' Lambda

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	.902	7.878	3	.049

Standardized Canonical Discriminant Function Coefficients

	Function
	1
AttitudesIndirectMeasure	1.060
SNIndirectMeasure	.352
PBCIndirectMeasure	-.622

Functions at Group Centroids

median 17	Function
	1
Low Intention	-.317
High Intention	.333

Unstandardized canonical discriminant functions evaluated at group means

Classification Results[a]

		median 17	Predicted Group Membership		Total
			Low Intention	High Intention	
Original	Count	Low Intention	27	14	41
		High Intention	11	28	39
	%	Low Intention	65.9	34.1	100.0
		High Intention	28.2	71.8	100.0

a. 68.8% of original grouped cases correctly classified.

Appendix X

Stepwise discriminant function analysis exploring the predictive ability of the TPB constructs on intentions to seek-help

Variables Entered/Removed[a,b,c,d]

Step	Entered	Wilks' Lambda							
		Statistic	df1	df2	df3	Exact F			
						Statistic	df1	df2	Sig.
1	AttitudesIndirectMeasure	.939	1	1	78.000	5.042	1	78.000	.028

At each step, the variable that minimizes the overall Wilks' Lambda is entered.

a. Maximum number of steps is 6.

b. Minimum partial F to enter is 3.84.

c. Maximum partial F to remove is 2.71.

d. F level, tolerance, or VIN insufficient for further computation.

Variables in the Analysis

Step		Tolerance	F to Remove
1	AttitudesIndirectMeasure	1.000	5.042

Variables Not in the Analysis

Step		Tolerance	Min. Tolerance	F to Enter	Wilks' Lambda
0	AttitudesIndirectMeasure	1.000	1.000	5.042	.939
	SNIndirectMeasure	1.000	1.000	1.150	.985
	PBCIndirectMeasure	1.000	1.000	.059	.999
1	SNIndirectMeasure	.998	.998	.869	.929
	PBCIndirectMeasure	.760	.760	2.204	.913

Wilks' Lambda

Step	Number of Variables	Lambda	df1	df2	df3	Exact F			
						Statistic	df1	df2	Sig.
1	1	.939	1	1	78	5.042	1	78.000	.028

Eigenvalues

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	.065[a]	100.0	100.0	.246

a. First 1 canonical discriminant functions were used in the analysis.

Appendix X continued

Wilks' Lambda

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	.939	4.854	1	.028

Functions at Group Centroids

median 17	Function
	1
Low Intention	-.245
High Intention	.257

Unstandardized canonical discriminant functions evaluated at group means

Classification Results[a]

		median 17	Predicted Group Membership		Total
			Low Intention	High Intention	
Original	Count	Low Intention	26	15	41
		High Intention	14	25	39
	%	Low Intention	63.4	36.6	100.0
		High Intention	35.9	64.1	100.0

a. 63.8% of original grouped cases correctly classified.

Appendix Y

Chronology of Research Process

December 2011	Submission of research interests to staff committee for allocation of supervisor
January – February 2012	Initial meetings with research supervisor to discuss research idea
April 2012	Draft research proposal completed
May 2012	Draft of research proposal submitted to University of Leicester Review of research proposal and feedback provided to JR
June – September 2012	Amendments to research proposal Peer review process
October 2012	Lay summary submitted to service user panel
November – December 2012	Preparation of ethical submission with colleague*
January - February 2013	Discussions with University of Leicester staff about change of research due to supervisor illness
March 2013	Draft research proposal for new research completed
April – May 2013	Amendments to research proposal Peer review process
June 2013	Submission to University of Leicester Research Ethics Committee
July 2013	University ethical approval received
August - September 2013	Development of elicitation study questions using online survey website
October 2013 – January 2014	1st draft of literature review
November 2013 – January 2014	Promotion of elicitation study within the University of Leicester Medical School Data collection for elicitation study
January 2014	Development of the Theory of Planned Behaviour quantitative questionnaire

Appendix Y continued

January – March 2014	Promotion of TPB questionnaire within the University of Leicester Medical School Data collection for TPB questionnaire
February 2014	Promotion of the TPB questionnaire on medical student online forums
March – April 2014	Data analysis 1st draft of research article 1st draft of critical appraisal (ongoing amendments and resubmitted to academic supervisor)
April 2014	2nd draft of literature review 2nd draft of research article 2nd draft of critical appraisal (ongoing amendments and resubmitted to academic supervisor)
May 2014	Final amendments made Abstracts completed and thesis formatted Submission of thesis

Appendix Z

Ethics Committee Letters

Copy of Email Notification of Ethical Approval

Retrieved 29th April 2014

Ethics - Application - from Dr. Heather Flowe.
Hf49@leicester.ac.uk
Sent: 29th July 2013 11.01

To: jnr6@leicester.ac.uk

From : Dr. Heather Flowe.

Your application Project Ref: jnr6-820e7 has been approved.

Please click link to view application

https://wads2.le.ac.uk/ethics/MyApplications.aspx?AppID=566cc5ce-c53c-476b-a877-4cff19c820e7

N.B. If you are logging in from a remote device, you may need to use the word 'uol' in front of your username. E.g.

Username: uol\your-it-account-name
Password: YourPassword

Appendix Z continued: Ethics Committee Letters

Ethical Approval Sign off Document

University of Leicester Ethics Review Sign Off Document

To: **J RATHBONE**

Subject: Ethical Application Ref: **jnr6-20e7**

(Please quote this ref on all correspondence)

29/07/2013 11:01:32

Psychology

Project Title: **Determining intentions to seek psychological help for mental health problems among medical students: applying the Theory of Planned Behaviour**

Thank you for submitting your application which has been considered.

This study has been given ethical approval, subject to any conditions quoted in the attached notes.

Any significant departure from the programme of research as outlined in the application for research ethics approval (such as changes in methodological approach, large delays in commencement of research, additional forms of data collection or major expansions in sample size) must be reported to your Departmental Research Ethics Officer.

Approval is given on the understanding that the University Research Ethics Code of Practice and other research ethics guidelines and protocols will be compiled with

- http://www2.le.ac.uk/institution/committees/research-ethics/code-of-practice
- http://www.le.ac.uk/safety/

Appendix AA

Participant Information Sheets

INFORMATION SHEET FOR PARTICIPANTS – Part 1

REC Reference Number: jnr6-820e7

Exploring Help-Seeking Behaviour in Medical Students: Gaining Psychological Support for Mental Health Problems

I would like to invite you to participate in this postgraduate research project. You should only participate if you want to; choosing not to take part will not disadvantage you in any way. Before you decide whether you want to take part, it is important for you to understand why the research is being done and what your participation will involve. Please take time to read the following information carefully and discuss it with others if you wish.

Current government figures highlight that 1 in 4 people will experience a mental health problem in any given year. What is more, mental ill health is more common in people that experience high levels of stress in their daily lives. Medicine is one of the most intensive university courses offered in the UK and students undertake long days of lectures as well as gaining practical experience in highly emotive health care settings. **The current study seeks to explore medical students' intentions to seek psychological help should they encounter mental health problems throughout their training.**

The study is recruiting medical students from the University of Leicester and this may be extended to additional UK universities if required.

You **do not** have to have experienced mental ill health to take part in the survey. Furthermore, the survey **does not** ask you to disclose any personal mental health issues and your responses should focus generally on intentions to seek psychological help and **not** relate to any personal experience you might have. Please note, the researcher would be required to speak with the medical school if they had any concerns about your safety or the safety of patients following any disclosure. You should refer to the information provided by Leicester Medical School on health related fitness to practice if required. Alternatively, please feel free to contact the researcher if you have any questions or would like more information on this.

Appendix AA continued

The study will involve you completing a questionnaire with a free response format to discuss intentions to seek psychological help for mental ill health. In most cases the questionnaire should take no longer than 45 minutes to complete. All responses will be kept anonymous and confidential in accordance with the UK Data Protection Act 1998. No individual will be identifiable in the final report which will be submitted for publication in a peer reviewed journal.

It is up to you to decide whether to take part or not. If you decide to take part you are still free to withdraw from the study at any time and without giving a reason. You can do this by emailing the researcher with your name and request to withdraw. Please note that responses cannot be withdrawn after the final analysis has been completed.

If you have any questions or require more information about this study, please contact the researcher using the following contact details: James Rathbone [jnr6@leicester.ac.uk]

If you feel this study has harmed you in any way, you can contact University of Leicester using the details below for further advice and information:

Ms Mary O'Reilly
University of Leicester, 104 Regent Road, Leicester, LE1 7TY
[mjo11@mail.cfs.le.ac.uk] Tel: 0116 223 1639

Appendix AA continued

INFORMATION SHEET FOR PARTICIPANTS – Part 2

REC Reference Number: jnr6-820e7

Exploring Help-Seeking Behaviour in Medical Students: Gaining Psychological Support for Mental Health Problems

I would like to invite you to participate in this postgraduate research project. You should only participate if you want to; choosing not to take part will not disadvantage you in any way. Before you decide whether you want to take part, it is important for you to understand why the research is being done and what your participation will involve. Please take time to read the following information carefully and discuss it with others if you wish.

Current government figures highlight that 1 in 4 people will experience a mental health problem in any given year. What is more, mental ill health is more common in people that experience high levels of stress in their daily lives. Medicine is one of the most intensive university courses offered in the UK and students undertake long days of lectures as well as gaining practical experience in highly emotive health care settings. **The current study seeks to explore medical students' intentions to seek psychological help should they encounter mental health problems throughout their training.**

The study is recruiting medical students from the University of Leicester and this may be extended to additional UK universities if required. You do not have to have experienced mental ill health to take part in the survey and questions will focus generally on intentions to seek help and not require disclosure of personal experiences.

The survey consists of around 50 questions which you should answer honestly. It should take around 20 minutes to complete. All responses will be anonymised and data will be kept confidential in accordance with the UK Data Protection Act 1998. Only the researcher will have access to your information and no individual will be identifiable in the final report which will be submitted for publication in a peer reviewed journal.

It is up to you to decide whether to take part or not. If you decide to take part you are still free to withdraw from the study at any time and without giving a reason. You can do this by emailing the researcher with your name and

request to withdraw. Please note that responses cannot be withdrawn after the final analysis has been completed.

If you have any questions or require more information about this study, please contact the researcher using the following contact details: James Rathbone [jnr6@leicester.ac.uk]

If you feel this study has harmed you in any way, you can contact University of Leicester using the details below for further advice and information:

Ms Mary O'Reilly
University of Leicester, 104 Regent Road, Leicester, LE1 7TY
[mjo11@mail.cfs.le.ac.uk] Tel: 0116 223 1639

Appendix AB

Statement of Epistemological Position

Epistemological Position

The principals of Critical Realism gave the philosophical basis for the current research. It was based on the assumption that the data collected could tell us something about reality but that it would not necessarily directly mirror reality. The quantitative Theory of Planned Behaviour questionnaire would explore intentions to seek help and add to the evidence base on help-seeking behaviour. It is possible however that the participants may not be fully aware of all the factors that influence their experience (e.g. family beliefs, early life experiences, the history of psychological help-seeking). As a result, the research highlights the need to go beyond the current data and draw on evidence from other locations and disciplines. However, the research informs the conceptualisation of psychological help-seeking behaviour.

Appendix AC

Target Journal Guidelines for Authors

Health Psychology Review

Official Journal of the European Health Psychology Society

Publication Frequency
4 issues per year. 1 issues will be print.

Instructions for authors

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Manuscript submission

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Manuscript preparation

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