THE RELATIONSHIP BETWEEN ATTITUDES TOWARD SEEKING PROFESSIONAL PSYCHOLOGICAL HELP AND INTENTIONS TO USE MENTAL HEALTH SERVICES

by

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ABSTRACT

Epidemiological research has demonstrated that although 30% to 50% of North Americans will experience a diagnosable mental disorder in their lifetimes, as many as 80% will not receive treatment. Professional, practical, and personal barriers to mental health services have been proposed to explain why this gap in mental health services exists. The purpose of this research project was to clarify and extend the examination of one personal barrier to service use: Individuals' attitudes towards seeking help for psychological problems. Previous research has been limited in its ability to measure the multidimensional nature of such attitudes in a reliable and valid manner. In order to address this limitation, a revision and extension of Fischer and Turner's (1970) Attitudes Towards Seeking Professional Psychological Help Scale (ATSPPHS) was conducted. The result is a theoretically-based, valid and reliable 24-item attitude measure, the Inventory of Attitudes towards Seeking Professional Help for Psychological Problems (IASPHPP). This inventory consists of three distinct subscales: Informed Openness to Treatment, Psychological Privacy, and Perceived Stigma. Using this scale, the effects of age, gender, marital status, and education on attitudes and self-rated knowledge regarding seeking mental health services were examined. Results suggest that attitudes may contribute to low rates of mental health service use for men, and that both attitudes and knowledge deficits may reduce service use among older married individuals and those with lower levels of education. The next phase of the project involved an examination of demographic characteristics, helpseeking history, psychiatric symptomatology and helpseeking attitudes, and their relationship to intentions to use various methods of dealing with mental health concerns. Results suggest that attitudes have a potentially

important influence on intentions to talk to a mental health professional, family/friends, and to take care of mental health problems on one's own. Helpseeking attitudes appear to have little influence, however, on intentions to talk to a family physician and a member of the clergy. Past use of these sources of help may be more predictive in these situations. Data from this research suggests that particular aspects of attitudes are related to both demographic factors and intentions to deal with psychological problems.

CO-AUTHORSHIP

Drs. Bill Gekoski and Jane Knox appear as authors on each of the three manuscripts presented in this dissertation. Both of these co-authors were heavily involved in the conceptualization and design of this research project. In addition, Bill and Jane provided extensive feedback during the revision of each manuscript.

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CHAPTER ONE: GENERAL INTRODUCTION

Estimates suggest that as many as one half of North Americans will experience a mental disorder in their lifetimes. The vast majority of these individuals, however, will not receive mental health services that have been proven to effectively treat these disorders. Three categories of explanations are typically invoked in order to explain why such a substantial gap exists between those who need mental health services and those who receive them: Practical barriers, professional barriers, and personal barriers. The goal of this research project was to examine, in detail, one particular personal barrier to the use of mental health services: Individuals' helpseeking attitudes. In addition to examining the link between attitudes and intentions to deal with mental health concerns, this investigation examined the relationship between particular demographic characteristics (age, gender, marital status, and education) and attitudes towards helpseeking. These issues were explored within the context of Ajzen's (1985) Theory of Planned Behavior, an important social psychological framework for understanding the influence of attitudes on behaviour.

Prevalence of Mental Disorders

Large-scale epidemiological surveys in both the United States [e.g. the Epidemiologic Catchment Area (ECA) survey and the National Comorbidity Survey (NCS)] and Canada [e.g. the Edmonton survey and the Ontario Mental Health Survey (OMHS)] have been conducted to determine the period and lifetime prevalence of mental disorders. Although there are differences in the methodology and outcome of these various surveys, the substantial prevalence of mental disorders across the lifespan is a robust finding. In general, these surveys suggest that between 30% and 50% of

individuals will have a diagnosable mental disorder in their lifetimes, that between 20% and 30% will have had a mental disorder in the past year, and that the prevalence of mental disorder is highest between the ages of 25 and 44 and lowest among older adults (Bland, Newman, & Orn, 1988; Howard, Cornille, Lyons, Vessey, Lueger, & Saunders, 1996; Norquist & Regier, 1996; Lin, Goering, Offord, Campbell, & Boyle, 1996; Regier, Narrow, Rae, Manderscheid, Locke, & Goodwin, 1993).

Despite consistent reports of declining prevalence of psychopathology with age, there are several reasons why community surveys almost certainly underestimate mental disorder in older individuals. First, older adults may either refuse to participate or be systematically excluded from epidemiological surveys due to factors such as institutionalization and physical illness. As well, older adults may be less likely to report or recall psychiatric symptoms and they may be more likely to report somatic than psychological symptoms. Further, the presentation of mental illness in old age may not be accurately captured by current diagnostic systems developed for use with younger adults. Finally, lower rates of mental illness in older adults may be explained by period effects, where individuals who lived through the Great Depression and the Second World War are more likely to view current circumstances favourably in comparison, thereby downplaying psychosocial difficulties (George, 1989; Hocking, Koenig, & Blazer, 1995; Rhodes & Goering, 1998). It is likely, as a result of these factors, that psychopathology is prevalent across the lifespan. This view is supported by a review of the epidemiologic literature by Gatz, Kasl-Godley, and Karel (1996), suggesting that in a given year roughly 22% of both younger and older adults will have some form of mental disorder.

The Mental Health Service Gap

One of the most important purposes of epidemiologic mental health research is to identify the number of individuals who are in need of mental health services (Burke Jr., 1995). A consistent and disconcerting finding is that a significant proportion of individuals with mental disorders are not receiving treatment for them. In fact, in both the ECA and Edmonton surveys about 14.5% of individuals received services for mental health problems in the year prior to being surveyed although the prevalence of such problems was nearly 30%. When the focus is restricted to individuals with diagnosable mental illness the gap between service use and need is even wider; between 70% and 80% of North Americans with diagnosable mental disorders do not receive services for these problems (Bland, Newman, & Orn, 1997; Howard et al., 1996; Lin et al., 1996; Norquist & Regier, 1996; Regier et al., 1993).

In addition to outlining the extent of the mental health "service gap" (Stefl & Prosperi, 1985), epidemiological research has also demonstrated that certain demographic variables are consistently linked to lower utilization of mental health services. In particular, individuals who are either younger than 25 or older than 55, male, poorer, less well-educated, married, and living in rural areas are particularly unlikely to receive mental health services (Bland et al., 1997; Lefebvre, Lesage, Cyr, Toupin, & Fournier, 1998; Calsyn & Roades, 1993; Greenley, Mechanic, & Cleary, 1987; Leaf, Livingston, Tischler, Weissman, Holzer III, & Myers, 1985; Lin, et al., 1996; Sherbourne, 1988; Swartz, Wagner, Swanson, Burns, George, & Padgett, 1998; Vessey & Howard, 1993).

The gap between mental health service use and service need is especially tragic considering that psychiatric treatment has been found to be very effective in general

(Lipsey & Wilson, 1993), regardless of whether adults are younger or older (Gallagher-Thompson & Thompson, 1995; Scogin & McElreath, 1994; Smyer, Zarit, & Qualls, 1990; Zeiss & Breckenridge, 1997).

Explanations for the Mental Health Service Gap

Age and gender have exhibited the most consistent influences on mental health service use (Swartz et al., 1998). As a result, a considerable amount of attention has been directed in attempts to understand why men and older adults are disproportionately unlikely to receive mental health services. Three sets of factors are thought to affect service use: Professional barriers, practical barriers, and personal barriers. Professional barriers include reasons why mental health professionals may be less willing and/or able to treat older adults and men. They include lack of appropriate training, misdiagnosis and under-recognition of mental health problems, and both ageist and sexist attitudes and beliefs on the part of service providers (Butler, Lewis, & Sunderland, 1998; Gatz, Popkin, Pino, & Vandenbos, 1985; Lasoski, 1986; Loring & Powell, 1988; Waxman, 1986). Practical barriers consist of access limitations resulting from factors such as financial and bureaucratic impediments, transportation availability, institutionalization, time restraints, and disability (Blanch & Levin, 1998; Butler et al., 1998; Gatz et al., 1985; Goldstrom et al., 1987; Lasoski, 1986; Yang & Jackson, 1998). Finally, personal barriers include reasons why men and older adults themselves contribute to low rates of mental health service use. They include factors such as poor recognition or somatization of psychiatric symptoms, lack of knowledge about how to deal with mental health concerns, and negative attitudes related to seeking professional help for psychological problems

(Blanch & Levin, 1998; Butler et al., 1998; Gatz, et al., 1985; Hagebak & Hagebak, 1980; Kroenke & Spitzer, 1998; Stefl & Prosperi, 1985; Yang & Jackson, 1998).

Of the three sets of factors thought to affect mental health service use, professional barriers have received the greatest amount of empirical attention. Psychiatrists and psychologists have been shown to prefer to work with younger clients and believe that they have a better prognosis than older clients (Ray, Raciti, & Ford, 1985; Ray, McKinney, & Ford, 1987; Zivian, Larsen, Knox, Gekoski, & Hatchette, 1992). The effects of client age have also been examined with respect to family physicians, who are both gatekeepers to the mental health system and providers of the majority of mental health services (Norquist & Regier, 1996). Physicians have reported being less prepared to identify and treat older adults, and to believe that treatment is less effective for older than younger individuals (Mackenzie, Gekoski, & Knox, 1999). In addition, physicians have been shown to be poor at recognizing mental illness in older patients (Iliffe et al., 1991; Simon, Goldberg, Tiemens, & Ustun, 1999), and to be less likely to treat and refer older adults (Waxman & Carner, 1984). With respect to gender, psychiatrists and psychologists have been found to prefer female clients (Zivian et al., 1992). Psychiatrists have also been shown to be more likely to diagnose women than men with identical symptomatology (Loring & Powell, 1988). Research has yet to examine the relationship between additional demographic factors and professional barriers.

Very little empirical research has been conducted in order to examine the influence of practical barriers on mental health service use. Stefl and Prosperi (1985) examined the effects of three practical barriers (affordability, availability, and accessibility) and one personal barrier (acceptability) on anticipated service use. They

found that participants' anticipated affordability was the most significant barrier, followed by availability, accessibility, and finally acceptability. For those participants judged to be in need of services and who had yet to utilize mental health services, however, acceptability was the most salient barrier. Practical barriers are often cited as limiting older adults' mental health service use (e.g. Butler et al., 1998). We are aware of one empirical investigation of this hypothesis, however. Goldstrom et al. (1987) examined younger and older adults' visits to a combined health and mental health centre, which aided in "ameliorating some of the access and financial barriers faced by elderly people" (pg. 148). Once these barriers were removed, older adults continued to use fewer mental health services than younger adults, suggesting that the effect of practical barriers on older adults' mental health service use appears to be less important than other factors.

Attitudes as Personal Barriers to Mental Health Services

The current research project focused on one particular personal barrier to mental health service use: Attitudes. Eagly and Chaiken (1993) define attitudes as the psychological tendency to evaluate an object with some degree of favour or disfavour. The extent to which individuals view mental health services favourably is likely to have a strong influence on whether or not they would seek mental health services should they need them. Despite the intuitive nature of this statement, however, the impact of attitudes on service use is by no means clear. Research has shown attitudes to be highly predictive of mental health service use (Cash, Kehr, & Salzbach, 1978; Fischer & Farina, 1995), entirely unrelated to service utilization (Leaf et al., 1988; Lefebvre, Lesage, Cyr, Toupin, & Fournier, 1998), and predictive only under certain circumstances (Leaf, Livingston Bruce, & Tischler, 1986). Two possible explanations exist for the lack of consistent

findings with respect to the influence of attitudes on service use: One theoretical and one methodological.

A likely reason for inconsistency among studies investigating the influence of attitudes on service use is that research has, for the most part, ignored theoretical links between attitudes and behaviour. The failure of mental health service research to incorporate theory when examining the influence of attitudes is not a trivial oversight, as demonstrated by social psychological research from the 1930s until the mid-1970s. During that time, attitudes were repeatedly shown to be poor predictors of behaviour in numerous contexts. In 1975, however, Fishbein and Ajzen outlined a theoretical framework, the Theory of Reasoned Action, in order to better predict behaviour and behavioural intention. According to this theory, behavior that is under volitional control can be effectively predicted given knowledge of an individual's attitudes and their subjective norms. Subjective norms refer to perceptions of pressure by important individuals in one's life to perform the behaviour in question. Since its development the Theory of Reasoned Action and an extention of this theory, the Theory of Planned Behavior (Ajzen, 1985), have guided research that has shown conclusively that attitudes are, in fact, highly predictive of behaviour (Eagly & Chaiken, 1993; Sutton, 1998). Unfortunately, research investigating the influence of attitudes on mental health service use has not benefited from this striking lesson within the field of social psychology.

A second potential explanation for inconsistency among studies examining the influence of attitudes on service use has to do with variability in the measurement of attitudes. In general, attitudes towards seeking mental health services have been measured in one of two ways. First, many studies have created their own attitude

measures. The ECA study, for example, claimed to measure attitudes by developing six questions examining receptivity to mental health services, five questions assessing access barriers, and one question examining family members' perceptions (Leaf, et al., 1986). Bayer and Peay (1997), on the other hand, examined attitudes by measuring the extent to which their participants thought that seeking mental health services was good or bad, harmful or beneficial, and wise or foolish. Tijhuis, Peters, and Foets (1990) examined attitudes by asking respondents "whether people should hide from the fact that they are in treatment for mental health problems, whether people should talk about existing problems (reverse-coded), and whether people should take medicines to solve the problems" (p. 992). It is clear that although each of these studies examined attitudes towards mental health services, the nature of what they examined varied dramatically. In addition, without the provision of information pertaining to the reliability and validity of such measures, the results of studies such as these are questionable. The second way in which attitudes have been measured is through the use of Fischer and Turner's (1970) Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS). This is the only measure of attitudes towards seeking mental health services developed according to psychometric principles. Several conceptual and methodological concerns, which are discussed in more detail in chapter two, exist with respect to the ATSPPHS, however. Conceptually, this instrument was standardized on a student sample and it contains outdated language. Methodologically, its factor structure is questionable, its subscales are only moderately internally consistent, and questions are rated on 4-point scales despite the fact that research has shown scales with fewer than 5 points to be less valid and reliable than those with 5 or more points.

Given the lack of theoretical research and the potentially problematic measurement of attitudes toward mental health services, inconsistent findings with respect to the relationship between attitudes and service use are not surprising. A goal of this research project, therefore, was to address these shortcomings by developing a theoretically based attitude inventory that is both reliable and valid. Chapter two describes, in greater detail, the rationale for this goal, and the development of the Inventory of Attitudes towards Seeking Professional Help for Psychological Problems (IASPHPP; Mackenzie, 2000). Chapters three and four describe studies using the IASPHPP to examine the relationship between demographic characteristics, attitudes, and intentions to use mental health services. Specifically, chapter three examines whether demographic groups who receive disproportionately fewer mental health services also have less positive attitudes and lower levels of knowledge regarding mental health services. Chapter four outlines an attempt to improve the prediction of intentions to use mental health services from helpseeking attitudes in conjunction with several other factors that are related to such intentions. A general discussion of this research project is presented in chapter five.

CHAPTER TWO

An Adaptation and Extension of Fischer and Turner's Attitudes Towards Seeking Professional Psychological Help Scale

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Abstract

Fischer and Turner's (1970) Attitudes Towards Seeking Professional Psychological Help Scale (ATSPPHS) is the only measure of its kind developed with adequate attention to psychometric issues. There are, however, several conceptual and methodological concerns with this instrument. The purpose of this study was to address these concerns in an adaptation and extension of the ATSPPHS using 208 adult volunteers. The Inventory of Attitudes towards Seeking Professional Help for Psychological Problems (IASPHPP) consists of 24 items and three factors: Psychological Privacy, Informed Openness to Treatment, and Perceived Stigma. The total inventory and each of its subscales exhibited high levels of internal consistency. Convergent, discriminant, and known-groups validity were demonstrated by the accurate discrimination of past use of and intentions to use mental health services, by the differential ability to predict intentions to use professional and non-professional help, and by the demonstration of expected gender differences.

A significant proportion of individuals with mental disorders do not receive treatment. Large-scale epidemiological surveys in both the United States [e.g. the Epidemiologic Catchment Area (ECA) survey and the National Comorbidity Survey (NCS)] and Canada [e.g. the Edmonton survey and the Ontario Mental Health Survey (OMHS)] have demonstrated that between 70% and 80% of individuals with diagnosable mental health problems do not receive professional help (Bland, Newman, & Orn, 1997; Howard, Cornille, Lyons, Vessey, Lueger, & Saunders, 1996; Lin, Goering, Offord, Campbell, & Boyle, 1996; Norquist & Regier, 1996).

It is not surprising, given these findings, that a growing body of research has emerged attempting to determine why such a large gap exists between the need for mental health services and actual service use. Although many factors are likely to contribute to this service gap (see Rhodes & Goering, 1998; Lasoski, 1986), this study focused on the contribution of lay people's attitudes towards seeking mental health services. The effect of attitudes on mental health service utilization is far from clear. Research has shown them to be highly predictive of mental health service use (Cash, Kehr, & Salzbach, 1978; Fischer & Farina, 1995), entirely unrelated to service utilization (Leaf, et al., 1988; Lefebvre, Lesage, Cyr, Toupin, & Fournier, 1998), and predictive only under certain circumstances (Leaf, Livingston Bruce, & Tischler, 1986).

Two possible explanations exist for these inconsistent findings. First, with few exceptions, studies have ignored social psychological theories that have been shown to improve the prediction of behaviour from attitudes. Instead, the majority of studies utilize Anderson and Newman's (1973) health service utilization framework, which encompasses predisposing, enabling, and need factors as individual determinants of

seeking help. This general framework is limited, however, in that attitudinal factors are only briefly mentioned as one of a variety of factors thought to affect service use. Fishbein and Ajzen's (1975) Theory of Reasoned Action, on the other hand, was developed for the explicit purpose of predicting behaviour. According to this theoretical framework, behaviour is preceded by intention, which is influenced by both attitudes towards the behaviour as well as subjective norms (i.e. perceived social pressure to perform or not perform the behaviour). Ajzen expanded this framework with his Theory of Planned Behavior (1985). He added the notion of perceived behavioural control, stating that when behaviour is not entirely under volitional control it is most effectively predicted given knowledge of attitudes, subjective norms, and subjective beliefs about control over potential obstacles to achieving particular behavioural goals. Although both theories have demonstrated the ability to predict behaviour and behavioural intention in various contexts, Ajzen's Theory of Planned Behavior has been particularly effective (Eagly & Chaiken, 1993; Sutton, 1998). The general failure to use frameworks such as these when testing the relationship between attitudes and mental health service use represents a significant oversight within this literature.

A second reason why the relationship between attitudes and mental health service use is unclear is that attitudes have been defined and measured in a variety of ways. For example, the largest epidemiological study to date, the ECA study, assessed individuals' receptivity to mental health services and beliefs regarding access barriers and family support with 12 questions (Leaf, et al., 1986). Stefl and Prosperi (1985) examined 2183 adults' perceptions of the availability, accessibility, acceptability, and affordability of mental health services, with two questions each. Currin, Hayslip Jr., Schneider, and

Kooken (1998) examined older adults' openness to seeking mental health services by asking them whether or not they would seek help from a counsellor or therapist for each of 24 different problems. Although studies such as these claim to be examining attitudes toward mental health services, both the nature of what they are assessing and the way in which they measure it vary considerably. Without information pertaining to validity and reliability, it is not possible to determine whether these studies are assessing what they claim to be, or whether they are measuring it with any degree of consistency.

Among the existing measures of attitudes towards mental health services only one, Fischer and Turner's (1970) Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS), was developed with adequate attention to psychometric concerns. Fischer and Turner's measure was constructed using both rational and empirical techniques. In total, 492 female and 468 male students from a variety of educational institutions were used in various phases of the test construction and validation process. Test-retest and internal reliabilities for the 29-item attitude measure were approximately .85. The authors found four orthogonal factors, each with reliability estimates in the moderate range (.62 to .74). Scores on the ATSPPHS range from 0 to 87, with higher scores indicating more positive attitudes toward seeking mental health services. The standardization sample exhibited a mean attitude score of 58, indicating generally positive attitudes toward seeking help. Women's help seeking attitudes were significantly more positive than men's. Finally, scores on this instrument effectively distinguished those who had and had not received mental health services.

Fischer and Turner's (1970) ATSPPHS has been used to develop a more consistent literature regarding attitudes toward seeking mental health services. For

example, studies using the measure, most of which have been conducted with students, have replicated its ability to distinguish users of mental health services from non-users (Cash, Kehr, & Salzbach, 1978; Cepeda-Benito & Short, 1998; Kelly & Achter, 1995; Rokke & Scogin, 1995; Zeldow & Greenberg, 1979). Women have consistently been found to have more positive attitudes than men (Dadfar & Friedlander, 1982; Johnson, 1988; Lopez, Melendez, Sauer, Berger, & Wyssmann, 1998; Rokke & Scogin, 1995). In addition, higher scores have been shown to be related to more positive therapist ratings (Cash et al., 1978), to less traditional ideology (Brody, 1994), and to a lower likelihood of hiding distressing and potentially embarrassing information (i.e. self-concealment) (Cramer, 1999). Finally, ATSPPHS scores have been found to add significantly to the ability to accurately predict intentions to seek various types of mental health services (Cepeda-Benito & Short, 1998; Deane & Todd, 1996; Kelly & Achter, 1995).

Despite the fact that a body of literature using the ATSPPH is growing, there are a number of conceptual and methodological reasons to question the continued use of this measure in its original form. Conceptually, two concerns exist. First, Fischer and Turner's standardization sample consisted entirely of students. This is problematic due to the fact that the factor structure of the instrument is based on a sample that is not representative of the range of individuals who use mental health services. As a result, use of the ATSPPH with adult populations is based on the untested assumption that students' attitudes towards seeking mental health services are similar to those of other adults'. There is, in fact, reason to expect that students' and adults' attitudes towards seeking mental health services might differ. Given that attitudes can be shaped by behaviour (Manstead, 1996), the attitudes of individuals from an older cohort are likely to be

different from those of a younger cohort due to the fact that older individuals are more likely to have experienced psychological distress in their lifetimes and to have received or considered receiving professional help for such problems. Cohort differences may also be caused by factors such as generational variability in the acceptability and availability of mental health services.

A second conceptual concern with the instrument is that it includes outdated language. This is most obvious with respect to the use of gender specific pronouns. Less obvious is the fact that the ATSPPHS refers exclusively to psychiatrists and psychologists as mental health service providers when, in fact, family physicians provide at least half of all mental health services throughout North America (Howard et al., 1996; Lin et al., 1996; Norquist & Regier, 1996).

Three methodological issues also exist with respect to the Fischer and Turner's (1970) attitude measure. The first involves the nature its factor structure. Fischer and Turner used a centroid factor extraction, choosing those factors with the highest communality estimates and rotating the four-factor solution to the normal Varimax criterion. Advances in factor analytic methodology since 1970 (Fabrigar, Wegener, MacCallum, & Strahan, 1999) suggest that such methods were likely to result in a poor understanding of the instrument's underlying factor structure. A second related methodological issue exists with respect to the four subscales. It is clearly advantageous for researchers to be able to examine distinct facets of attitudes, rather than investigating attitudes in a more general sense. Because of moderate subscale reliabilities, however, Fischer and Turner cautioned against the independent interpretation of subscale scores, hindering the ability to use the ATSPPHS to examine specific aspects of attitudes. The

third methodological concern with the ATSPPHS is that its items are coded on a 4-point rating scale. This is problematic due to the fact that a large body of research has demonstrated that rating scales with fewer than five points are both less reliable and less valid than are scales with between five and seven points (Fabrigar & Krosnick, 1996; Oaster, 1989). In addition, statistics carried out on scales with fewer than five points are more susceptible to Type II errors (Rasmussen, 1989). Finally, the addition of a neutral point has been shown to be preferred by participants and to decrease missing data (Guy & Norvell, 1977; Wandzilak, Ansorge, & Potter, 1987).

Despite these concerns regarding the use of Fischer and Turner's (1970) ATSPPHS thirty years after its development, it is a fundamentally strong attitude measure that has served as a catalyst for a growing body of research. As a result, an adaptation and extension of the ATSPPHS was deemed more appropriate than the construction of a new attitude instrument. In order to better understand the nature of attitudes towards seeking mental health services, and the relationship between attitudes and actual service use, a comprehensive, theoretically based attitude inventory is necessary. Fischer and Turner demonstrated that attitudes towards seeking professional psychological help are multifaceted, rather than one-dimensional. It remains to be seen, however, whether certain facets of attitudes are more or less predictive of actual service use under certain circumstances for particular individuals. It may be, for example, that older adults' mental health service use is primarily affected by both their openness to seeking help and their concerns about how important people in their lives would react. In order to better understand complex relationships such as these an attitude measure must also be sufficiently complex. Our goals, therefore, were to: (a) address each of the

conceptual and methodological issues described above, and (b) to improve our ability to predict use of and intentions to use mental health services through the creation of new items according to Ajzen's (1985) Theory of Planned Behavior.

Method

Item Revision

The first step in the inventory revision and extension process was to make three types of wording changes to items from the ATSPPHS. The first change involved replacing all gender specific language with gender-neutral pronouns. For example, question 24 in the original measure was changed from: There is something admirable in the attitude of a person who is willing to cope with his conflicts and fears *without* resorting to professional help, to: There is something admirable in the attitudes of people who are willing to cope with their conflicts and fears *without* resorting to professional help. Similar changes were made to four additional items.

The second type of wording change was made to acknowledge the fact that several groups of professionals, in addition to psychiatrists and psychologists, provide mental health services. This goal was achieved by substituting the more generic term "professional" each time the terms psychiatrist or psychologist were used in the original instrument. For example, question three was changed from: I would feel uneasy going to a psychiatrist because of what some people would think, to: I would feel uneasy going to a professional because of what some people would think. Similar changes were made to seven additional items. The following definition was also provided at the beginning of the questionnaire: "The term professional refers to individuals who have been trained to deal

with mental health problems (e.g. psychologists, psychiatrists, social workers and family physicians)".

The final type of wording change was made to address the fact that the original measure included several terms to describe mental health problems, such as mental conflicts, emotional problems, personal worries and concerns, and emotional difficulties. In order to achieve greater consistency the term "psychological problems" replaced the various other terms used in the ATSPPHS. For example, question nine was changed from: Emotional difficulties, like many things, tend to work out by themselves, to: Psychological problems, like many things, tend to work out by themselves. Similar changes were made to 11 other items. In addition, the following definition was provided at the beginning of the questionnaire: "The term psychological problems refers to reasons one might visit a professional. Similar terms include mental health concerns, emotional problems, mental troubles, and personal difficulties".

Item Creation

The second step in the inventory revision and extension process was to create a number of new items in order to improve the construct and criterion validity of the inventory. According to Ajzen's (1985) Theory of Planned Behavior, the accurate prediction of behaviour or behavioural intention requires knowledge of an individual's attitudes, subjective norms and perceived behavioural control over the attitude object.

Subjective norms refer to one's perceptions that various important individuals and/or groups think that a particular behaviour should or should not be performed (Ajzen & Fishbein, 1980). In order to capture this construct six items were created to assess perceptions about how the following important referents would react if the person

completing the questionnaire were to seek professional psychological help: Immediate family members, people within social or business circles, close friends, significant others (spouse, partner, etc.), neighbours, and general important others.

Perceived behavioural control refers to subjective beliefs about control over potential obstacles to achieving a particular behavioural goal (Ajzen, 1985). Although obstacles or barriers to seeking professional psychological help are often referred to in the helpseeking literature (e.g. Stefl & Prosperi, 1985), perceptions of control over these obstacles are not. In order to measure this construct four items were developed to assess perceived control over the following barriers: Personal reservations, knowledge of what to do and who to talk to, finances, and time. A fifth item assessed beliefs regarding general factors beyond one's control, and a sixth item assessed perceptions regarding the ability to obtain professional help given a desire to do so.

The final substantive change made to the original questionnaire was to replace the 4-point rating scale with a 5-point scale.

The final questionnaire package consisted of three sections. The first section provided a brief description of the purpose of the project and contact information should participants have any questions or concerns. Information was requested concerning year of birth, gender, marital status, highest level of education, and ethnic group membership. Instructions for completing the questionnaire, and a request for participants to complete the survey as accurately and honestly as possible, were also included in this first section. The second section included several questions regarding past use of mental health services and intentions to use such services should they be required in the future. The third section consisted of the ATSPPHS. The definitions of "professional" and

"psychological problems" were provided, followed by the twelve new items interspersed among the 29 items from the original measure, 16 of which had received minor wording changes.

Participants and Procedure

Data collection took place at the train station of a small city in Eastern Ontario. The principal investigator approached individuals who were alone and appeared to be waiting. Attempts were made to survey roughly equal numbers of men and women, and to survey individuals from a wide age range. Potential participants were asked to take part in a research project, being conducted through the local university, investigating attitudes regarding seeking mental health services. They were told that the survey should take approximately 15 minutes to complete and that their responses would be anonymous. Individuals who agreed were given a questionnaire package that could be completed immediately or mailed back at a later time in the postage-paid envelope that was provided.

A total of 165 men and 157 women were approached to participate in the study, of whom 120 men (72.7%) and 126 women (80.2%) agreed. Of those who agreed to participate, questionnaires were returned by 106 men, 100 women, and 2 individuals who did not provide demographic information, representing an overall response rate of 64.6%. The mean age of the sample was 45.6 (SD = 17.8). In terms of marital status, 36.2% of participants were single, 45.4% were married or common-law, 10.1% were divorced or separated, and 6.8% were widows or widowers. The marital status breakdown of our sample was comparable to 1999 Canadian marital status rates, where 42.7% were single, 47.7% married, 4.6% divorced and 4.9% widowed (Statistics Canada, 2000). With

respect to educational background, 6.3% of the sample had less than a high school education, 15.9% graduated from high school, 14% had some university or college education, 39.6% had a university degree or college diploma, and 22.7% had postgraduate education. The current sample was more educated than the Canadian population, where, according to the 1996 census, 37% had not completed high school, 23% received a high-school diploma, 25% received a trade or non-university diploma, 10% received a bachelors degree, and 3% received a postgraduate education (Statistics Canada, 2000). Finally, 92.7% of the sample indicated that that they were not a member of a visible minority group, 5.8% indicated "other" minority group status, 1% were East Indian, and 0.5% were Asian. This sample was somewhat less ethnically diverse than the Canadian population according to the 1996 census, where 11.2% were classified as belonging to a visible minority group (Statistics Canada, 2000).

Results

Analyses of the data set were conducted in three phases. The item-analysis phase consisted of an examination of each item's ability to satisfy various inclusion criteria. The second phase consisted of a final factor analysis of those items that satisfied inclusion criteria, and in the third phase tests of reliability and validity were conducted using the final version of the revised and extended attitude inventory.

Item Evaluation

The objective was to create an attitude inventory that is internally consistent, with a meaningfully interpretable and replicable factor structure that fits the data well and exhibits good simple structure (i.e. has a factor solution where each factor is defined by a subset of variables with high factor loadings and low off-factor loadings; Thurstone,

1947). In order to achieve this objective each item in the final inventory had to satisfy four criteria: Item-total correlations had to be higher than .30; deleting an item must not have resulted in an increase in internal reliability as measured by Cronbach's alpha; factor loadings had to be greater than .30; and items must not have loaded higher than .30, and preferably .25, on a second factor. Appendix A presents the results of each item's ability to satisfy each of the inclusion criteria.

In order to examine the first and second criteria, Cronbach's alpha coefficients were calculated for each item as well as for the total 41-item inventory. Five items exhibited item-total correlations below .30, and four items increased the overall alpha coefficient of the inventory when deleted.

The third and fourth criteria were examined by conducting a factor analysis of the 41 items. Multivariate normality of the data was suggested by the fact that all but one of the items exhibited skew values lower than 2 and kurtosis values lower than 7 (West, Finch, & Curran, 1995). As a result, a maximum likelihood common factor analysis with a direct Quartimin rotation was conducted. When data are normally distributed maximum likelihood factor analysis is preferred, as it allows for the computation of a wide range of tests to assess model fit (Fabrigar et al., 1999). Two particularly useful fit indices are the Root Mean Square Error of Approximation (RMSEA), and the Expected Cross-Validation Index (ECVI). RMSEA is an estimate of the discrepancy between the model and the data per degree of freedom from the model that is relatively unaffected by sample size. ECVI is an estimate, which is affected by sample size, of the discrepancy between the obtained model and the predicted model using a new sample. No guidelines currently exist for interpreting ECVI values with the exception that lower values represent better

expected cross-validation. Guidelines do exist for interpreting RMSEA, however; values ranging from 0.08 to 0.10 represent marginal model fit, values from 0.05 to 0.08 represent acceptable fit, and RMSEA values less than 0.05 suggest excellent fit (Browne & Cudeck, 1992). As a result, RMSEA and ECVI values can be used, preferably in combination with additional model fitting criteria such as the scree test, to select the most appropriate number of factors underlying a data set. This is done by examining models, according to these criteria, with increasing numbers of factors and choosing the model that demonstrates a substantial improvement in fit over a simpler model, but which is not improved upon substantially by the addition of another factor.

This process was used to examine the factor structure of the 41-item attitude inventory. One, two, three, and four-factor solutions were examined using the indices of model fit described above. RMSEA values, beginning with the one-factor model, were .065 (CI = .060 - .070), .057 (CI = .051 - .063), .046 (.039 - .052), and .043 (.036 - .050). ECVI values were 7.98 (CI = 7.46 - 8.52), 7.27 (CI = 6.81 - 7.76), 6.53 (CI = 6.14 - 6.96), and 6.48 (CI = 6.11 - 6.90). According to these criteria, as well as the scree-test,[1] the three-factor model was substantially better than the two-factor solution, and was not improved upon by the addition of the fourth factor. Examination of the rotated factor solution demonstrated that seven items loaded lower than .30 on each of the three factors. In addition, 10 items exhibited factor loadings higher than .25 on one of the two secondary factors (see Appendix A).

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[1] Eigenvalues from the reduced correlation matrix are: 1 = 8.78, 2 = 1.98, 3 = 1.82, 4 = 0.98, 5 = 0.94, 6 = 0.85. Substantial reductions following the first and third eigenvalues support the retention of a one-factor or a three-factor solution.

Factor Analysis of the Revised and Extended Attitude Inventory

Sixteen of the forty-one items clearly violated at least one of the four inclusion criteria and one item exhibited a single marginal violation. After deleting the 16 items that clearly violated inclusion criteria the remaining 25 items were submitted, once again, to an exploratory maximum likelihood factor analysis with direct Quartimin rotation. The marginal item fulfilled each of the inclusion criteria following this analysis and was included in the final inventory as a result. An additional item (item 1) was dropped, however, because (a) it was the item with the lowest overall factor loading, (b) it did not fit conceptually with the other items that it loaded with, and (c) it was the ninth item for one of the three factors, so dropping it added to the ability to directly compare scores across the three factor subscales. The final 24-item, 3-factor inventory includes 17 of 29 items from Fischer and Turner's (1970) ATSPPHS, as well as 7 of 12 items created for this study.

The final inventory is both statistically and conceptually compelling. The first factor accounted for 25% of the variance, the second accounted for 9%, and the third accounted for 8%. RMSEA was .039 (CI = .025 - .051), ECVI was 2.25 (CI = 2.06 - 2.48), and once again the scree test supports a three-factor model.[2] RMSEA indicates excellent goodness of fit and ECVI suggests a higher likelihood of cross validation than the 41-item factor analysis. Factor loadings for the revised and extended measure, which was labelled the Inventory of Attitudes towards Seeking Professional Help for

[2] Eigenvalues from the reduced correlation matrix are: 1 = 5.51, 2 = 1.48, 3 = 1.32, 4 = 0.56, 5 = 0.46, 6 = 0.34. Substantial reductions following the first and third eigenvalues support the retention of a one-factor or a three-factor solution.

Psychological Problems (IASPHPP), are presented in Table 1. The final version of the inventory can be found in Appendix B.

Table 1
Factor Structure for the Inventory of Attitudes towards Seeking Professional Help for Psychological Problems (IASPHPP)

Item #		F1	F2	F3
	Factor 1: Psychological Privacy			
9	Psychological problems, like many things, tend to work out by themselves*	*.65*		
10	There are certain problems which should not be discussed outside of one's immediate family*	*.63*		
4	People with strong characters can get over psychological problems by themselves and would have little need for professional help*	*.63*		
26	People should work out their own problems; getting professional help should be a last resort*	*.62*	.21	
13	Keeping one's mind on a job is a good solution for avoiding personal worries and concerns*	*.61*	-.13	
24	There is something admirable in the attitudes of people who are willing to cope with their conflicts and fears *without* resorting to professional help*	*.57*		
21	There are experiences in my life I would not discuss with anyone*	*.47*		.12
22	It is probably best not to know *everything* about oneself*	*.38*		.11
	Factor 2: Informed Openness to Treatment			
12	If I believed I were having a mental breakdown, my first inclination would be to get professional attention		*.80*	
18	I would want to get professional help if I were worried or upset for a long period of time		*.57*	
23	If I were experiencing a serious psychological problem at this point in my life, I would be confident that I could find relief in psychotherapy		*.56*	.10
39	It would be relatively easy for me to find the time to see a professional for psychological problems	-.14	*.53*	.19
37	I would have a very good idea of what to do and who to talk to if I decided to seek professional help for psychological problems		*.52*	-.12
41	If I were to experience psychological problems I could get professional help if I wanted to	.10	*.41*	
2	If good friends asked my advice about a psychological problem, I might recommend that they see a professional		*.40*	
7	I would willingly confide intimate matters to an appropriate person if I thought it might help me or a member of my family		*.36*	
	Factor 3: Perceived Stigma			
20	Having been mentally ill carries with it a burden of shame*	-.14	-.11	*.79*
35	I would be embarrassed if my neighbour saw me going into the office of a professional who deals with psychological problems*			*.69*
33	Important people in my life would think less of me if they were to find out that I was experiencing psychological problems*			*.58*
14	Having been diagnosed with a mental disorder is a blot on a person's life*			*.55*
31	I would be uncomfortable seeking professional help for psychological problems because people in my social or business circles might find out about it*			*.51*
3	I would feel uneasy going to a professional because of what some people would think*		.16	*.40*
34	I would not want my significant other (spouse, partner, etc.) to know if I were suffering from psychological problems*	.12		*.38*
27	Had I received treatment for psychological problems, I would not feel that it ought to be "covered up"	.13		*.34*

Note. Loading lower than .10 are not displayed. Reverse-coded items are indicated with an asterisk (*).

Inspection of item loadings lead us to label the factors as follows: (a) Psychological Privacy, (b) Informed Openness to Treatment, and (c) Perceived Stigma. All negatively worded items were recoded so that higher scores represent more positive attitudes. Scores on the Psychological Privacy factor reflect the extent to which individuals believe that personal problems can and should be dealt with privately, engage in denial of psychological problems, and see such problems as a sign of personal weakness. Higher scores are indicative of a lower need for Psychological Privacy. The Informed Openness to Treatment factor reflects the extent to which individuals are open to professional psychological help, and confident in both its effectiveness and in their ability to obtain mental health services. Each of the items designed to assess perceived behavioural control that met inclusion criteria loaded on this factor. Higher scores are indicative of higher levels of informed openness. Finally, scores on the Perceived Stigma factor reflect the extent to which individuals are concerned about what various important others might think should they find out that the individual were seeking help for psychological problems. Each of the items designed to assess subjective norms that met inclusion criteria loaded on this factor. Higher scores are indicative of lower levels of concern with respect to stigma.

The psychometric properties of the 24-item inventory as well as the three factor subscales are as follows. Cronbach's alpha for the IASPHPP was .87. Alpha was .82 for the Psychological Privacy subscale, .76 for the Informed Openness to Treatment subscale, and .79 for the Perceived Stigma subscale. The three factors are highly positively correlated with one another. Factor inter-correlations, means, and standard deviations are shown in Table 2.

Table 2
Correlation Matrix, Validity Information, and Descriptive Statistics for the Inventory of Attitudes towards Seeking Professional Help for Psychological Problems (IASPHPP)

	Privacy	Openness	Stigma	IASPHPP
Psychological Privacy	---			
Informed Openness to Treatment	.38**	---		
Perceived Stigma	.47**	.37**	---	
IASPHPP	.82**	.70**	.80**	---
Past Use of Professional Help	.34**	.34**	.10	.33**
Intentions to Use Professional Help	.24**	.43**	.24**	.38**
Intentions to Talk to Family/Friends	.00	.00	.15*	.08
Intentions to Take Care of it Yourself	-.31**	-.32**	-.24**	-.37**
Male Means (SD)	20.5 (7.2)	23.1 (5.7)	22.4 (6.3)	66.0 (15.1)
Female Means (SD)	23.2 (6.0)	24.9 (4.7)	24.5 (6.0)	72.6 (12.7)
Total Means (SD)	21.8 (6.8)	24.0 (5.4)	23.4 (6.2)	69.2 (14.4)

Note. Past use of professional help was coded as 2 for yes and 1 for no. Scores on the IASPHPP can range from 0 to 96, and scores on the subscales can range from 0 to 32.
* $p < .05$. ** $p <= .01$.

Validity

Tests of convergent and discriminant validity were limited by the absence of psychometrically valid and reliable measures of attitudes towards seeking mental health services. Given this dearth of psychometric criteria with which to validate the inventory both past use of mental health services and intentions to use such services should they be needed in the future were chosen as validity criteria. Past use of mental health services was assessed by taking the mean score of two questions: Have you ever discussed psychological problems with your family physician, and have you ever discussed psychological problems with a mental health professional (e.g. psychologist, psychiatrist, or social worker). Intentions to use mental health services were assessed by taking the mean score of the following questions: If you were to experience significant psychological problems how likely is it that you would consider talking to a family

physician, and how likely is it that you would consider talking to a mental health professional (e.g. psychiatrist, psychologist, social worker). Intentions were scored on a 7-point rating scale where 1 was very unlikely and 7 was very likely. The relationship between these variables, the total attitude score, and the three subscales was examined using Pearson correlation coefficients. The results of these analyses are presented in Table 2. Scores on the IASPHPP were highly positively correlated with both past use of and intentions to use mental health services. With respect to past use of professional psychological help, both the Psychological Privacy and Informed Openness to Treatment subscales exhibited similar moderate correlations to the overall inventory, whereas Perceived Stigma was unrelated. All three subscales were significantly correlated with intentions to use mental health services.

Given that women have been consistently shown to hold more positive attitudes towards seeking mental health services than men, known-groups validity was tested by determining the effect of gender on attitude scores. According to one-way analyses of variance, women reported significantly higher scores than men on the IASPHPP, $\underline{F}$ (1, 200) = 11.14, $\underline{p} < .01$. Specifically, women scored significantly higher than men with respect to Psychological Privacy, $\underline{F}$ (1, 200) = 8.26, $\underline{p} < .01$, Informed Openness to Treatment, $\underline{F}$ (1, 200) = 6.31, $\underline{p} < .05$, and Perceived Stigma, $\underline{F}$ (1, 200) = 5.48, $\underline{p} < .05$. Mean gender scores can be found in Table 2.

The IASPHPP was designed to assess individuals' attitudes with respect to seeking professional psychological help. In order to demonstrate discriminate validity, therefore, the inventory should be better able to predict intentions to seek professional help for psychological problems than intentions to use non-professional options.

Participants were asked to rate their likelihood of both talking to a family member or friend, and taking care of the problem themselves, if they were to experience significant psychological problems. Discriminate validity would be demonstrated if correlations between these questions and scores on the IASPHPP were either smaller than or in the opposite direction from intentions to use professional mental health services. The correlation coefficients shown in Table 2 demonstrate this pattern of expected results. Intentions to talk to family/friends were only related to the Perceived Stigma subscale, and the correlation was modest. Intention to take care of the problem on ones own, on the other hand, was strongly negatively correlated with attitude scores.

Discussion

The purpose of this study was to develop an updated measure of attitudes toward seeking professional psychological help that is both valid and reliable. Several steps were taken to adapt and extend Fischer and Turner's (1970) ATSPPHS in order to achieve this goal. What, then, were the results of these changes?

Despite being five items shorter than the ATSPPHS, the Inventory of Attitudes towards Seeking Professional Help for Psychological Problems (IASPHPP) demonstrated somewhat higher full-scale internal consistency, and superior internal consistency for each of the subscales. Fischer and Turner (1970) cautioned against the independent use of scores based on their factor subscales due to moderate internal reliability coefficients. The revised inventory, on the other hand, has three factor subscales that are reliable, overdetermined (i.e. include at least four items), and based on recent factor analytic theory and procedure. The number of factors was determined according to multiple converging empirical criteria, the mean factor loading across factors was high (.53), and

the final factor analysis demonstrated excellent simple structure. These findings provide support for the notion that attitudes towards seeking professional psychological help are multifaceted. According to this study, attitudes consist of three underlying concepts that were labelled Psychological Privacy, Informed Openness to Treatment, and Perceived Stigma. Each of the items designed to assess subjective norms loaded on the Perceived Stigma factor, and each of the items measuring perceived behavioural control loaded on the Informed Openness to Treatment factor. The theoretical and psychometric strength of the subscales suggests that they are likely to provide unique predictive information, and that they may be used together or independently, depending on research needs and interests.

The IASPHPP also proved to be valid in discriminating individuals who have received mental health services from those who have not, and by discriminating those who would use such services should they be needed in the future from those who would not. As expected, the inventory was less effective in distinguishing between both past use of and intentions to use non-professional forms of help than professional help for psychological problems. Finally, women were found to have more positive attitudes than men, a finding that is consistent with studies using the ATSPPHS.

It is interesting to note that the Perceived Stigma subscale, unlike the two other subscales and the total inventory, was ineffective in distinguishing past users of mental health services from those who had not received these services. This finding is contrary to speculations in the literature regarding the negative impact of stigma on mental health service use (Lebowitz & Niederehe, 1992; Mechanic, 1989). The Informed Openness to Treatment subscale, on the other hand, was the most effective in distinguishing those who

had and had not received mental health services, as well as those who would and would not use mental health services in the future. These results suggest that when mental health services are needed, one's beliefs regarding what others might think are less important than one's own attitudes and beliefs regarding seeking professional psychological help.

Given the theoretical and psychometric strength of the IASPHPP, several worthwhile directions for future research are apparent. First and foremost, there is a need to replicate the factor structure of the inventory with different samples. Although a community sample was used in this investigation, it is relatively ethnically homogeneous and well-educated. It remains to be seen, therefore, whether the factor structure of the IASPHPP will replicate with less well-educated, and more ethnically diverse populations. An examination of the influence of the various subscales on intentions to use mental health services and actual service use with different samples would also be worthwhile. In addition, further tests of the psychometric properties of the inventory, including an examination of its test-retest reliability, are necessary.

The impetus for this project was to provide an instrument that would be useful in determining whether lay people's attitudes contribute to the large gap that exists between the need for mental health services and actual service use. One way in which the predictive ability of the IASPHPP represents a potentially significant improvement over Fischer and Turner's (1970) ATSPPHS, is in its inclusion of items created to assess individuals' subjective norms and perceived behavioural control over seeking mental health services. According to Ajzen's (1985) Theory of Planned Behavior, the accurate prediction of behaviour and/or behavioural intention requires knowledge of these key constructs as well as attitudes. It remains to be seen whether the addition of the new items

will result in an improvement in the prediction of intentions to use mental health services as well as actual service use. It is unlikely that a simple explanation exists for why so many individuals with mental health concerns fail to receive appropriate professional services. It is our hope, however, that the theoretically-based and internally consistent subscales from the IASPHPP will help to provide a better understanding of what, when, and how attitudes influence service use, and how attitudinal factors interact with other variables that affect the utilization of mental health services. In addition, research has demonstrated that certain groups, such as older adults, men, those in rural settings, individuals with low levels of education, and non-whites, are disproportionately unlikely to use mental health services (Vessey & Howard, 1993; Lin et al., 1996). As a result, a related direction for future research is to examine demographic differences in attitudes towards seeking professional psychological help. With the exceptions of gender and age, very little empirical evidence currently exists examining the attitudes of underserved populations.

Another potential area for future research involves attitude change. If research was to suggest that certain groups of individuals have attitudes that are likely to contribute to low rates of mental health service use a sensible next step would be to develop programs aimed at improving these attitudes. If this were to happen the IASPHPP would be helpful in informing such programs with respect to what aspects of attitudes require attention, and to measure attitude change following program implementation. Another possible research area related to attitude change involves the examination of differences in attitudes over time. Contrary to findings suggesting increasing knowledge of who mental health professionals are and what they do (Murstein

& Fontaine, 1993), studies using Fischer and Turner's (1970) instrument have demonstrated what appear to be increasingly negative attitudes over time. Fischer and Turner reported a mean attitude score of 58 using 737 undergraduate students. In 1979, Zeldow and Greenberg found a mean score of 57 using 80 university undergraduates. Kelly and Atcher (1995) reported a mean attitude score of 54 with 340 university undergraduate students. Finally, mean attitude scores of 49 were found amongst 134 undergraduate students by Rokke and Scogin (1995) and in 732 undergraduates by Cepeda-Benito and Short (1998). In order to rule out the influence of geographic and cohort effects, longitudinal research would provide a more stringent test of the existence of attitude changes over time as well as potential causes of such changes.

One would be hard pressed to argue against the potential influence of attitudes towards seeking mental health service on actual service use. Despite this fact, research has only recently begun to examine such attitudes and their influence. In addition, much of the literature that exists is difficult to interpret due to a lack of information regarding reliability and validity of attitude measurement. Fischer and Turner's (1970) ATSPPHS was the first valid and reliable instrument developed in order to measure attitudes towards seeking mental health services. A strong rationale for the need to adapt and extend this instrument was provided, and the result is a theoretically based, internally consistent and valid attitude measure consisting of three distinct subscales. Our hope is that research using the IASPHPP will continue to build a knowledge base in order to better understand of the nature and influence of attitudes toward seeking professional psychological help.

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CHAPTER THREE

Demographic Factors and their Association with Attitudes and Knowledge Regarding Mental Health Services

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Abstract

A large gap exists between those in need of mental health services and those who receive them. This gap is especially wide for particular demographic groups. Attempts to explain why this is the case have focused on men, older adults, and various practical, professional, and personal barriers to their use of mental health services. This study examined the relationship between two personal barriers – knowledge and attitudes regarding mental health services – and age, gender, marital status and education. Moderate levels of self-rated knowledge and reasonably positive helpseeking attitudes were found among 208 adult volunteers. In general, less positive attitudes and lower levels of knowledge were found among men, those with less education, older married and younger single individuals. These results suggest that improving attitudes and increasing knowledge might help increase mental health service use among these underserved demographic groups.

Large-scale epidemiologic surveys in both the United States [e.g. the Epidemiologic Catchment Area (ECA) survey and the National Comorbidity Survey (NCS)] and Canada [e.g. the Edmonton survey and the Ontario Mental Health Survey (OMHS)] have demonstrated that a substantial gap exists between the number of individuals who need mental health services and the comparatively small number of individuals who receive them. This research has also demonstrated that certain demographic groups are particularly unlikely to receive mental health services. Various factors are likely to contribute to this situation, which is referred to as the mental health "service gap" (Stefl & Prosperi, 1985). The purpose of this study was to determine whether particular demographic groups who have been shown to receive disproportionately fewer mental health services also have less positive helpseeking attitudes and lower levels of mental health service knowledge than groups who are more likely to receive professional help.

Estimates based on epidemiological research are that between 30% and 50% of North Americans will have a diagnosable mental disorder in their lifetimes, and that between 20% and 30% will have had a mental disorder in the past year (Bland, Newman, & Orn, 1988; Howard, Cornille, Lyons, Vessey, Lueger, & Saunders, 1996; Lin, Goering, Offord, Campbell, & Boyle, 1996; Norquist & Regier, 1996; Regier, Narrow, Rae, Manderscheid, Locke, & Goodwin, 1993). Given the substantial prevalence of mental illness it is disconcerting that between 70% and 80% of individuals with diagnosable mental health problems do not receive professional help (Bland, Newman, & Orn, 1997; Howard et al., 1996; Lin et al., 1996; Norquist & Regier, 1996). The gap between the number of individuals in need of mental health services and the number of individuals

who actually receive these services represents a serious health concern, considering that treatment for psychological problems has been shown to be very effective for adults of all ages (Lipsey & Wilson, 1993; Scogin & McElreath, 1994).

In an effort to better understand the nature of the mental health service gap, studies have examined whether certain individuals are especially unlikely to receive professional psychological help. This research has found disproportionately low rates of mental health service use among various demographic groups. Individuals who are elderly, male, married, less well-educated, physically disabled, living in rural areas, unemployed, non-white, with low income and few social resources have been shown to be particularly unlikely to receive professional help for psychological problems (Bland, Newman, & Orn, 1997; Gatz & Smyer, 1992; Greenley, Mechanic, & Cleary, 1987; Leaf et al., 1985; Leaf et al., 1988; Lefebvre, Lesage, Cyr, Toupin & Fournier, 1998; Lin et al., 1996; Olfson & Klerman, 1992; Sherbourne, 1988; Swartz et al., 1998; Tijhuis, Peters, & Foets, 1990).

A growing body of literature has emerged attempting to understand why these demographic groups are less likely to receive mental health treatment. This research has focused exclusively on age and gender, examining the influence of three general factors thought to impede mental health service use for men and older adults: Practical barriers, professional barriers, and personal barriers. Practical barriers consist of factors limiting access to mental health services, including financial and bureaucratic impediments, transportation limitations, time constraints, institutionalization, and disability (Blanch & Levin, 1998; Butler, Lewis, & Sunderland, 1998; Goldstrom et al., 1987; Lasoski, 1986; Yang & Jackson, 1998). Professional barriers include reasons why mental health

professionals may be less willing and/or able to provide mental health services to men and older adults, and personal barriers consist of reasons why men and older adults contribute to their own low rates of mental health service use.

Research has demonstrated that attitudes and knowledge can be professional barriers to mental health service use. In terms of attitudes, mental health professionals have been shown to prefer to work with younger patients and females (Ray, McKinney, & Ford, 1987; Zivian, Larsen, Knox, Gekoski, & Hatchette, 1992). In terms of knowledge, psychologists, psychiatrists, and family physicians have been found to believe, incorrectly, that treatment is less effective for older adults (Ray, Raciti, & Ford, 1985; Mackenzie, Gekoski, & Knox, 1999). In addition, professionals in the medical sector have been shown to be poor at recognizing and diagnosing mental illness (Norquist & Regier, 1996), especially in older adults and men (Gatz & Smyer, 1992; Loring & Powel, 1988; Iliffe et al., 1999).

The influence of knowledge and attitudes as personal barriers to mental health service use has been proposed as playing an important role in explaining why the mental health needs of men and older adults are underserved (Blanch & Levin, 1998; Lasoski & Thelen, 1987; Lebowitz & Niederehe, 1992). Despite such claims, however, the impact of knowledge and attitudes as personal barriers is less well established than the influence of knowledge and attitudes as professional barriers. What, then, has research demonstrated in terms of age and gender differences in knowledge and attitudes regarding mental health services?

Numerous reviews have been written attempting to explain why older adults receive disproportionately fewer mental health services (see Butler et al., 1998; Gaitz,

1974; Lasoski, 1986; Lebowitz & Niederehe, 1992; Waxman, 1986). These reviews include a mixture of theoretical speculation and empirical evidence. Older adults are consistently cited as being more susceptible than younger adults to the negative influence of stigma related to mental health problems. Despite this fact, a dearth of empirical evidence exists to support this claim. In fact, the small amount of available evidence suggests that older adults have generally positive attitudes towards seeking mental health services (Currin, Schneider, Hayslip Jr., & Kooken, 1998; Lasoski & Thelen, 1987; Zank, 1998), and that older adults' attitudes may, in fact, be at least as positive as younger adults' (Lefebvre et al., 1996; Rokke & Scogin, 1995). Based on this information, we expected to find more positive attitudes among our older participants. If confirmed, this expectation would support the notion that older adults' attitudes towards seeking mental health services do not contribute to why these individuals are consistently shown to receive disproportionately fewer mental health services than younger adults.

The influence of age on knowledge of mental health services has also received empirical attention. Lasoski and Thelen (1987) questioned 100 older adults and 100 middle-aged adults about potential reasons why older adults tend not to use mental health services. Lack of knowledge was listed as the most influential reason by both age groups. Rokke and Klenow (1998) found that knowledge of mental health services was a significant predictor of service utilization. Over half (54%) of 1,724 older adults reported that they were aware of mental health agencies in their area, but only 27% were able to accurately provide the name of an agency. Although these studies suggest that knowledge deficits may contribute to older adults' low rates of mental health service use, they do not indicate whether older adults are less knowledgeable than younger adults. In addition,

these studies are lacking an assessment of whether or not participants know all that they would need to know should they require mental health services. According to a survey, organized by the American Psychological Association, 68% of 1,200 adults felt that lack of knowledge regarding how to find an appropriate mental health professional was an important barrier to seeking help from a mental health professional. In addition, 66% reported that a lack of knowledge about when and if it is appropriate to seek professional help was an important barrier (Farberman, 1997). Research has yet to examine whether younger and older adults' knowledge in such areas is different, however.

As is the case in reviews of why many older adults do not receive the mental health services they require, reviews addressing reasons for gender differences in service use also contain a mixture of empirical and theoretical contributors. One reason men are thought to receive disproportionately fewer mental health services than women is that they are less well-educated about available services (Blanch & Levin, 1998). This hypothesis is merely speculative at the present time, however. Conversely, a great deal of empirical research has been conducted examining gender differences in attitudes towards mental health services. The majority of this literature has shown women to hold more positive attitudes and beliefs with respect to seeking professional psychological help than men (Fischer & Turner, 1970; Johnson, 1988; Kelly & Achter, 1995; Leaf, Livingston Bruce, & Tischler, 1986; Leong & Zachar, 1999; Lopez, Melendez, Sauer, Berger, & Wyssmann, 1998).

The goals of this study were twofold. First, to attempt to clarify the association of age and gender to both knowledge and attitudes regarding mental health services. With respect to knowledge, gender differences have not been examined empirically. In

addition, although older adults have been found to exhibit knowledge deficits, research has yet to examine whether such deficits are greater than they are in younger adults. Also, research has not examined age-related differences in knowledge of how to go about finding a mental health professional and of how to know if it is appropriate to seek help. Each of these prior limitations will be addressed by examining age and gender differences in self-rated knowledge of information that is necessary in order to seek help effectively.

With respect to attitudes, empirical evidence suggests that older adults may evaluate seeking mental health services at least as positively as younger adults, despite much speculation to the contrary. Gender differences in attitudes, on the other hand, appear to be fairly well established. Previous research examining the influence of age and gender on attitudes towards seeking mental health services was limited, however, in that attitudes were examined in a general sense, despite the fact that they have been shown to be multifaceted (see chapter two).

Examinations of attitudes towards seeking mental health services have measured attitudes in one of two ways. First, much of this research has been conducted using one-dimensional psychometrically untested attitude measures designed for particular research projects (e.g. Leaf et al., 1986). Second, a large body of research has examined attitudes using Fischer and Turner's (1970) Attitudes Towards Seeking Professional Psychological Help Scale (ATSPPHS). Although the ATSPPHS was found to consist of four subscales, moderate factor reliabilities lead Fischer and Turner to caution against their independent interpretation. Both of these approaches, therefore, are limited in their ability to measure the multifaceted nature of attitudes. In the first stage of the investigation this limitation

was addressed by revising and extending the ATSPPHS. The result, which is described in greater detail in chapter two, is the Inventory of Attitudes towards Seeking Professional Help for Psychological Problems (IASPHPP). This inventory consists of three reliable subscales, allowing a more detailed examination of age and gender differences with respect to various attitudinal constructs.

The second goal of this study was to extend the investigation of demographic relationships to knowledge and attitudes. Despite the fact that numerous demographic groups receive disproporionately fewer mental health services, only age and gender have received any empirical attention. In order to address this limitation, we examined whether marital status and education were related to attitudes and knowledge regarding mental health services. Although it seemed reasonable to expect that better educated people would be more likely to use mental health services because they are more knowledgeable about them and have more liberal attitudes, these hypotheses remained untested. Because married individuals are consistently shown to be underrepresented among those receiving mental health services, we also examined, in an exploratory fashion, whether they had knowledge deficits and less positive attitudes than individuals outside of marriage. We had no basis on which to expect differences in knowledge and attitudes among those who have never been married, married, and previously married. Research must begin to examine such possibilities, however, as long as disparity exists in the receipt of mental health services among various demographic groups.

Method

Participants and Procedure

Data collection took place at the train station of a small city in Eastern Ontario. The principal investigator approached individuals who were alone and appeared to be waiting. Attempts were made to survey roughly equal numbers of men and women, and to survey individuals from a wide age range. Potential participants were asked to take part in a research project, being conducted through the local university, investigating attitudes regarding seeking mental health services. They were told that the survey should take approximately 15 minutes to complete and that their responses would be anonymous. Individuals who agreed were given a questionnaire package that could be completed immediately or mailed back at a later time in the postage-paid envelope that was provided.

A total of 165 men and 157 women were approached to participate in the study, of whom 120 men (72.7%) and 126 women (80.2%) agreed. Of those who agreed to participate, questionnaires were returned by 106 men, 100 women, and 2 individuals who did not provide demographic information, representing an overall response rate of 64.6%. The mean age of the sample was 45.6 (SD = 17.8). In terms of marital status, 36.2% of participants were single, 45.4% were married or common-law, 10.1% were divorced or separated, and 6.8% were widows or widowers. The marital status breakdown of our sample was comparable to 1999 Canadian marital status rates, where 42.7% were single, 47.7% married, 4.6% divorced and 4.9% widowed (Statistics Canada, 2000). With respect to educational background, 6.3% of the sample had less than a high school education, 15.9% graduated from high school, 14% had some university or college

education, 39.6% had a university degree or college diploma, and 22.7% had postgraduate education. The current sample was more educated than the Canadian population, where, according to the 1996 census, 37% had not completed high school, 23% received a high-school diploma, 25% received a trade or non-university diploma, 10% received a bachelors degree, and 3% received a postgraduate education (Statistics Canada, 2000). Finally, 92.7% of the sample indicated that that they were not a member of a visible minority group, 5.8% indicated "other" minority group status, 1% were East Indian, and 0.5% were Asian. This sample was somewhat less ethnically diverse than the Canadian population according to the 1996 census, where 11.2% were classified as belonging to a visible minority group (Statistics Canada, 2000).

Measures

Attitudes were measured using the Inventory of Attitudes towards Seeking Professional Help for Psychological Problems (IASPHPP). This 24-item attitude measure was developed in order to achieve two goals. The first was to revise Fischer and Turner's (1970) Attitudes Towards Seeking Professional Psychological Help Scale (ATSPPHS), which is the only psychometrically sound measure of attitudes towards professional psychological helpseeking in existence. The second was to improve the reliability and validity of this measure by adding items in order to assess subjective norms and perceived behavioural control regarding seeking mental health services. These constructs, in addition to attitudes, are central to Ajzen's (1985) Theory of Planned Behavior. Ajzen's theory is concerned with improving the prediction of behaviour and behavioural intention from attitudes, and a substantial body of empirical literature supports its efficacy in this regard (Sutton, 1998).

The IASPHPP consists of three subscales. The first, Psychological Privacy, measures the extent to which individuals believe that personal problems can and should be dealt with privately, engage in denial of psychological problems, and see such problems as a sign of personal weakness. Higher scores are indicative of a lower need for Psychological Privacy. Internal consistency for this attitude subscale is .82. The second attitude subscale, Informed Openness to Treatment, measures the extent to which individuals are open to professional psychological help, and confident in both its effectiveness and in their ability to obtain mental health services. This scale includes each item designed to assess perceived behavioural control. Higher scores are indicative of higher levels of informed openness. Internal consistency for this subscale is .76. The third subscale, Perceived Stigma, examines the extent to which individuals are concerned about what various important others might think should they find out that the individual were seeking help for psychological problems. This scale includes each of the items designed to assess subjective norms. Higher scores are indicative of lower levels of concern with respect to stigma. Internal consistency for this subscale is .79. The Privacy subscale correlated at .38 with Openness and at .47 with Stigma. Openness correlated at .37 with Stigma, and correlations between Privacy, Openness, and Stigma with the overall IASPHPP were .82, .70, and .80, respectively. Convergent validity of the IASPHPP was suggested by its ability to effectively differentiate those who had and had not previously used mental health services, as well as those who would and would not use such services should they be needed in the future.

In order to examine participants' knowledge of mental health services, five questions were developed. Participants were asked to indicate, on 7-point rating scales,

how much they knew about: (a) the range of problems that mental health professionals treat, (b) how to go about getting professional help for psychological problems, and (c) the services that mental health professionals provide. Answers to these questions were summed to create a total self-rated knowledge score. Cronbach's alpha for this 3-item measure was .91. Participants were also asked to indicate whether or not they knew anyone who had received mental health services, and to rate, on a 7-point scale, how much they knew about that individual's experience. We examined participants' subjective knowledge of mental health services because we felt that more objective measures would be more difficult and time consuming, thereby increasing the probability of missing data or participant attrition. In addition, self-ratings are a standard method of assessing knowledge of mental health services (e.g. Farberman, 1997).

The final questionnaire package consisted of four sections. The first section provided a brief description of the purpose of the project and contact information should participants have any questions or concerns. Information was requested concerning year of birth, gender, marital status, highest level of education, and ethnic group membership. Instructions for completing the questionnaire, and a request for participants to complete the survey as accurately and honestly as possible, were also included in this first section. The second section consisted of the five questions designed to assess knowledge of mental health services. The third section included several questions concerning past use of mental health services and intentions to use such services should they be required in the future. The final section consisted of the revised and extended ATSPPHS (i.e. the IASPHPP).

Results

Relationships between demographic factors, attitudes and knowledge regarding mental health services were examined using multiple regression. For each regression analysis, predictor variables were rescaled from zero to one. Transforming predictor variables to a common scale allowed the interpretation and comparison of unstandardized regression coefficients across variables measured on different metrics. This is preferable to the interpretation of standardized beta coefficients, where the variance of each predictor variable is artificially forced to one. In addition, continuous predictor variables were centred in each analysis, allowing for the meaningful interpretation of first-order terms in the presence of interactions (Aiken & West, 1991). Demographic main effects, and two-way interactions between the various demographic variables were examined. Higher-order interactions were omitted due to the fact that their inclusion, considering the sample size, would attenuate statistical power, and because three and four-way interactions would result in complex regression models (Cohen & Cohen, 1983). Age and education were examined as continuous variables, and gender and marital status were examined categorically. An examination of residual plots for each of the analyses suggested that the assumptions of the regression model were met.

Attitudes Towards Seeking Mental Health Services

Means and standard deviations for the overall IASPHPP and its three subscales are displayed in Table 1. Two findings from this table are of particular importance. First, total attitude scores of 69 out of 96 represent reasonably positive general attitudes towards seeking mental health services. Second, subscale attitude scores were most positive with respect to Openness to Treatment, followed by Perceived Stigma, and

finally Psychological Privacy. Multiple regressions were conducted in order to examine the relationship between demographic factors (i.e. age, gender, marital status, education, and two-way interactions among these variables), total IASPHPP scores, and the three attitude subscales scores. The results of each of these analyses are presented in Table 2.

Table 1

Mean Scores (and Standard Deviations) for Attitudes and Knowledge Regarding Mental Health Services According to Participant Age, Gender, Marital Status and Education

Demographic Variables	IASPHPP	Psychological Privacy	Openness to Treatment	Perceived Stigma	Total Knowledge	Knowledge of Others
Gender						
Male	66.0 (15.1)	20.5 (7.2)	23.1 (5.7)	22.4 (6.3)	12.5 (4.8)	4.7 (2.0)
Female	72.6 (12.7)	23.2 (6.0)	24.9 (4.7)	24.5 (6.0)	13.9 (4.9)	4.9 (1.8)
Age						
15-29	63.4 (13.9)	20.8 (6.8)	21.0 (4.8)	21.6 (6.3)	12.5 (5.0)	5.2 (1.7)
30-46	68.4 (14.7)	22.4 (6.0)	23.4 (5.3)	22.6 (6.9)	13.5 (4.9)	5.0 (1.9)
47-59	73.1 (13.4)	23.4 (6.5)	26.0 (4.9)	23.8 (5.4)	14.1 (4.6)	4.8 (2.0)
60-89	72.2 (13.7)	20.5 (7.6)	25.7 (4.9)	26.0 (5.4)	12.5 (5.0)	4.1 (2.0)
Education						
< High school	70.1 (19.7)	21.8 (8.5)	24.8 (6.8)	23.5 (6.0)	11.5 (4.8)	5.6 (1.9)
High school	66.2 (13.7)	19.1 (6.8)	23.2 (6.7)	23.9 (4.6)	11.2 (4.4)	4.1 (1.9)
Some college	65.0 (12.6)	20.8 (6.8)	21.8 (4.5)	22.4 (5.8)	12.3 (5.1)	4.8 (1.8)
College	72.2 (14.1)	23.6 (6.4)	24.5 (5.0)	24.1 (6.3)	13.3 (4.8)	4.8 (2.0)
Post-graduate	68.3 (14.0)	21.0 (6.2)	24.8 (4.8)	22.6 (7.2)	15.2 (4.5)	5.1 (1.7)
Marital Status						
Single	65.6 (14.9)	21.4 (6.8)	22.0 (5.2)	22.3 (6.6)	13.1 (4.8)	4.6 (2.0)
Married/Common Law	69.4 (14.0)	21.5 (6.8)	24.5 (5.3)	23.4 (6.2)	13.1 (5.0)	4.4 (2.1)
Previously Married	76.1 (11.6)	23.3 (6.6)	26.9 (4.0)	26.0 (4.5)	13.1 (4.4)	5.2 (1.6)
Total	*69.2 (14.4)*	*21.8 (6.8)*	*24.0 (5.4)*	*23.4 (6.2)*	*13.2 (4.9)*	*4.8 (1.9)*

Note. Overall attitudes can range from 0 to 96, whereas attitude subscale scores can range from 0 to 32. Total knowledge scores can range from 3 to 21, whereas knowledge of others' mental health experiences can range from 1 to 7. The previously married marital status category includes those who are separated.

Table 2

Multiple Regressions Predicting Attitudes Towards Seeking Professional Psychological Help from Various Demographic Variables

	IASPHPP		Privacy		Openness		Stigma	
	b	SEb	b	SEb	b	SEb	b	SEb
Age	32.35*	12.53	6.64	6.25	15.73**	4.46	9.98	5.72
Gender	8.18*	3.77	4.67*	1.88	1.43	1.34	2.10	1.72
Education	16.56	8.54	7.94	4.26	6.37*	3.04	2.26	3.90
Marital Status								
Married/CL	-0.42	3.64	0.64	1.81	-0.17	1.30	-0.88	1.66
Sep/Div/Wid	9.45	5.36	3.93	2.67	3.00	1.91	2.52	2.44
Age x Gender	1.32	12.29	4.01	6.13	-6.18	4.38	3.49	5.61
Age x Education	5.39	20.84	0.34	10.39	-8.62	7.42	13.67	9.51
Age x Married/CL	-33.98*	13.57	-19.61**	6.77	-10.04*	4.83	-4.34	6.19
Age x Sep/Div/Wid	-35.32	18.06	-15.59	9.01	-11.87	6.43	-7.86	8.24
Gender x Education	-13.51*	6.67	-4.87	3.33	-4.48	2.38	-4.16	3.04
Gender x Married/CL	0.40	4.95	-1.92	2.47	1.72	1.76	0.60	2.26
Gender x Sep/Div/Wid	-4.91	6.89	-3.74	3.44	0.09	2.45	-1.26	3.14
Education x Married/CL	-3.51	9.67	-2.51	4.82	-1.26	3.44	0.26	4.41
Education x Sep/Div/Wid	-13.33	11.62	-4.94	5.79	-5.89	4.14	-2.50	5.30
R^2	.23**		.15**		.30**		.15**	

Note. Positive regression coefficients are associated with more positive attitudes in each case. R^2 values are unadjusted. Gender is coded as 0 for males and 1 for females. Married/CL = married or common law. Sep/Div/Wid = separated, divorced, or widowed.

* $p < .05$ ** $p < .01$

In the first of these regressions, demographic characteristics accounted for 23% of the variance in participants' overall IASPHPP scores, F (5, 193) = 7.80, $p < .01$. Older participants exhibited more positive attitudes than younger participants, and females exhibited more positive attitudes than males. The predictive effect of education and separated/divorced/widowed marital status on attitudes was nearly significant. Interactions between age and marital status, and between gender and education were also found in this analysis. Following Aiken and West's (1991) procedures for interpreting interactions between categorical and continuous variables, unstandardized regression coefficients for the continuous variable were examined at each level of the interacting categorical variable. Following this procedure, the regression coefficient for age was significant when the marital status comparison group consisted of single participants (b = 38.43, SEb = 9.64), but not when it consisted of married/common law participants (b = 0.75, SEb = 9.08) or participants who were separated/divorced/widowed (b = -7.36, SEb = 3.46). According to this post-hoc analysis, single older adults expressed more positive overall attitudes than single younger adults. A significant interaction was also found between gender and education. This interaction was caused by a positive effect of education on attitude scores for men (b = 2.19, SEb = 1.22) but not for women (b = .04, SEb =1.15).

In order to examine, in more detail, the relationship between demographic characteristics and attitudes, regressions were conducted with the three IASPHPP subscales. The results of each of these analyses are also shown in Table 2. In the first of these regressions, predicting Informed Openness to Treatment scores, demographic effects accounted for 30% of the variance, F (5, 193) = 11.28, $p < .01$. Those who were

older and better educated had significantly higher scores on this attitude subscale than participants who were younger and less well-educated. Once again, age interacted with marital status. Post-hoc analyses demonstrated a significant positive effect of age on Openness scores for single participants (b = 15.07, SEb = 3.47), but not for those who were married or common law (b = 3.64, SEb = 3.27) or separated/divorced/widowed (b = 1.44, SEb = 5.00). It appears, therefore, that older single individuals are more open to psychological treatment than those who are younger and single.

The predictive effect of demographic factors was also examined with respect to scores on the Psychological Privacy subscale. Predictor variables accounted for 15% of Privacy variance, F (14, 184) = 2.28, p < .01. Higher scores, indicating a lower need for Psychological Privacy, were found among females than males. In addition, age interacted with marital status. Post-hoc analyses demonstrated that age had a non-significant effect on Psychological Privacy scores for separated/divorced/widowed individuals (b = -7.12, SEb = 6.75). Age had a significant positive effect on Privacy scores for single participants (b = 11.98, SEb = 4.69) and a significant negative effect for those participants who were married or in common law relationships (b = -10.93, SEb = 4.42).

In the analysis testing the effect of demographic variables on Perceived Stigma scores, 15% of the variance was accounted for, F (14, 184) = 2.35, p < .01. None of the predictor variables was significant in this analysis, however.

Self-Rated Knowledge of Mental Health Services

Participants' total possible self-rated knowledge scores ranged from 3 to 21, with higher scores indicating higher levels of self-rated knowledge. Our participants' mean knowledge rating of 13.2 indicates that they perceived themselves to be only moderately

knowledgeable about mental health services. Mean knowledge scores by age, gender, marital status, and education level are shown in Table 1. These demographic characteristics were used to predict knowledge scores; the results of this analysis are displayed in Table 3. Age, education, and an interaction between age and marital status were significant predictors, accounting for 18% of knowledge variance, F (14, 186) = 2.88, $p < .01$. Higher self-rated knowledge scores were found among older than younger adults, and among those with higher than lower levels of education. Post-hoc analyses demonstrated that age failed to exert a significant effect on self-rated knowledge scores for separated/divorced/widowed participants (b = -5.27, SEb = 4.94). Age had a positive effect, however, on knowledge scores for single participants (b = 7.84, SEb = 3.44), and a negative effect for those who were married or common law (b = -5.82, SEb = 3.19).

Table 3
Multiple Regressions Predicting Self-Rated Knowledge about Mental Health Services From Various Demographic Variables

	Total Knowledge Scores		Knowledge of Others' Experiences	
	b	SEb	b	SEb
Age	9.69*	4.42	0.11	1.90
Gender	1.52	1.33	0.01	0.58
Education	8.08**	3.03	3.15*	1.27
Marital Status				
Married/CL	-0.63	1.29	-0.32	0.56
Sep/Div/Wid	-0.86	1.90	-0.09	0.84
Age x Gender	-7.70	4.30	-2.42	1.86
Age x Education	4.15	7.28	-1.37	3.29
Age x Married/CL	-12.84**	4.76	-3.65	2.06
Age x Sep/Div/Wid	-12.71*	6.38	0.91	2.73
Gender x Education	0.56	2.34	-1.32	1.05
Gender x Married/CL	-0.11	1.77	0.40	0.76
Gender x Sep/Div/Wid	2.53	2.43	0.71	1.04
Education x Married/CL	-5.25	3.45	-1.98	1.50
Education x Sep/Div/Wid	-5.85	4.08	-3.53*	1.76
R^2	.18**		.17**	

Note. Positive regression coefficients are associated with more positive attitudes in each case. R^2 values are unadjusted. Gender is coded 0 for males and 1 for females. Married/CL = married or common law. Sep/Div/Wid = separated, divorced, or widowed.
* $p < .05$ ** $p < .01$

One hundred and seventy six participants (85%) reported that they knew someone who had received mental health services, and thirty-two (15%) indicated that they did not. A one-way analysis of variance (ANOVA) was conducted to determine whether total attitude scores differed for those who did and did not know someone. This analysis demonstrated that participants who knew someone ($M = 13.9$) rated themselves as being significantly more knowledgeable than those who did not ($M = 9.0$), $F(1, 204) = 31.8$, $p < .01$.

Participants who indicated that they knew someone who had received mental health services were also asked to rate their level of knowledge about that individuals'

experience on a 7-point rating scale, where 1 indicated very little knowledge and 7 indicated a great deal of knowledge. Participants' mean self-rated knowledge of others' experience was 4.80 (SD = 1.92). Table 1 includes mean values for this knowledge measure by age, gender, marital status, and level of education. A regression analysis was conducted to examine the effect of demographic variables on participants' knowledge of others' mental health experience, the results of which are shown in Table 3. Demographic effects accounted for 17% of the variance in this knowledge measure, F (14, 156) = 2.28, $p < .01$. The only significant predictors in this analysis were education and an interaction between education and marital status. Individuals with higher levels of education reported greater levels of knowledge of other's experiences than those with lower levels of education. According to post-hoc analyses, this statement was true for single participants (b = 2.33, SEb = 0.90), but not for those who are married or common law (b = 0.62, SEb = 0.70) or separated/divorced/widowed (b = -0.91, SEb = 1.07).

Discussion

The purpose of this study was to examine whether differences existed in attitudes and knowledge regarding mental health services according to gender, age, marital status and education. Men, older adults, married individuals and those with lower levels of education have consistently been shown to be disproportionately less likely than other demographic groups to receive mental health services. If these demographic groups also exhibit more negative attitudes towards seeking mental health services and have lower levels of knowledge about them, efforts aimed at providing knowledge and improving attitudes among these groups could potentially reduce the size of the mental health service gap. In order to better understand the relationship between demographic

variables, attitudes and knowledge, we set out to examine these concepts in more detail than they had been examined in the past.

Previous investigations of attitudes towards seeking mental health services have examined them in a global manner. We used an instrument that allowed an examination of the association between various demographic variables and distinct facets of attitudes, providing a more complete understanding of this complex relationship. In addition, prior research examining knowledge of mental health services failed to measure whether individuals knew all that they would need to know in order to obtain mental health services. As a result, we measured our participants' self-rated level of knowledge with respect to three conditions that were deemed necessary for them to receive professional psychological help. Given these improvements over earlier investigations examining demographic characteristics, attitudes and knowledge, three issues were examined. The first issue was whether attitude and knowledge levels are such that they might contribute to low rates of mental health service use. The second issue was the extent to which demographic characteristics are related to attitudes and knowledge regarding mental health services. These first two issues were examined initially with respect to attitudes, and then knowledge. The final issue was whether differences in attitudes and knowledge among particular demographic groups are consistent with our hypotheses based on previous research and the speculative effects of knowledge and attitudes on mental health service use.

The Potential Influence of Demographic Differences in Attitudes and Knowledge on Mental Health Service Use

To what extent are attitudes towards seeking mental health services positive or negative? If attitudes were overwhelmingly positive it would be unlikely that they would

contribute to low rates of service use. Although attitudes were found to be reasonably positive in this study (the mean IASPHPP score was 69 out of 96), sufficient variability existed in attitude scores (they ranged from 28 to 96 with a standard deviation of 14) to account for the possibility that attitudes might have a negative influence on seeking mental health services for certain demographic groups.

Significant associations were found between demographic characteristics and various aspects of attitudes toward seeking mental health services. Demographic characteristics exhibited an especially strong relationship with Informed Openness to Treatment scores, accounting for nearly one third of the variance of this attitude subscale. Scores on this factor reflect the extent to which individuals are open to the idea of seeking professional psychological help and confident in both its effectiveness and in their ability to seek help. Weaker relationships were found between demographic variables and the other two attitude subscales: Psychological Privacy and Perceived Stigma. Privacy scores reflect the extent to which individuals: (a) believe that personal problems can and should be dealt with privately, (b) engage in denial of psychological problems, and (c) see such problems as a sign of personal weakness. Scores on the Perceived Stigma factor, on the other hand, reflect the extent to which individuals are concerned about what various important others might think should they find out that the individual were seeking help for psychological problems. Our findings suggest that attitudes are likely to contribute to demographic variation in actual mental health service use. In addition, it appears that demographic characteristics are most influential with respect to one specific aspect of attitudes towards seeking mental health services: Informed Openness to Treatment. Efforts aimed at improving attitudes as one way of

decreasing the mental health service gap are likely to be most effective, therefore, by attempting to change the beliefs underlying this particular attitude.

As was the case with attitudes, in order for knowledge to contribute to low rates of mental health service use, some degree of knowledge deficit must be demonstrated. Overall, participants rated themselves as having only moderate levels of knowledge of mental health services (13 out of 21). This finding lends support to the notion that regardless of need or desire to seek mental health services, lack of knowledge may be a significant barrier to service use for particular demographic groups (Farberman, 1997).

Two sources of knowledge were examined. The first was self-rated knowledge about the range of problems that mental health professionals treat, the types of services they provide, and how to go about getting mental health services should they be needed. The second source was participants' perceived level of knowledge regarding others' experiences seeking mental health services. As was the case with attitude scores, demographic characteristics exhibited significant associations with each measure of knowledge regarding mental health services. Demographic factors accounted for nearly one fifth of the variance of self-rated knowledge in this study.

Hypothesized Relationships Between Demographic Characteristics, Attitudes, and Knowledge

It has been established that knowledge and attitude levels found in this study have the potential to contribute to low rates of mental health service use. In addition, demographic characteristics were found to exhibit moderate to strong associations with both knowledge and attitudes. The remaining issue of critical importance to this study is whether or not men, older adults, married individuals, and those with lower levels of

education have knowledge deficits and attitudes regarding mental health services that might contribute to their disproportionately low levels of mental health service use.

With respect to older adults, prior research lead us to expect that they would be less knowledgeable regarding mental health services than younger adults. For the most part, however, this expectation was not confirmed. In general, older adults reported being significantly more knowledgeable about mental health services than younger adults. This effect depended, however, on our participants' marital status. That older adults were more knowledgeable than younger adults was only true for our single participants. When perceptions of knowledge among our married participants was examined the opposite was true. Older married individuals reported lower levels of knowledge than younger married individuals. Age had very little effect on knowledge levels for participants who were separated, divorced or widowed.

Our hypothesis that older adults would have more positive attitudes than younger adults was contrary to much speculation in the gerontological literature. Instead, this hypothesis was based on limited empirical evidence suggesting that older adults' attitudes are at least as positive as younger adults'. As expected, older adults were found to have more positive overall attitudes than younger adults. Once again, however, this effect was dependent on marital status. The positive effect of age on attitudes was only found among our single participants. A closer investigation of the relationship between age and attitudes demonstrated that age had a particularly strong association with Informed Openness to Treatment scores. Older single participants exhibited significantly more positive Openness scores than younger single participants. Age was also related, in combination with marital status, to participants' Psychological Privacy scores. Among

our single participants, older individuals were less psychologically private than younger individuals. For those participants who were married, however, older adults were more psychologically private than younger individuals. This was the only situation in which older adults exhibited less positive attitudes than younger adults. This situation, in combination with our findings that older married individuals were less knowledgeable than younger individuals, partially confirms our expectations that married individuals may be less likely to use mental health services as a result of knowledge deficits and less positive attitudes as compared to never married or previously married individuals.

Older adults are consistently shown to receive disproportionately fewer mental health services than younger adults. The results of this study suggest that knowledge and attitudes with respect to seeking mental health services might contribute to low rates of service use among older individuals, but that this effect is dependent on marital status. Knowledge deficits and less positive attitudes were only found among our older married participants, whereas our older single participants reported more positive attitudes and greater self-rated knowledge than younger single individuals. Why might this be the case? Perhaps individuals who are older and never married are more knowledgeable and open to seeking mental health services because without the informal support of a spouse they have had to seek knowledge and/or help from others in the past. Alternatively, perhaps there is something unique about older individuals who have never been married that both decreases their likelihood of getting married and affects their attitudes and levels of knowledge. Further research is necessary to test such hypotheses.

It has been speculated that women are more educated about mental health services than men (Blanch & Levin, 1998). The results of our study suggest that this

speculation may be unfounded. Gender exhibited a nonsignificant effect on participants' ratings of their level of knowledge of mental health services. In addition, gender was not related to participants' ratings of their knowledge of others' mental health service experiences. Our lack of gender effects on knowledge is surprising given that women are more likely to discuss psychological issues than men (Artis, 1997; Flaherty & Richman, 1989; Horwitz, 1977). We also hypothesized that men would exhibit less positive attitudes regarding mental health services than women. This expectation was confirmed with respect to overall attitude scores. Upon closer examination, gender exerted a particularly strong relationship with one of the three attitude subscales: Psychological Privacy. That women are more likely than men to use mental health services is one of the most consistent findings in mental health service research (Padgett, 1997; Rhodes & Goering, 1994). Our study suggests that whereas knowledge of mental health services is unlikely to contribute to gender differences in service use, the fact that men are more psychologically private than women may help explain why they are less likely to receive professional help.

Unlike gender and age, no previous literature existed upon which to base hypotheses regarding the relationship between education, knowledge and attitudes regarding mental health services. Nevertheless, we expected to find higher levels of education to be associated with more positive attitudes and higher levels of knowledge. With respect to knowledge, participants with higher levels of education were, in fact, found to be more knowledgeable about mental health services in general, as well as with respect to others' experiences with the mental health system. Education was more influential than any other demographic characteristic in predicting participants' overall

knowledge scores. With respect to attitudes, individuals with higher levels of education were found to be more open to treatment than those who were less well-educated. In addition, the correlation between education and overall attitude scores was found for men. If these results are replicated, it would suggest that a potential avenue for reducing the mental health service gap is to provide education aimed at increasing knowledge and improving attitudes regarding mental health services.

Conclusions and Future Directions

Participants in this study were found to have both moderate levels of knowledge and reasonably positive attitudes with respect to mental health services. The demographic characteristics examined in this study exhibited significant, variable associations with various aspects of attitudes and knowledge. In general, we found our older participants to be both more knowledgeable and more positive with respect to seeking mental health services than our younger participants. These results suggest that other factors might be more influential in contributing to the low rates of mental health service use among older adults. With respect to the effects of gender, we found our female participants to have more positive attitudes towards seeking mental health services, especially in regards to Informed Openness to Treatment. We did not, however, find significant gender differences in self-rated knowledge of mental health services. As expected, our participants with lower levels of education were found to have greater knowledge deficits and less positive attitudes regarding seeking mental health services than those who were better educated. Finally, marital status was only related to knowledge and attitudes in combination with age. In general, older single participants exhibited more positive attitudes and greater self-rated knowledge than younger single participants. Conversely,

older married participants reported lower levels of knowledge than younger married participants. Those who were older and married also reported being more psychologically private than younger married participants.

Our results suggest that in order to decrease the service gap, efforts aimed at increasing knowledge and improving attitudes would be most effectively targeted at specific demographic groups. It appears as though older married individuals and those with lower levels of education would benefit from educational programs focusing on providing information about when it is appropriate to see a mental health professional and how to go about finding suitable treatment. Programs aimed at improving attitudes towards seeking mental health services, on the other hand, would be most effectively targeted towards men, those with lower levels of education, older married, and younger single individuals. In addition, such programs should focus on increasing openness towards psychological treatment and on attempting to reduce the need for psychological privacy.

Several potential avenues for future research are suggested by our findings. First, although a community sample was used in this investigation, it is moderate in size, it is ethnically homogeneous, and it is more educated that the general population. It remains to be seen, therefore, whether similar findings will be found with more ethnically diverse and less well-educated samples. A second potential direction for future research would be to examine demographic differences in objective knowledge-based measures, such as a quantitative index of factual information regarding mental health services. A related issue has to do with the extent to which individuals are accurate with respect to their self-rated level of knowledge of mental health services. Finally, and perhaps most importantly,

further research is necessary in order to directly examine whether demographic differences in attitudes and knowledge affect mental health service use. Ideally, a longitudinal study could be conducted in which: (a) demographic differences in attitudes and knowledge are replicated, and (b) mediator models are tested in order to determine whether or not individuals with less positive attitudes and knowledge deficits are also less likely to seek help for mental health problems.

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CHAPTER FOUR

Predicting Intentions to Seek Help for Psychological Problems

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Abstract

In an effort to better understand why many individuals in need of mental health services fail to receive them, we examined demographic factors, helpseeking history, psychiatric symptomatology, helpseeking attitudes and their associations with intentions to use various approaches to dealing with mental health concerns. Attitudes exhibited a particularly strong relationship with intentions to talk to a mental health professional and to take care of problems oneself. Conversely, intentions to seek professional psychological help from a family physician and a member of the clergy were most strongly related to helpseeking history. The results suggest that attitudes are likely to be influential with respect to seeking services within the specialty mental health sector rather than the general medical sector. Implications for developing programs aimed at decreasing the mental health service gap are discussed.

Despite the fact that 20% to 30% of North Americans will have experienced diagnosable mental health problems in the last year, as many as 80% of these individuals will not receive professional help (Bland, Newman, & Orn, 1988; Bland, Newman, & Orn, 1997; Howard, Cornille, Lyons, Vessey, Lueger, & Saunders, 1996; Lin, Goering, Offord, Campbell, & Boyle, 1996; Norquist & Regier, 1996). This situation, which is referred to as the "service gap" (Stefl & Propseri, 1985), represents a serious mental health concern considering the proven efficacy of treatment for mental health problems across the adult lifespan (Lipsey & Wilson, 1993; Scogin & McElreath, 1994). The goal of this study was to improve the prediction of intentions to use various approaches to dealing with mental health concerns by both examining factors that have previously been shown to predict such intentions, and by exploring, in detail, the influence of helpseeking attitudes.

Mental Health Service Use

In addition to demonstrating the extent of the gap that exists between those in need of mental health services and those who receive them, large-scale epidemiologic surveys have demonstrated two fundamentally important pieces of information regarding service use. First, the majority of mental health services are provided by non-psychiatrist physicians within the medical sector rather than by mental health professionals within the specialty mental health sector (Norquist & Regier, 1996; Olfson & Pincus, 1996; Schurman, Kramer, & Mitchell, 1985). Second, individuals who use mental health services are more likely to be young, female, white, well-educated, unmarried, and living in urban areas (Hunsley, Lee, & Aubry, 1999; Lin et al., 1996; Vessey & Howard, 1993).

These large-scale epidemiological studies are more limited, however, in providing potential explanations for why the large service gap exists in general, and especially for certain demographic groups. In addition to demographic factors, only psychiatric symptomatology has consistently been shown to substantially increase the probability of receiving mental health services (Howard et al., 1996). Little else has been suggested in the way of explanatory variables by this research. Epidemiological research is also unable to explain why certain individuals receive mental health services in the health sector, while others receive specialty mental health services.

As a result of these limitations a separate literature has developed, attempting to explain why certain demographic groups are particularly unlikely to receive mental health services. This literature, which has focused on age and gender differences in service use, typically employs three sets of factors in order to explain why individuals fail to receive professional psychological help: Professional barriers, practical barriers, and personal barriers (Blanch & Levin, 1998; Butler, Lewis, & Sunderland, 1998; Gatz, Popkin, Pino & Vandenbos, 1985). Practical barriers consist of various reasons why individuals have limited access to mental health services. Professional barriers include reasons why mental health professionals may be less willing and/or able to provide services to certain individuals. Finally, personal barriers, which are the focus of this investigation, consist of reasons why individuals contribute to their own low rates of mental health service use.

Intentions to Seek Mental Health Services

According to both the Theory of Reasoned Action (Fishbein & Ajzen, 1975) and the Theory of Planned Behavior (Ajzen, 1985), intentions are the most immediate

determinant as well as the single best predictor of behaviours that are under volitional control. Substantial empirical evidence exists to support this theoretical link between intentions and behaviour (Sutton, 1999). Studies examining intentions to use various approaches to dealing with mental health concerns, therefore, provide important information related to whether individuals are likely to seek help, and where that help is likely to come from. Research in this area can also to provide information related to factors that affect the likelihood of dealing with mental health concerns.

Although individuals enter the mental health system in a number of different ways, and with varying amounts of individual choice, the majority do so under their own volition (Pescosolido, Gardner, & Lubell, 1998). A more complete understanding of the factors that influence this choice, therefore, is likely to improve our understanding of why many individuals who need mental health services do not receive them, as well as why individuals receive services in two distinct sectors of the health care system. It is important to understand why the majority of mental health services are provided in the medical sector considering that treatment provided by medical professionals may be less effective than services provided by mental health professionals (Howard et al., 1996; Norquist & Regier, 1996).

One of the first studies examining helpseeking intentions was conducted by Tinsley, de St. Aubin, & Brown (1982). The likelihood of seeking psychological help from 7 potential helpgivers (excluding medical professionals) for 11 personal problems was examined among 136 undergraduate students. For each personal problem participants ranked friends first, relatives second, and professional counsellors third as preferred sources of help. Only 36% of participants in this study reported being more

likely to seek professional help than to take care of the problem themselves. In addition to excluding medical service providers, however, this study provided no insight into factors that affect students' intentions to seek help.

In an effort to examine possible antecedents of helpseeking intentions, Halgin, Weaver, Edell, & Spencer (1987) studied the impact of attitudes and psychiatric symptomatology. They separated 126 students, based on symptomatology and helpseeking history, into a depressed non-helpseeking group, a non-depressed non-helpseeking group, or a depressed helpseeking group. Participants classified as depressed helpseekers were found to have more positive helpseeking attitudes, as well as more favourable intentions to seek professional help than participants in the other two groups. Gender was unrelated to intentions in this study. Although symptomatology and attitudes were found to be related to intentions, information regarding the association between attitudes and intentions was limited due to the gross nature of the 6-item global attitude measure used in this study. In addition, intentions to seek "professional help" were examined, rather than investigating intentions to use various specific sources of help.

In another investigation failing to acknowledge that general medical practitioners provide a substantial proportion of mental health services, Deane and Todd (1997) examined intentions to seek professional psychological help from a psychologist or counsellor for personal/emotional problems. More positive attitudes towards seeking mental health services and female gender accounted for 50% of intention variance among 107 adult university students. Psychiatric symptomatology, as measured by the Hopkins Symptom Checklist-21, did not contribute to the prediction of intention in this study.

Tijhuis, Peters, and Foets (1990) examined intentions to seek professional psychological help from a number of sources. They provided 10,171 participants with five scenarios describing people with various psychosocial difficulties. Participants were asked whether or not these people should receive treatment from a mental health professional, social worker, and general practitioner. The physician was the preferred source for four out of five scenarios. Answers to the five scenarios were totalled to create an overall intention measure with the assumption that this score represented what participants would do themselves. Demographic characteristics (gender, age, marital status, education, and income), personality characteristics (locus of control and openness regarding mental health matters), and network characteristics (prior contact with the mental health system, number of close friends, and number of acquaintances working in mental health care) were unable to adequately discriminate either those who would and would not seek professional help, or those would choose to seek help from a general medical practitioner or a mental health professional. Despite the failure of the discriminant function analyses, more positive intentions to both seek professional help versus non-professional help, and to seek professional help from a mental health professional rather than a health professional were associated with being younger, unmarried, more educated, having acquaintances working in the mental health profession, and being more open regarding mental health matters. Those with a professional helpseeking history had more positive intentions to use professional help in the future. Finally, although females were more likely to seek help, they were more likely to do so from a general practitioner, whereas men were more likely to intend to see a mental health professional than a general practitioner.

In order to better predict intentions towards seeking mental health services, Bayer and Peay (1997) assessed intentions to seek help from a "mental health professional" within the framework of Fishbein and Ajzen's (1975) Theory of Reasoned Action. In accordance with this theory, they examined attitudes toward mental health services as well as subjective norms (participants' beliefs regarding what important people in their lives would think). These factors accounted for 34% of the variance in helpseeking intentions. Being female was linked to more favourable intentions, whereas age and socio-economic status were unrelated. Once again, however, a general measure of behavioural intention was used in this study, ignoring the fact that intentions to seek help from various mental health service providers may differ.

Recently, several studies have acknowledged that factors in addition to psychiatric symptomatology and helpseeking attitudes are likely to affect intentions to use mental health services. Cramer (1999) reanalysed two earlier data sets, demonstrating that the likelihood of seeking mental health services was higher in the presence of psychiatric symptomatology and positive attitudes regarding seeking professional psychological help. In addition, however, psychiatric symptomatology was affected by levels of social support and by self-concealment (i.e. a predisposition to hide distressing and embarrassing personal information). Self-concealment was also shown to affect attitudes towards seeking mental health services.

The first goal of this study was to examine intentions to use two professional sources of help for psychological problems (mental health professionals and family physicians) as well as three non-professional approaches to dealing with mental health concerns (members of the clergy, family/friends, and taking care of it on one's own).

This distinction is crucial considering the proven efficacy of professional mental health services (e.g. Lipsey & Wilson, 1993) and suggestions of superior treatment within the specialty mental health sector (e.g. Howard et al., 1996). Despite the importance of this distinction, however, only Tinsley et al. (1982) and Tijhuis et al. (1990) studied intentions to use both professional and non-professional means of dealing with mental health concerns. Participants in the Tinsley et al. study reported more favourable intentions to use non-professional approaches to dealing with mental health concerns, whereas the intentions of participants in the Tijhuis et al. study were more positive with respect to visiting a general practitioner. In addition, only the Tijhuis et al. study examined intentions to seek help within the general medical and specialty mental health sectors. They found more positive intentions with respect to the use of health professionals than mental health professionals. Based on these studies, therefore, our participants were expected to report more favourable intentions to seek professional help from health professionals rather than mental health professionals. We had no expectations, on the other hand, as to whether intentions would be more favourable with respect to professional or non-professional approaches to dealing with mental health concerns.

The second goal of this study was to examine factors that earlier research has found to be related to intentions to deal with mental health concerns. One such factor consists of demographic effects. The most consistently examined demographic factor is gender. With one exception, females have been found to report significantly more favourable intentions to seek professional psychological help than males. In addition, Tijhuis et al. (1990) found more positive intentions among individuals who were

younger, unmarried, and more educated. We expected, therefore, that these demographic factors would be associated with the various measures of intention in our study. Another factor that has been shown to be related to intentions to deal with mental health concerns is whether or not individuals have used methods of coping with such concerns in the past. A significant relationship between helpseeking history and intentions to seek professional psychological help was demonstrated by both Halgin et al. (1987) and Tijhuis et al. (1990), leading us to expect a similar effect. The presence of psychological distress has also been linked to intentions. Halgin et al. (1987), Cepeda-Benito and Short (1998), and Kelly and Achter (1995) reported that psychiatric symptomatology was associated with intentions, whereas Deane and Todd (1997) did not. Based on these studies, therefore, we tentatively expected psychiatric symptomatology to correlate with intentions in this investigation. Finally, studies examining the influence of various factors on intentions to seek professional psychological help have consistently shown attitudes to have a strong predictive effect. In addition to examining the predictive effect of demographic characteristics, helpseeking history and psychiatric symptomatology, therefore, we set out to improve the prediction of intention over earlier predictive models by examining, more closely, the relationship between attitudes and intentions.

Helpseeking Attitudes and Intentions

To date, our understanding of the link between attitudes and intentions to deal with mental health concerns is limited. Research has demonstrated that more positive attitudes with respect to seeking mental health services are associated with more favourable intentions to use professional psychological help. We are unaware, however, of the influence of attitudes on whether individuals intend to seek help for psychological

problems using non-professional methods, from professionals within the general medical sector, or from professionals within the specialty mental health sector. We believe that two factors have limited the examination of attitudes towards seeking professional psychological help. First, helpseeking attitudes have been examined using global, one-dimensional attitude measures, despite the fact that such attitudes have been shown to be multidimensional (Fischer & Turner, 1970; Mackenzie, chapter two). Second, we are aware of only one study (Bayer and Peay, 1997) that has examined the effect of attitudes on helpseeking intentions within the context of a theoretical framework. This general atheoretical examination of attitudes is not a trivial issue. From the 1930s until the mid-1970s social psychological research suggested that attitudes were very poor predictors of behaviour. Since that time, however, theories have emerged outlining the conditions under which attitudes guide behaviour, and studies utilizing such theory have demonstrated conclusively the impact of attitudes on behaviour (Eagly & Chaiken, 1993).

In order to address these limitations attitudes were examined using a recently developed measure, the Inventory of Attitudes towards Seeking Professional Help for Psychological Problems (IASPHPP; Mackenzie, chapter two). This inventory was developed in order to assess three constructs that are central to Ajzen's (1985) Theory of Planned Behavior: Attitudes, perceived behavioural control, and subjective norms. According to this theory, individuals will have more favourable intentions to carry out a behaviour if they: (a) evaluate it positively (attitude), (b) think that they could perform the behaviour (perceived behavioural control), and (c) believe that important others would want them to perform the behaviour (subjective norm). By evaluating these constructs with three reliable subscales, the IASPHPP will allow a more sophisticated

investigation of the complex relationship between various aspects of attitudes and behavioural intention. This is especially likely considering the growing body of literature demonstrating the efficacy of Ajzen's theory in improving the prediction of behavioural intention (Sutton, 1998).

Another promising avenue for clarifying the relationship between attitudes and intentions involves the examination of attitude strength. Social psychological research has demonstrated that the strength of attitudes affects their persistence, resistance, and impact on thinking and behaviour (Krosnick & Petty, 1995). Considering that strong attitudes are especially likely to guide behaviour (Petty & Krosnick, 1995), we anticipated that strongly held positive attitudes regarding mental health services would be associated with more positive intentions to seek professional help. Three measures of attitude strength were investigated in this study: Knowledge, attitude extremity, and attitudinal ambivalence. Attitude extremity refers to the degree to which the favourability of an individual's attitude diverges from neutral (Abelson, 1995). Attitude ambivalence refers to the extent to which individuals have both positive and negative reactions to attitude objects (Thompson, Zanna, & Griffin, 1995). Finally, knowledge refers to the amount of information regarding the attitude object that can be retrieved from memory (Davidson, 1995; Wood, Rhodes, & Biek, 1995). We anticipated that by measuring both attitudes towards seeking mental health services, and the strength of these attitudes, our ability to predict various measures of intention would be enhanced.

Method

Participants and Procedure

Data collection took place at the train station of a small city in Eastern Ontario. The principal investigator approached individuals who were alone and appeared to be waiting. Attempts were made to survey roughly equal numbers of men and women, and to survey individuals from a wide age range. Potential participants were asked to take part in a research project, being conducted through the local university, investigating attitudes regarding seeking mental health services. They were told that the survey should take approximately 15 minutes to complete and that their responses would be anonymous. Individuals who agreed were given a questionnaire package that could be completed immediately or mailed back at a later time in the postage-paid envelope that was provided.

A total of 165 men and 157 women were approached to participate in the study, of whom 120 men (72.7%) and 126 women (80.2%) agreed. Of those who agreed to participate, questionnaires were returned by 106 men, 100 women, and 2 individuals who did not provide demographic information, representing an overall response rate of 64.6%. The mean age of the sample was 45.6 (SD = 17.8). In terms of marital status, 36.2% of participants were single, 45.4% were married or common-law, 10.1% were divorced or separated, and 6.8% were widows or widowers. The marital status breakdown of our sample was comparable to 1999 Canadian marital status rates, where 42.7% were single, 47.7% married, 4.6% divorced and 4.9% widowed (Statistics Canada, 2000). With respect to educational background, 6.3% of the sample had less than a high school education, 15.9% graduated from high school, 14% had some university or college

education, 39.6% had a university degree or college diploma, and 22.7% had postgraduate education. The current sample was more educated than the Canadian population, where, according to the 1996 census, 37% had not completed high school, 23% received a high-school diploma, 25% received a trade or non-university diploma, 10% received a bachelors degree, and 3% received a postgraduate education (Statistics Canada, 2000). Finally, 92.7% of the sample indicated that that they were not a member of a visible minority group, 5.8% indicated "other" minority group status, 1% were East Indian, and 0.5% were Asian. This sample was somewhat less ethnically diverse than the Canadian population according to the 1996 census, where 11.2% were classified as belonging to a visible minority group (Statistics Canada, 2000).

Measures

IASPHPP.

Attitudes were measured using the Inventory of Attitudes towards Seeking Professional Help for Psychological Problems (IASPHPP). This 24-item attitude measure was developed in order to achieve two goals. The first was to revise Fischer and Turner's (1970) Attitudes Towards Seeking Professional Psychological Help Scale (ATSPPHS), which is the only psychometrically sound measure of attitudes towards professional psychological helpseeking in existence. The second was to improve the reliability and validity of this measure by adding items in order to assess subjective norms and perceived behavioural control regarding seeking mental health services. These constructs, in addition to attitudes, are central to Ajzen's (1985) Theory of Planned Behavior. Ajzen's theory is concerned with improving the prediction of behaviour and behavioural intention from attitudes, and a substantial body of empirical literature supports its efficacy in this regard (Sutton, 1998).

The IASPHPP consists of three subscales. The first, Psychological Privacy, measures the extent to which individuals believe that personal problems can and should be dealt with privately, engage in denial of psychological problems, and see such problems as a sign of personal weakness. Higher scores are indicative of a lower need for Psychological Privacy. Internal consistency for this attitude subscale is .82. The second attitude subscale, Informed Openness to Treatment, measures the extent to which individuals are open to professional psychological help, and confident in both its effectiveness and in their ability to obtain mental health services. This scale includes each item designed to assess perceived behavioural control. Higher scores are indicative of higher levels of informed openness. Internal consistency for this subscale is .76. The third subscale, Perceived Stigma, examines the extent to which individuals are concerned about what various important others might think should they find out that the individual were seeking help for psychological problems. This scale includes each of the items designed to assess subjective norms. Higher scores are indicative of lower levels of concern with respect to stigma. Internal consistency for this subscale is .79. The Privacy subscale correlated at .38 with Openness and at .47 with Stigma. Openness correlated at .37 with Stigma, and correlations between Privacy, Openness, and Stigma with the overall IASPHPP were .82, .70, and .80, respectively. Convergent validity of the IASPHPP was suggested by its ability to effectively differentiate those who had and had not previously used mental health services, as well as those who would and would not use such services should they be needed in the future.

Attitude strength.

Three measures of attitude strength were chosen for inclusion in this study. A measure of attitude extremity was created from the IASPHPP items, each of which is rated on a 5-point rating scale. Neutral scores on the scale were coded as zero, deviations of one on either side of the midpoint were coded as one, and deviations of two points were coded as two. The total extremity score, therefore, ranges from 0 to 48 for the 24-item inventory, with higher scores representing more extreme attitudes.[3]

Numerous indices have been developed to measure the second attitude strength measure used in this study – attitude ambivalence (Becker, 1994). Ambivalence was calculated in this investigation according to Priester and Petty's (1996) gradual threshold model (GTM), which is well accepted (e.g. Jost & Burgess, 2000; Maio, Esses, & Bell, 2000). According the GTM, ambivalence = $5C^{.4} - D^{1/c}$, where C refers to conflicting and D refers to dominant attitude components. In order to create these components, average scores were created for the nine positively worded IASPHPP items, and the 15 negatively worded items. Whichever of the scores was highest was labelled dominant, and the lower of the two was labelled conflicting. A constant of one was added to C and D to avoid division by zero. As a result, ambivalence scores ranged from 0 to 7.5, with lower scores indicating lower levels of ambivalence.

[3] Extremity scores were also created for each of the three IASPHPP subscales. We chose to include one extremity measure rather than three separate extremity measures in our final analyses for three reasons. First, a comparison of results from analyses using the overall extremity measure versus analyses including three extremity measures demonstrated very few differences. Second, because the overall results using the various measures of attitude extremity were similar, we chose to use the overall measure as two degrees of freedom were gained as a result. Third, using an overall measure of attitude extremity provided a greater sense of consistency in attitude strength measurement in our study, as general knowledge and ambivalence measures were also used.

The third strength measure is knowledge. Attitude strength research typically employs one of three methods in order to measure knowledge: Knowledge listing, where participants provide as much information pertaining to an attitude object as possible in a given period of time; quizzes, where participants are tested with respect to the amount of correct information they have with respect to an attitude object; and finally self-rated knowledge, where participants are asked to report on how knowledgeable they feel they are about attitude objects (Wegener, Downing, Krosnick, & Petty, 1995). We examined participants' subjective knowledge of mental health services because we felt that both quizzes and knowledge listing tasks would be more difficult and time consuming, thereby increasing the probability of missing data or participant attrition. Participants were asked to rate, on a seven-point rating scale ranging from very little to a great deal, how knowledgeable they were with respect to: (a) the range of problems that mental health professionals treat, (b) how to go about getting professional help for psychological problems, and (c) the services that mental health professionals provide. Answers to these questions were summed to create a total knowledge score. Cronbach's alpha for this 3-item measure was .91.

Psychiatric symptomatology.

The Holden Psychological Screening Inventory (HPSI; Holden, 1996) is a 36-item measure of the three major dimensions of psychopathology underlying the Minnesota Multiphasic Personality Inventory (MMPI; Hathaway & McKinley, 1940): Psychiatric Symptomatology (PS), Social Symptomatology (SS), and Depression (DE). "Psychiatric Symptomatology reflects generalized psychopathology encompassing psychotic processes, anxiety, and somatic preoccupations. Social Symptomatology

comprises inadequate or deviant socialization and impulse control. Depression includes feelings of pessimism, loss of confidence in abilities, self deprecation, and social introversion" (Holden, 1996, p. 1). Scale internal consistency reliabilities for PS, SS, and DE subscales, using both clinical and non-clinical populations, are .74, .73, and .84, respectively. Similarly, 4-week test-retest reliabilities were .83, .84, and .86 for the PS, SS, and DE subscales, respectively (Holden, 1996). Reliability estimates for the PS, SS, and DE subscales in this study were .77, .74, and .82, respectively. A growing body of research is demonstrating the validity of the HPSI (Holden, 1996). Finally, when compared to the Brief Symptom Inventory (BSI; Derogatis, 1993), one of the most widely used screening measures of psychopathology, the HPSI demonstrated similar reliability estimates, as well as a more stable factor structure (Holden, Starzyk, McLeod, & Edwards, 2000).

The final questionnaire package consisted of four sections. The first section provided a brief description of the purpose of the project and contact information should participants have any questions or concerns. Information was requested concerning year of birth, gender, marital status, highest level of education, and ethnic group membership. Instructions for completing the questionnaire, and a request for participants to complete the survey as accurately and honestly as possible, were also included in this first section. The second section consisted of the five questions designed to assess knowledge of mental health services. The third section included several questions concerning past use of mental health services and intentions to use such services should they be required in the future. The final section consisted of the revised and extended ATSPPHS (i.e. the IASPHPP).

Results

Before examining factors that were related to our participants' intentions to use various approaches to dealing with mental health services, we were interested in the nature of the intentions themselves. Participants rated their intentions of using each of five options for dealing with mental health concerns if they were to experience them. Mean intention ratings for each of these options are presented in Table 1. The most likely scenario, based on these intention ratings, was to talk to family and/or friends, followed by talking to a mental health professional, family physician, taking care of the problem oneself, and finally talking to a member of the clergy. In order to examine whether differences between these various ratings were significantly different from one another paired t-tests were carried out. A t-test with the two highest-rated options demonstrated that participants' intentions were not significantly different with respect to talking to family and/or friends, and talking to a mental health professional, t (207) = -1.38, p = .17. Intentions to talk to a mental health professional were more favourable, however, than were intentions to talk to a family physician, t (206) = 2.15, $p < .05$. As a result, intentions to talk to family and/or friends were also more favourable than were intentions to talk to a family physician. A third t-test demonstrated that participants reported that they would be more likely to talk to a family physician than to take care of the problem themselves, t (206) = 2.88, $p < .01$. Intentions to take care of the problem oneself were also, therefore, less positive than intentions to talk to a family physician, mental health professional, and family and/or friends. Finally, intentions to talk to a member of the clergy were shown to be significantly less favourable than intentions to take care of the

problem oneself, t (207) = 8.61, $p < .01$. Talking to a member of the clergy was, as a result, also significantly less likely than the other three options.

Table 1
Participants' Mean Intention Ratings and Frequencies of Past Use Of Various Options for Dealing with Mental Health Concerns

	Intentions		Frequency of Past Use	
	Mean	SD	Yes	No
Talk to Mental Health Professional	5.39	1.87	97 (47%)	110 (53%)
Talk to Family Physician	5.05	2.09	85 (41%)	122 (59%)
Talk to Family or Friend	5.61	1.62	149 (72%)	58 (28%)
Talk to Member of Clergy	2.65	2.02	32 (16%)	175 (84%)
Take Care of it Yourself	4.39	2.03		

Note. Intention ratings can range from 1 (very unlikely) to 7 (very likely).

The primary purpose of this investigation was to examine factors that are related to intentions to use various approaches to dealing with mental health problems. In order to address this goal five multiple regression analyses were conducted. Two of these analyses examined the predictive effect of various factors on intentions to use professional mental health services, and three regression analyses examined the predictive effect of various factors on intentions to use non-professional means of dealing with hypothetical mental health problems. For each regression analysis, predictor variables were rescaled from zero to one. Transforming predictor variables to a common scale allowed the interpretation and comparison of unstandardized regression coefficients across variables measured on different metrics. This is preferable to the interpretation of standardized beta coefficients, where the variance of each predictor variable is artificially forced to one. In addition, continuous predictor variables were centred in each analysis,

allowing for the meaningful interpretation of first-order terms in the presence of interactions (Aiken & West, 1991).

Six types of predictor variables were examined in each of the five regressions. The first type of predictor consisted of various demographic characteristics. Age and education were entered as continuous variables, and gender and marital status were entered as categorical dummy-coded variables. The second type of predictor was the past use of the behaviour being predicted. Table 1 presents frequencies for the number of participants who had used each method of dealing with mental health concerns in the past (with the exception of taking care of problems themselves). The third type of predictor was psychiatric symptomatology, which was measured using the three subscales from the HPSI. The fourth type of explanatory variable consisted of attitudes towards seeking mental health services, which was examined using the three attitude subscales from the IASPHPP. The fifth type of predictor consisted of three measures of attitude strength: Knowledge, extremity, and ambivalence. The final type of predictor was attitude by attitude strength interactions. Nine of these interactions were included in each analysis.

Intentions to Use Professional Mental Health Services

The first regression analysis examined participants' intentions to talk to a mental health professional if they were to experience significant mental health problems. The results of this analysis are presented in Table 2. Together, demographic factors, past use of mental health professionals, psychiatric symptomatology, attitudes, attitude strength, and the interactions between attitudes and attitude strength accounted for 43% of the variance in participants' intention ratings, F (24, 171) = 5.34, $p < .01$. Individuals who reported being more open to treatment exhibited more favourable intentions than those

who were less open. In addition, significant interactions were found between Openness and self-rated knowledge, and between Psychological Privacy and attitude extremity. Age, marital status, helpseeking history, and attitude extremity were also very nearly significant in this analysis (p was between .05 and .08 in each case). In order to interpret interactions between attitude and attitude strength measures, Aiken and West's (1991) procedures were followed. For each interaction, post-hoc regression analyses were carried out, examining simple slopes for the attitude measure at three levels: One standard deviation below, one standard deviation above, and at the mean of the interacting attitude strength measure. Using this method, Openness to Treatment scores were found to be more predictive of intentions at lower levels of self-rated knowledge (b = 6.16) than at higher levels of knowledge (b = 2.67). Post-hoc analyses for the Privacy by extremity interaction demonstrated that high Privacy scores (i.e. a low need for Psychological Privacy) were more predictive of intentions at lower levels of attitude extremity (b = 2.45) than at higher levels (b = 1.76). Attitudes towards seeking mental health services were clearly exhibited the strongest relationship with intentions to seek professional help from a mental health professional.

Table 2
Predicting Intentions to Use Two Sources of Professional Psychological Help

	Mental Health Professional		Family Physician	
	b	SEb	b	SEb
Demographics				
Age	-1.40	0.75	1.90*	0.95
Gender (0 = male, 1 = female)	0.25	0.25	0.20	0.31
Education	-0.24	0.41	-0.89	0.52
Marital Status				
Married/Common Law	0.14	0.29	0.25	0.37
Previously Married	0.72	0.40	0.51	0.52
Past Use of Predicted Behaviour	0.48	0.27	1.41**	0.33
Symptomatology				
Psychiatric	-0.90	1.19	0.61	1.51
Social	0.03	1.31	-0.16	1.66
Depressive	-1.03	0.97	-0.55	1.22
Attitudes				
Stigma	1.18	1.51	-0.41	1.91
Openness	3.39**	0.99	-0.28	1.24
Privacy	2.22	1.63	-0.19	2.05
Attitude Strength				
Knowledge	0.85	0.49	0.59	0.60
Extremity	-0.34	1.26	-1.39	1.60
Ambivalence	1.77	2.90	-1.48	3.66
Attitudes by Attitude Strength				
Privacy x Knowledge	-0.02	2.15	-0.30	2.75
Privacy x Extremity	-9.92*	4.61	-12.97	5.90
Privacy x Ambivalence	-6.65	5.09	-10.54	6.46
Openness x Knowledge	-7.13**	2.58	-1.52	3.27
Openness x Extremity	8.84	5.86	4.18	7.42
Openness x Ambivalence	4.40	6.08	2.54	7.66
Stigma x Knowledge	2.17	2.42	0.17	3.09
Stigma x Extremity	-5.11	5.00	10.38	6.32
Stigma x Ambivalence	-8.20	6.18	2.80	7.83
R^2	.43		.30	

* $p < .05$ ** $p < .01$. The previously married marital status category includes those who are separated.

Due to the fact that the majority of mental health services are provided within the medical sector, a second regression analysis was conducted examining factors that were associated with intentions to seek professional psychological help from a general medical

practitioner. The results of this analysis are also shown in Table 2. The various predictor variables were able to account for 30% of the variance in this measure of intention, F (24, 170) = 3.11, $p < .01$. Only two predictor variables were significant in this analysis. Stronger intentions were found among older adults than younger adults, as well as among those who reported having discussed mental health problems with a family physician in the past. The absence of helpseeking attitudes as significant predictors in this analysis is in sharp contrast to the strong predictive effect of attitudes on intentions to seek help within the specialty mental health sector.

Intentions to Use Non-Professional Approaches to Dealing with Psychological Problems

In addition to examining intentions to seek professional psychological help, three regressions were run to predict intentions to use non-professional approaches to dealing with mental health problems. The results of each of these analyses are presented in Table 3. The first of these regressions examined intentions to talk to a member of the clergy. Three significant predictor variables accounted for 41% of the variance in this intention measure, F (24, 171) = 4.95, $p < .01$. More positive intentions to speak to a member of the clergy were found among less well-educated participants than those with higher levels of education. Married individuals expressed more favourable intentions than those outside of marriage, and individuals who have discussed mental health issues with a member of the clergy in the past were more likely than those who had not to report that they would do so again in the future.

Table 3
Predicting Intentions to Use Three Non-Professional Sources of Help for Mental Health Concerns

	Member of Clergy		Family/Friends		Take Care of it Oneself	
	b	SEb	b	SEb	b	SEb
Demographics						
Age	1.40	0.85	-2.38**	.074	-1.15	.095
Gender (0 = male, 1 = female)	0.22	0.28	0.21	.024	-0.08	.032
Education	-1.48**	0.46	-0.13	.040	-0.43	.052
Marital Status						
Married/Common Law	0.91**	0.32	0.59*	.028	-0.15	.037
Previously Married	-0.31	0.45	0.18	.039	-0.34	.051
Past Use of Predicted Behaviour	2.73**	0.34	0.68**	.026		
Symptomatology						
Psychiatric	-1.17	1.33	-0.43	1.18	-1.14	1.50
Social	-0.87	1.48	0.22	1.28	0.29	1.67
Depressive	-0.81	1.08	-0.04	0.94	0.56	1.22
Attitudes						
Stigma	-1.58	1.70	0.02	1.48	0.77	1.92
Openness	-0.31	1.10	0.44	0.96	-2.05	1.24
Privacy	-2.07	1.82	-4.14**	1.59	-2.97	2.06
Attitude Strength						
Knowledge	0.59	0.53	0.31	0.45	0.45	0.59
Extremity	-1.36	1.41	-2.34	1.24	0.42	1.58
Ambivalence	-3.42	3.26	-6.50*	2.84	0.48	3.68
Attitudes by Attitude Strength						
Privacy x Knowledge	0.31	2.42	1.21	2.10	5.87*	2.74
Privacy x Extremity	-6.28	5.19	-12.82**	4.52	-0.07	5.83
Privacy x Ambivalence	5.90	5.72	-3.41	5.02	11.55	6.48
Openness x Knowledge	1.64	2.90	0.54	2.52	-0.61	3.28
Openness x Extremity	0.28	6.53	15.89**	5.69	1.92	7.39
Openness x Ambivalence	0.05	6.84	6.44	5.93	-2.01	7.71
Stigma x Knowledge	1.35	2.72	-0.86	2.38	-3.48	3.08
Stigma x Extremity	-6.17	5.63	-15.81**	4.89	-1.49	6.36
Stigma x Ambivalence	-13.53	6.95	-8.56	6.04	-7.02	7.86
R^2	.41		.25		.23	

* $p < .05$ ** $p < .01$. The previously married marital status category includes those who are separated.

Factors related to intentions to talk to family members and/or friends regarding mental health concerns were also examined. Eight predictor variables were significant in

this analysis, accounting for 25% of intention variance, F (24, 171) = 2.43, $p < .01$. Two demographic factors were significant; more favourable intentions were found among younger than older participants, and among those who were married than those outside of marriage. Having discussed mental health concerns with family and/or friends in the past was predictive of intention. One attitude measure was significant; those who were more psychologically private reported more positive intentions to talk to family and/or friends than individuals who were less psychologically private. One measure of attitude strength was also significant; participants who exhibited less attitude ambivalence reported more favourable intentions to talk to family and/or friends than did more ambivalent participants. Finally, three attitude by attitude strength interactions were significant. Psychological Privacy interacted with attitude extremity. Post-hoc analyses demonstrated that a higher need for privacy was more predictive of intentions at higher levels of attitude extremity (b = -1.00) than at lower levels (b = -.36). Informed Openness to Treatment interacted with attitude extremity. According to post-hoc analyses, Lower levels of Openness were more predictive of more favourable intentions at lower levels of extremity (b = -1.29) than at higher levels (b = 0.24). Finally, Perceived Stigma interacted with attitude extremity. Post-hoc analyses demonstrated that lower levels of concern with respect to stigma were more predictive of favourable intention at lower levels of attitude extremity (b = 1.37) than at higher levels (b = 0.19).

A final analysis was conducted in order to predict intentions to take care of mental health concerns on one's own. Only one predictor variable was significant in this analysis, accounting for 23% of intention variance, F (18, 173) = 2.04, $p < .01$. More favourable intentions were associated with an interaction between Psychological Privacy

and knowledge. Post-hoc analyses demonstrated that a high need for privacy was increasingly predictive of intentions to take care of mental health concerns on one's own at lower levels of knowledge regarding mental health services (b = -3.78) than at higher levels (b = -1.76).

Discussion

When individuals realize that they are experiencing significant psychological problems, they are faced with a number of potential options. Certain sufferers may attempt to ignore such problems or deal with them on their own. Others may employ informal social supports in order to cope with psychological discomfort, while another group of individuals might prefer to search for professional sources of help. Often, various of these strategies are used (Saunders, 1993). In addition, research has shown that individuals who receive professional psychological help are very likely to benefit from it, particularly if that help is provided by mental health professionals (e.g. psychologists, psychiatrists, and social workers) rather than by general medical practitioners (Howard et al., 1996).

Unfortunately, we are aware of only two studies that have examined intentions to use both professional and non-professional approaches to dealing with mental health concerns, and these studies reported conflicting results with respect to whether intentions were more positive regarding professional or non-professional sources of help. Like the participants in study conducted by Tinsley et al. (1982), but unlike those in the study by Tijhuis et al. (1990), our participants reported more favourable intentions to deal with mental health problems using non-professional approaches. Both our results and those reported by Tinsley et al. are consistent with research demonstrating the common use of

non-professional approaches to dealing with mental health concerns that precede seeking professional help (Saunders, 1993).

In addition, only Tijhuis et al. examined intentions to seek professional help from both mental health professionals and general practitioners. Unlike participants in that study, however, our participants indicated that they would be more likely to seek psychological help from a mental health professional than a health professional. Considering the dearth of empirical investigations examining these important distinctions, future research is needed in order to clarify these inconsistencies.

Although intentions to use various approaches in order to deal with mental health concerns were of interest, the primary objective of this study was to arrive at a better understanding of the factors that are related to such intentions. Two steps were taken in order to achieve this objective. First, we examined several factors that have previously been shown to be related to intentions to seek professional help: Demographic variables, psychiatric symptomatology, and helpseeking history. Second, we were interested in arriving at a more complete understanding of the link between helpseeking attitudes and various measures of intention. In order to do this we examined attitudes using a multidimensional, theoretically-based inventory. We also measured the strength of attitudes in order to increase their predictive ability.

Predicting Intentions from Demographic Characteristics, Psychiatric Symptomatology, and Helpseeking History

Past research has demonstrated that intentions to use various approaches to dealing with mental health concerns are associated with gender, age, marital status, and education. After controlling for the effects of the other predictor variables in this investigation, demographic factors exhibited a limited ability to predict intentions.

Specifically, age was related to intentions to talk to family physicians and family and/or friends, and both education and marital status were associated with intentions to talk to a member of the clergy. Demographic characteristics were not related to intentions to talk to a mental health professional or to take care of the problem on one's own, however. In addition, gender failed to exhibit a significant effect on any of the five measures of intention despite its consistent influence on intentions in previous research.

A possible explanation for the lack of expected demographic effects in this investigation is that the pathway through which demographic factors affect intentions is indirect rather than direct. In previous work, we have demonstrated the impact of age, gender, marital status, and education on attitudes towards seeking professional psychological help, arguing that demographic differences in attitudes might affect mental health service use (Mackenzie, chapter three). If attitudes do, in fact, mediate the influence of demographic variables on intentions, we would anticipate the direct effect of demographic characteristics on intentions to be weak or nonexistent. Unfortunately, the cross-sectional nature of the current study does not allow for the proper examination of this mediational model. Because attitudes and intentions were measured simultaneously, we were unable to examine whether attitudes affected intentions, or vice versa. Despite this limitation, a tentative mediational test was conducted by examining the relationship between demographic factors and intentions both before and after attitudes were added to the various models. Before including attitudes, marital status was related to intentions to talk to a family physician, and both gender and marital status were related to intentions to talk to a mental health professional. These effects disappeared when both demographic factors and attitudes were used to predict intentions, suggesting that attitudes may

mediate the influence of gender and marital status on intentions to use professional sources of help for psychological problems. Future longitudinal research is necessary in order to address this possibility properly.

Research has also demonstrated an association between helpseeking history and intentions to use mental health services. As expected, therefore, the past use of various approaches to dealing with mental health concerns was generally predictive of various measures of intention to use such approaches again in the future. Helpseeking history had a particularly strong association with intentions to talk to a family physician and a member of the clergy. Conversely, the relationship between prior helpseeking and intentions to talk to a mental health professional was weak.

Finally, previous research has demonstrated mixed results with respect to the link between psychiatric symptomatology and intentions to seek professional psychological help. Unlike studies by Halgin et al. (1987), Cepeda-Benito and Short (1998), and Kelly and Achter (1995), psychiatric symptomatology was not related to intentions in this study. Instead, our results replicated Deane and Todd's (1997) null findings with respect to the ability to predict intentions to seek professional psychological help from symptomatology. Perhaps other explanatory variables overwhelmed the predictive effects of symptomatology in our study. This was not the case, however. Regression analyses with psychiatric symptomatology as the only predictor of intention were not significant. It may be, then, that our sample exhibited very little in the way of symptomatology. Once again, this was not the case. Each HPSI subscale had approximately average t-scores (ranging from 47 to 51) and standard deviations (ranging from 9.4 to 10.9), suggesting expected levels of symptomatology. In fact, nearly one third of the sample scored one

standard deviation above the HPSI normative sample mean on one of the three subscales, suggesting that a sizeable proportion of our participants exhibited substantial symptomatology. A third potential explanation exists for our lack of psychiatric symptomatology effects. We asked our participants to imagine that they were experiencing significant mental health problems, and to indicate their intentions to use various approaches to dealing with these hypothetical concerns. It is possible, therefore, that by asking participants to imagine that they were psychiatrically symptomatic, we reduced the influence of actual symptomatology. This explanation does not, however, explain why other studies found a significant effect of symptomatology using similar methodology.

The Relationship Between Attitudes and Intentions

The association between participants' helpseeking attitudes and intentions was of particular interest in this study. As expected, attitudes were related to intentions to use both professional and non-professional approaches to dealing with mental health concerns. The results of this study also confirmed our expectation that attitudes would exhibit a stronger relationship with professional helpseeking intentions than intentions to use non-professional methods. We examined attitudes using a recently developed, theoretically based inventory. As a result, we expected to be better able to predict intentions to use mental health services, and it appears as though this expectation was fulfilled. Using the IASPHPP we were able to account for 43% of the variance in intentions to talk to a mental health professional, whereas Bayer and Peay (1997) accounted for 34% of the variance in intentions to seek professional psychological help using an earlier version of Ajzen's theory. Further research is necessary in order to

provide evidence supporting the ability of the IASPHPP to predict intentions to use various approaches to deal with mental health concerns.

We were also interested in examining, for the first time, the link between attitudes and intentions to seek professional mental health services within the general medical sector and the specialty mental health sector. Attitudes exhibited a marked difference with respect to their associations with these two options. The most important variable with respect to our participants' likelihood of talking to a mental health professional was their attitudes towards seeking mental health services. On the other hand, attitudes failed to predict participants' intentions to talk to a family physician. An individual's intention to seek professional psychological help within the general medical sector, therefore, appears to be unaffected by the extent to which he or she has favourable or unfavourable evaluations of seeking mental health services. Our results suggest that programs aimed at improving attitudes as a way of decreasing the mental health service gap are likely to increase service use within the specialty mental health sector, but not neccessarily within the general medical sector of the health care system.

The Relationship Between Specific Aspects of Attitudes and Intentions

Previously, investigations of the association between attitudes and intentions to seek help for psychological problems have examined attitudes in a general sense. This seems unusual considering that thirty years ago Fischer and Turner (1970) reported that attitudes toward seeking professional psychological help consist of four underlying factors. Unfortunately, Fischer and Turner found their factors to be only moderately reliable, leading them to suggest that the four factors, rather than being used as separate measures, should only be interpreted with reference to the overall scale. The attitude

inventory used in this investigation, however, consists of reliable subscales that provide information about three distinct aspects of attitudes towards seeking mental health services. We expected each of these subscales to demonstrate unique effects on the various intention measures in this study. This expectation was not confirmed, however. Instead, one attitude subscale exhibited a marked effect on intentions to seek professional help – Informed Openness to Treatment. This subscale measures the extent to which individuals are open to professional psychological help, and confident in both its effectiveness and in their ability to obtain mental health services. This scale includes items measuring attitudes towards seeking mental health services as well as perceived behavioural control over seeking professional help. Perhaps the ability of scores on this subscale to account for intentions to seek professional help is a result of its measurement of two of the three concepts that are central to Ajzen's (1985) Theory of Planned Behavior. Regardless, answers to the eight items from this scale alone accounted for one quarter of the variance in participants' likelihood ratings with respect to visiting a mental health professional.

Intentions to use non-professional approaches to dealing with mental health concerns were most strongly related to a separate aspect of attitudes – Psychological Privacy. This scale captures the extent to which individuals believe that personal problems can and should be dealt with privately, engage in denial of psychological problems, and see such problems as a sign of personal weakness. Individuals who reported a high need for privacy expressed a greater likelihood of talking to family and/or friends and to take care of mental health problems on one's own than did those whose need for privacy was lower. It appears, therefore, that two of the three IASPHPP

subscales may be especially useful in differentiating intentions to use various professional versus non-professional approaches to dealing with mental health concerns.

The Relationship Between Attitude Strength and Intentions

Research in the field of social psychology suggests that strong attitudes are especially likely to guide behaviour (Petty & Krosnick, 1995). As a result, we expected that individuals who held extreme attitudes towards mental health services, attitudes that were less ambivalent, and attitudes associated with greater amounts of information regarding mental health services, would express more favourable intentions to use such services. Contrary to our expectations, however, this pattern of results was rarely found. Both attitude extremity and knowledge moderated the effect of attitudes on intentions to use professional and non-professional approaches to dealing with mental health problems. With only one exception, however, attitudes were more predictive of intention at low levels of extremity and knowledge.

To the best of our knowledge, this finding is anomalous within the attitude strength literature. A substantial and growing body of theoretical and empirical literature lead us to expect that stronger attitudes would be associated with more extreme intentions. The lack of consistency in the attitude by attitude strength interactions in this study, coupled with the lack of support for our results in the literature causes us to be cautious regarding the interpretation of our attitude strength findings.

Conclusions and Future Directions

Estimates based on epidemiological research suggest that as many as one half of North Americans will experience a diagnosable mental health problem in their lifetimes and that 70% to 80% of those affected will not receive treatment (Howard et al., 1996). In

an effort to better understand the ways in which individuals contribute to the mental health service gap, we examined intentions to use various options for dealing with mental health concerns and factors that are related to these intentions. Three findings from this study are particularly striking. First, it is absolutely crucial that research examining mental health services distinguishes the provision of services within the general medical sector and the specialty mental health sector. Our participants reported more favourable intentions with respect to seeking psychological help from a mental health professional than a family physician. In addition, entirely different factors were related to intentions to use these distinct options, suggesting that individuals view them very differently. Second, two types of factors were most predictive of the various measures of intention: Helpseeking history and attitudes towards seeking mental health services. Helpseeking history alone accounted for the majority of variance in our participants' intentions to speak with a family physician and a member of the clergy. Attitudes, on the other hand were the most effective predictor of intentions to take care of mental health problems oneself and to talk to a mental health professional. Finally, two of the three attitude subscales – Psychological Privacy and Informed Openness to Treatment – exhibited the strongest effects on intentions. Participants who were more open to treatment and less psychologically private expressed the most favourable intentions to talk to a mental health professional. Participants who were less open and more private, on the other hand, tended to express more favourable intentions to talk to family members and/or friends or to take care of the problem themselves. In addition, these circumstances were more likely when knowledge levels were perceived to be low, and when participants held less extreme attitudes.

The results of this study have several potential implications. First, efforts aimed at decreasing the mental health service gap by improving attitudes are only likely to be effective within the specialty mental health sector, where the minority of mental health services are provided. Second, it appears that Psychological Privacy and Informed Openness to Treatment are particularly important in informing behavioural intention, whereas Perceived Stigma is not. It seems likely, therefore, that programs developed to improve attitudes towards seeking mental health needs as a way of decreasing the service gap need not focus on individuals' perceptions of what others think.

Future work in this area should attempt to replicate our results with more ethnically diverse and less well-educated samples. Considering the proven relationship between education and mental health service use, it will be important to examine intentions among less well-educated individuals. More importantly, future research must begin to address more sophisticated relationships between intentions and factors that contribute to these intentions. We failed to demonstrate associations between gender and intention, and psychiatric symptomatology and intention. Given the consistent impact of these variables on actual service use, it is unlikely that they are unrelated to intention. A likely scenario is that factors such as gender affect intentions indirectly, through other variables. Although tentative support for this hypothesis was provided, longitudinal research using path analytic models is necessary to examine this possibility properly. As evidence of the factors that are related to intentions builds, we will be in a better position to understand why mental health needs continue to be unmet and to take steps to address this important mental health issue.

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CHAPTER FIVE: GENERAL DISCUSSION

Epidemiological research provides unequivocal evidence that the vast majority of those in need of mental health services do not receive them, and that certain demographic groups are particularly unlikely to receive these services. Professional, practical, and personal barriers are thought to prevent the receipt of professional psychological help. Each service barrier category has received varying amounts of empirical support. Comparatively little, however, is known about empirically demonstrated effects of individuals' helpseeking attitudes as personal barriers to mental health service use. At least two factors have hindered the provision of knowledge in this regard. First, research examining the link between attitudes and mental health service use has been conducted without the use of existing theory, which has improved the ability to predict behaviour and/or behavioural intention from attitudes. Second, a great deal of variability exists in the measurement of helpseeking attitudes in the literature. Research has been conducted using attitude measures created for individuals research projects, leading to the inconsistent examination of general attitudes using potentially unreliable and invalid instruments. The other way in which helpseeking attitudes have been measured is with Fischer and Turner's (1970) ATSPPHS. Measurement of attitudes in this way was also problematic due to conceptual and methodological concerns with the scale, and because attitudes were once again examined generally due to moderately reliable subscales.

The Development of the IASPHPP

The impetus for this project, therefore, was to develop a measure of attitudes towards seeking mental health services that would both provide an operational definition of the nature of these attitudes, and enable the examination of attitudes in a valid, reliable,

and multifaceted manner. If research is able to examine specific aspects of attitudes more consistently (by knowing what aspects to measure), it is likely that a clearer picture of the influence of helpseeking attitudes will emerge. The relationship between attitudes and mental health service use is likely to be complex. In order to understand this complex relationship, therefore, an attitude measure must also be sufficiently complex. Earlier general measures of attitudes were lacking in this regard.

At the outset of this project, Fischer and Turner's (1970) ATSPPHS was the only instrument that allowed an examination of attitudes towards mental health services with proven reliability and validity. In chapter two, however, this scale was shown to have a number of conceptual and methodological limitations. Conceptually, the ATSPPHS was normed on a group of 960 students from a number of educational institutions. Basing such an attitude measure on students limited its applicability with respect to measuring adults' attitudes towards seeking mental health services. A second conceptual concern with the ATSPPHS is that it included gender-specific language and failed to acknowledge that the majority of mental health services are provided within the general medical sector of the health care system. Methodologically, Fischer and Turner's four subscales were of limited use due to their moderate reliabilities and because they were derived using factor extraction methods that have since been shown to be unreliable. In addition, each of the 29 items from the ATSPPHS is coded on a 4-point rating scale. Research has clearly demonstrated, however, that rating scales with five or more points are preferred by raters, and are more reliable and valid than are scales with fewer than five points.

As a result of these limitations, two options were available. The first was to create an entirely new measure of attitudes, and the second was to revise the ATSPPHS. Given

that the scale is both valid and reliable, and that a growing body of research has developed using the ATSPPHS as a foundation, a revision of the scale appeared more appropriate. Each of the methodological and conceptual limitations described above were addressed during this revision. In addition, a significant extension of the revised ATSPPHS was undertaken by adding items designed to capture each of the central constructs in Ajzen's (1985) Theory of Planned Behavior. In 1975 the precursor to Ajzen's theory revolutionized research within the field of social psychology examining the relationship between attitudes and behaviour (Fishbein & Ajzen, 1975). According to the Theory of Reasoned Action, volitional behaviour is determined by behavioural intention which, in turn, is affected by both attitudes and subjective norms with respect to the attitude object. Subjective norms refer to a person's belief about whether significant others think he or she should perform the behaviour. Ajzen extended the Theory of Reasoned Action to include the notion of perceived behavioural control, which is one's perception of how easy or difficult it would be to perform a behaviour. This addition acknowledged, and to some extent accounted for the fact that behaviour is rarely entirely under volitional control, thereby improving the predictive ability of the earlier model (Eagly & Chaiken, 1993). Applications of both theories have been extremely successful in predicting behaviour and behavioural intention (Sutton, 1998).

Having both addressed the limitations that existed with respect to the ATSPPHS and added items in order to capture people's subjective norms and perceived behavioural control with respect to seeking mental health services, the next step was to examine the underlying factor structure of the revised and extended measure. An iterative process was used, involving an examination of the ability of inventory items to meet specific criteria,

and excluding those that failed to meet them. This process, in combination with current factor analytic theory and methodology, resulted in a 3-factor, 24-item inventory which was named the Inventory of Attitudes towards Seeking Professional Help for Psychological Problems (IASPHPP).

The IASPHPP

One of the goals of this research project was to provide an operational definition of what attitudes towards seeking mental health services consist of. According to the IASPHPP, attitudes consist of three components. The first, Psychological Privacy, is the degree to which individuals believe that psychological problems should be avoided or dealt with privately. The second, Informed Openness to Treatment is the extent to which people are open minded about the possibility of receiving professional help and believe that they could seek such help should they need it. The final component, Perceived Stigma, is the degree to which individuals would be ashamed and/or embarrassed should various others find out that they were seeking professional psychological help. As expected, the three attitude subscales correlated moderately with one another (from .38 to .47) and highly with the total IASPHPP (from .71 to .82).

A second goal was to enable the examination of specific aspects of attitudes in a valid and reliable manner. With respect to reliability, internal consistency was high for both the overall inventory as well as for each of the three subscales. Fischer and Turner's (1970) ATSPPHS consisted of four subscales. Because the internal consistency of these scales was only moderate, however, Fischer and Turner cautioned against their independent interpretation. As a result, research using this instrument has examined attitudes in a global sense, rather than examining distinct aspects of attitudes. Now that an

instrument exists allowing the reliable measurement of various aspects of helpseeking attitudes, a greater level of specificity can be brought to the examination of the effects of attitudes on mental health service use. Support for the validity of the IASPHPP was also provided. The addition of new items provided a theoretical improvement in the content validity of the IASPHPP over the ATSPPHS. More importantly, perhaps, were demonstrations of convergent and discriminate validity. Convergent validity was supported by the demonstration of significant positive correlations between scores on the IASPHPP and both past use of professional psychological help as well as intentions to use professional help should it be needed in the future. Discriminate validity was supported by the demonstration of both non-significant correlations between IASPHPP scores and intentions to talk to family and/or friends, as well as significant negative correlations between IASPHPP scores and intentions to take care of mental health problems on one's own. Finally, known-groups validity was exhibited as women were found to have significantly more positive attitudes than men.

Demographic Associations with Attitudes Towards Seeking Mental Health Services

Having developed a theoretically and psychometrically strong measure of attitudes towards seeking professional psychological help, the next phase of this research project involved an examination of two issues related to the ways in which attitudes are related to mental health service use. The first of these issues had to do with the fact that various demographic groups, including men, older adults, married individuals, and those with lower levels of education, have been consistently shown to be disproportionately underrepresented among those who receive mental health services. Whether or not individuals' attitudes towards seeking mental health services might contribute to

especially low rates of mental health service use among these various groups has, for the most part, remained empirically untested. Women have been shown to have more positive attitudes towards seeking mental health services than men, and several studies have shown that older adults have similar attitudes to younger adults despite much speculation that older adults have less positive attitudes than younger individuals. Other demographic groups have, for the most part, been excluded from empirical investigations of helpseeking attitudes.

Using the IASPHPP, therefore, differences in three aspects of helpseeking attitudes according to gender, age, education, and marital status, were examined. As was the case in earlier research, women were found to have significantly more positive helpseeking attitudes than men. Unlike earlier studies, however, women's attitudes were found to be more positive than men's with respect to one of the three aspects of helpseeking attitudes examined in this study: Psychological Privacy. Although women were also found to be more positive with respect to Informed Openness to Treatment and Perceived Stigma, gender differences with respect to these attitude components were not significant. This study also confirmed the findings from a small number of studies suggesting that older adults' professional helpseeking attitudes were more positive than the attitudes of younger individuals. More specifically, however, this was only the case for: (a) single individuals, and (b) with respect to Psychological Privacy and Informed Openness to Treatment.

In addition to clarifying the ways in which age and gender are related to intentions to use mental health services this study examined, for the first time, education, marital status and their associations with various measures of intention. Men with higher levels

of education were found to have more positive overall attitudes than men with lower levels of education. In addition, both men and women with higher levels of education were found to be more open to treatment than less well-educated individuals. We also expected, based on studies of actual service use, that married individuals would have less positive helpseeking attitudes than individuals outside of marriage. This was found to be the case, although it was only true for older married individuals, who reported being more psychologically private than younger married participants. Our study is unable to address why this might have been the case, however.

Results from this research support the notion that men are less likely to receive mental health services, in part, because of their attitudes towards seeking professional help. Specifically, it appears that men may be less likely to seek mental health services due to the fact that they view seeking such help as a sign of personal weakness, preferring instead to avoid or deny psychological problems. The results also support the notion that less well-educated individuals are less likely to seek mental health services due to the fact that they perceive more barriers to seeking help and are less open-minded about this helpseeking option. In general, however, this study provided little support for the notion that the attitudes of older adults and married individuals contribute to the disproportionate low rates of mental health service use among these demographic groups.

Another possible personal barrier to mental health service use, in addition to attitudes, in an individual's knowledge of when it is appropriate to seek professional help, and how to go about receiving such help. As a result, demographic differences in self-rated knowledge of mental health services were also examined. Whereas gender exhibited significant effects on attitudes towards seeking professional psychological help, no

gender differences were found with respect to levels of self-rated knowledge. Less well-educated individuals, however, reported lower levels of knowledge in addition to less positive attitudes. The effects of age on knowledge were dependent on marital status. Older single participants reported higher levels of knowledge than younger single individuals, whereas older married participants reported being less knowledgeable than younger married individuals. It appears, therefore, that in order to bridge the mental health service gap, programs should attempt to both improve attitudes and increase knowledge among those with lower levels of education, older married individuals, and younger single individuals. Men, on the other hand, may require more specific programs aimed at decreasing their need for psychological privacy.

Helpseeking Attitudes and Their Relationship to Intentions to Deal with Mental Health Concerns

In addition to examining demographic relationships with attitudes towards seeking professional psychological help, the association between attitudes and intentions to use various approaches in order to deal with mental health concerns was also of interest. Research has shown intentions to seek professional psychological help to be related to demographic characteristics, psychiatric symptomatology, helpseeking history, and attitudes towards seeking mental health services. Aside from demonstrating that more positive attitudes are associated with more favourable intentions to use professional psychological help, however, this body of research is rather limited. The goals of this study, therefore, were to examine intentions to use various professional and non-professional approaches to dealing with psychological problems, to examine various factors that have been shown to be related to intentions, and to focus on the association between helpseeking attitudes and intentions.

Participants in this study reported that they would be most likely to seek help from either family and friends or from a mental heath professional (e.g. psychologist, psychiatrist, or social worker) should they experience significant mental health problems. The next most likely option was to speak to a family physician, followed by taking care of the problem themselves, and finally speaking to a member of the clergy. It is not surprising, perhaps, that various factors were more or less influential in determining intentions to use these various options. For the first time, this study examined, in detail, attitudes and their relationship with intentions to seek professional mental health services from both medical and mental health professionals. This distinction in intentions to seek professional psychological help is crucial, considering that treatment for psychological problems within the general medical sector is less likely to be effective than treatment provided within the specialty mental health sector (Howard et al., 1996; Norquist & Regier, 1996).

The results of our examination of intentions to seek professional psychological help from both mental health professionals and family physicians were striking. Attitudes were unrelated to intentions to seek mental health services within the general medical sector. Such intentions were most strongly related to whether or not individuals had received psychological help from family physicians in the past. Conversely, attitudes were the most influential factor in predicting intentions to seek professional psychological help from a mental health professional. In particular, our participants' attitudes with respect to being open to treatment predicted these intentions. Attitudes were also strongly related to intentions to talk to family and friends, and to take care of mental health concerns on one's own. In each of these cases, however, the most

influential attitudinal component was psychological privacy. Individuals who were more psychologically private expressed more favourable intentions to seek out these non-professional sources of help than individuals who were less private. Attitudes had little association with intentions to speak to a member of the clergy, however. Once again, past use of this method of dealing with mental health concerns was most predictive

These results suggest that attitudes may be an important determinant of intentions to deal with mental health concerns. The influence of attitudes, however, appears to depend on how individuals choose to deal with these concerns. For those people who choose to seek help for mental health problems from their church or from their family physician, it appears as though attitudes have very little influence. Instead, people who have used these options in the past are likely to use them again. The extent to which attitudes towards seeking professional psychological help are favourable, however, is likely to have a significant impact on whether individuals intend to visit a mental health professional, talk to friends/family, or not seek help at all. In addition, it appears as though individuals who are open to treatment and less psychologically private are especially likely to seek help from a mental health professional, whereas those who are less open and more private are especially likely to talk to family and/or friends or to do nothing.

Finally, what do the results of the studies presented in chapters three and four suggest with respect to the relationship between attitudes and the disproportionately low rates of service use for various demographic groups? The study presented in chapter three demonstrated that men, those with lower levels of education, older married individuals and younger single individuals had less positive attitudes towards seeking mental health

services. It was suggested, based on these findings, that these demographic differences in attitudes are likely to contribute to lower rates of mental health service use for men, older married individuals, and those with lower levels of education. In chapter four, data were presented suggesting that attitudes are related to intentions to seek professional psychological help from mental health professionals, but not from family physicians. In addition, demographic factors failed to predict intentions to talk to a mental health professional and only age was predictive of intentions to talk to a family physician. Together, these results suggest that (a) demographic factors have a weak direct association with intentions to seek professional psychological help, especially within the specialty mental health sector, and that (b) demographic effects have a rather strong relationship, mediated through demographic differences in attitudes, with intentions to seek professional psychological help within the specialty mental health sector only. Unfortunately, the data do not allow for the proper test of this mediator hypothesis due to the fact that attitudes and intentions were examined simultaneously. Future longitudinal research using path analyses is necessary in order to properly address this possibility, and to provide a more comprehensive understanding of the factors that affect mental health service use.

Directions for Future Research

An important limitation of Fischer and Turner's (1970) ATSPPHS is that it was normed on a student population. Considering that an important direction for the use of such an attitude measure is to determine whether adults' attitudes contribute to their low rates of mental health service use, the necessity for an attitude instrument normed on adults of various ages was apparent. In order to meet this need, attempts were made in

order to procure a heterogeneous adult sample on which to norm the IASPHPP. Although these attempts were, for the most part, successful, the sample used in this research project was more educated than the general Canadian population. According to Hunsley (1999) there are two distinct groups of individuals who seek professional psychological help: A larger group consisting of relatively healthy and well-educated individuals, and a smaller group with extensive physical and/or psychological problems. Our results are likely to reflect the attitudes of individuals within the larger of these two groups. Further research is necessary to extend the examination of attitudes to individuals within the smaller group.

A second potential direction for future research involves the examination of additional components of attitudes towards seeking professional psychological help. According to the tripartite model, attitudes consist of three components: Cognitive, affective, and behavioural (Katz & Stotland, 1959). The IASPHPP measures individuals' evaluations of their beliefs with respect to seeking mental health services. As such, this inventory primarily assesses the cognitive component of attitudes. The affective component consists of evaluations of feelings/moods/emotions that individuals have with respect to an attitude object. It would be possible, for example, to examine how anxious, fearful, and hopeful individuals are with respect to seeking professional psychological help. The behavioural component consists of evaluations of actions with respect to an attitude object. As a result, one might examine evaluations of various behaviours associated with seeking professional psychological help, such as reading self-help books and looking for potential service providers in a telephone book. Although empirical support for the discriminant validity of this model is equivocal (Eagly & Chaiken, 1993),

the examination of the affective and behavioural components of attitudes towards seeking mental health services may serve to further clarify the nature and influence of attitudes.

Finally, in order to arrive at a better understanding of why individuals who require mental health services do or do not receive them, research must begin to examine factors affecting helpseeking in an increasingly sophisticated manner. Ultimately, research must move towards the development of path analytic models that test the relationship among the various factors influencing helpseeking. First, however, basic research, such as the studies presented in chapters three and four, is necessary in order to inform such path analytic examinations. As a more detailed understanding emerges of how individuals contribute to their own low rates of mental health service use, specific programs can be developed in order to reduce the size of the mental health service gap.

CONCLUSIONS

- Research examining attitudes toward seeking professional psychological help has been limited in its ability to measure such attitudes in a valid, reliable, and multidimensional manner.

- The IASPHPP is a reliable, valid, and relatively brief (24-item) measure of three distinct aspects of attitudes towards seeking mental health services: Informed Openness to Treatment, Psychological Privacy, and Perceived Stigma.

- In general, our participants' attitudes towards seeking mental health services were reasonably positive, although men, younger single participants and older married participants were more psychologically private, and younger single participants and less well-educated individuals were less well informed and open to treatment.

- Lower levels of self-rated knowledge regarding mental health services were found among our less well-educated, younger single, and older married participants.

- Our participants reported that, given substantial mental health problems, they would be most likely to either talk to either family/friends or a mental health professional.

- Two aspects of attitudes, Informed Openness to Treatment and Psychological Privacy, were the best predictors of intentions to talk to a mental health professional and to take care of mental health problems on one's own, whereas helpseeking history

most effectively predicted intentions to talk to a family physician and a member of the clergy.

- Additional longitudinal and path analytic studies are required in order to better understand why it is that so many individuals who are in need of mental health services fail to receive them.

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Appendix A
Criteria for the Inclusion of Items in the Final IASPHPP

Item #	Item-Total R^2 >.30	Deleted Item Does Not Increase ∀	Factor Loadings > .30	Off-Factor Loadings < .25	Points Against
1					
2					
3					
4					
5	X	X		X	3
6				X	1
7	(X)				(1)
8				X	1
9					
10					
11	X	X	X		3
12					
13					
14					
15				X	1
16			X		1
17			X		1
18					
19				X	1
20					
21					
22					
23					
24					
25				X	1
26					
27					
28				X	1
29			X		1
30	X	X	X		3
31					
32				X	1
33					
34					
35					
36				X	1
37					
38	X	X	X		3
39					
40			X	X	2
41					

Note. X's indicate violations of inclusion criteria and X's in brackets indicate marginal violations.

Appendix B

Inventory of Attitudes towards Seeking Professional Help for Psychological Problems (IASPHPP)

The term **professional** refers to individuals who have been trained to deal with mental health problems (e.g. psychologists, psychiatrists, social workers and family physicians).

The term **psychological problems** refers to reasons one might visit a professional. Similar terms include mental health concerns, emotional problems, mental troubles, and personal difficulties.

****

For each item indicate whether you disagree (0), somewhat disagree (1), are undecided (2), somewhat agree (3), or agree (4):

		Disagree				Agree
1	There are certain problems which should not be discussed outside of one's immediate family	[0	1	2	3	4]
2	I would have a very good idea of what to do and who to talk to if I decided to seek professional help for psychological problems	[0	1	2	3	4]
3	I would not want my significant other (spouse, partner, etc.) to know if I were suffering from psychological problems	[0	1	2	3	4]
4	Keeping one's mind on a job is a good solution for avoiding personal worries and concerns	[0	1	2	3	4]
5	If good friends asked my advice about a psychological problem, I might recommend that they see a professional	[0	1	2	3	4]
6	Having been mentally ill carries with it a burden of shame	[0	1	2	3	4]
7	It is probably best not to know *everything* about oneself	[0	1	2	3	4]
8	If I were experiencing a serious psychological problem at this point in my life, I would be confident that I could find relief in psychotherapy	[0	1	2	3	4]
9	People should work out their own problems; getting professional help should be a last resort	[0	1	2	3	4]
10	If I were to experience psychological problems I could get professional help if I wanted to	[0	1	2	3	4]
11	Important people in my life would think less of me if they were to find out that I was experiencing psychological problems	[0	1	2	3	4]
12	Psychological problems, like many things, tend to work out by themselves	[0	1	2	3	4]
13	It would be relatively easy for me to find the time to see a professional for psychological problems	[0	1	2	3	4]
14	There are experiences in my life I would not discuss with anyone	[0	1	2	3	4]
15	I would want to get professional help if I were worried or upset for a long period of time	[0	1	2	3	4]

		Disagree				**Agree**
16	I would be uncomfortable seeking professional help for psychological problems because people in my social or business circles might find out about it	[0	1	2	3	4]
17	Having been diagnosed with a mental disorder is a blot on a person's life	[0	1	2	3	4]
18	There is something admirable in the attitude of people who are willing to cope with their conflicts and fears *without* resorting to professional help	[0	1	2	3	4]
19	If I believed I were having a mental breakdown, my first inclination would be to get professional attention	[0	1	2	3	4]
20	I would feel uneasy going to a professional because of what some people would think	[0	1	2	3	4]
21	People with strong characters can get over psychological problems by themselves and would have little need for professional help	[0	1	2	3	4]
22	I would willingly confide intimate matters to an appropriate person if I thought it might help me or a member of my family	[0	1	2	3	4]
23	Had I received treatment for psychological problems, I would not feel that it ought to be "covered up"	[0	1	2	3	4]
24	I would be embarrassed if my neighbour saw me going into the office of a professional who deals with psychological problems	[0	1	2	3	4]

Note. No permission is required to use this scale.

Appendix C

Mental Health Service Knowledge and Opinion Survey

Dear Sir or Madam:

The purpose of this project is to determine your knowledge and opinions about mental health problems and the services that are designed to help people cope with these problems.

This package of questionnaires should take approximately 15 minutes to complete. Participation is strictly voluntary and you may discontinue at any time. Do not write your name anywhere in this booklet. When you complete the package either return it to me (Corey Mackenzie) or mail it at your earliest convenience in the postage-paid envelope.

Although VIA Rail has given me permission to approach their customers, VIA is not associated with this research project. In the event that you have any questions, concerns, or complaints about this research, feel free to contact me at 533-2891. Alternatively, you may call my supervisor, Dr. William Gekoski, at 533-2891. Finally, if you continue to feel that your questions have not been dealt with to your satisfaction, please contact Dr. Alistair MacLean, Head of the Department of Psychology, Queen's University, at 533-2492.

Your co-operation is very much appreciated.

Sincerely,

Corey Mackenzie, M.A.

William, Gekoski, Ph.D.

Demographic Information

a) Year of birth: _____

b) Gender: _____

c) Marital status: _____

d) Highest level of education attained: _____

e) Do you consider yourself a member of any particular ethnic group? If so which one: _____

Definitions

Throughout this questionnaire please keep in mind the following points:

- The term **professional** refers to individuals who have been trained to deal with mental health problems (e.g. psychologists, psychiatrists, social workers and family physicians).

- The term **psychological problems** refers to reasons one might visit a professional. Similar terms include mental health concerns, emotional problems, mental troubles, and personal difficulties.

We realize that you may be tempted to answer the following questions according to how you think they *should* be answered. However, we are interested in what you really think and feel about them. Remember that your answers to this survey are anonymous. Your participation in this project is greatly appreciated.

Instructions

You are required to circle one number for each question. For example:

a) How important is X to you? ..... Not at all 1 2 3 4 (5) 6 7 Extremely

Importance of Mental Health Services

1 How much do you care about the availability of services for psychological problems? ..... Not at all 1 2 3 4 5 6 7 A great deal

2 How important is your mental health to you?..... Not at all 1 2 3 4 5 6 7 Extremely

3 How concerned are you with maintaining an optimal level of mental health? ..... Not at all 1 2 3 4 5 6 7 Extremely

4 How important is it to you that there is a mental health system to help people cope with psychological problems? ..... Not at all 1 2 3 4 5 6 7 Extremely

Knowledge of Mental Health Services

How much do you know about:

1) The range of problems that mental health professionals treat? ..... Very little 1 2 3 4 5 6 7 A Great Deal

2) How to go about getting professional help for psychological problems?.... Very little 1 2 3 4 5 6 7 A Great Deal

3) The services that mental health professionals provide?..... Very little 1 2 3 4 5 6 7 A Great Deal

Do you know anyone who has received mental health services? Yes ____No____

4) If you said yes how much do you know about their experience? [4] ..... Very little 1 2 3 4 5 6 7 A Great Deal

[4] If you know more than one person, answer the question for the person whose experience you are most familiar with

Use of Mental Health Services

A) Have you ever discussed psychological problems with the following individuals?:

Family physician	Yes____ No____
Mental health professional (e.g. psychologist, psychiatrist or social worker)	Yes____ No____
Member of the clergy	Yes____ No____
Family member/friend	Yes____ No____

Other?_____

****

B) If you were to experience significant psychological problems how likely is it that you would consider each of the following options:

Talking to a family physician	very unlikely 1 2 3 4 5 6 7 very likely
Talking to a mental health professional (e.g. psychiatrist, psychologist, social worker)	very unlikely 1 2 3 4 5 6 7 very likely
Talking to a member of the clergy	very unlikely 1 2 3 4 5 6 7 very likely
Talking to a family member/friend	very unlikely 1 2 3 4 5 6 7 very likely
Taking care of it yourself	very unlikely 1 2 3 4 5 6 7 very likely
Other: _____	very unlikely 1 2 3 4 5 6 7 very likely

Attitudes Toward Seeking Professional Psychological Help

For each item indicate whether you disagree (0), somewhat disagree (1), are undecided (2), somewhat agree (3), or agree (4):

		Disagree				Agree
1	Although there are clinics for people with psychological problems, I would not have much faith in them	[0	1	2	3	4]
2	I am quite certain that my immediate family members would support me if I were to seek professional help for psychological problems	[0	1	2	3	4]
3	If good friends asked my advice about a psychological problem, I might recommend that they see a professional	[0	1	2	3	4]
4	I would feel uneasy going to a professional because of what some people would think	[0	1	2	3	4]
5	People with strong characters can get over psychological problems by themselves and would have little need for professional help	[0	1	2	3	4]
6	If I needed professional help it would be difficult to overcome my own reservations about getting it	[0	1	2	3	4]
7	There are times when I have felt completely lost, and would have welcomed professional advice for a psychological problem	[0	1	2	3	4]
8	Considering the time and expense involved in psychotherapy, it would have doubtful value for a person like me	[0	1	2	3	4]
9	I would be uncomfortable seeking professional help for psychological problems because people in my social or business circles might find out about it	[0	1	2	3	4]
10	I would willingly confide intimate matters to an appropriate person if I thought it might help me or a member of my family	[0	1	2	3	4]
11	I would rather live with certain psychological problems than go through the ordeal of getting professional treatment	[0	1	2	3	4]
12	Psychological problems, like many things, tend to work out by themselves	[0	1	2	3	4]
13	I would have a very good idea of what to do and who to talk to if I decided to seek professional help for psychological problems	[0	1	2	3	4]
14	There are certain problems which should not be discussed outside of one's immediate family	[0	1	2	3	4]
15	A person with a serious psychological problem would probably feel most secure in a good mental hospital	[0	1	2	3	4]
16	My close friends would approve if I were to seek professional help for psychological problems	[0	1	2	3	4]
17	If I believed I was having a mental breakdown, my first inclination would be to get professional attention	[0	1	2	3	4]
18	Keeping one's mind on a job is a good solution for avoiding personal worries and concerns	[0	1	2	3	4]
19	If I were experiencing psychological problems I might not seek professional help for financial reasons	[0	1	2	3	4]

		Disagree				Agree
20	Having been diagnosed with a mental disorder is a blot on a person's life	[0	1	2	3	4]
21	I would rather be advised by a close friend than by a professional for psychological problems	[0	1	2	3	4]
22	Important people in my life would think less of me if they were to find out that I was experiencing psychological problems	[0	1	2	3	4]
23	People with psychological problems are not likely to solve them alone; they *are* likely to solve them with professional help	[0	1	2	3	4]
24	I resent a person – professionally trained or not – who wants to know about my personal difficulties	[0	1	2	3	4]
25	It would be relatively easy for me to find the time to see a professional for psychological problems	[0	1	2	3	4]
26	I would want to get professional help if I were worried or upset for a long period of time	[0	1	2	3	4]
27	The idea of talking with a professional strikes me as a poor way to get rid of psychological problems	[0	1	2	3	4]
28	Having been mentally ill carries with it a burden of shame	[0	1	2	3	4]
29	I would be embarrassed if my neighbour saw me going into the office of a professional who deals with psychological problems	[0	1	2	3	4]
30	There are experiences in my life I would not discuss with anyone	[0	1	2	3	4]
31	It is probably best not to know *everything* about oneself	[0	1	2	3	4]
32	If I were experiencing a serious psychological problem at this point in my life, I would be confident that I could find relief in psychotherapy	[0	1	2	3	4]
33	There are factors beyond my control that might prevent me from seeing a professional if I needed help with psychological problems	[0	1	2	3	4]
34	There is something admirable in the attitude of people who are willing to cope with their conflicts and fears *without* resorting to professional help	[0	1	2	3	4]
35	At some future time I might want to have psychological counseling	[0	1	2	3	4]
36	People should work out their own problems; getting professional help should be a last resort	[0	1	2	3	4]
37	I would not want my significant other (spouse, partner, etc.) to know if I were suffering from psychological problems	[0	1	2	3	4]
38	Had I received treatment for psychological problems, I would not feel that it ought to be "covered up"	[0	1	2	3	4]
39	If I thought I needed professional help, I would get it no matter who knew about it	[0	1	2	3	4]
40	If I were to experience psychological problems I could get professional help if I wanted to	[0	1	2	3	4]
41	It is difficult to talk about personal affairs with highly educated people such as doctors, teachers, and clergymen	[0	1	2	3	4]

Note. The Holden Psychological Screening Inventory (HPSI) was the last page of the questionnaire. The HPSI can not be reproduced here for copyright reasons, however.