THE PUBLIC IMAGE OF PSYCHOLOGISTS:
DEVELOPMENT AND VALIDATION OF AN ATTITUDES TOWARD
PSYCHOLOGISTS SCALE

DISSERTATION

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ABSTRACT

The literature on the public image of psychology has indicated that the public generally has positive perceptions of psychologists yet continues to hold some specific negative attitudes toward psychologists. In addition, the research regarding knowledge about psychologists and the relationships between attitudes toward psychologists and other factors has remained unclear. Limitations in the literature have included the lack of information regarding the public image of psychologists among racial/ethnic minority groups, lack of common measurement of attitudes toward psychologists, and confusion between knowledge about psychologists versus attitudes toward psychologists.

Based on these findings, a measure of attitudes toward psychologists, the Attitudes Toward Psychologists Inventory (ATPI), was constructed in the current study using a sample of 416 university students. Factor analysis suggested that the ATPI has a single factor structure of positive versus negative attitudes toward psychologists, accounting for 36% of the total variance. Reliability analyses suggested the 26-item ATPI had both high internal consistency and test-retest reliability. The ATPI was highly correlated with other measures of attitudes toward psychologists and not highly correlated with socioeconomic status or social desirability, suggesting both convergent and discriminant validity. In addition, attitudes toward psychologists as measured by the
ATPI were positively related to knowledge about psychologists and contact with psychologists, and negatively related to fear of psychotherapy and a negative network orientation, suggesting construct validity. Gender and racial/ethnic group comparisons suggested that European American college students held more positive attitudes toward psychologists than African American and Asian American college students. In particular, European American women held more positive attitudes toward psychologists than any other racial/ethnic group-gender combination. The results suggested that college students in the present study held a slightly positive attitude toward psychologists overall, while knowledge about psychologists was only fair, with particular deficits in knowledge regarding training, ethical codes, and roles of psychologists. Limitations, implications, and directions for future research are discussed.
Dedicated to Matthew S. Furjanic for his continued support and friendship.
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CHAPTER 1

INTRODUCTION

Attitudes toward psychologists have been of continued interest to the profession of psychology since the early days of the field. Psychologists have surveyed their public image, investigated “lay theories” of therapy, and looked at attitudes toward psychologists as a part of help-seeking attitudes. Researchers have hypothesized that several variables may affect attitudes toward psychologists, including therapy experience (Furnham & Wardley, 1987), vicarious contact with psychologists (Bram, 1997), media exposure to psychologists (Bram, 1997; Schill, Harsch, & Ritter, 1990; Turkat, 1977), and taking an introductory psychology course (Wood, Jones, & Benjamin, 1986; Zytowski, et al., 1988).

In addition, researchers have postulated that attitudes toward psychologists may have an important impact on research and practice. Specifically, researchers believe that attitudes toward psychologists may affect help-seeking behavior (Farberman, 1997; Fischer & Turner, 1972), persistence in therapy (Bram, 1997), therapy outcomes (Turkat, 1977), insurance reimbursement for psychological services (Bram, 1997), and funding for psychological research (Wood, Jones, & Benjamin, 1986) (See Figure 1.1). Based on perceptions of a negative public opinion of psychology, psychologists have undertaken
Figure 1.1: Relationship of attitudes toward psychologists with predictors and outcomes.
surveys to assess public image and designed interventions to increase positive attitudes toward psychology. The results of this varied literature indicate that the public generally has positive perceptions of psychologists; yet, more specific questions regarding knowledge about psychologists and the relationships between attitudes toward psychologists and other factors remain unclear. Limitations in the literature include the lack of information regarding the public image of psychologists among racial/ethnic minority groups, lack of common measurement of attitudes toward psychologists, and confusion between knowledge of psychologists versus attitudes toward psychologists.

**Early Studies of Psychology’s Public Image**

The public image of psychologists has been a concern to the discipline since the early years of the field. Benjamin (1986), in his review of the history of psychology’s public image, notes that psychology has always perceived itself as having problems with its public image. Efforts to improve the public image of psychology date as far back as 1892, when psychologists prepared an exhibit for the Columbian World Exhibition in Chicago designed to illustrate the scientific methods of psychology and to attract public attention to the emerging discipline using displays, offering free psychological testing, and providing booklets on psychology. As early as 1908, psychologists such as Hugo Munsterberg expressed concern that the public perceived psychology laboratories as places for mental healing, telepathy, or spiritistic practices (Munsterberg, 1908). The early history of psychology also included concerns of the profession over negative media coverage. For example, psychologists felt that the press dwelled on negative portrayals,
such as one newspaper article that described in excruciating detail John Watson's experiment in which he dissected a live rat's sensory organs to gain a better understanding of the senses.

Psychology's public image continued to wax and wane throughout the early 20th century. World War I brought prestige to psychologists as they received positive publicity regarding their war efforts toward the testing and classification of military personnel. Hothersall (1995) noted, however, that the military itself may have had a less favorable impression of psychologists during the First World War, given the scant attention they gave to the recommendations of the psychologists based on the testing and the discontinuation of classification testing of recruits soon after the war. Overall, the general consensus among psychologists at the time was that the war years had dramatically increased the visibility of psychology in a positive way (Hothersall, 1995). With the depression of the 1930's, the public image of psychology declined dramatically as the press criticized psychologists for not helping the United States with the economic and morale problems facing the country. The public image of psychology rebounded during World War II, when psychologists received praise from business and industry, the military, and the government for their services, particularly in time management.

Since World War II, psychologists have continued to show interest in the public's attitudes toward the field. Farberman (1997), for example, reported that public image has been an issue on the American Psychological Association's governance agenda for the last five decades. To gain a more accurate picture of how the public perceives psychologists, researchers began to survey the public regarding attitudes and knowledge about psychology. The results of the first survey of the psychologists' public image
appeared in the *American Psychologist* in 1948 (Guest, 1948). The survey compared attitudes toward psychologists with attitudes toward engineers, architects, economists, and chemists. Although 62% of respondents had a favorable impression of psychology, they also indicated that they felt psychologists were “odd,” that they felt ill at ease with psychologists, and ranked psychology lowest among fields they preferred their children to pursue as careers (Guest, 1948).

Concern over attitudes such as these continued into the 1950’s, and psychologists were “urged to overcome their distaste for selling psychology” (Wood, Jones, & Benjamin, 1986, p. 947). Surveys of the time continued to show that the public held somewhat favorable opinions of psychologists although they had negative reactions to specific questions. The public’s knowledge of the typical activities and qualifications of psychologists tended to increase over time. For example, Guest (1948) found that respondents were unable to reliably distinguish between psychologists and psychiatrists, whereas later surveys revealed clearer distinctions, with the public viewing psychologists as behavioral scientists and psychiatrists as practitioners (Thumin & Zebelman, 1967).

These earlier studies are difficult to interpret as a group because of the various methodologies used to survey public attitudes toward psychologists. Early surveys tended to compare psychology to other professions like dentistry and engineering and found that psychology ranked “low” on the professional hierarchy. These studies tend to be of limited utility because the comparisons among such professions provide little insight into perceptions of mental help professionals (Webb & Speer, 1986). Other limitations of these early surveys include the absence of information regarding sample
characteristics such as gender or racial/ethnic identity demographics. In general, early studies indicated that the public held a somewhat favorable attitude toward psychology and had some knowledge of the scope of the field.

Current Studies of Public Image

Concern with public image has continued to be an issue within psychology. Webb & Speer (1986) noted that psychologists continued to believe that the public held a negative image of psychology although results of past surveys were unclear. In addition, research on the public image of psychology in the 1980’s was spurred by the loss of government support for behavioral research (Wood, Jones, & Benjamin, 1986). Psychological research was regularly the focus of Senator William Proxmire’s Golden Fleece Awards, and psychology was initially left out of the National Science Foundation’s Science Education Directorate when it was reestablished in 1983 (Benjamin, 1986).

In response to this apparent negative public image, APA began to take steps to improve knowledge about and attitudes toward psychology. These steps included public service announcements, the establishment of a Public Information Committee, and the acquisition of the magazine Psychology Today (Webb & Speer, 1986). Public education campaigns using print and visual media have also been undertaken (Farberman, 1997; Turner & Quinn, 1999).

New surveys were also conducted to gain a better understanding of the public’s image of psychology. In general, newer surveys found an overall favorable impression of psychology, although results still indicated that knowledge of the profession was poor,
and specific negative images lingered. The majority of recent surveys examined attitudes toward and beliefs about psychology, as well as comparisons with other mental health professionals.

**Attitudes toward psychologists.** The majority of surveys have found that the public holds an overall positive image of psychologists. Kabatznick (1984) reported that over 75% of respondents had a positive opinion of psychologists in a sample of physical/biological scientists, business people, psychologists, and mall shoppers. Wood, Jones, and Benjamin (1986) found that 91.35% of their sample of urban adults indicated favorable attitudes toward psychology based on two questions asking “How good is psychology?” and “How helpful is psychology?”. Webb and Speer (1986) used a prototype method to look at attitudes toward psychologists. This method involves having participants rate how “typical” a number of traits are for different types of professionals. Using a sample of mostly college students and some parents of college students, the researchers found that the public held a favorable image of psychology, rating psychologists only behind psychiatrists in favorability among related professions (Webb & Speer, 1986). Using a wide variety of mental health professionals for comparison, Pallak & Killberg (1986) found positive attitudes toward psychologists, with participants indicating that they would recommend psychologists to friends and that they felt comfortable consulting psychologists. According to one study, the public sees psychologists as warm, caring healers who are best at treating adjustment and relationship problems (Schindler, Berren, Hannah, Beigel, & Santiago, 1987). Using a sample of adult psychotherapy clients, Richardson & Håndal (1995) reported that the public views psychotherapy and counseling as moderately effective. Furnham and
Wardley (1987) obtained results indicating that participants felt positively toward psychotherapy, as evidenced by agreement with statements that clients would feel more hopeful, confident, supported, relieved, understood, and in touch with their feelings, and disagreement with the idea that clients would feel rejected, confused, bored, or misunderstood.

Despite the overall positive attitudes found in most surveys, researchers have also focused on specific questions that have elicited negative attitudes. For example, Kabatznick (1984) found that less than half of participants believed that psychologists were more perceptive than other people, and little more than half believed that psychologists help the people they are treating. In one study, 42% of the sample believed that psychology has been used to control or manipulate people; 83% felt that day to day life provides training in psychology; 60% felt that psychology was incompatible with religious beliefs, and 67% felt that psychologists tended to support liberal political positions (Wood, Jones, & Benjamin, 1986). Furnham and Wardley (1987) found that respondents tended to disagree with a statement indicating that therapy is a good value for the money. Other studies indicate perceptions that psychologists tend to act on romantic/sexual feelings with clients (Bram, 1997; Schill, Harsch, & Ritter, 1990).

Knowledge about psychologists. Results of public image surveys have indicated that knowledge of psychologists may be more of a concern than attitudes toward psychologists. In one study where participants were asked to describe six different mental health professions (including psychology), 33% of respondents omitted a description for the category “psychologist,” leading the researchers to conclude that there may be a lack of familiarity with psychology (Webb & Speer, 1986). In other more recent research,
respondents have strongly endorsed items that indicate confusion about psychology or a desire to learn more about psychological services (Farberman, 1997; Turner & Quinn, 1999). The results of public image surveys have produced equivocal results on the public’s views of psychology as a science, their knowledge regarding the training and education of psychologists, and their ability to distinguish psychologists from other mental health professions.

Although the ability to distinguish psychologists from psychiatrists has improved since the beginning of public image research, confusion remains over how knowledgeable the public is concerning the different roles of psychologists and psychiatrists. In one study, over 70% of respondents knew that psychologists could not prescribe drugs (Kabatznick, 1984). Similarly, Wood, Jones, and Benjamin (1986) found that only 15% of respondents in their study believed that psychologists could prescribe medication. In addition, respondents more often endorsed activities such as “surveying attitudes” and “trying to predict behavior” as being performed by psychologists rather than by psychiatrists. Results of a study in Great Britain indicated that participants disagreed with statements about therapists having the ability to prescribe drugs and that most clients lie on a couch, indicating knowledge of the separation of psychology from psychiatry (Furnham & Wardley, 1987). On the other hand, in some U.S. studies, participants tended to confuse psychiatrists and psychologists (Pallak & Killberg, 1986; Murstein & Fontaine, 1993). Only half of the subjects in a sample of college students and non-faculty staff members believed that they could distinguish between a psychologist, a
psychiatrist, or a psychoanalyst (Wong, 1994). Thus, it is still unclear whether the public has an accurate understanding of the roles of psychologists versus other mental health professionals.

The public also seems to be divided over psychology’s status as a science. Wood, Jones, and Benjamin (1986) found that 84% of their sample agreed that psychology is a science. However, several researchers have found that psychology is not seen as a science (Kabatznick, 1984; Webb & Speer, 1986). This research indicates that psychologists are seen as dissimilar from scientists. Webb and Speer (1986) found that participants rated both psychologists and psychiatrists as tender-minded individuals who deal with the abnormal world, maximally different from scientists who were rated as tough-minded individuals who deal with the normal world.

The public also seems to have deficits in knowledge about the education and licensing of psychologists. Researchers have concluded that the public’s knowledge of the degree required to become a psychologist is poor; only one-third of a large-scale sample knew that a Ph.D. was required (Wood, Jones, & Benjamin, 1986). More current surveys reflect ongoing concern with knowledge about educational requirements to become a psychologist; Farberman (1997) found that just 36% knew a doctoral degree was required for a psychologist, and 27% believed that a master’s degree was required. In Pallak & Killberg’s (1986) sample, 81% of participants knew that psychologists needed to be licensed; however, 59% believed that “psychotherapists” also needed to be licensed. Thus, it appears that the public may have little information regarding the vigor of training to become a psychologist or on how to choose a mental health provider based on licensing requirements.
Comparisons of psychologists and other mental health professionals. Much of the research on the public image of psychology has focused on comparing attitudes toward psychologists with attitudes toward other professions rather than focus exclusively on attitudes and knowledge about psychologists. For example, Webb & Speer (1986) found that psychologists were seen as richer and more patient, inquisitive, understanding, psychological, and helpful when compared with psychiatrists, teachers, counselors, scientists, and physicians. Psychologists were seen as less unappreciated, scholarly, dedicated, alienated, and arrogant than other professions. A community mental health center survey found that psychiatrists and psychologists received higher ratings than nonpsychiatric physicians and the clergy on competence to treat most mental health concerns (Schindler, et al., 1987). Several studies have found that the public sees psychiatrists as better suited to treat severe mental disorders and psychologists as more competent to treat emotional disorders and adjustment issues (Richardson & Handal, 1995; Schindler, et al., 1987; Sharpley, 1986).

Richardson and Handal (1995) found that psychiatrists, clinical psychologists, and counseling psychologists were seen as more experienced, more educated, and more effective than other mental health professionals but not different on these dimensions from each other. The study also suggests that the public can differentiate between psychologists and psychiatrists as well as between the two specialties within psychology; for example, counseling psychologists were seen as better in treating career/educational problems (Richardson & Handal, 1995). In a national survey of attitudes toward mental health, psychiatrists were mentioned first by 51% of participants as providers of
emotional and mental health treatment, compared to 23% for psychologists (Farberman, 1997), indicating that psychiatrists may be the preferred source of mental health treatment. In general, comparisons between psychologists and other mental professionals provide some insights into how the public differentiates between such professionals but gives less insight into particular attitudes toward psychology.

**Correlates of attitudes toward psychologists.** A few researchers have attempted to link attitudes toward psychologists with other variables, although the research has mostly provided contradictory results. Pallak & Killberg (1986) found a positive correlation between education and positive attitudes toward psychologists. In addition, Hinnefeld (1996) found that educating people about the training and education involved to become a psychologist made people more likely to choose a psychologist over a family doctor or psychiatrist for mental health services. However, Furnham and Wardley’s (1987) results indicated that more educated participants held more negative perceptions of therapy but were less likely to believe in stereotypes about therapists. Other research has found that participants with therapy experience had more accurate knowledge about psychology than participants with no experience (Murstein & Fontaine, 1993; Pallak & Killberg, 1986). Similarly, Wong (1994) found that participants with psychological experience were more likely to agree with the processes of therapy and less likely to endorse stereotypes. However, other researchers have obtained results indicating that the less experience people had with psychotherapy, the more confident they felt about the efficacy of therapy and the more stereotypical their beliefs (Furnham & Wardley, 1987).
With regards to individual differences, researchers have mostly investigated the effects of age and gender on public image. Farberman (1997) found that senior citizens and those in rural areas had more discomfort with mental health issues than other groups. Similarly, Furnham and Wardley (1987) also found that older people tended to be more cynical regarding the efficacy of therapy. In another study, older participants reported less confidence in therapy but also disagreed more with stereotypes of psychologists (Wong 1994). Several studies have not found gender differences regarding the image of psychologists (Bram, 1997; Wood, Jones, & Benjamin, 1986). However, Wong (1994) found that females were more likely to agree that clients improved in psychotherapy and more likely to endorse the processes of therapy.

Less research has investigated the relationship between attitudes toward psychology and knowledge of psychology. Wood, Jones, and Benjamin (1986) found that positive responses to psychology were correlated with beliefs that psychology is a science, that psychology is not used to control and manipulate people, that psychology is consistent with religious orientation, and with taking a psychology course, suggesting that greater of knowledge of psychology is associated with more positive attitudes toward psychology. Furnham, Wardley, and Lillie (1992) found (unsurprisingly) that therapists held more positive attitudes toward psychology and rated the efficacy of therapy higher than the average public.
Implications of Public Image Research

Based on recent public image surveys, researchers have made several recommendations for future research on public image and have identified areas of public image that need to be addressed by intervention efforts. Pallak & Killberg (1986) link the public knowledge of psychology to psychology’s ability to play a publicly responsible role as a science and a profession and to promote human welfare. Research on the public image of psychology is important because attitudes toward psychology have been theorized to be related to help-seeking behavior, efficacy of therapy, premature termination, funding for research, and insurance reimbursement. For example, conceptualizing attitudes toward psychologists as client expectations, researchers have hypothesized that attitudes may either facilitate or hinder communication, affect help seeking behavior, persistence in therapy, and the effectiveness of therapy (Furnham, Ward, & Lillie, 1992).

Wood, Jones, and Benjamin (1986) recommended that future research include samples more representative of the U. S. population, focus on evaluation of psychology itself versus comparing psychology to other fields, assess knowledge of psychology more thoroughly, and research where the public obtains information about psychology. Schindler et al. (1987) highlighted the need for more research on public perception of psychologists to determine if the public is appropriately utilizing mental health services. Wood, Jones, and Benjamin (1986) concluded that a full understanding of psychology’s public image can help to develop public education campaigns and help to ensure government support for research.
Several researchers have concluded that public education efforts regarding psychology’s public image are warranted by past research (Bram, 1997). Webb and Speer (1986) conclude that their results indicating psychology is not seen as a science support recommendations for public education regarding psychology. Farberman (1997) concludes that future public education efforts should include teaching the public about differences between psychologists and other providers and informing the public of the unique skills and education of psychologists. Before public education efforts can be made, clearer information regarding attitudes toward psychology needs to be obtained. The above recommendations highlight the need for more systematic, replicable research regarding the public image of psychology.

In particular, several limitations in public image surveys may contribute to the often contradictory results of various studies. For example, the generalizability of the samples used in public image research is questionable. Sampling limitations in the current public image surveys include the overrepresentation of highly educated individuals and individuals who have experience with therapy. In addition, samples outside of college populations have tended to have extremely poor response rates, ranging from 15-20% (Murstein & Fontaine, 1993; Pallak & Killberg, 1986; Richardson & Handal, 1995).

Past research with public image has also tended to either fail to report racial/ethnic characteristics of the sample or sample predominately Caucasian populations. For example, in Murstein & Fontaine’s (1993) study, the sample was mainly highly educated, middle class, middle-aged participants from Connecticut. Race/ethnicity of the participants was not reported. The study had a 15% response rate,
and over half of the sample had seen a mental health professional. Although some more recent studies have begun to report the racial/ethnic make-up of their samples, the research continues to be done with primarily Caucasian populations, and no public image surveys to date have assessed racial-ethnic minority status as a factor in public attitude toward psychologists. Zytowksi and others (1988) concluded that given psychology’s history with minorities and the dearth of ethnic minority psychologists, it is reasonable to assume that racial/ethnic minorities’ attitudes toward psychologists may be somewhat negative. Given the growing racial/ethnic minority population, research using diverse samples and investigating possible racial/ethnic group differences in public image attitudes is clearly warranted.

Another limitation of the research regarding attitudes toward psychologists is the inconsistent methodology and use of unvalidated surveys particular to each study. It is difficult to compare results from different studies because different researchers operationalize the construct of public image differently. For example, Webb (1989) found different results regarding the favorability ratings of psychologists when public image was assessed through three different methods. Using a prototype method (see Webb & Speer, 1986), an adjective generation method, and a Likert scale method, Webb (1989) found that the prototype method produced the most favorable ratings of psychologists with results from the adjective generation method and the Likert scale method being negatively related to the prototype method results.

Although Webb concluded that a prototype method was most desirable to measure public image attitudes, several flaws exist in her study that question this conclusion. First, the Likert-scale method was operationalized with a single question that
asked respondents how favorable they felt about psychologists and different professionals. In addition, the adjective generation technique allowed participants to describe psychologists in five words. The prototype method, in contrast, allowed participants to describe psychologists qualitatively as well as respond to psychologists on 11 different traits. The simplicity of the first two methods in comparison with the prototype method may have confounded the results; an alternative explanation for the differences in public image as rated by the three different methods is that the adjective generation method and the Likert method were operationalized in a much more simplistic manner than the prototype method. Webb’s (1989) research indicates the difficulties of comparing results across different methods.

In addition, the several studies looking at attitudes toward psychologists versus other mental health professionals do little to promote the understanding of the positive and negative aspects of psychology’s public image as a profession. If physicians are seen as more favorable than psychologists, what types of steps should psychology take to correct such attitudes? Should psychologists be seen as most favorable among all professions? Does psychology, as a profession, need the public to associate the most favorable adjectives with the title “psychologist?” Such comparisons with other professions do not seem to offer practical implications.

Beyond methodology, public image research suffers from measurement limitations as well. Few of the studies report reliability or validity data for their measures of attitudes toward psychology and psychologists. Bram (1997) did report reliability data and the results of factor analysis on his survey of the public perception of psychologists. However, the resulting scale (Perceptions of Psychotherapy and Psychotherapists Rating
Scale) suffers from both validity and reliability problems. Validity concerns include the confounding of factual knowledge and attitudes and the lack of addressing issues pertinent to racial and ethnic minorities. In addition, internal consistency coefficients for the subscales ranged from .65-.74, and no test-retest reliability estimates were reported. The lack of a reliable and valid measure that can be used consistently across studies with different populations may contribute to the confusion of conflicting survey results.

Other limitations of the research include the confusion between whether public image includes both knowledge about psychologists and attitudes toward psychologists. Several studies operationalize “public image” as accurate knowledge, while other studies see “public image” as favorable or unfavorable opinions about psychology. To accurately assess attitudes toward psychologists, it is important to distinguish attitudes from knowledge about psychologists. Beutler and Bergan (1991) distinguish attitudes from factual knowledge by the presence of an evaluative component concerning the goodness or badness of the target of evaluation. It is still unclear whether accurate knowledge of psychologists’ training, credentialing, expertise, and activities is related to positive attitudes toward psychology.

Based on the above literature, it is clear that more research is needed to gain an understanding of the public image of psychology, while the practicality of such research is hampered by the lack of consistent measurement. Thus, the purpose of the present study was to develop a reliable and valid measurement of attitudes toward psychologists. The newly developed scale was designed to be internally consistent and reliable over time. In addition, the scale was expected to show convergent validity with other measures of attitudes toward psychologists and discriminant validity with factors such as
social desirability. The scale was also expected to show negative relationships with factors such as fear of therapists and unwillingness to talk to others about problems, and a positive relationship with knowledge of and contact with psychologists. A secondary purpose of the present study was to assess whether attitudes toward psychologists differed across racial/ethnic group or gender.
CHAPTER 2

LITERATURE REVIEW

The following literature review explores the help-seeking attitudes literature, a separate but related area of research from public attitudes toward psychologists. The use of consistent measurement of the help-seeking construct to look at relationships with other constructs and different attitudes among gender and race/ethnicity groups provides insight into directions for the development of public image research. The research hypotheses for the present study are reiterated in light of the help-seeking literature.

Help-seeking Literature

A highly related body of literature to public attitudes toward psychologists is the professional help-seeking attitudes literature. Help-seeking attitudes have been conceptualized as consisting of several variables, including recognition of need for psychological help, stigma tolerance, interpersonal openness, and confidence in mental health professionals (Fischer & Turner, 1972). A well-developed body of literature regarding help-seeking attitudes was spurred in part by the development of a valid and reliable instrument that measures help-seeking attitudes, the Attitudes Toward Seeking
Professional Psychological Help Scale (ATSPPH; Fischer & Turner, 1972). Although the scale designers envisioned the scale with subscales measuring variables such as recognition of need for psychological help, stigma tolerance, interpersonal openness, and confidence in mental health professionals, low reliability estimates and conflicting results for the factorial structure of the subscales led the researchers to recommend that researchers use the full scale as opposed to the subscales. In addition, a short form of the ATSPPH has been developed that also uses only a full scale score as a result (Fischer & Farina, 1995). Strengths of the scale include its inclusion of negatively worded items and research on its use with a wide variety of populations.

Of particular interest to measurement of attitudes toward psychology is the “confidence in mental health professionals” component of help seeking attitudes. Items from the ATSPPH assessing this component mainly concern faith, confidence, and comfort with seeing a mental health professional. The factor of “confidence in mental health professionals” seems logically similar to attitudes toward psychologists; thus, research regarding attitudes toward seeking professional psychological help may provide insight into future research regarding attitudes toward psychologists.

Attitudes toward seeking professional psychological help have been related to a number of variables. For example, attitudes toward seeking professional help as measured by the ATSPPH have been shown to reliably distinguish between those who had engaged professional psychological services and those who had no experiences with mental health professionals (Fischer & Turner, 1972). Researchers have related attitudes toward seeking professional psychological help to factors such as acculturation and social network orientation (how comfortable a person feels sharing personal information with
others) (Tata & Leong, 1994). In addition, fear of psychological treatment (Kushner & Sher, 1989), perception of social stigma (Martin, Wrisberg, Beitel, & Lounsburg, 1997), low socioeconomic status (Tessler & Swartz, 1972), low educational level (Leaf, Bruce, Tischler, & Holzer, 1987), discomfort with emotions, and lower psychological distress (Komiya, Good, & Sherrod, 2000) were associated with less positive attitudes toward seeking psychological help.

Most studies regarding help-seeking attitudes have found gender differences in attitudes toward seeking professional psychological help. Several researchers have found that women held more favorable attitudes toward professional help-seeking than men (Cohen, 1999; Fischer & Farina, 1995; Fischer & Turner, 1972; Leong & Zachar, 1999; Yeh & Wang, 2000). Tata & Leong (1994) found that Chinese American women held more favorable attitudes toward professional help-seeking in a student population, although other studies have found no gender differences among Asian American populations (Atkinson, Lowe, & Matthews, 1995). In a study of Chinese, Indian, Filipino, and Korean American university students, Yeh and Wang (2000) found that Asian American women had significantly more positive attitudes toward help-seeking than Asian American men.

Unlike the public image of psychology research, a great deal of the research regarding professional help-seeking attitudes has investigated these attitudes within ethnic-minority populations. Researchers note that ethnic-minority individuals tend to underutilize mental health services and that help-seeking behavior may be influenced by help-seeking attitudes (Tata & Leong, 1994). Hall and Tucker (1985) found no differences between Black and White groups’ attitudes toward seeking professional help.

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using the ATSPPH. Other researchers have found differences between African Americans and Caucasian populations’ attitudes toward seeking psychological help. For example, Martin, Wrisberg, Beitel, and Lounsbury (1997) found that both African Americans and men saw seeking psychological help as carrying more stigma than Caucasians and women in a sample of athletes regarding sports psychology consultants. Nickerson, Helms, and Terrell (1994) found that higher values of cultural mistrust in African American students predicted negative professional help-seeking attitudes. The researchers concluded that African American students may be more mistrusting of Whites and see White counselors as less credible while at the same time perceiving that the majority of mental health professionals are White (Nickerson, Helms, & Terrell, 1994). Delphin and Rollock (1995) found that African American students who held stronger Immersion/Emersion attitudes (embracing African American culture while rejecting White culture) had less favorable attitudes toward seeking psychological help. In addition, Alvidrez (1999) found that European American women were more likely to have attitudes that led to the utilization of mental health services than African American or Latina women.

Authors have suggested that Asian American cultural values conflict with the values of counseling, thus negatively influencing help-seeking attitudes and behavior (Atkinson, Lowe, & Matthews, 1995). For example, Yeh and Wang (2000) found that Asian American university students had negative attitudes toward seeking psychological help, with no significant differences in attitudes toward help-seeking among Chinese, Indian, Korean, or Filipino Americans. Tata & Leong (1994) found that more acculturated Chinese American students had more positive attitudes toward seeking
psychological help. With regards to group counseling, researchers found that Asian Americans who were integrationists (those who valued both their Asian culture and their American culture) had the most positive attitudes toward group counseling (Leong, Wagner, & Kim, 1995). A surprising result was that participants’ assimilation status (valuing American culture and rejecting Asian culture) did not predict positive attitudes toward group counseling (Leong, Wagner, & Kim, 1995). Furnham & Andrew (1996) found no differences between Asian and Caucasian British participants on attitudes towards seeking psychological help. The researchers did find that the length of time Asian-British participants had lived in Britain was related to help-seeking attitudes; those who had lived in Britain less time (a possible indicator of acculturation level) had more positive attitudes toward seeking psychological help. Other researchers have found no relationship between acculturation and attitudes toward help seeking among Asian Americans when variables such as income and previous counseling experience are controlled (Atkinson, Lowe, & Matthews, 1995).

The help-seeking attitudes literature provides several important implications for measuring attitudes toward psychologists. First, the abundance of literature concerning the relationship of help-seeking attitudes to other variables highlights the importance of good measurement to the generation of research. Second, the help-seeking attitudes literature provides an example of the importance of research with racial-ethnic minority populations. Third, because attitudes about therapist credibility are hypothesized to be a subfactor of help-seeking attitudes, the help-seeking attitudes literature provides important directions for research on the public image of psychology. For example, the
demonstrated relationships between help-seeking attitudes and other variables such as fear of therapy and network orientation should be similar to relationships between these variables and attitudes toward psychologists.

Limitations of the help-seeking attitudes literature include the lack of reliable measurement of the subfactors hypothesized to make up help-seeking attitudes. Because the ATSPPH is recommended for use as a single-factor instrument, its applications are limited. When researchers find a relationship between help-seeking attitudes and variables such as cultural mistrust, for example, it is difficult to know which part of help-seeking attitudes is related to cultural mistrust. One can hypothesize that clients may see therapists as coming from a mostly White viewpoint, and thus cultural mistrust leads to decreased therapist credibility rather than an increase in stigmatization, for example. Without the ability of the ATSPPH to measure such distinctions, however, there is no way of knowing clearly how constructs are related to the more specific variables the ATSPPH attempts to measure. Without such specificity, it is difficult to target efforts to educate and change help-seeking attitudes.

Summary and Implications

The research on both the public image of psychology and help-seeking attitudes points to the need for a reliable and valid measurement of attitudes toward psychologists. The long history of research concerning the public image of psychology has tended to use diverse methodologies and measures that make results confusing to interpret. Although the body of literature concerning the public image of psychology suggests that the public sees psychology in a positive light, some research still highlights specific examples of
negative attitudes toward psychologists. In addition, little is known about the relationship between knowledge about psychologists (education required, job description, etc.) and attitudes toward psychologists. Lastly, based on the above literature review, no researchers have addressed the public image of psychologists with ethnic-minority populations.

The help-seeking attitudes literature suggests that good instrumentation can allow for clearer and more organized bodies of research. In addition, the development of an attitudes toward psychologists scale should provide more specific measurement of a variable affecting help-seeking behavior that is easier to address with practical interventions.

Research Aims and Hypotheses

Based on the above literature review, it is clear that research concerning attitudes toward psychologists is important to understanding the utilization of mental health services and funding for research; yet, such research is hampered by the lack of a reliable and valid instrument to operationalize the construct. Thus, the purpose of the present study was to develop a new instrument measuring attitudes toward psychologists. Past researchers have highlighted the need for measures of public image of psychologists to address particular key areas. The scale should operationalize attitudes toward psychologists as including both the scientist and practitioner roles of practicing psychologists (Webb & Speer, 1986). As a measure of attitudes, the instrument should include items that reflect affective, cognitive, and behavioral aspects of attitudes (Montin, 1995). In addition, items should reflect attitudes regarding psychologist’s credibility,
attractiveness, and trustworthiness in congruence with research on counselors’ social influence in therapy (Wong, 1994). Past research within the social influence area has investigated attitudes toward psychologists by clients in actual therapy relationships or in analogue studies (Corrigan, Dell, Lewis, & Schmidt, 1980; Heppner & Claiborn, 1989); it is reasonable to assume similar attitudes may be pertinent to general attitudes toward psychologists.

Items reflecting attitudes regarding psychologists’ expertise and ability to work with cultural groups should also be incorporated into the scale, as well as perceptions of psychologists’ tendencies to cross ethical barriers such as confidentiality and dual role relationships (Bram, 1997; Martin, et al., 1997). Items should be both negatively and positively worded to avoid biased response sets. The purpose of developing the scale is to measure the unitary construct of attitudes toward psychologists, positive or negative; thus, specific subscales were not hypothesized a priori. Items representing the full range of the construct as defined above should be included in the initial development of the scale, and factor analysis should be employed to determine if items fall into subcategories of attitudes toward psychologists.

The newly developed scale should be developed to be both internally consistent and reliable over time to be of utility in research. In addition, the scale should show convergent validity with other scales measuring constructs similar to attitudes toward psychologists. Positive attitudes on the scale should be negatively correlated with variables such as fear of therapists and a negative social network orientation. In addition, attitudes toward psychologists should not be correlated with social desirability.
The scale should also show good construct validity, with participants who have had direct or vicarious contact with psychologists having more positive attitudes toward psychologists. It is hypothesized that knowledge about psychologists will be positively correlated with positive attitudes toward psychologists as measured by the newly developed scale (See Figure 2.1). Lastly, it is hypothesized that African American and Asian American participants will have more negative attitudes toward psychologists than European American participants, and females will have more positive attitudes toward psychologists than males.
CHAPTER 3

METHOD

Instrument Development

Items were generated based on the following definition of “attitudes toward psychologists” compiled from several different sources (Bram, 1997; Martin, et al., 1997; Montin, 1995; Webb & Speer, 1986; Wong, 1994):

Attitudes toward psychologists include feelings, thoughts, and behaviors that individuals have toward psychologists that are evaluative in nature. Attitudes are positive or negative in nature rather than right or wrong (as opposed to factual knowledge about psychologists). Attitudes toward psychologists include attitudes regarding psychologists’ credibility, competence, trustworthiness, attractiveness, and usefulness. Attitudes regarding psychologists’ expertise and ability to work with cultural groups is an important part of the construct, as well as attitudes concerning psychologists’ ethicality. Attitudes toward psychologists include attitudes toward both the scientist and practitioner roles of psychologists, although not an emphasis on pure research psychologists.

Additional items were initially drawn from past instruments looking at help-seeking attitudes (ATSPPH; Fischer & Turner, 1972), instruments assessing social influence aspects of counselors (Counselor Rating Form-Short (CRF-S); Corrigan & Schmidt, 1983), and various questions drawn from past public image surveys of psychologists. Items from both the ATSPPH and the CRF-S were chosen as instruments from which to draw items due to their known validity and reliability in measuring attitudes regarding
therapist credibility, and reactions to particular therapists in terms of expertise, attractiveness, and trustworthiness. Other items were drawn from various other public image surveys or created to represent areas including ethicality and cultural mistrust. From these sources, a total of 114 items were initially generated. Fifty of the original 114 items were negatively worded so as to avoid response set biases. Efforts were made to keep items brief, simple, and within an 8th grade reading level, based on a syllable to sentence length criterion (DeVellis, 1991). The response scale chosen for the inventory was a 5-point Likert Scale anchored by the terms Strongly Disagree and Strongly Agree with a neutral point (Neither Agree or Disagree). The response scale was chosen on the basis of research indicating that five to seven response alternatives are optimal (Betz, 1996). A neutral point was included based on the idea that persons can in fact have 1) neither a positive or negative attitude, 2) a non-attitude, or 3) an ambivalent attitude (Eagly & Chaiken, 1993).

In accordance with procedures for ensuring content validity (Haynes, Richard, & Kubany, 1995), an expert panel with members diverse across race/ethnicity and gender and consisting of psychologists and graduate students in psychology reviewed items for relevance to the construct, clarity, and redundancy. The rating panel included 3 males and 7 females; two members were African American, one member was Asian American, one member was Latino/Latina, and six members were Caucasian. The experts rated each item on clarity using a 5-point scale that ranged from 1 (very confusing) to 5 (very clear), and relevance to the construct using a 5-point scale that ranged from 1 (not important) to 5 (important). In addition, experts identified item pairs that they felt reflected redundancy. Twenty-six items were eliminated based on low ratings for
relevance to the construct. Six items were eliminated on the basis of being redundant with other items. Lastly, the response scale for the instrument was evaluated by the ratings panel on a 5-point scale ranging from 1 (inappropriate) to 5 (appropriate) and the instructions were evaluated on clarity on a 5-point scale ranging from 1 (very confusing) to 5 (very clear). The mean for appropriateness of the ratings scale was 4.9 and the mean for clarity of the directions was 4.9.

In addition, a focus group consisting of five members from the original ratings panel met to help refine items. The directions for the instrument were slightly reworded to improve clarity. Twenty-seven items were reworded to improve clarity, and five new items were generated by the focus group. Thus, after the ratings panel and focus group, there were a total of 87 items in the Attitudes Toward Psychologists Inventory; this was the scale administered to the sample as part of the questionnaire (see Appendix A).

After data collection, items were eliminated based item-total correlations, using an elimination criterion of $r < .50$ item-total correlation. In general, an item-total correlation of $r = .30$ is seen as an adequate item-total correlation in scale construction procedures (Betz, 1996). However, given that only seven items out the original scale had an item-total correlation below $r = .30$, the more stringent criterion of $r < .50$ was used to eliminate 58 items. Of the remaining 29 items, three additional items were eliminated based on correlations with social desirability (as measured by the Balanced Inventory of Desirable Responding) above $r = .20$. Thus, the final version of the scale consists of 26 items (see Table 3.1).
<table>
<thead>
<tr>
<th>Item</th>
<th>Factor loadings</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Psychologists provide valuable services to the community.</td>
<td>.561</td>
<td>3.81</td>
<td>.73</td>
</tr>
<tr>
<td>2. You can trust a psychologist to keep your problems confidential.</td>
<td>.523</td>
<td>3.74</td>
<td>.94</td>
</tr>
<tr>
<td>3. Psychologists keep their clients’ personal information private.</td>
<td>.560</td>
<td>3.81</td>
<td>.83</td>
</tr>
<tr>
<td>4. Psychologists respect people from other cultures.</td>
<td>.541</td>
<td>3.75</td>
<td>.74</td>
</tr>
<tr>
<td>5. Talking to a psychologist could help a person to better understand herself/himself.</td>
<td>.590</td>
<td>3.73</td>
<td>.78</td>
</tr>
<tr>
<td>6. Psychologists can help people feel better.</td>
<td>.648</td>
<td>3.87</td>
<td>.71</td>
</tr>
<tr>
<td>7. Psychologists do more harm than good. (R)</td>
<td>.544</td>
<td>3.61</td>
<td>.83</td>
</tr>
<tr>
<td>8. Psychologists are honest.</td>
<td>.587</td>
<td>3.31</td>
<td>.78</td>
</tr>
<tr>
<td>9. I think psychologists are cold and impersonal. (R)</td>
<td>.469</td>
<td>3.58</td>
<td>.78</td>
</tr>
<tr>
<td>10. I think talking with a psychologist is a poor way to solve problems. (R)</td>
<td>.627</td>
<td>3.57</td>
<td>.90</td>
</tr>
<tr>
<td>11. Psychologists are reliable.</td>
<td>.595</td>
<td>3.47</td>
<td>.68</td>
</tr>
<tr>
<td>12. I would consult a psychologist if I had problem I couldn’t resolve on my own.</td>
<td>.522</td>
<td>3.10</td>
<td>1.02</td>
</tr>
<tr>
<td>13. If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief by talking to a psychologist.</td>
<td>.554</td>
<td>3.30</td>
<td>1.02</td>
</tr>
</tbody>
</table>

Table 3.1: Attitudes Toward Psychologists Inventory
Table 3.1 Continued

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14. Psychologists are needed by the community.</td>
<td>.570</td>
<td>3.71</td>
</tr>
<tr>
<td>15. Psychologists can be trusted to do ethical research.</td>
<td>.540</td>
<td>3.53</td>
</tr>
<tr>
<td>16. Psychologists effectively help clients resolve their problems.</td>
<td>.581</td>
<td>3.57</td>
</tr>
<tr>
<td>17. You can trust a psychologist.</td>
<td>.655</td>
<td>3.47</td>
</tr>
<tr>
<td>18. Psychologists are professional.</td>
<td>.567</td>
<td>3.01</td>
</tr>
<tr>
<td>19. Psychologists provide useful advice.</td>
<td>.682</td>
<td>3.76</td>
</tr>
<tr>
<td>20. I could discuss personal matters with a psychologist.</td>
<td>.564</td>
<td>3.32</td>
</tr>
<tr>
<td>21. I worry that a psychologist would discriminate against someone like me. (R)</td>
<td>.448</td>
<td>3.87</td>
</tr>
<tr>
<td>22. Psychologists conduct research that benefits the community.</td>
<td>.653</td>
<td>3.67</td>
</tr>
<tr>
<td>23. Psychologists conduct research that produces valuable knowledge.</td>
<td>.667</td>
<td>3.74</td>
</tr>
<tr>
<td>24. I feel that psychologists are knowledgeable about people from different cultures.</td>
<td>.511</td>
<td>3.40</td>
</tr>
<tr>
<td>25. I doubt a psychologist would be able to address my problem. (R)</td>
<td>.533</td>
<td>3.51</td>
</tr>
<tr>
<td>26. I do not have much faith in psychologists. (R)</td>
<td>.586</td>
<td>3.35</td>
</tr>
</tbody>
</table>

Note. Items followed by the symbol (R) have been reverse scored. Analysis is based on 416 observations. ATPI responses range from 1 to 5. Total ATPI scores range from 26 to 130. ATPI= Attitudes Toward Psychologists Inventory.
Participants

Participants included 416 undergraduate students enrolled in an introductory psychology course at a large midwestern university. The sample size was chosen to allow for adequate power to perform factor analysis of the newly developed instrument, based on the heuristic that 10 participants per item in the final scale is adequate and an estimation of a maximum total of 40 items in the final scale (Tinsley & Tinsley, 1987). The sample size falls in the good to very good range for factor analysis according to Comrey (1973). Although using a university sample limits the generalizability (external validity) of the instrument, prior studies using a wider sample have continued to overrepresent European Americans with high socioeconomic status and high educational levels (Farberman, 1997; Richardson & Handal, 1995; Turner & Quinn, 1999). Use of the university sample was chosen particularly with the purpose of ensuring a wider representation of ethnic-minority participants to give the scale better external validity with such populations.¹ As such, an effort was made to recruit ethnic-minority participants, particularly African American and Asian American participants, in order to

¹ Much has been written about the potential problems in using university samples in psychological research (Baynard & Hunt, 2000; Brown & Brown, 1993; Roberts, Scott, & Baluch, 1993). However, much of the criticism involves researchers who generalize their research to a population outside the university sample without conducting further study with a wider sample. Several researchers argue for the usefulness of college student participants in research, particularly in testing hypotheses before using a wider sample (Byrne, Griffith, Hudgins, & Reeves, 1969; Greenberg, 1987; Kimble, 1987). With regards to the current research, Wong (1994) notes that “college student samples are generalizable to at least some other adult populations” in regards to attitudes toward psychology given her findings that student attitudes and nonfaculty university staff held similar attitudes about psychotherapy (p. 631). In addition, Devellis (1991) notes that although scale development with a limited population may produce an inaccurate picture of scale means, internal consistency estimates may still be accurate. Importantly, generalizability of the current instrument that is being developed with college students should not be assumed but rather demonstrated in future empirical research before the results are applied to such populations.
conduct comparisons between cultural groups and verify the instrument’s use with
different populations. Based on an alpha of .01 and an estimate of medium effect sizes for
gender and ethnicity, it was determined that 32 participants were needed in each cell to
maintain adequate power (.80). Thus, a sample of at least 32 participants from each
group (Gender X Racial/Ethnic Group) was recruited to ensure adequate power for the
Gender X Racial/Ethnic Group ANOVA comparisons.

The final sample consisted of 247 (59.4%) females and 169 (40.6%) males (see
Table 3.2). Participants ranged in age from 17 to 43, with a mean age of 18.86.
Approximately one-half of the participants were White (n = 191; 45.9%), including 113
females and 78 males. Around one quarter of the participants were African American (n
= 112; 26.9%), including 71 females and 41 males. One fifth of the participants were
Asian American (n = 86; 20.9%), including 43 females and 43 males. The remaining
participants identified as biracial (n = 9; 2.2%), Latina/Latino (n = 5; 1.2%), Native
American (n = 2; 0.5%), or an unspecified racial/ethnic classification (n = 11; 2.6%).

Participants ranged in education levels from having completed 10-11 years of
high school to having a master’s or professional degree. Approximately 75% of the
participants were first or second year undergraduates. Ninety-seven percent of
participants identified themselves as single, and 97% identified themselves as
heterosexual. The average socioeconomic status of participants’ families fell in the
“$45,000-59,999 per year” range. Approximately one-fifth of the sample (n = 82; 19.7%)
reported not living in the United States at one point during their life; of these participants,
62.2% (n = 51) identified themselves as Asian American.
Summary of Demographic Characteristics of the Sample (N = 416)

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>112</td>
<td>27</td>
</tr>
<tr>
<td>Asian American</td>
<td>86</td>
<td>21</td>
</tr>
<tr>
<td>European American</td>
<td>191</td>
<td>46</td>
</tr>
<tr>
<td>Biracial</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Latino/Latina</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Native American</td>
<td>2</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Other</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>416</td>
<td>100</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>247</td>
<td>59</td>
</tr>
<tr>
<td>Male</td>
<td>169</td>
<td>41</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>416</td>
<td>100</td>
</tr>
<tr>
<td><strong>Family Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under $15,000</td>
<td>34</td>
<td>8</td>
</tr>
<tr>
<td>$15,000-$29,999</td>
<td>52</td>
<td>13</td>
</tr>
<tr>
<td>$30,000-$44,999</td>
<td>66</td>
<td>16</td>
</tr>
<tr>
<td>$45,000-$59,999</td>
<td>68</td>
<td>16</td>
</tr>
<tr>
<td>$60,000-$99,999</td>
<td>110</td>
<td>26</td>
</tr>
<tr>
<td>$100,000+</td>
<td>86</td>
<td>21</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>416</td>
<td>100</td>
</tr>
<tr>
<td><strong>Citizenship</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>82 out of 416(20%) reported not living in the United States at one time in their life.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>403</td>
<td>97</td>
</tr>
<tr>
<td>Married/Partnered</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Separated</td>
<td>1</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Divorced</td>
<td>3</td>
<td>&lt;1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>416</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 3.2: Demographic Information
### Table 3.2 Continued

Summary of Demographic Characteristics of the Sample (N = 416)

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Highest Education Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10-11 years (some high school)</td>
<td>2</td>
<td>&lt;1</td>
</tr>
<tr>
<td>12 years (high school degree)</td>
<td>190</td>
<td>46</td>
</tr>
<tr>
<td>13-14 years (junior college)</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>First year undergraduate</td>
<td>125</td>
<td>30</td>
</tr>
<tr>
<td>Second year undergraduate</td>
<td>38</td>
<td>9</td>
</tr>
<tr>
<td>Third year undergraduate</td>
<td>25</td>
<td>6</td>
</tr>
<tr>
<td>Fourth year undergraduate</td>
<td>3</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Fifth year undergraduate</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Master’s degree</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Professional degree</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>414*</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Sexual Orientation</strong></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Heterosexual</td>
<td>403</td>
<td>97</td>
</tr>
<tr>
<td>Lesbian/gay</td>
<td>2</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Bisexual</td>
<td>4</td>
<td>1</td>
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<tr>
<td>Other</td>
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<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>415*</td>
<td>100</td>
</tr>
</tbody>
</table>

*indicates that not all participants responded to the question and were assigned missing values.
A subsample of 72 participants from the main sample completed the instrument after a three-week interval to assess test-retest reliability. Participants for the test-retest study were recruited separately from the main sample and told that they would complete the questionnaire packet during their initial appointment and return to the same location at the same time in exactly three weeks to complete the second set of questionnaires. Each participant received a reminder call of their retest appointment date and time. An effort was made to represent gender and race/ethnicity participants in proportion to their representation in the full study. The sample included 45 females (62.5%) and 27 males (37.5%). Forty-two (58.3%) members of the sample identified their race as White, and 19 (26.4%) participants identified as African American. The remaining participants identified as Asian American (9.7%), Biracial (2.8%), or marked the “Other” category (2.8%). The majority of the participants (77.8%) were either first year or second year undergraduates.

Participants were recruited on a voluntary basis through an optional research experience program for which students received course credit.

**Instruments**

**Attitudes toward psychologists.** Attitudes toward psychologists were assessed through three different measures: a new instrument designed to measure attitudes toward psychologists, the Confidence in Mental Health Professionals subscale and full scale of the Attitudes Toward Seeking Psychological Professional Help Scale (ATSPPH; Fischer & Turner, 1972), and the Perceptions of Psychotherapy and Psychotherapists Rating Scale (PPPRS; Bram, 1997).
First, attitudes toward psychologists were assessed through the new instrument designed through this research. The Attitudes Toward Psychologists Inventory (ATPI) was administered with 87 items, with the intention of generating a large item pool for further reduction after data collection. The items were selected based on a definition of attitudes toward psychologist as affective, cognitive, and behavioral evaluative beliefs (see "Instrument Development" above). The response scale was a 5-point Likert scale with alternatives ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Although the original pool of items had a roughly equal number of positively and negatively worded items, more negatively worded items were eliminated during the item-total correlation analysis. The final scale after development consisted of 26 items, of which 6 are negatively worded.

Secondly, attitudes toward psychologists were assessed through the Confidence in Mental Health Practitioners subscale of the Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPH; Fischer & Turner, 1972). The ATSPPH is a 29-item scale with a four-point Likert response format [Agree (3), Partly Agree (2), Partly Disagree (1), Disagree (0)]. Negative items are reversed scored; thus, scores theoretically range from 0 to 87, with higher scores indicating more positive attitudes toward help seeking. The total scale has shown high reliability, with an internal consistency coefficient of .83 for the total scale and test-retest reliability correlation of .89 for a four-week interval (Fischer & Turner, 1972). Initial factor analysis produced four subscales including Recognition of Personal Need, Stigma Tolerance, Interpersonal Openness, and Confidence in Mental Health Practitioners. The only subscale utilized in the current study was Confidence in Mental Health Practitioners, measured by nine items.
(e.g., “I would rather be advised by a close friend than a psychologist, even for an emotional problem”). Internal consistency estimates for the Confidence in Mental Health Practitioners subscale is in the fair range (α = .74). The ability of the ATSPPH to distinguish between individuals who have sought help and those without contact with a professional provides evidence for scale validity (Fisher & Turner, 1972). The ATSPPH was used as a measure of construct validity of the ATPI. ATSPPH total scores should be positively correlated with ATPI scores. In particular, the Confidence subscale should be positively correlated with the ATPI as evidence of convergent validity. Although the authors recommended that the ATSPPH be used as single-factor measure, because of the particular relevance to attitudes toward psychologists, the Confidence in Mental Health Practitioners subscale was used to assess convergent validity for the ATPI. Items were modified from the original scale to reflect non-sexist language and more current terminology (i.e., “psychologist” vs. “psychiatrist”, “his/her” vs. “his”, etc.) following the procedures outlined by Tata and Leong (1994).

In the present study, internal consistency coefficients were .84 for the ATSPPH full scale and .74 for the confidence subscale in the full sample (N = 416). At retest, the internal consistency coefficients were .84 for the full scale and .63 for the Confidence subscale (n = 72). Test-retest reliability correlations were r = .74 for the ATSPPH full scale and r = .62 for the Confidence subscale (n = 72) (see Table 3.3).

A third measure of attitudes toward psychologists was the Perceptions of Psychotherapy and Psychotherapists Rating Scale (PPPRS; Bram, 1997). The PPPRS consists of 19 items that measure perceptions of the characteristics of therapists, the characteristics of therapy, characteristics of clients, and common myths about
<table>
<thead>
<tr>
<th>Instrument</th>
<th>Number of items</th>
<th>Test-retest correlation</th>
<th>Internal consistency (full sample)</th>
<th>Internal consistency (retest)</th>
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<td>10</td>
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<tr>
<td>Contact with Psychologists</td>
<td>10</td>
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</tbody>
</table>

Table 3.3: Internal consistency and test-retest reliability for scale
psychotherapy and psychotherapists (e.g., “Most psychotherapists ask clients about their dreams”). Items are rated on a six-point scale ranging from 1 (Strongly Disagree) to 6 (Strongly Agree), with higher scores indicating more negative and/or stereotypic beliefs about therapists. Factor analysis revealed three underlying factors including Therapy and/or Therapist as Threatening, Powerful Therapist and Dependent Client, and Stereotypic Beliefs. Internal consistency coefficients for the three subscales were as follows: Therapy/Therapist as Threatening (.74), Powerful Therapist and Dependent Client (.65) and Stereotypic Beliefs (.65). Overall internal consistency and test-retest reliability estimates were not reported. The PPPRS was used as a global measure of stereotypic beliefs toward psychologists due to the narrowness of the constructs measured by the subscales. Validity for the scale as a measure of attitudes toward therapists is indicated by evidence that participants who reported having positive therapy experiences had significantly less hostile perceptions of therapists and/or therapy than those participants who had never participated in therapy (Bram, 1997).

In the present study, the internal consistency coefficient was .85 for the full sample (N= 416). In the retest sample, internal consistency for the scale was .86 (n=72). Test-retest reliability correlation was .54 (n =72) for a three-week interval.

**Fear of psychological treatment.** The Thoughts about Psychotherapy Survey (TAPS) was used as a measure of fear of psychological treatment (Kushner & Sher, 1989). The scale is a 19-item measure with a five-point Likert-type response scale ranging from 1 (no concern) to 5 (very concerned). Items are totaled so that higher scores indicate more fearful thoughts about psychotherapy (e.g., “Whether I’ll be treated
as a person in therapy"). Kushner and Sher (1989) postulate that fear of psychological

treatment includes fears about therapist responsiveness, fears about being coerced, and
fears about how being in therapy will be seen by others.

Past research shows high internal consistency coefficients for the instrument
(alphas ranging from .87-.92). Evidence for construct validity includes the ability of the
TAPS to distinguish between students about to enter into psychological treatment and
students who were not seeking such services (Kushner & Sher, 1989). In addition, less
fear about therapist responsiveness was associated with past therapy experience (Kushner
& Sher, 1989).

In the present study, internal consistency coefficients were .91 in the full sample
(N = 416) and .89 for the retest sample (n = 72). The test-retest correlation for the TAPS
for a three-week interval was .64.

Network orientation. The construct of network orientation was measured by the
Network Orientation Scale (NOS; Vaux, 1985). Network orientation as measured by the
NOS concerns people’s feelings about the advisability of seeking help, past help-seeking
behavior, and the extent to which they feel they can trust others (e.g., “You have to be
careful to whom you tell personal things”). The scale has a four-point Likert response
format, with responses ranging from 1 (strongly agree) to 4 (strongly disagree). Positive
items are reverse-scored so that higher scores indicate a more negative social network
orientation. The scale consists of 20 items. Vaux, Burda, & Stewart (1986) assessed
reliability and validity of the NOS with five samples of different ethnic and cultural
groups. The scale’s relationship to personality variables and social support provide
information about criterion validity for the scale; for example, participants with a more
negative network orientation are less likely to seek social support in times of crisis (Vaux, 1985). Internal consistency coefficients for the full scale ranged from .74 to .88 in past research (Vaux, Burda, & Stewart, 1986).

In the present study, internal consistency coefficients were .78 for the full sample (N = 416) and .63 at retest for the retest subsample (n = 72). The correlation between the scale totals at a three-week interval was .62, indicating test-retest reliability.

**Social desirability.** Respondents’ tendency to respond to items in a social desirable manner was measured by the Balanced Inventory of Desirable Responding, Version 6 (BIDR; Paulhus, 1991). The BIDR is a 40-item scale that measures the tendency to give self-reports that are honest but positively biased and to deliberately self-present in a positive manner. The BIDR was chosen as a measure of social desirable responding as opposed to other measures of social desirability (i.e., the Marlowe-Crowne Scale) because of its ability to separate the two most common factors found in social desirability measures: namely, self-deceptive positivity (honest but overly positive self-presentation) and impression management (deliberately answering in a manner to present a positive social image; Paulhus, 1991). The scale thus has two subscales labeled Self-Deception (SDE) and Impression Management (IM). Items are rated on a 7-point scale ranging from 1 (not true) to 7 (very true). Only extreme desirable responses (responses of 6 or 7) are scored, thus providing support that style rather than content is being measured, another advantage of the BIDR over other social desirability measures. The Self-Deception subscale consists of 20 items (e.g., “I never regret my decisions”), and the Impression Management scale consists of 20 items (e.g., “I have never dropped litter on the street”).
Paulhus (1991) found an internal consistency coefficient of .83 for the total BIDR scale when used as measure of social desirability. In past research, internal consistency coefficients for the subscales have ranged from .68 to .80 for Self-Deception and from .75 to .86 for Impression Management. Test-retest reliability correlations for a three-month period ranged from .65-.69. Concurrent validity for the BIDR has been demonstrated by a .71 correlation with the Marlowe-Crowne social desirability scale (Paulhus, 1988).

In the current study, the internal consistency coefficient for the BIDR full scale was .80; the coefficient alphas for the SDE subscale and IM subscale were .76 and .74, respectively (N =416). At retest, the internal consistency coefficients were .84, .76, and .80 for the full scale, SDE subscale, and IM subscale, respectively. Test-retest reliability for the full scale was $r = .82$ (n = 72) for a three-week interval. Test-retest reliability correlations for the subscales were $r = .76$ for the SDE subscale and $r = .82$ for the IM subscale.

**Knowledge About Psychologists.** A questionnaire was developed for the present study to assess factual knowledge regarding the education, training, income, and job activities of psychologists (see Appendix A for a full copy of the questionnaire). The questionnaire consists of 10 items with no evaluative content. The format of the items are multiple choice and true/false (e.g., “There is essentially no difference between a psychiatrist and a psychologist (True/False).” The content of the items was drawn from The Encyclopedia of Careers and Vocational Guidance (Cosgrove & Taggart, 1997), The Ethical Principles of Psychologists and Code of Conduct (American Psychological Association, 1992), and APA Monitor (Johnson, 2001). Specifically, The Encyclopedia
of Careers and Vocational Guidance specifies that the doctoral degree (Ph.D. or Psy.D.)
is generally required to become a psychologist, that the average psychologist makes
$65,000 annually, and that psychologists are scientists who may teach at universities and
who differ from psychiatrists in terms of medical training and ability to prescribe
medications. According to the APA Monitor (2001), the average amount of time to
complete a doctoral degree for psychologists who are mental health providers is six years.
As of 1998, 47.7% of the overall APA membership were women (APA, 2000). APA’s
Ethical Principles (1992) indicate that sexual/romantic relationships with current clients
are prohibited, and relationships with former clients are prohibited for at least two years
and even then are allowed only under unusual circumstances. The knowledge about
psychologists questionnaire was scored so that all correct answers were given one point,
and the sum of correct answers was then totaled. The range of scores for the instrument
was thus 0 to 10. Internal consistency for the Knowledge questionnaire was .31; test-
retest reliability was $r = .40$.

**Demographic questionnaire.** A demographic questionnaire assessed gender, age,
ethnic minority status, sexual orientation, marital status, socio-economic status,
education, and citizenship (see Appendix A).

**Contact with psychologists.** Both direct contact with psychologists and vicarious
experiences were assessed through a questionnaire developed for this study (see
Appendix A). Direct contact with psychologists was assessed through questions
regarding the number of therapists seen, length of treatment, satisfaction with services,
and time elapsed since treatment. Vicarious experience was assessed through asking
respondents to report the number of people they know who have seen a psychologist and
whether people have reported positive or negative experiences. Score totals were calculated by coding increased experience and satisfaction more positively and adding the 10 scores, resulting in scale totals that ranged from 0 to 36. Internal consistency for the Contact Questionnaire was .87, and test-retest reliability was .90.

**Procedure**

The instrument packet included the demographic questionnaire, the 87-item Attitudes Toward Psychologists Inventory, the Thoughts About Psychotherapy Survey, the Network Orientation Scale, the Balanced Inventory of Desirable Responding, the Attitudes Toward Seeking Professional Psychological Help Scale, the Perceptions of Psychotherapy and Psychotherapists Rating Scale, contact questionnaire, and knowledge questionnaire, respectively. The new scale measuring attitudes toward psychologists was placed at the beginning of the questionnaire packet because the major purpose of the study was to develop a new scale and evaluate its reliability and validity as an assessment of attitudes toward psychologists. The ATSPPH was placed toward the end of the packet because some of the items overlapped with the ATPI. The TAPS, NOS, and BIDR were randomly interspersed between the ATPI and the ATSPPH to provide variety for the participant. The PPTRS was placed after the ATSPPH because of its mixture of knowledge and attitudes items. Possible predictors of attitudes toward psychologists including knowledge of psychologists, therapy experience, and vicarious contact with psychologists, were included at the end of the packet to avoid confusion between attitude scales and those assessing actual knowledge and experiences.
Before the beginning of data collection, the instrument packet was administered to a pilot group of eight undergraduates. The average time to complete the questionnaire was 40 minutes; members of the pilot group reported being able to follow the directions clearly and complete the questionnaire without fatigue in a post-questionnaire interview.

The 242-item instrument packet was then administered to 416 participants enrolled in an introductory psychology class in groups of 10 to 40. After a three-week interval, the questionnaire was readministered to a subset of 72 participants, representative of ethnic minority groups and gender, to assess test-retest reliability. Participants were thoroughly debriefed concerning the nature of the study, given an opportunity to obtain results of the study, and given references for counseling services (see Appendix B). A proposal of the above study was reviewed by the Institutional Review Board at the Ohio State University.

**Analyses of Data**

Means and standard deviations were computed for each scale. Additionally, a 2 X 3 ANOVA and Scheffe post-hoc analyses were conducted to look at possible gender and race/ethnicity differences in attitudes toward psychologists using the newly developed 26-item scale.

Scale reliability for the newly developed scale was assessed by calculating internal consistency coefficients for the full scale; internal consistency coefficients for other scales utilized in the study were also calculated. In addition, correlations between
scores on the newly developed scale taken by the same participants over a three-week period were calculated to assess reliability of the scale over time; three-week test-retest reliability correlations were also calculated for the other scales used in the study. Furthermore, exploratory factor analysis of the new instrument was undertaken to determine whether attitudes toward psychologists as measured by the new scale was a single or multiple factor construct. No specific subcategories of attitudes toward psychologists were hypothesized a priori, and it was hypothesized that the instrument would measure a global construct of positive or negative attitudes toward psychologists.

Convergent validity was assessed by computing correlations of the new scale with the Confidence subscale of the ATSPPH and the PPPRS. Specifically, it was expected that positive attitudes toward psychologists would be positively associated with positive attitudes about therapist credibility. Positive attitudes toward psychologists were also expected to be positively related to holding fewer stereotypic and/or negative beliefs about therapists. Construct and discriminant validity was assessed by looking at correlations of the new scale with the full ATSPPH scale, NOS, TAPS, and social desirability as measured by the BIDR. Specifically, positive attitudes toward psychologists were expected to be positively related to more positive attitudes toward seeking professional psychological help. Positive attitudes toward psychologists were also hypothesized to be negatively related to a negative network orientation and fears about therapy. In addition, attitudes toward psychologists were not expected to be related to socially desirable responding. Construct validity was assessed by correlational analysis of the relationship between attitudes toward psychologists as measured by the new scale and knowledge of psychologists and contact with psychologists. Specifically,
positive attitudes toward psychologists were hypothesized to be related to positive contact with psychologists, both direct and vicarious. Knowledge of psychologists (including knowledge of education, training, tasks, and ethical boundaries) was postulated to have a positive relationship with positive attitudes toward psychologists. Given the number of correlational comparisons and the potential for family-wise error, an alpha level of .01 was adopted to minimize Type I error.

Because the sample was limited to introductory psychology students, means on each of the scales were interpreted within that population. The validity of the scale for use with other populations outside the college student population will need to be addressed in future research before the scale can be used with such populations.
CHAPTER 4

RESULTS

This study was designed to test the reliability, validity, and factor structure of a new instrument measuring attitudes toward psychologists. Both descriptive data and the results of the factor analysis will be provided. The relationship of attitudes toward psychologists and other variables will be explored. In addition, a secondary goal was to look at differences in attitudes toward psychologists according to gender and race/ethnicity; thus an analysis of variance of Gender X Racial/Ethnic Group will be presented.

Descriptive Data

Internal consistency coefficients for each scale and test-retest reliability correlations were calculated for each scale (see Table 3.3). In general, each of the full scales showed good internal consistency (alpha coefficients greater than .70) with the exception of the Knowledge About Psychologists Questionnaire (alpha = .31). Test-retest reliability for a three week interval showed four of the eight scales in the study had good reliability over time (above $r = .70$). The Perceptions of Psychotherapy and
Psychotherapists Ratings Scale, Thoughts About Psychotherapy Survey, and knowledge questionnaire had poor test-retest reliability. The Confidence in Mental Health Practitioners subscale of the ATSPPH also had a test-retest correlation under .70.

Means and standard deviations for each of the scales were calculated (see Table 4.1). Participants’ mean ATPI score was 3.6, indicating slightly positive attitudes overall toward psychologists. The mean score on the ATSPPH was 1.65, and the mean Confidence in Mental Health Practitioners score was 1.57, indicating neutral attitudes toward help seeking and neutral attitudes toward mental health practitioners. The mean PPQRS score was 3.37, indicating a neutral attitude toward psychotherapy/psychotherapists and/or a medium amount of stereotypical beliefs about psychotherapy/psychotherapists. The mean NOS score was 2.22 and the mean TAPS score was 3.05, indicating participants had a moderately positive network orientation and were neutral regarding fears about psychotherapy.

On the Knowledge About Psychologists Questionnaire, respondents on average responded correctly to 5.6 out of the 10 items. For individual questions, knowledge varied. For example, only 54% of respondents knew that a doctoral degree (Ph.D./Psy.D.) was required to become a psychologist; 24% believed psychologists hold a master’s degree, 12% a bachelor’s degree, and 8% an M.D. Respondents also underestimated the amount of time psychologists spend training: 69% of respondents believed that it took four years or less following a bachelor’s degree to become a psychologist. Twenty-three percent believed it took five to six years, and 9% believed it took seven to eight years. Of much concern, 58% of participants believed that romantic relationships with clients were not prohibited by psychology professional organizations.
<table>
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<th>N</th>
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<td>Thoughts About Psychotherapy Survey</td>
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<td>Contact with Psychologists Questionnaire</td>
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</table>

Note: Ranges for scales are as follows: ATPI responses range from 1 (Strongly Disagree) to 5 (Strongly Agree); TAPS responses range from 1 (No concern) to 4 (Very concerned); NOS responses range from 1 (Strongly Disagree) to 3 (Strongly Agree); BIDR are keyed so that extreme responses of 6-7 on a 7-point scale receive a score of 1 and non-extreme responses receive a score of 0; ATSPPH responses range from 0 (Disagree) to 3 (Agree); PPPPS responses range from 1 (Strongly Disagree) to 6 (Strongly Agree); KAP responses range from 0 correct to 10 correct; and Contact responses range from 0 to 36, with 36 indicating the most contact.

Table 4.1: Instrument Means and Standard Deviations
On the other hand, 93% of respondents believed practicing psychologists needed to be licensed, and 74% believed psychologists are scientists. In addition, 85% of participants believed there was a difference between psychiatrists and psychologists, although 49% of respondents also believed that psychologists could prescribe medications for mental disorders.

There were no significant differences in knowledge across racial/ethnic groups, $F(2, 383) = 1.02, p = .34$. There was also no significant differences in knowledge across gender, $F(1, 383) = .13, p = .72$. In addition, there was no significant interaction between racial/ethnic group and gender, $F(2, 383) = .16, p = .85$.

Descriptive statistics regarding contact with psychologists indicated that 69 (16.6%) of the participants had had some direct contact with a psychologist, while the remaining 347 (83.4%) reported no direct contact with a psychologist. The results also indicated that of those who had direct contact with a psychologist, 25% had attended only one session, 50% had seen a psychologist over several months, and 25% had seen a psychologist for over a year. Forty-three percent of those participants who had seen a psychologist had only seen one psychologist; 57% had seen more than one psychologist. Of those participants who had had psychotherapy, 78% reported that the experience met or exceeded their expectations. In addition, two-thirds of the participants receiving psychological services reported being somewhat or very satisfied with their therapy experience. Approximately 31% of participants reported knowing a psychologist outside of a professional context.
With regards to vicarious contact, 221 respondents (53%) reported having at least one family member or friend who had seen a psychologist. Of those participants with vicarious experience with psychologists, 163 (74%) reported believing that their friend or family member was at least somewhat satisfied with their experience.

Because contact with psychologists has been hypothesized as a predictor of attitudes toward psychologists (Furnham & Wardley, 1987), and it has been also noted that racial/ethnic minorities tend to have less contact with psychologists (Zytowski, et al., 1988), the relationship between Racial/Ethnic Group X Gender and contact was calculated. There was a significant main effect for race, $F(2, 383) = 11.74$, $p < .01$. Post-hoc Scheffe analyses revealed that European Americans reported significantly more contact with psychologists as compared to African Americans ($p < .01$) and Asian Americans ($p < .01$). There was no significant effect for gender, $F(1, 383) = .14$, $p = .71$; in addition, there was no significant interaction between race/ethnicity and gender, $F(2, 383) = 1.16$, $p = .31$. The correlation between socioeconomic status and contact was also calculated, given speculation that participants with higher income may have more access to contact with psychologists; the correlation was nonsignificant ($r = .10$, $p = .05$).

**Factor Analysis**

A principal-components analysis was performed on the 26 items of the Attitudes Towards Psychologists Inventory (ATPI). Tinsley and Tinsley (1987) outline several criteria to determine the number of factors to be interpreted. First, Kaiser’s criterion (1958) states that only factors with eigenvalues greater than 1.0 or more should be
extracted. Five factors met the Kaiser criterion (1958) of eigenvalues greater than 1.00 (see Table 4.2). Secondly, Cattell's scree plot criterion specifies plotting the factors as a function of their eigenvalues and looking for natural breaks in the slope of the line as shown in Figure 4.1. Examination of the scree plot suggested a one factor solution, with a natural break between factor one and the additional factors. (Tinsley & Tinsley, 1987). Based on these results, the data were reanalyzed specifying a five-, four-, three-, two-, and one-factor solution with oblique rotations. An oblique rotation was performed, given that it was hypothesized that if there were underlying factors they would be highly correlated. Factor solutions of one, two, three, four, and five factors accounted for 36%, 31%, 30%, 32%, and 33% of the total variance respectively.

Examination of the data suggested that a one-factor solution using a CF-Varimax oblique rotation yielded the most interpretable solution (see Table 1.1). This factor solution was preferred over the other solutions for two central reasons: (a) it was the most conceptually sound, and (b) it produced the most robust factor structure, that is, items with strong factor loadings. All 26 items loaded above .40 on the single factor in the one-factor solution, yielding a factor solution that accounted for the most total variance out of the five solutions. In the two- and three-factor solutions, there were no clear conceptual differences between the factors, and in the four- and five-factor solutions, there were relatively few items on particular factors and weak factor loadings (i.e., below .30) for some items.
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<td>16</td>
<td>.51</td>
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<tr>
<td>17</td>
<td>.48</td>
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<td>18</td>
<td>.47</td>
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<tr>
<td>19</td>
<td>.44</td>
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<td>.40</td>
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<td>22</td>
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<td>23</td>
<td>.35</td>
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<td>24</td>
<td>.32</td>
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<td>25</td>
<td>.30</td>
</tr>
<tr>
<td>26</td>
<td>.26</td>
</tr>
</tbody>
</table>

Table 4.2: Eigenvalues for 26 factors
Figure 4.1: Scree plot of Eigenvalues
Using the root mean square error of approximation (RMSEA) as an indicator of goodness of fit of the factor solution, the single-factor solution yielded an RMSEA of .08. According to Browne and Cudeck (1992), the RMSEA for a perfect fit is 0.0, for a close fit between 0.0 and 0.05, and for a good fit between 0.05 and 0.10, and a poor fit, above .10. Thus, the single factor solution falls into the “good fit” range. The single factor is hypothesized to be a global measure of positive versus negative attitudes toward psychologists.

Reliability and Validity of the ATPI

Reliability. The alpha coefficient for the final ATPI scale was .92 (N = 416). Betz (1996) relates that alpha coefficients above .90 are considered to indicate high levels of reliability. Using the retest sample, the alpha coefficient was .94 (n = 72). Test-retest reliability for a three week period was r = .87.

Convergent validity. To examine convergent validity, scores on the newly developed Attitudes Toward Psychologists Inventory were compared with other scales that measure constructs similar to attitudes toward psychologists. Specifically, ATPI scores were compared to scores on the Attitudes Toward Seeking Professional Psychological Help Scale and Confidence in Mental Health Practitioners subscale and the Perceptions of Psychotherapy and Psychotherapists Rating Scale. The results indicated significant correlations with each of ATPI totals to each of these scales (see Table 4.3). The ATPI was most highly correlated with the ATSPPH Confidence in Mental Health Practitioners subscale (r = .60), indicating that as positive attitudes toward psychologists increased, attitudes consistent with confidence in mental health providers also increased.
<table>
<thead>
<tr>
<th>Scale</th>
<th>1</th>
<th>2</th>
<th>2a</th>
<th>3</th>
<th>4</th>
<th>4a</th>
<th>4b</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ATPI</td>
<td></td>
<td>.59</td>
<td>.60</td>
<td>-.37</td>
<td>.14</td>
<td>.14</td>
<td>.12</td>
<td>-.18</td>
<td>-.25</td>
<td>.23</td>
<td>.18</td>
</tr>
<tr>
<td>2. ATSPPH</td>
<td></td>
<td></td>
<td>.97</td>
<td>-.30</td>
<td>-.03</td>
<td>-.04</td>
<td>-.01</td>
<td>-.20</td>
<td>-.12</td>
<td>.20</td>
<td>.06</td>
</tr>
<tr>
<td>2a. ATSPPH-Confidence</td>
<td></td>
<td></td>
<td></td>
<td>-.34</td>
<td>-.02</td>
<td>-.03</td>
<td>-.01</td>
<td>-.23</td>
<td>-.13</td>
<td>.23</td>
<td>.04</td>
</tr>
<tr>
<td>3. PPPRS</td>
<td></td>
<td></td>
<td></td>
<td>-.01</td>
<td>.02</td>
<td>-.03</td>
<td>.27</td>
<td>.07</td>
<td>-.23</td>
<td>-.07</td>
<td></td>
</tr>
<tr>
<td>4. BIDR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.87</td>
<td>.89</td>
<td>.12</td>
<td>-.13</td>
<td>.04</td>
<td>.03</td>
</tr>
<tr>
<td>4a. SD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.56</td>
<td>.11</td>
<td>-.14</td>
<td>.02</td>
<td>.05</td>
</tr>
<tr>
<td>4b. IM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.10</td>
<td>-.09</td>
<td>.05</td>
<td>.00</td>
</tr>
<tr>
<td>5. TAPS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.09</td>
<td>-.07</td>
<td>-.10</td>
<td></td>
</tr>
<tr>
<td>6. NOS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.04</td>
<td>-.07</td>
<td></td>
</tr>
<tr>
<td>7. Contact</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.04</td>
<td></td>
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<tr>
<td>8. Knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
</tbody>
</table>

Note. Correlations in bold are significant at p < .01 (above r = .14); correlations above .18 are significant at p < .001 (n = 416). ATPI = Attitudes Toward Psychologists Inventory, ATSPPH = Attitudes Toward Seeking Professional Psychological Help Scale, ATSPPH-Confidence = Confidence in Mental Health Professionals, PPPRS = Perceptions of Psychotherapy and Psychotherapists Ratings Scale, BIDR = Balanced Inventory of Desirable Responding, SD = Self-deceptive positivity, IM = Impression Management, TAPS = Thoughts About Psychotherapy Survey, NOS = Network Orientation Scale, Contact = Contact with Psychologists Questionnaire, and Knowledge = Knowledge About Psychologists Questionnaire.

Table 4.3: Correlations Among Scale Totals
The correlation between ATPI totals and the Attitudes Toward Seeking Professional Psychological Help Scale was .59, indicating that participants who had positive attitudes toward psychologists also have positive attitudes toward seeking professional psychological services. The correlation between scores on the Perceptions of Psychotherapy and Psychotherapists Ratings Scale and the ATPI total was -.37, indicating that positive attitudes toward psychologists were negatively related to stereotypic beliefs about psychotherapy/psychotherapists and negative attitudes toward psychotherapy/ psychotherapists.

**Discriminant validity.** The correlations between the ATPI scale and the Balanced Inventory of Desirable Responding and its subscales were assessed to provide estimates of discriminant validity. The correlation between the ATPI and social desirability as measured by the BIDR full scale was r =.14. Additionally, the ATPI was correlated with the BIDR subscales of self-deceptive positivity (r = .13) and impression management (r = .12). Although the correlations between the ATPI and BIDR full scale and self-deception subscale were statistically significant, the maximum amount of variability accounted for by social desirability was 2%.

Significant differences in socioeconomic status across different racial/ethnic groups were found, F(2, 383) = 5.64, p < .01; therefore, the relationship between socioeconomic status and attitudes toward psychologists was calculated. Specifically, according to Scheffe post hoc analyses, African Americans reported significantly lower yearly income relative to both Asian Americans and Whites. The correlation between socioeconomic status and attitudes toward psychologists was not significant (r = .09; N =389).
**Construct validity.** To assess for construct validity, attitudes toward psychologists as measured by the ATPI were compared with measures of constructs such as fear of psychotherapy, network orientation, contact with psychologists, and knowledge about psychologists. ATPI scores were negatively correlated ($r = -.18$) with the Thoughts About Psychotherapy Survey (TAPS), indicating that participants with more positive attitudes had less fears about psychotherapy. ATPI scores were also negatively correlated ($r = -.25$) with Network Orientation Scale (NOS) scores, indicating that participants with more positive attitudes toward psychologists also felt more comfortable disclosing personal information with others. Although these correlations were statistically significant, it should be noted they are relatively weak (i.e., $<.30$) and therefore may not be practically significant.

Contact with psychologists was positively correlated with more favorable attitudes toward psychologists ($r = .23$). When contact was broken down into direct contact (items 1-7 & 10) with a psychologist versus indirect contact (items 8 & 9), the results indicated that increased direct contact with a psychologist was related to more positive attitudes toward psychologists ($r = .17$), and increased vicarious contact was also positively related to more positive attitudes toward psychologists ($r = .25$).

Knowledge about psychologists was also positively correlated with more favorable attitudes toward psychologists ($r = .18$). To look for additional information about the connection between attitudes toward psychologists and knowledge about psychologists, correlations between individual items from the KAP and the ATPI were calculated. The only significant correlation ($r = .25$) was between KAP #6
("Psychologists are scientists") and attitudes toward psychologists, indicating that
participants who believed psychologists were scientists had more favorable attitudes
toward psychologists. Again, it should be noted that the correlations between ATPI
scores and knowledge and contact with psychologists were relatively weak although
statistically significant.

Differences in ATPI scores by Race and Gender

A 2 (Gender) X 3 (Racial/Ethnic Group) ANOVA was performed to assess for
differences in attitudes toward psychologists (see Figure 4.2; Table 4.4). Members of the
sample who identified their racial/ethnic group as Latina/Latino, Native American,
biracial, or unspecified were not included in the Gender X Racial/Ethnic Group analyses;
thus, the sample size for the Gender X Racial/Ethnic Group comparisons was 389 (See
Table 4.5). There were no significant differences found between women and men,
\[ F(1,383) = 2.88, \ p = .09. \]

There was a main effect for race, with significant differences among racial groups
on ATPI mean scores, \( F(2, 383) = 9.20, \ p < .01. \) Observed power for this analysis was
.97; effect size \( \eta^2 \) was .05, suggesting that the race main effect accounts for 5% of the
variation in ATPI scores, according to Cohen (1973) a moderate effect.
Figure 4.2: Gender X Race/Ethnicity Analysis of Variance
<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>F</th>
<th>$\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>1</td>
<td>1.86</td>
<td>.010</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td>2</td>
<td>9.19**</td>
<td>.046</td>
</tr>
<tr>
<td>Gender X Race/Ethnicity</td>
<td>2</td>
<td>4.63**</td>
<td>.024</td>
</tr>
<tr>
<td>Error</td>
<td>383</td>
<td>(127.408)</td>
<td></td>
</tr>
</tbody>
</table>

Note: Value enclosed in parentheses represents mean squared error.
**p<.01

Table 4.4: Analysis of Variance for Attitudes Toward Psychologists
<table>
<thead>
<tr>
<th></th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>African Americans</td>
<td>41 (11%)</td>
<td>71 (18%)</td>
<td>112 (29%)</td>
</tr>
<tr>
<td>Asian Americans</td>
<td>43 (11%)</td>
<td>43 (11%)</td>
<td>86 (22%)</td>
</tr>
<tr>
<td>European Americans</td>
<td>78 (20%)</td>
<td>113 (29%)</td>
<td>191 (49%)</td>
</tr>
<tr>
<td>Total:</td>
<td>162 (42%)</td>
<td>227 (58%)</td>
<td>389 (100%)</td>
</tr>
</tbody>
</table>

Table 4.5: Cell sizes for Gender X Race/Ethnicity comparisons.
However, this main effect was mitigated by the interaction between race/ethnicity and gender. Thus, post-hoc analyses were conducted comparing each of the six Gender X Race/Ethnicity groups.

The interaction between gender and racial/ethnic group was significant, \( F(2, 383) = 4.67, p < .01 \). Observed power for the Gender X Racial/Ethnic Group interaction was .78; the effect size \((\eta^2)\) was .02, suggesting that the interaction accounted for 2% of the variation in ATPI scores. According to Cohen (1973), an effect size of .02 is in the small range. Scheffe post-hoc comparisons between all six of the Gender X Racial/Ethnic Group cells revealed that European American women held more positive attitudes toward psychologists relative to European American men \((p < .01)\), African American women \((p < .01)\), African American men \((p < .01)\), Asian American women \((p < .01)\), and Asian American men \((p < .01)\). There were no significant differences between any of the other Race X Gender groups (i.e., between Asian American females and European American males, etc.).
CHAPTER 5

DISCUSSION

The following section summarizes the properties of the newly developed Attitudes Toward Psychologists Inventory, including factor analysis results, reliability data, and evidence of convergent, discriminant, and construct validity. In addition, descriptive data regarding attitudes toward psychologists, knowledge about psychologists, and contact with psychologists are summarized and discussed in terms of the previous literature. Differences in attitudes toward psychologists among different racial/ethnic groups and between men and women are also discussed. Finally, limitations of the present study, implications for future research, and applications of the new scale are explored.

Scale Properties

The newly developed Attitudes Toward Psychologists Inventory is a relatively brief instrument with wording at an 8th grade reading level. Factor analysis of the newly developed Attitudes Toward Psychologists Inventory suggested that a one-factor solution, accounting for 36% of the total variance, best described the factor structure of the scale.
The single factor can be interpreted as positive versus negative attitudes toward psychologists. Based on these results, it is recommended the scale be used as a single-factor measure of positive versus negative attitudes toward psychologists.

The newly developed Attitudes Toward Psychologists Inventory shows good reliability, as evidenced by both high internal consistency and test-retest correlation. The ATPI's high reliability in measuring attitudes toward psychologists provides researchers with a distinct advantage over other available measures of attitudes toward psychologists (PPPRS, Confidence subscale of ATSPPH) as well as unvalidated surveys developed for single studies.

In addition, the ATPI showed good convergent validity with other measures of attitudes toward psychologists. The ATPI showed the highest correlation with the only other measure of attitudes toward psychologists (ATSPPH Confidence subscale), suggesting as hypothesized that positive attitudes toward psychologists should be highly correlated with confidence in mental health providers. The ATPI was also significantly correlated with a measure of negative attitudes and stereotypes regarding psychotherapists (PPPRS). Thus, more positive attitudes toward psychologists were negatively correlated with negative attitudes toward psychologists and holding stereotypes toward psychologists.

The relative difference between the ATSPPH Confidence/ATPI correlation ($r = .60$) and PPPRS/ATPI correlation ($r = -.37$) may be attributed to the PPPRS's mixture of attitudes and knowledge items. The PPPRS does not measure pure attitudes; for example, one item that measures knowledge rather than attitudes is "Very often psychotherapists prescribe drugs" (Bram, 1997). Thus, as
attitudes toward psychologists are hypothesized to be a separate construct from knowledge about psychologists, the correlation between the ATPI and PPPRS would not be expected to be as high as the correlation of two measures of the same construct.

Finally, the ATPI was highly correlated with attitudes toward seeking psychological help which include attitudes toward psychologists. The results suggested that positive attitudes toward psychologists are associated with more positive attitudes toward seeking professional psychological help. Although the direction of causality in the relationship is unclear, the correlation between attitudes toward psychologists and attitudes toward help seeking implies that improving attitudes toward psychologists may increase help-seeking attitudes. The relationship between attitudes toward psychologists and help-seeking attitudes is important because help-seeking attitudes are assumed to be related to help-seeking behavior (Halgin, Weaver, Edell, & Spencer, 1987). Thus, improving attitudes toward psychologists may increase help-seeking behavior, a hypothesis with intuitive appeal.

Discriminant validity for the ATPI from was supported by nonsignificant correlations of attitudes toward psychologists as measured by the ATPI with socioeconomic status. Thus, attitudes toward psychologists did not seem to be a function of family income. In addition, small correlations between ATPI scores and measures of social desirability indicate that the ATPI does not simply measure a desirable response bias. Attitudes toward psychologists were weakly correlated with impression management (purposely trying to present a positive image to others) and self–deceptive positivity (honest but overly positive self-presentation). Although it was originally hypothesized that attitudes toward psychologists should not be correlated with social
desirability, it is conceivable that persons trying to project a positive self-image may also have reported more positive attitudes toward psychologists given that the participants were aware that a psychologist was conducting the study. Future research might investigate the relationship between social desirability and attitudes psychologists further.

With regards to construct validity, attitudes toward psychologists as measured by the ATPI were correlated in expected directions with variables including network orientation, fear about therapy, contact with psychologists, and knowledge about psychologists. However, it should be noted that the correlations were somewhat low (i.e., $r < .30$), and thus may lack practical significance. Given that some of the limitations of some of the measures (particularly the knowledge and contact questionnaires), these results are interpreted, but further research will be needed to assess the strength and importance of these relationships. Thus, participants with a stronger negative network orientation were more likely to hold more negative attitudes toward psychologists. These results indicate that college students with a more negative general outlook on connecting with and seeking support from others may tend to have more negative attitudes toward psychologists. People may conceptualize the psychologist in a support-giving role that requires openness from the client. Tata and Leong (1994) suggested that social network orientation’s relationship with help-seeking attitudes clinically indicated that network orientation may be an important factor to assess in counseling; the relationship between social network orientation and attitudes toward psychologists reinforces this recommendation.
Participants with more fears about psychotherapy also had more negative attitudes toward psychologists. Thus, participants who had more fears about how responsive the therapist would be, how they would appear to others, and how coercive the therapist would be also reported more negative attitudes toward psychologists. Importantly, past research has shown that fear concerning therapist responsiveness was significantly related to past help-seeking behavior (Kushner & Sher, 1989). Thus, given the relationship between fears about therapists and attitudes toward psychologists, an interesting hypothesis to test would again be whether there is a positive relationship between attitudes toward psychologists and help-seeking behavior. In addition, Kushner and Sher (1989) hypothesized a relationship between fear of psychological treatment and cultural factors; presumably, the same cultural factors that affect fear of psychological treatment may affect attitudes toward psychologists. These factors may include fear of discrimination, fear that the client will not be understood, and fear that the psychologist will not be knowledgeable about the client’s problem.

The results concerning knowledge, contact, and attitudes toward psychologists also supported prior hypotheses, with increased contact with psychologists and increased knowledge about psychologists being related to more positive attitudes. Although these results supported previous ideas about the construct, it should be noted that the relationships were comparatively weak ($r < .30$). In particular, a stronger relationship between contact with psychologists and attitudes toward psychologists was expected in accordance with previous hypotheses. For example, Furnham and Wardley (1990) hypothesized that psychological experience was a powerful predictor of both beliefs and attitudes about psychotherapy.
The present study found a relatively weak correlation between contact with psychologists and attitudes toward psychologists, with increased contact being associated with more positive attitudes toward psychologists. Both increased direct contact (seeing a psychologist for services or knowing a psychologist outside of a professional setting) and increased vicarious contact (having a friend or family member who had seen a psychologist) were relatively weakly associated with more positive attitudes toward psychologists. These results are congruent with past research. For example, Murstein & Fontaine (1993) found evidence that people who had previous experience with therapy rated psychologists as more “comfortable” when compared to persons with no previous experience.

Although a strong relationship between contact and attitudes toward psychologists has been predicted in the previous literature, no prior studies that have looked at attitudes and contact with psychologists have demonstrated a strong positive relationship. The only other study specifically looking at attitudes and psychological experience found that people with less psychological experience actually held more positive attitudes toward psychotherapists and therapy (Furnham & Wardley, 1987). Wood, Jones, and Benjamin (1986) reported a nonsignificant correlation between therapy experience and attitudes toward psychology. As the ATPI was as strongly related to contact with psychologists as the other measures of attitudes toward psychologists, these results taken as a whole may indicate that contact with psychologists may not have as high of an impact on attitudes toward psychologists as previously speculated. In addition, interpretation of this result may be limited by the measurement of “contact” with a psychologists, an unvalidated questionnaire developed for the present study.
In addition, the relationship between knowledge about psychologists and attitudes toward psychologists was positive but not particularly strong. The positive relationship between knowledge and attitudes is supported by research that found a weak positive relationship between having taken an introductory psychology course and positive attitudes toward psychology (Wood, Jones, & Benjamin, 1986). The relatively weak relationship between knowledge about and attitudes toward psychologists calls into question previous assumptions about how strongly the public’s knowledge about psychologists affects attitudes towards psychologists. In fact, Benjamin (1986) sees psychology’s public image as “a two-dimensional issue reflecting popularity and understanding, that is, how the public feels about psychology (and psychologists) and what the public knows about psychology (and what psychologists do)” (p. 945). Given the confusion of these two facets of public image, as evidenced by their integration in many past public image surveys, the present study’s results may indicate that the separation of these two variables is critical to true understanding of public image.

The interpretation of the relationship between knowledge and attitudes is limited by the measurement of knowledge (which certainly was not exhaustive) as well as the population in the current study. The present research used a sample of introductory psychology students; it is possible that students who take a psychology class choose it because of more knowledge or that they learn more about psychology during the course than a more general population. Thus, the variability of responses in the present study regarding knowledge may limit measurement of the relationship between knowledge and attitudes. Despite these limitations, the ATPI was the only measurement of attitudes
toward psychologists significantly correlated with knowledge about psychologists, providing evidence of incremental validity over other measures of attitudes toward psychologists.

External validity for the newly developed ATPI is supported by its development with input from individuals diverse in gender and race/ethnicity, its inclusion of items regarding cultural competence of psychologists, and that the development sample was representative of European American, African American, and Asian American college students. Limitations for the external validity of the ATPI are based mainly on the demographic characteristics of the sample used for its initial construction. The current study used a population composed mainly of first and second year college students, and the results must be interpreted within the limitations of this population. Thus, more research validating the ATPI on diverse populations must be done before the results of the current validity research could be generalized. These populations could include Latino/Latinas, Native Americans, and populations more diverse in age, socioeconomic status, education, marital status, and sexual orientation.

Additionally, it should be noted that the instrument was developed with psychologists who do practice and research in mental health. Although much of the questionnaire addresses aspects of psychologists across the field (professionalism, research, etc.), the instrument was not developed with academic psychologists such as social psychologists, cognitive psychologists, and other disciplines in mind. Therefore, the instrument should not be used in assessing attitudes toward these psychologists alone.
Descriptive Data.

The present research supported previous research regarding attitudes toward psychologists, finding a slightly positive attitude toward psychologists as measured by the ATPI among a diverse university student population. Several past studies have also noted a slightly positive attitude toward psychology (Farberman, 1997; Furnham & Wardley, 1987; Kabatznick, 1984; Pallak & Killberg, 1986; Richardson & Handal, 1995; Schindler, et al., 1987; Webb & Speer, 1986; Wood, Jones, & Benjamin, 1986). It should be noted, however, that the present sample represents a narrow population in terms of age, education, and income; some researchers have suggested that older, lower income, and lower educated individuals may hold much lower opinions about psychologists (Zytowski, et al., 1988). In addition, the sample was skewed by gender, and Wong (1994) indicates that females may hold more positive attitudes toward psychologists than men. In light of these limitations, the slightly positive attitudes toward psychologists found in the present research may represent a slightly positively skewed sample. Given that attitudes toward psychologists were only slightly positive, it seems that public education towards the improvement of attitudes toward psychologists may still be warranted.

With regards to knowledge about psychologists, the present study indicated that knowledge about psychologists overall was fair in the present sample, with the average participant answering 56% of the questions correctly. On a positive note, participants in the current study did report an understanding that psychologists needed to licensed, were scientists, and were different from psychiatrists. These results support previous literature that found that the majority of their respondents were aware that psychologists
required licensure (Murstein & Fontaine, 1993). The finding that psychology was
correctly identified as a science is also in accordance with some previous research
(Wood, Jones, & Benjamin, 1986) and contrasts with other research conclusions
(Kabatznick, 1984; Webb & Speer, 1986).

Particularly encouraging was the positive relationship between recognizing
psychologists as scientists and positive attitudes toward psychologists. This finding is
supported by previous research indicating that positive attitudes toward psychology were
positively correlated with seeing psychology as a science (Wood, Jones, & Benjamin,
1986). Although Webb and Speer (1986) suggested that the public sees scientists
negatively and therefore a lack of association of psychology with science may have
contributed to positive attitudes toward psychologists, the present research suggests
otherwise. Public education campaigns may thus want to consider emphasizing
psychology’s continued efforts to produce applied research and empirically validated
treatments. This result also highlights that the public may value the psychologist’s role
as a scientist-practitioner.

Areas in which knowledge was poor included knowledge about psychologists’
training, roles, and ethical guidelines. For example, many participants believed that
psychologists’ training consists of lower degrees and less time training than in actuality.
These findings are consistent with previous research indicating poor knowledge of
educational and training requirements of psychologists (Farberman, 1997; Wood, Jones,
& Benjamin, 1986). Knowledge about dual role relationships was extremely poor, with
the majority of participants believing that romantic relationships between psychologist
and client were not prohibited. In addition, nearly half of participants believed that
psychologists could prescribe medications, indicating poor knowledge concerning the role of psychologists in mental health care. These results were consistent with some previous research (Murstein & Fontaine, 1993; Pallak & Killberg, 1986; Wong, 1984), while the results contrasted with other research which showed fairly good knowledge about psychologists’ roles (Furnham & Wardley, 1987; Kabatznick, 1994; Wood, Jones, & Benjamin, 1986).

These deficits in knowledge about psychologists in the present study support the need for public education campaigns and other interventions that communicate more about the education, roles, and ethical standards of psychologists. These findings are particularly disturbing in light of the fact the population in the current study may be more highly educated than the average population and had taken at least some introductory psychology course. As previous researchers have noted, the deficits in knowledge about psychologists may be just as important to address as a “negative” public image (Farberman, 1997; Webb & Speer, 1986). In his history of the public image of psychology, Benjamin (1986) concluded: “Although psychology’s popularity has waxed and waned, it is doubtful that the public has ever had a reasonable understanding of the nature of the field” (p. 945).

Descriptive data about the participants’ contact with psychologists revealed that only 17% of the present sample reported having direct contact with a psychologist, a more representative percentage than some previous studies that relied on mailed surveys. For example, one study relying on mailed surveys reported that over 50% of its respondents had been in therapy (Murstein & Fontaine, 1993). Of the participants with direct contact, most reported that they had a positive experience. About half of all
participants had had vicarious contact with a psychologists, and the majority of these participants also reported that they had heard positive things about seeing a psychologist. Thus, the present results indicate that those people having direct or vicarious experiences with psychologists generally feel positive about those experiences.

Means and standard deviations on other instruments used in the present research were comparable to those found in past research. Participants on average indicated neutral attitudes toward help-seeking and confidence in mental health practitioners. They also held generally neutral beliefs about psychotherapy/psychotherapists and a medium amount of stereotypic beliefs about therapy/therapists. In general, participants reported a moderately positive network orientation and neutral attitudes toward fears about psychotherapy.

Race/Ethnicity and Gender Differences

The analysis of race and gender in predicting attitudes toward psychologists produced interesting results. Contrary to expectations, college women in the present study did not hold more positive attitudes toward psychologists in comparison with college men. This finding contradicts previous research regarding help-seeking attitudes, but is supported by some research in attitudes toward psychologists. Many studies have found significant gender differences in attitudes toward seeking professional psychological help, with women having more positive attitudes toward seeking professional psychological help (Cohen, 1999; Fischer & Turner, 1972; Fischer & Farina, 1995; Leong & Zachar, 1999; Yeh & Wang, 2000). However, in attitudes toward psychologists, several studies have found no gender differences (Bram, 1997; Murstein &
Fontaine, 1993; Wood, Jones, & Benjamin, 1986). For example, Murstein & Fontaine (1993) found no gender difference in attitudes toward psychologists for younger samples, although they did find that older women had more positive attitudes than older men. Perhaps other aspects of help-seeking attitudes, such as stigma tolerance, are influenced more by gender roles than attitudes toward psychologists.

In support of hypotheses, both Asian American and African American college students held less favorable, albeit overall slightly positive, attitudes toward psychologists than European American college students. This finding is in congruence with previous literature that found that African Americans had more negative help-seeking attitudes than Caucasians (Alvidrez, 1999; Martin, et al., 1997), as well as with literature that concludes that Asian Americans have negative help-seeking attitudes in comparison with Caucasians (Yeh & Wang, 2000). African American and Asian American college students in the present study still had neutral to slightly positive attitudes towards psychologists, although they were significantly less favorable than European Americans. Given these differences, it would be interesting to investigate what factors influence different racial/ethnic groups’ attitudes toward psychologists. Future research should investigate both within and between group differences that might affect attitudes toward psychologists. Between group differences, such as differences among racial/ethnic groups’ contact with psychologists, should be studied. For example, African American and Asian American college students in the present study had less contact with psychologists and held less favorable attitudes toward psychologists. Because the present
study was correlational, it is impossible to determine whether less contact with psychologists led to less positive attitudes or if persons with less positive attitudes toward psychologists sought less treatment.

Within group variables, such as acculturation, identity development, cultural mistrust, and individualist versus collectivist worldview should also be investigated in relation to attitudes toward psychologists. Nickerson, Helms, and Terrell (1994) have suggested that there is a perception of most psychologists being White among African Americans, and thus cultural mistrust may influence attitudes toward psychologists. Delphin and Rollock’s (1995) research on help-seeking attitudes and identity development indicates that an important area for future research might be the relationship between identity development in African Americans and attitudes toward psychologists. African Americans who perceive the majority of psychologists as being White may have more positive attitudes toward psychologists during the Pre-encounter stage (acceptance of White values/rejection of Black values), and more negative attitudes toward psychologists during the Immersion/Emersion stage (embracing African American culture while rejecting White culture).

With regards to Asian Americans, the help-seeking literature suggests that acculturation and a collectivist versus individualist value system may have an impact on Asian Americans’ attitudes toward psychologists. Previous research indicates that psychology may be seen as an individualist enterprise (Tata & Leong, 1994). Direct relationships between acculturation and help-seeking attitudes (Atkinson & Gim, 1989; Tata & Leong, 1994) also suggest that acculturation may affect attitudes towards psychologists. Thus, Asian Americans who are more assimilationist and with more of an
individualistic framework might be expected to have more positive attitudes toward psychologists. In addition, given the wide variety of cultures encapsulated under the term “Asian American,” there may be differences in attitudes toward psychologists among different Asian American cultures (Indian American, Chinese American, Japanese American, Korean American, etc.) in accordance with hypotheses about help seeking attitudes (Yeh & Wang, 2000).

The moderate effect size for the differences in attitudes toward psychologists among different racial/ethnic groups warrants further study. In addition, the present study may overrepresent ethnic minority individuals of higher socioeconomic status, education, and interest in psychology. Individuals with less education, income, or interest in psychology may have more negative attitudes (Wood, Jones, & Benjamin, 1986). Ironically, these individuals are also at higher risk for mental disorders or situations that may warrant psychological help (Alvidrez, 1999).

Interestingly, a significant interaction between race and gender suggested that the relationship between ethnicity and attitudes toward psychologists may be more complicated. In particular, the effect for racial/ethnic group was mainly driven by significantly more positive attitudes toward psychologists by European American women than by the attitudes of European American men. In contrast, there were little gender differences between Asian American or African American college men and women. Further analysis revealed that European American women held significantly more positive attitudes toward psychologists than all other race/gender groups, while the other groups held similar attitudes. This finding is supported by speculation that therapy is stereotyped as a primarily feminine, White enterprise (Martin, et al., 1997).
particular aspects of the female gender role (value for openness, warmth, etc.) for European Americans makes them feel more positively about psychologists. Future research should explore what factors contribute to this effect and whether the effect is stable over more representative populations diverse in age, education, and socioeconomic status.

Limitations

The major limitation of the present research was the narrow population used to examine attitudes toward psychologists. Ideally, a sample more diverse in age, education, socioeconomic status, marital status, and sexual orientation should be used to study attitudes toward psychologists. This limitation calls into question the generalizability of the results. For example, there has been much speculation that older individuals would have more negative attitudes toward psychologists (Farberman, 1997; Furnham & Wardley, 1987); thus, the young population sampled in the present study may overestimate positive attitudes toward psychologists. In addition, the newly developed Attitudes Toward Psychologists Inventory will need to validated on more diverse populations to ensure that its reliability, validity, and factor structure are consistent across different populations.

Another limitation in the current research was the use of unvalidated questionnaires to assess contact with psychologists and knowledge about psychologists. More specific information may need to be gathered about contact with psychologists to investigate the relationship between contact with psychologists and attitudes toward psychologists. For example, information regarding type of therapy (individual, group,
family, couples, assessment) and amount of treatment (specific number of sessions) may help to refine the measurement of contact with psychologists. In addition, the knowledge questionnaire may need to be expanded to include a more comprehensive assessment of public knowledge about the field. Thus, the measures of contact and knowledge about psychologists limit the interpretation of hypotheses involving these constructs.

**Implications for Practice and Future Research**

The current research supports the ATPI as a reliable, valid instrument to measure attitudes toward psychologists within a college student population. Future research should explore use of the instrument with populations more diverse in age, socioeconomic status, education, marital status, and sexual orientation. In addition, research should be done across varying regions of the United States to get a more accurate overview of attitudes toward psychologists. Future research should also focus on refinement of the newly developed instrument, replicating reliability studies, and performing a confirmatory factor analysis to verify the single factor structure.

Beyond validating the instrument on more diverse populations to ensure external validity, future research should continue to explore construct validity for the instrument. Studies should investigate both hypothesized predictors and outcomes of attitudes toward psychologists. For example, some psychologists have hypothesized that negative media portrayals of psychologists may have a negative impact on attitudes toward psychologists (Bram, 1997; Schill, Harsch, & Ritter, 1990; Turkat, 1977). Correlational studies measuring previous exposure to media portrayals and attitudes or experiments differentially exposing groups to media portrayals and measuring attitudes may help to
clarify this relationship. In addition, future research could investigate hypotheses that
taking a psychology course and that reading non-fiction books about psychology have
positive effects on attitudes toward psychologists (Wood, Jones, & Benjamin, 1986).

Predicted outcomes of attitudes toward psychologists should also be explored.
Researchers have hypothesized that help-seeking behavior, stability in therapy, and
therapeutic effectiveness may all be positively related to attitudes toward psychologists.
These theories suggest that attitudes toward psychologists could be an important to assess
in counseling situations. Future research should explore these possible clinical outcomes.
In addition, support and funding for services by managed care and insurance companies
and funding for psychological research may be influenced by public attitudes toward
psychologists. Further studies of the public image of psychologists should focus on
whether there is a relationship between attitudes toward psychologists and funding.

Should relationships between attitudes toward psychologists and variables like
media portrayals, psychology education, therapeutic outcomes, stability in therapy, help-
seeking behavior, and funding be supported through research, steps to improve attitudes
toward psychologists can begin to be taken. Such steps may include public education
campaigns, media watch groups, curriculum reviews for introductory psychology, or
other interventions designed to increase attitudes toward psychologists. In addition,
should relationships between therapy outcomes and attitudes be found, counselors can
incorporate this knowledge into their assessment and treatment of clients. It is important
to note, however, that at present the relationship between attitudes toward psychologists
and other variables is more speculative than concrete. More research needs to be done to identify current public attitudes, the factors leading to attitude formation, and the outcomes of those attitudes.

The slightly positive attitudes toward psychologists found in this survey support current public education campaigns and interventions designed to improve attitudes toward psychologists. In addition, knowledge concerning psychologists was poor in areas such as training, roles, and ethical standards, indicating that education concerning these issues may be important. Before such public education take place, however, it would be important to assess attitudes and knowledge about psychologists on a more widespread population.

In summary, future research should address further validation of the instrument across populations and investigate both predictors and outcomes of attitudes toward psychologists. More work looking at population differences in attitudes toward psychologists is needed, as well as work to identify how these attitude differences arise. In addition, research looking at within group differences in attitudes toward psychologists is clearly warranted by past help-seeking research. Such research has the potential to influence practice through the development of interventions to improve public attitudes and clearer theoretical implications.

Conclusions

The present study developed a reliable and valid measure of attitudes toward psychologists that with further validation may be used to assess the impact of such attitudes and to design interventions to enhance public perception of psychology. Future
research with the newly developed measure should continue to investigate its validity and reliability with more diverse populations outside of a college population, including populations such as Latino/Latina populations, Native Americans, non-college-educated populations, older populations, and populations with lower socioeconomic status.

Given the importance of some of the variables with proposed relationships to attitudes toward psychologists (including help-seeking behavior, therapy outcomes, and research funding), further study of attitudes toward psychologists is warranted. With continued validity research, the proposed scale could be used to gain an understanding of deficits in the public's knowledge and attitudes toward psychology and to design future interventions to promote psychology as an essential research area and as a valuable service to the public.
LIST OF REFERENCES


APPENDIX A

PART 1
Demographic Questionnaire		items I-III; 1-5

PART 2
Attitudes Toward Psychologists Inventory	items 6-92

PART 3
Knowledge About Psychologists Questionnaire	items 93-102

PART 4
Contact With Psychologists Questionnaire	items 103-112
Instructions: Mark all responses on the Answer Sheets using a No. 2 lead pencil. Do NOT mark on the inventory booklet itself.

Before turning the page please complete the following on the first side of the Answer Sheet. Using a lead pencil, darken the appropriate circle.

I. Sex

II. Highest Education Level Completed
   1 = 0-6 years (elementary school)
   2 = 7-9 years (jr. high or middle school)
   3 = 10-11 years (some high school)
   4 = 12 years (high school degree)
   5 = technical school
   6 = 13-14 years (junior college)
   7 = first year undergraduate
   8 = second year undergraduate
   9 = third year undergraduate
  10 = fourth year undergraduate
  11 = fifth year undergraduate
  12 = bachelor's degree
  13 = master's degree
  14 = Ph.D.
  15 = professional degree

III. Birth Date. Darken the appropriate circles corresponding to the Month, Day, and Year of your birth.
PART 1: Demographic Questionnaire

First, we would like to know a little about you. Please answer all of the following questions by darkening the appropriate circle.

1. Race/Ethnicity
   A. African-American/African
   B. European American (White)
   C. Asian American
   D. Biracial (African/European American, Asian/European American)
   D. Latino/Latina
   E. Native American
   F. Other

2. Has there ever been a time in your life when you did NOT live in the United States of America?
   A. Yes
   B. No

3. Household Income Status: (1) your income if you are the sole source of financial support, or (2) you and your partner or spouse, or (3) if supported by your family of origin, your family’s income.
   A. under $15,000.
   B. $15,000 - $29,999.
   C. $30,000 - $44,999.
   D. $45,000 - $59,999.
   E. $60,000- $99,999.
   F. $100,000+

4. Current Marital Status
   A. Single
   B. Married/Partnered
   C. Separated
   D. Divorced
   E. Widowed

5. Sexual Orientation
   A. heterosexual
   B. lesbian/gay
   C. bisexual
   D. other
PART 2: ATPI

Instructions: This questionnaire is intended to measure people’s attitudes about psychologists. There are no right or wrong answers. Read each statement carefully, and use the scale below to respond to each statement with your honest opinion. Fill in the circle with the number that best indicates how you feel.

1 Strongly Disagree 2 Disagree 3 Neither Agree 4 Agree 5 Strongly Agree

6. I think psychologists are warm people.
7. Psychologists are experienced at helping people.
8. Psychologists provide valuable services to the community.
9. You can trust a psychologist to keep your problems confidential.
10. I doubt a psychologist would respect my values.
11. I think psychologists are friendly.
12. Psychologists are skilled professionals.
13. Psychologists charge too much money for their services.
14. Psychologists make their clients dependent on therapy.
15. I don’t think a psychologist would respect my religious beliefs.
16. I would feel uncomfortable talking to a psychologist.
17. Psychologists are well-educated.
18. At times, I would have welcomed the advice of a psychologist.
19. Psychologists keep their clients’ personal information private.
20. Psychologists respect people from other cultures.
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<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Neither Agree</td>
<td>Agree</td>
<td>Strongly Agree</td>
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21. When dealing with an emotional problem, I would rather seek help from a close friend than from a psychologist.

22. I think a psychologist could help me feel better emotionally.

23. Talking to a psychologist could help a person to better understand herself/himself.

24. Psychologists tend to become romantically involved with their clients.

25. Psychologists wouldn’t be likely to understand my culture.

26. I would rather live with my problems than go through the trouble of getting treatment from a psychologist.

27. Psychologists are qualified for the work they do.

28. Psychologists provide a valuable service for the money.

29. Psychologists tend to take advantage of vulnerable clients.

30. Psychologists appreciate diversity in people.

31. Psychologists are understanding.

32. Psychologists can help people feel better.

33. Seeing a psychologist would be a last resort for me.

34. Psychologists tend to become sexually involved with their clients.

35. Psychologists are accepting of gay/lesbians/bisexuals.

36. Psychologists are good listeners.

37. Psychologists do more harm than good.
38. If I were in therapy, a psychologist would pressure me to reveal things that I wouldn’t want to.

39. Psychologists are honest.

40. Psychologists are supportive of the elderly.

41. I think psychologists are cold and impersonal.

42. Psychologists are constantly analyzing other people.

43. I think talking with a psychologist is a poor way to solve problems.

44. Psychologists are reliable.

45. Psychologists are sexist.

46. The average person can help someone just as well as a psychologist.

47. Psychologists often have as many or more problems than their clients.

48. I would consult a psychologist if I had a problem I couldn’t resolve on my own.

49. I feel that psychologists are sincere.

50. Psychologists are knowledgeable about working with people with disabilities.

51. Psychologists receive good training.

52. Psychologists are easy to approach.

53. I would get help from a psychologist if I were concerned about my mental health.

54. Psychologists tend to be judgmental.

55. A psychologist would have a hard time understanding someone of my race/ethnicity.
56. If a good friend asked me for advice about a mental problem, I would recommend that s/he see a psychologist.

57. It would be easy for me to be open with a psychologist.

58. I think going to a psychologist would take too much time.

59. Psychologists are ethical.

60. A psychologist would have a hard time understanding someone with less education.

61. If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief by talking to a psychologist.

62. Psychologists are sociable.

63. Psychologists are needed by the community.

64. Psychologists can be trusted to do ethical research.

65. A psychologist would have a hard time understanding someone who comes from a different economic background.

66. Psychologists effectively help clients resolve their problems.

67. Talking to a psychologist would make me feel nervous.

68. If I saw a psychologist, I think that the experience would be worthwhile.

69. You can trust a psychologist.

70. Psychologists are professional.

71. Psychologists have more insight about emotional problems than other people.

72. Psychologists are usually less well-adjusted than their clients.
73. A psychologist might force me to talk about personal things that I don’t want to discuss.

74. Psychologists provide useful advice.

75. People with emotional problems are more likely to solve them with a psychologist’s help than alone.

76. I worry that psychologists would be prejudiced against someone like me.

77. I could discuss personal matters with a psychologist.

78. I would be afraid that a psychologist wouldn’t be interested in my problems.

79. Psychologists really don’t know much about how to help people.

80. I worry that a psychologist would discriminate against someone like me.

81. Psychologists conduct research that benefits the community.

82. I think psychologists are likeable people.

83. Psychologists try to manipulate people.

84. Psychologists conduct research that produces valuable knowledge.

85. I feel that psychologists are knowledgeable about people from different cultures.

86. I doubt a psychologist would be able to address my problem.

87. I think it would be easy to talk to a psychologist.

88. Psychologists harm people through research.

89. I do not have much faith in psychologists.

90. Psychologists are trained to work with people from different cultures.
91. Psychologists can help prevent people from having problems later on.

92. Psychologists can’t relate to the average person.

PART 3: KAP

Instructions: The following statements are intended to find out how much you know about psychologists. There are right and wrong answers for each statement in this section. Read each question carefully, and mark the correct answer.

93. The degree required to become a psychologist is:
   a) an undergraduate degree (BA/BS)
   b) a masters degree (MA/MS)
   c) a doctoral degree (Ph.D./Psy.D.)
   d) a medical degree (MD/DO)

94. Psychology professional organizations frown upon romantic relationships with clients, although they do not prohibit them.
   a) true
   b) false

95. Psychologists do not have the credentials to prescribe medications for mental disorders.
   a) true
   b) false

96. How many years of training, on average, does it take for psychologists to receive their degree (after a bachelor’s degree)?
   a) 0; a bachelor’s degree is the only requirement
   b) 1-2 years
   c) 3-4 years
   d) 5-6 years
   e) 7-8 years
97. Practicing psychologists need to be licensed.
   a) true
   b) false

98. Psychologists are scientists.
   a) true
   b) false

99. The average psychologist’s salary is ____________ per year.
   a) $35,000
   b) $45,000
   c) $55,000
   d) $65,000
   e) $75,000
   f) $85,000
   g) over $85,000

100. Psychologists often teach at the university level as professors.
    a) true
    b) false

101. There is essentially no difference between a psychiatrist and a psychologist.
     a) true
     b) false

102. Approximately 50% of all psychologists are women.
     a) true
     b) false
PART 4: CONTACT WITH PSYCHOLOGISTS

Instructions: Please answer the following questions concerning how much contact you have had with psychologists. If a question does not apply to you, please mark “not applicable.”

103. Have you ever received services from a psychologist for a personal problem?
   a) yes
   b) no

104. How much time has elapsed since you last since the last session you attended?
   a) not applicable
   b) less than one week
   c) less than a month
   d) less than a year
   e) less than 3 years
   f) over three years

105. How long did you receive services from a psychologist?
   a) not applicable
   b) one session
   c) a few months
   d) over a year

106. How many different psychologists have you received services from?
   a) not applicable
   b) one
   c) two
   d) three
   e) more than three

107. How satisfied were you with the psychological services that you received?
   a) not applicable
   b) very satisfied
   c) somewhat satisfied
   d) somewhat dissatisfied
   e) very dissatisfied
108. What is the likelihood that you would recommend psychological services to others?

   a) not applicable
   b) very likely
   c) somewhat likely
   d) somewhat unlikely
   e) unlikely

109. Did the experience of psychotherapy match your expectations?

   a) not applicable
   b) exceeded expectations
   c) met expectations
   d) did not meet expectations

110. How many friends or family members do you know who have received psychological services?

   a) none
   b) one
   c) two
   d) three
   e) more than three

111. How satisfied, on the whole, would you say friends or family who received psychological services were with their experience?

   a) not applicable
   b) very satisfied
   c) somewhat satisfied
   d) somewhat dissatisfied
   e) very dissatisfied

112. How many psychologists do you know outside of a professional setting (i.e., friends, family members, acquaintances)?

   a) none
   b) one
   c) two
   d) three
   e) more than three
APPENDIX B

AUTUMN 2000: CH-1  Attitudes Toward Psychologists

The purpose of the present study is to create an instrument to assess public attitudes toward psychologists. Recent research suggests that the general public holds positive if somewhat misinformed views of psychologists. Despite continued interest in the public's view of psychologists, little research has used consistent measurements of attitudes toward psychologists that would allow for comparisons among different research studies. In addition, little research has looked at racial/ethnic minorities' views of psychologists. The present study will address these issues by creating an instrument that is reliable (a measure that is consistent across time and that has questions that are consistent with one another) and valid (as instrument that measures what it's supposed to measure). Measures of ideas (such as "attitudes toward psychologists") must be reliable and valid to be useful in research. For example, researchers have speculated that taking an introductory psychology class may positively influence attitudes toward psychologists, while negative media portrayals of psychologists may negatively influence the public's opinions of psychologists. "Attitudes toward psychologists" can't be directly observed easily by researchers, however. To test this hypothesis, a researcher must have a way to accurately measure attitudes toward psychologists.

Towards the goal of creating a reliable and valid measure, you have just completed several questionnaires, including ones measuring attitudes toward psychologists, attitudes toward seeking professional help, perceptions of psychotherapy, fear of psychological treatment, feelings about using a social network, tendencies toward impression management, knowledge about psychologists, and contact with psychologists. Validity of the new measure will be assessed by looking at its relationship to other variables. For example, one would expect people who have positive attitudes toward psychologists to have less fear of psychological treatment. Reliability will be assessed by looking at how interrelated the items within the scale are and how consistent people answer the items on the scale over time.

If you are interested in learning more about the profession of psychology, you can read about psychologists in the Encyclopedia of Careers and Vocational Guidance, Vol. 4, (1997). H. R. Cosgrove and E. Taggart (Eds.). J. G. Ferguson Publishing Company: Chicago, Illinois. If during this research experience you became interested in seeking psychological services, you can learn more about counseling services on campus provided by OSU's Counseling and Consultation Service at 292-5766 or at
Psychological Services in Townshend Hall at 292-2059. If you would like more information about the research you just participated in or would like a copy of the results of the study, please contact the researcher at the address below.

Thank you for your participation in this study.

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292-3005