

AN EXPLORATION OF PSYCHOLOGISTS' PUBLIC IMAGE:  
FACTORS INFLUENCING STUDENTS' PERCEPTIONS  
OF PSYCHOLOGISTS

By

Lisa A. Voigt

A Research Paper

Submitted in Partial Fulfillment of the  
Requirements for the  
Master of Science Degree  
With a Major in

Guidance and Counseling

Approved: 2 Semester Credits

---

Gary Rockwood, Ph.D.  
Investigative Advisor

The Graduate College  
University of Wisconsin-Stout  
August, 2002

The Graduate College  
University of Wisconsin-Stout  
Menomonie, WI 54751

**ABSTRACT**

<b>(Writer)</b>	Voigt	Lisa	A.
<b>(Last Name)</b>		<b>(First)</b>	<b>(Initial)</b>

An Exploration of Psychologists' Public Image: Factors Influencing Students'

Perceptions of Psychologists

**(Title)**

Guidance and Counseling	Gary Rockwood, Ph.D.	August, 2002	55
-------------------------	----------------------	--------------	----

<b>(Graduate Major)</b>	<b>(Research Advisor)</b>	<b>(Month/Year)</b>	<b>(No. of Pages)</b>
-------------------------	---------------------------	---------------------	-----------------------

American Psychological Association (APA) Publication Manual, 5<sup>th</sup> Edition, 2001

**(Name of Style Manual Used in this Study)**

There is a continual interest in the way that individuals view psychologists, as it directly impacts individuals' likelihood of seeking psychological services, and the degree of trust clients place in their psychological service providers. There is currently little research about college students in this area, especially in relation to the impact the media and previous psychotherapy sources have upon students. This research is important for psychologists working with college students, as it may provide questions to investigate to understand what preconceptions students hold about psychologists. This will allow the therapeutic relationship to take on a new dimension, in that there will be a deeper understanding of the conceptions a client brings to psychotherapy.

The purpose of this study is to investigate common perceptions college students hold about psychologists, and to determine which factors influence those perceptions.

Information regarding the perceived ethical nature of psychologists and how these perceptions are influenced by the popular media is also investigated. One hundred five students enrolled in an undergraduate or graduate program at a Wisconsin university voluntarily participated in this study by completing the four section Perceptions of Psychologists and Ethical Standards Instrument. This questionnaire gathered information about students' ideas regarding the ethical and professional standards to which psychologists adhere, demographic information, and previous experience with therapy.

Data analyses using independent samples t tests and Pearson's r correlation coefficients were used in this research. Analyses suggested that individuals who received therapy at sometime in their lives had more favorable views of psychologists than did their counterparts who did not receive therapy. Also, individuals with previous therapy experience considered themselves to be more knowledgeable of the ethical standards psychologists follow, and believed that psychologists were more prone to follow ethical and professional standards, than those students who never received psychotherapeutic services. It was found that as individuals' impressions of psychologists become more favorable, their belief that psychologists are likely to uphold professional standards also increased.

Additional findings revealed that an individual's level of academic education positively correlated with knowledge of ethical guidelines in the field of psychology. Academic education also positively correlated with students' views regarding the favorability of psychologists. However, students' academic education did not correlate with perceptions of psychologists' likelihood to follow professional standards.

No significant relationship was detected between the perceived ethical nature of psychologists and the influence of the popular media upon perceptions of psychologists. No significant relationship was found between beliefs that psychologists will follow professional standards and the influence of the popular media upon perceptions of psychologists. Additionally, no relationship was detected between favorability of psychologists and the influence of popular media upon perceptions of psychologists. Implications of this research may suggest that the influence of the media upon individuals' perceptions of the field of psychology may not be as strong as previously thought, especially for individuals with education in the human services field. Additionally, it is possible that the media's influence upon perceptions of psychologists may be more covert than previously thought. In the future, replication of this research with a non-college population is recommended.

## Acknowledgements

I would like to thank the following people for their continual direction, support and love throughout the process of completing this project:

To my advisor, Gary: Thank you for your patience and flexibility with me as I ventured to complete this project. You are a brilliant scholar, a pragmatic instructor, and an extraordinarily caring and compassionate man. I am so thankful that I had the opportunity to learn from you, and will take with me a greater desire to continually know more.

To my family: Dad, Mom, Stephen, Natalie and Andrew... Thank you for your love, encouragement and support over the years. I appreciated the opportunity to bounce ideas off you, and your inquiries about the evolution of this project. Thank you for believing in me. To Jim, Yo, and Shawn, thank you for loving me, encouraging me, and providing several fun, much needed distractions from this project.

To my friends: Thank you for encouraging my progress, and for sacrificing time together as I mulled over ideas, and spent time writing. I can now play!

To my husband, and Love of My Life, Ryan: Thank you for believing in me. You provided the kick in the backside I needed to keep on track. Thank you for all the inspiring conversations about this subject as we took walks and drifted off to sleep. You help bring out my creative mind. Your support is invaluable. I will love you now, and forever.

To my Lord: Thank you for giving me a brilliant mind so that I can comprehend so many beautiful and intriguing aspects within this world. Thank you for my heart, and for the ability You have given me to understand how to meet the needs of people. Thank you for the gift of compassion, and endless excitement You have bestowed upon me. I will strive to use my time and talents wisely in the time You have given me on this magnificent planet.

## Table of Contents

	Page
Title Page.....	i
Abstract.....	ii-iv
Acknowledgements.....	v
Table of Contents.....	vi-vii
List of Tables.....	viii
Chapter I - Introduction.....	1-4
Psychology and the Media.....	1-2
College Students' Understanding of Psychology.....	2-3
Investigating Perceptions of Psychology.....	3-4
Statement of the Problem.....	5
Null Hypotheses.....	5-7
Definition of Terms.....	7-8
Chapter II - Review of the Literature.....	9
Introduction.....	9
Psychology's Public Image.....	9-10
Psychology as a Scientific Discipline.....	10-11
Ethics and Psychology.....	11-14
Psychology's Favorable Yet Inaccurate Public Image.....	14-16
The Media's Influence Upon Psychology.....	16-19
Measuring Misconceptions About Psychology.....	19-20
Reducing Misconceptions About Psychology.....	21-22

Chapter III – Methodology.....	23
Introduction.....	23
Participants.....	23-24
Instrumentation.....	24-25
Procedure.....	25-26
Data Analysis.....	26-28
Assumptions.....	28
Limitations.....	29-30
Chapter IV – Results.....	31
Introduction.....	31
Findings.....	31-37
Summary.....	37-39
Table I.....	38
Table II.....	39
Chapter V - Summary, Conclusion, Implications, and Recommendations.....	40
Summary.....	40-42
Conclusions.....	42-43
Implications.....	43-45
Recommendations.....	45-47
References.....	48-50
Appendix A.....	51-53
Appendix B.....	54
Appendix C.....	55

## Tables

	Page
Table I: Sources Contributing to Familiarity with Ethical Standards.....	38
Table II: Media Sources Influencing Perceptions of Psychologists.....	39

## CHAPTER I

### Introduction

The field of psychology is somewhat of a mystery to many people. As a result, a number of people question their level of understanding and trust for psychologists and psychological practices. It is not unusual for psychologists to be heard making comments regarding the suspicious reactions they get when disclosing their profession to others. Individuals who do not understand the profession of psychology have asked these psychologists if they are reading a person's mind or analyzing his or her behavior. Even when psychologists deny this supernatural power, some people still tend to shy away from them, out of fear that they will be "analyzed." The scrutiny that those in psychology face stems in part from inaccurate perceptions that the general public holds about the field.

#### *Psychology and the Media*

For years, the media has influenced the public's view of psychology. This influence has increased concern about psychology's public image among those in the field of psychology. There have been misunderstandings about how psychologists and psychiatrists differ, and what their roles have been with clients. The empiricism of psychology is often questioned, and the public is not quite sure how much they can trust "shrinks." In fact, it has been found that the public is largely unaware as to the exact nature of therapy and the psychotherapeutic relationship (Von Sydow & Reimer, 1998).

Many providers of psychological services are governed by licensing boards and ethical rules that dictate their behavior, which may lead the public to infer unethical practices happen more frequently than they really do. Despite the majority of mental health

professionals who conduct their practices in an ethical manner, the media highlights and conveys anecdotes of unethical behavior. Media sources provide a wide range of accurate and inaccurate views about the psychological profession. The public may be likely to take isolated cases, especially those that they hear about in the popular media, and assume that incidents such as these are the “norm” in the field of psychology (Pallak & Kilburg, 1986).

The media can strongly impact public knowledge about the field of psychology. Hollywood may provide the only view of psychology that some people ever see, unless they elicit assistance from psychological providers. The public may be wary of the services that they receive, or question whether services will be of any help. Due in part to the misrepresentation of ethical practices of psychologists in film and other popular media, it is necessary for psychologists to inform clients about the ethical practices and standards that are upheld when clients seek out psychological assistance.

### *College Students' Understanding of Psychology*

College students are a special subsection of the population who are important to consider in this research. Many colleges or universities have on-site counseling services for students to utilize while obtaining their education. Research involving college students can be helpful for psychologists who work in these settings, as the research may have implications for the counseling process.

Snyder, Hill & Derksen (1972) examined reasons why some students chose not to seek assistance through university counseling services. The most cited reasons why these facilities were not used include students believing that counseling was not “effective” or not “useful,” difficulty being ready for and trusting the counseling process, and being

aware of a stigma attached to obtaining psychological assistance. This study demonstrates that there are some students on college campuses who do not understand or trust the counseling process. As a result, these students may shy away from receiving much needed psychological assistance.

If students believe they would benefit from counseling, and seek therapy from university counseling services, they may question the appropriateness of which issues to discuss in counseling. Christensen, Birk, Brooks & Sedelacek (1976) examined students' perceptions of the helpfulness of obtaining assistance from college campus resources. They found that students would seek help from resources where they knew they could receive assistance. The conclusion was drawn that educating students as to types of assistance that are available to them, as well as educating students as to what types of issues may be appropriate for counseling, may increase the number of students who would consider seeking help from college counseling services. The importance of seeking help from professional sources in comparison to paraprofessional sources is emphasized in Christensen et al.'s (1976) article, as those trained to help with specific psychological issues may be of greater assistance to students than those who have not been trained.

### *Investigating Perceptions of Psychology*

The link between students seeking college counseling services for assistance, and the public's misconceptions about psychology is an interesting one. If people do not understand what the field of psychology has to offer, and they maintain a misconstrued, untrusting image of the field, chances are high that they will not seek psychological assistance when it may be helpful. This is one reason why the present research is valuable.

By further exploring students' images of psychology, those within the field can help to educate the less informed about what psychology truly involves and can provide. This research can be beneficial to the field of psychology by helping professionals know which misconceptions they still need to address with their clients, and in public forums.

Much of the research available regarding public perceptions of psychology is ten to thirty years old. Lent (1990) proposed several barriers to establishing an effective public image. These barriers include the public not knowing much about the profession of psychology (particularly the specialty of counseling psychology), having limited public exposure, and lacking a concrete professional identity. He suggests improving these barriers by increasing public knowledge about counseling psychology within the profession of psychology, increasing accurate representation in the public media, and promoting accurate consumer views and knowledge about the field. Lent also emphasizes the need to discuss current perceptions of psychology among graduate school students. Additionally, he emphasizes the need for more research to be conducted regarding public perceptions and misconceptions of the fields of counseling psychology.

Thus, in response to the needs identified in the previous research, the purpose of this study is to help psychologists to become aware of views individuals have about psychologists and their ethical practices. Also, information will be gained about factors contributing to these perceptions. This analysis is one step in providing current research regarding perceptions about the field of psychology.

### *Statement of the Problem*

The purpose of this research is threefold. The first purpose is to determine whether there is a significant difference between participants' previous experience with therapy and perceptions of psychologists. The second purpose is to determine the level of correlation between attitudes toward psychologists and the likelihood of psychologists to uphold professional standards. The third purpose is to determine the level of correlation between the perceived ethical nature of psychologists, and influence by the popular media. These correlations will be determined for a population of students completing their college or graduate education at the University of Wisconsin-Stout in Menomonie, Wisconsin.

### *Null Hypotheses*

The fourteen hypotheses for this study reflect assumptions about the material gathered from the four sections of the Perceptions of Psychologists and Ethical Standards Instrument. Some hypotheses investigate information from the same section, while other hypotheses investigate information taken from different sections.

Ho<sub>1</sub>: There is no difference in the way that individuals who have or have not had previous therapy experience will rate the favorability of psychologists.

Ho<sub>2</sub>: There is no difference in the way that individuals who have or have not had previous therapy experience will rate their familiarity with ethical standards that psychologists follow.

Ho<sub>3</sub>: There is no difference in the way that individuals who have or have not had previous therapy experience will rate proneness for psychologists to follow the profession's ethical guidelines.

Ho<sub>4</sub>: There is no relationship between views regarding the favorability of psychologists and views regarding the ethical nature of psychologists' actions.

Ho<sub>5</sub>: There is no relationship between the media's influence upon student perceptions of psychologists and views regarding the favorability of psychologists.

Ho<sub>6</sub>: There is no relationship between the media's influence upon student perceptions of psychologists and the likelihood of a psychologist to act in an ethical manner.

Ho<sub>7</sub>: There is no difference in the way that individuals who have not sought psychological assistance because they did not need it, compared with individuals who have not sought psychological assistance for other reasons, will view the favorability of psychologists.

Ho<sub>8</sub>: There is no difference in the way that individuals who have not sought psychological assistance because they did not need it, compared with individuals who have not sought psychological assistance for other reasons, will view a psychologists' proneness to act in an ethical manner.

Ho<sub>9</sub>: There is no difference in belief that a psychologist will act in a manner that upholds professional standards, for individuals who have or have not had previous therapy experience.

Ho<sub>10</sub>: There is no relationship between the influence of the media and respondents' perceptions that a psychologist will act in a manner that upholds professional standards.

Ho<sub>11</sub>: There is no relationship between the perceived influence of the media and previous therapy experience, as determined for individuals with previous therapy experience, by the number of sessions.

Ho<sub>12</sub>: There is no relationship between academic education and respondents' views regarding favorability of psychologists.

Ho<sub>13</sub>: There is no relationship between level of academic education and perceived likelihood to follow ethical guidelines determined by the profession of psychology.

Ho<sub>14</sub>: There is no relationship between level of academic education and familiarity with ethical guidelines within the field of psychology.

### *Definition of Terms*

*Ethical Standards*: Standards of ethical behavior by which psychologists follow.

*Ethical*: The term “ethical” refers to behavior that is virtuous, honorable and upright, and conforms to accepted professional standards of conduct.

*Popular Media Sources*: These sources refer to media such as film, magazines, newspapers, popular books, radio, and television.

*Professional Standards*: Standards of practice which are ethical and greatly accepted among practitioners in the profession of psychology.

*Psychologist*: The term “psychologist” refers to an individual with a master’s degree or a doctorate in the field of psychology, who is legally able to provide psychological counseling, in addition to other mental health services. This individual may or may not be licensed, according to individual state regulations. The training and specific professional standards that refer to a “psychologist” differ from individuals such as psychiatrists, mental health counselors, clinical social workers, and pastoral counselors. Despite this, no specific differentiation between terms was made for those who completed

this survey. Questions within this study focus primarily on psychotherapeutic services provided by psychologists, but are not limited to these actions.

## CHAPTER II

### Review of the Literature

For years, public perceptions of the field of psychology have been somewhat distorted. The general public has made inaccurate assumptions about the field based on messages they have received from a variety of sources, including the popular media (Stanovich, 1998). This paper examines previous research about psychology's public image and misconceptions about psychology being considered a scientific discipline (Nunnally & Kittross, 1958; Strong, Hendel & Bratton, 1971; Tinsley & Harris, 1976; McGuire & Borowy, 1979). The history of psychology's favorable, yet misconstrued 'public image' is discussed (Wood, Jones & Benjamin, 1986; Webb & Speer, 1985; Dixon, Vrochopoulos & Burton, 1997; Zytowski, Casas, Gilbert, Lent & Simon, 1988; Lent, 1990), as well as the types of issues for which the public believes they may seek psychological assistance (Gelso, Karl & O'Connell, 1972; Gelso & Karl, 1974; Gelso, Birk, Utz & Silver, 1977). Ways in which psychologists measure and attempt to dispel misconceptions about psychology are investigated, as well as the influence of ethics upon public perceptions of the field of psychology.

#### *Psychology's Public Image*

The field of psychology struggles with the public's misconceptions, which tend to create a distorted public image of the discipline. These misconceptions infiltrate the field, resulting in difficulty knowing what to expect when individuals seek psychological assistance. Psychologists, counselors, and other mental health providers are increasingly

aware of psychology's "image problem," and have been examining sources for the incongruence between public perceptions and reality (Wood, Jones & Benjamin, 1986).

The discipline of psychology is relatively young, when compared to other scientific arenas, with its primary development taking place over the past 100 years. Because psychology is continuing to emerge and define itself as a field, facts about what is true and what is not seem to be unclear to those who do not keep up to date with recent psychological developments (Stanovich, 1998).

### *Psychology as a Scientific Discipline*

The empirical rigor in psychological research and practice that is often seen in the sciences has been questioned by those involved in the more historic, concrete sciences. Guest (1948) researched the public's perceptions as to who among different professionals should be referred to as scientists. Among those studied were doctors, engineers, chemists, psychiatrists and psychologists. Fifty-five percent of respondents regarded psychologists as scientists, which was much lower than the other occupations to which psychologists were compared. Although this research is 50 years old, it has implications for the way in which psychologists may be viewed today by the public.

The image of psychology as a valuable science became apparent in a study by Nunnally & Kittross (1958). They found that individuals working in physical health care fields tended to be perceived as more important and more valuable than those working in mental health fields.

Factors that support psychology as a scientific discipline are explored in Stanovich's (1998) discussion of the empirical value of psychology among the helping profession. The

field of psychology differs from other human service professions. Stanovich explains, “The only two things that justify psychology as an independent discipline are that it studies the full range of human and non-human behavior with the techniques of science, and that applications that derive from this knowledge are scientifically based” (p. 6-7). As a result, the general public is often unaware about psychology’s empirical basis, and misconceptions about the field and its capabilities emerge.

### *Ethics and Psychology*

Psychology is a profession that is governed by an ethics code. The Ethical Principles of Psychologists and Code of Conduct, established by the American Psychological Association, was created to provide “a common set of values upon which psychologists build their professional and scientific work. This code is intended to provide both the general principles and the decision rules to cover most situations encountered by psychologists. It has as its primary goal the welfare and protection of the individuals with whom psychologists work” (American Psychological Association, 1992, p. 3). Embedded in this document are 6 General Principles, including the following: Competence, Integrity, Professional and Scientific Responsibility, Respect for People’s Rights and Dignity, Concern for Others’ Welfare, and Social Responsibility. These principles are ones by which psychologists make every effort to conduct their behavior, and from which more specific ethical regulations are created. This set of standards is well-known among psychologists. Most individuals within the general public are not familiar with the Ethical Principles of Psychologists and Code of Conduct, although some may be familiar with psychologist’s ethical standards.

Behnke (2001) discusses the balance psychologists face when they consider the Ethical Principles, which reflect the values of the profession of psychology, with the law, which reflects the values of society. A majority of the time, ethical standards and the law concur. As long as psychologists uphold these obligations, there will be no behavior to question. Instances where ethical standards and legal obligations are broken without regard for a client's rights are instances which draw public attention.

Hardwick (1999) examined the effect that exposure to ethical guidelines about the field of psychology had upon individual's perceptions of psychologists' behavior. Forty two potential therapy clients completed surveys that gathered information about the ethical nature of psychologists presented in vignettes. These vignettes contained information about confidentiality, dual relationships, and professional behavior. The potential therapy clients' results were compared to those of mental health professionals. Hardwick discovered that individuals' exposure to educative ethical material produced results that were similar to those of mental health professionals' ratings of the ethical behavior presented in the vignette. As a result, Hardwick concludes that educating the public about ethical behavior of psychologists might promote public views of psychologists.

Hillerbrand & Claiborn (1988) examined the effect that counseling experience had on college students' knowledge of ethical practices. They hypothesized that clients would have more knowledge of ethical practices than would nonclients, as clients would have first hand experience to draw upon to support their knowledge. It was found that participants with previous counseling experience did not have greater ethical knowledge than those who had counseling experience. It was also determined that the number of sessions and the setting where counseling was received were not factors that differed for clients and

nonclients. The same study was replicated at a Veterans Administration medical center, and overall, similar results were found. It was suggested that age, and therefore education level, may have influenced knowledge on particular items, as college students had more knowledge of ethical practices than did individuals at the Veterans Administration medical center.

Hillerbrand & Claiborn (1988) determined seven items regarding counseling ethics that were correctly answered by 90% of college students. This indicates that students had knowledge of the following areas: (a) employers' access to client records, (b) confidentiality and family members, (c) sexual contact between counselors and clients, (d) the general principle of confidentiality, (e) family members' access to client records, (f) confidentially after termination, and (g) written permission to seek information from other professionals. The seven items that were incorrectly answered by 66% of college students included the following areas: (a) confidentiality and counselor testimony under oath, (b) social interactions between counselors and clients, (c) work experience as a part of informed consent, (d) supervisors' access to client records, (e) success rates as part of informed consent, (f) confidentiality and supervision, and (g) written permission to keep case notes. These items indicated that students had the least amount of knowledge about these areas regarding counseling ethics.

Ethical knowledge about therapy was investigated further by Claiborn, Berberoglu, Nerison, & Somberg (1994). They found similar results as in the Hillerbrand & Claiborn (1988) study, in that both clients and nonclients knew about general ethical principles in relation to therapy but they were unsure about specific points. Additionally, they examined participants' experiences with ethical situations in therapy, and found that the situations

participants deemed as most unethical were the ones that occurred least frequently, while the situations where unethical behavior was uncertain occurred more often.

Lupton (1993) investigated 79 press reports which provided information about unethical practices at the Chelmsford Private Hospital in Australia. The effect that practices such as inappropriately administering Deep Sleep Therapy and Electric Convulsive Therapy were investigated. Lupton determined that the media played a large role in the dissemination of the conditions in the hospital. Although there is no doubt that these unethical practices should have been avoided, Lupton argues that the press may have caused damage to perceptions of psychiatric care givers. Although this incident represents one mass of unethical behavior, instances such as these can taint the public's view of psychology's ethical standards.

#### *Psychology's Favorable Yet Inaccurate Public Image*

Despite uncertainty about what the field of psychology entails, ideas that psychology lacks a certain amount of scientific rigor, and questions regarding the ethical standards upheld by psychologists, the public tends to look favorably upon the field of psychology. Wood et al. (1986) surveyed a diverse population of people living in four metropolitan areas who responded to a 26 item telephone survey. Results for individual respondents were combined, and an overall score for all respondents in each category were established. Of those interviewed, 91.35% responded favorably or somewhat favorably about the goodness and the helpfulness of the field of psychology. Respondents were somewhat aware of psychologists being involved with clinical and scientific activities, but most were unaware of the impact psychology had on their lives.

Webb & Speer (1985) researched the public image of psychology with middle-class students and their parents from Texas. They found that participants viewed psychologists “favorable but inaccurately.” Psychologists were described as “tender-minded clinicians preoccupied with psychological abnormality” (p. 1064). Additionally, participants in this study had a very difficult time distinguishing psychologists from psychiatrists, and saw them as being highly correlated ( $r = .98$ ). In response to their findings, Webb & Speer (1985) emphasized the need for psychologists to inform the public about the types of services psychologists provide, and not be concerned with their favorability ratings. As a result of a greater amount of information being conveyed to the public, they believe that there would be an increase in the use of psychological services, and a better match in programs and services for those seeking psychological assistance.

Since research showed that perceptions of those working in the field of psychology were positive, yet still tended to be incorrect, the American Psychological Association (APA) found it important to help increase accurate knowledge about the profession. In the early 1980's the APA became more aware of psychology's public image, and made changes in literature they published. For example, changes were made in the APA Monitor on Psychology, which is a publication that all members of the APA receive with their membership in the organization. Editors of the APA professional journal, American Psychologist, which is also distributed to all members of the APA, also decided to make changes in the material they published. In both publications, the APA increased content related to issues that would affect political arenas and the public media, and increase the rigor of the types of articles published (Pallak & Kilburg, 1986). These standards affected all members of the American Psychological Association who read the publications.

According to the American Psychological Association's Membership Department, the APA had grown to include 155,000 members and affiliates in 2002, all of whom were affected by the changes the APA made to their publications since the early 1980's (G. Ball, personal communication, July 26, 2002).

### *The Media's Influence Upon Psychology*

Misconceptions about the field of psychology and ethical standards are many. They tend to evolve from misinterpretations of the discipline, and infiltrate the general public through person to person communication, as well as through the media (Schneider, 1990). Pallack & Kilburg (1986) suggest that the field of psychology depends heavily on media sources such as television, radio, and print publications to convey information. Without accuracy in the communication of psychological ideas through these mediums, negative stereotypes and impressions that are "damaging and resistant to change" can surface. These negative images become damaging when they influence the general public's tendency to believe mistruths about psychology, or when individuals do not seek psychological assistance as a result of holding inaccurate, occasionally negative perceptions about the field.

Popular media sources used for entertainment purposes can convey strong messages about the field of psychology. For example, the film "What About Bob? (Ziskin & Oz, 1991) portrays a psychologist, Dr. Leo Marvin, who provides psychological services to an overbearing client, Bob, while the psychologist is on vacation with his family. Although the behavior of the Bob is more than Dr. Marvin can handle, this psychologist does not adhere to the ethical guidelines recommended by his profession. Dr. Marvin shares

confidential information about Bob with his family, and does not seek consultation from another psychologist when he becomes overwhelmed by Bob's extremely persistent behavior. Dr. Marvin engages in a dual relationship with Bob when he befriends him, and allows Bob to befriend his family. When Bob joins and then refuses to leave the vacationing Marvin family, Dr. Marvin has difficulty enforcing his personal boundaries and following through with appropriate action to get Bob to leave.

The film "Mumford" (Kasdan, 1999) portrays a young psychologist's quest to establish his practice in a new town. This man begins seeing many people within the small town where he lives, and is extremely liberal with the information he provides to the townspeople about his clients. Eventually, he falls madly in love with one of his clients. At the end of the movie, it was found that this man was falsely representing himself as a psychologist. At this point, everybody in town, as well as the audience watching the film associated this man's ethical standards and behaviors with those of a psychologist.

Films such as "What About Bob" and "Mumford" can be threatening to audiences whose primary exposure to psychological standards is the media. Nearly all psychologists watching these films know which ethical standards are being violated, and many cringe at the lack of ethical behavior being exemplified. The same psychologists may also be able to laugh at the situations that arise in the films, as in reality, some of these same situations occur. The difference between film and reality, though, is that a vast majority of situations in reality are handled after carefully considering the ethical and legal ramifications of the psychologist's actions, whereas in film, ethical standards are thrown out with little regard. The general public is less informed than psychologists about the accuracy of the depiction of psychologists in film. Therefore, it would not be difficult for those with little exposure

to the field of psychology to assume that the behavior of psychologists in certain films is acceptable and commonplace.

In a meta-content analysis of studies published between 1948 and 1995, Von Sydow & Reimer (1998) found that in 15 fiction films that included therapy, a successful outcome emerged in only five. Additionally, in 90% of cartoons, the client seeking psychological services did not improve by the end of the cartoon strip. In film, they found that psychiatrists are not seen as effective, and are often portrayed as dangerous. Psychologists could not be distinguished from other mental health providers and were often misrepresented as being able to prescribe medication.

Bram (1997) suggests that it is necessary to use public education to address popular misperceptions about the roles of psychologists, and the ethical standards that they uphold. Bram investigated popular perceptions of psychology among undergraduate students, and determined that exposure to talk shows, books, and movies were significant predictors of specific perceptions about the field, while direct exposure to therapy tended to be a stronger predictor of some perceptions.

In order to know which common misperceptions to address in the beginning stages of psychotherapy, a psychologist would benefit by knowing how an individual views the helping profession, and what factors may have influenced the client's perceptions of psychologists. Being able to identify factors that contribute to an individual's misperceptions about psychologists may help to address client concerns as a therapeutic interaction begins.

Several examples of educative material that can be helpful in dispelling inaccuracies about psychologists are cited in Bram (1997). Topics include educating the

client about the existence of dual relationships in therapy, the prevalence of misconduct, and the importance of supervision. While these are important starting points, it would be helpful to know more specifically which misperceptions and which violations of ethical behavior are most commonly believed by the public.

### *Measuring Misconceptions About Psychology*

Misconceptions about the field of psychology have been studied for different populations, and in different ways. McKeachie (1960) studied gains that college students in introductory psychology classes made in reference to knowing the truth about 100 true/false items on the Northwestern Misconceptions Test. The test measured the number and type of misconceptions about the field of psychology, and also measured gains that were made subsequent to the psychology course. It was found that overall, students gained knowledge in areas measured by the test, but gains or losses on individual items were different amongst colleges. Also, students showed little improvement on items that their professors saw as important for them to know about psychology, and little improvement on items that their professors saw as less important for them to know.

The Northwestern Misconceptions Test was one way researchers attempted to measure misconceptions about psychology. Ruble (1986) argued that tests using a true/false format to identify misconceptions about the field of psychology can be misleading. He suggested that these tests do not provide room for individuals to explain their thinking in relation to the items on the test. While true/false formats have been used for other inventories, the misconception tests have shown to be too ambiguous when measuring students' understanding of psychology. Improving test construction, using

modifiers and generalizations only when absolutely necessary, and avoiding ambiguous wording and topics that are heavily debated were suggested as ways to improve validity of these types of inventories.

The McCutcheon Test of Misconceptions (MTM6), which is in its sixth edition, is a multiple choice test used to measure common misperceptions about psychology (McCutcheon, 1991; McCutcheon, Davis, & Furnham, 1993). The test was designed to avoid many of the test construction problems that previous tests shared. It used a 51% elimination criterion to rid itself of items that were too easy, which was a criticism of previous tests. McCutcheon believed that researchers inaccurately concluded that students did not have misconceptions about psychology, as the tests used were easier than the researchers expected. A number of myths about psychology were abandoned as more accurate information became available to the public. New tests were not updated to take the new knowledge into account. Additionally, McCutcheon found that students who had taken previous psychology courses scored only slightly higher on the test than students who had not taken psychology courses. He reported that this finding was consistent with previous research regarding college students' perceptions about psychology and previous experience with psychology classes (McCutcheon, 1991). The MTM6 was administered to students in the United States and London. Students in London were significantly more accurate than students in the United States on ten items, and students in the United States were significantly more accurate than students in London on one item. These results suggest that there may be cross-cultural misconceptions about psychology (McCutcheon, Davis, & Furnham, 1993).

*Reducing Misconceptions About Psychology*

Lent (1990) suggests that steps be taken to promote the image of psychology as a science, and as a helping profession. He believes that graduate schools can be one place where students who are going into psychologically-related professions can be educated about the public image of psychology, and determine and what can be done to improve it. This education is a key component of helping those who are entering the profession of psychology to dismantle myths and to promote understanding about the field. In doing this, the next generation of psychologists may be better able to increase public knowledge about the field of psychology. Also, by increasing awareness of the empiricism of psychologically orientated research, more of this research may be accepted in other traditionally scientific fields, and may benefit those who were not previously aware of psychology's empirical side.

Research regarding how to disseminate information about psychologists and the services they provide has implications for psychologists today. Gelso, Karl, & O'Connell (1972) found that college students knew it was appropriate to seek psychological assistance for vocational-type problems, but did not see it as appropriate to seek counseling for personal and social issues, as did the counselors providing these services. Therefore, Gelso & McKenzie (1973) wanted to know the best way to for college counselors to educate students about the types of service they provided. They investigated whether presenting written information, in comparison with written information in addition to orally presented information, had an effect on students' views about issues for which they may seek counseling. It was found that presenting information to students orally (for example during group presentations in the residence halls), in addition to providing written information

about services elicited the largest change in views about issues for which they may seek counseling. Although providing written information increased the number of students seeking help, written information did not change students' views. This research is important in itself, in that counselors who wish to educate the public about the discipline of psychology and psychological services can utilize the finding that presenting information orally and in writing is more effective than simply providing written information, when attempting to alter preexisting attitudes.

Over the years the field of psychology had been challenged to define itself as a profession that is worthy to be recognized as a scientific discipline. It defined its ethical standards and attempted to convey them to clients who partake in psychological services. The media contributed to conveying accurate and inaccurate stereotypes of psychological practices. Since these factors evolved, the profession of psychology had been examined by a number of researchers interested in determining how these factors work together to elicit perceptions about psychology. In chapter three, the research instrument and procedures which investigate the influence of the aforementioned factors will be described in detail.

## CHAPTER III

### Methodology

#### *Introduction*

The methodology section provides a detailed description of the participants who volunteered to complete the survey, and describes the Perceptions of Psychologists and Ethical Standards Instrument used in this research. This section includes a thorough description of the procedure followed in conducting this study, and provides a summary of the statistical analysis used to analyze the data. This chapter concludes with an exploration of limitations to this study.

#### *Participants*

A convenience sample of one-hundred six undergraduate and graduate students at the University of Wisconsin-Stout completed the Perceptions of Psychologists and Ethical Standards Instrument. Female and male students between the ages of 18 and 51 participated in this research ( $M = 25.99$ ,  $SD = .80$ ). The cohort of students represented the following levels of education: 0% freshmen, 1.9% sophomores, 10.6% juniors, 51.1% seniors, 35.6% graduate/professional school students, and 1.0% of students could not be classified within the previous categories. One student chose not to report grade classification.

Students completing the survey were enrolled in the following summer classes: Human Development: Advanced Child Development and Guidance, Child Abuse and Neglect, Children's Literature, Psychological Testing-Exceptional Needs, and Research Foundations. These classes reflect a number of disciplines, including: Education, Human

Development and Family Living, Literature, and Vocational Rehabilitation. Students who completed the survey majored in a variety of disciplines, including: Education, Early Childhood Education, Industrial Technology Education, Human Development and Family Systems, School Psychology, and Vocational Rehabilitation. Approximately 24% of students completed one a college-level psychology class ( $M = 4.25$ ,  $SD = 5.34$ ), and approximately 44% of students completed at least one college-level ethics class, ( $M = 1.05$ ,  $SD = 1.28$ ).

### *Instrumentation*

The Perceptions of Psychologists and Ethical Standards Instrument was specifically designed by the primary researcher for use in this study, due to a lack of established instruments available that investigate perceptions of psychologists. The questionnaire uses several scales to respond to items. Respondents are asked to circle the most fitting response from a list of choices, rate their opinions or experiences on a five point Likert scale, write in demographic information, and briefly explain two items, depending on their responses.

The 25 item questionnaire is comprised of four sections. The first section, Ethical Standards, consists of six items that obtain information about impressions of psychologists, and familiarity of ethical standards that psychologists follow. It also inquires about the influence of popular media sources upon respondents' perceptions of psychologists. The second section, Professional Standards, is comprised of 6 areas that focus on professional practices and behaviors. These areas of conduct are drawn from the Ethical Principles of Psychologists and Code of Conduct, established by the American Psychological

Association (1992). Embedded in this document are 6 General Principles, including the following: Competence, Integrity, Professional and Scientific Responsibility, Respect for People's Rights and Dignity, Concern for Others' Welfare, and Social Responsibility. These principles are ones by which psychologists make every effort to conduct their behavior, and from which more specific ethical regulations are created. The third section, Demographics, gathers pertinent demographic information about respondents. The fourth section, Therapy Experience, is comprised of items that provide information about students' previous experience with therapy. If students sought psychological services in the past, they were asked several questions about the nature of that experience, and their reaction to it. If students had not received psychological services, they were asked to explain why-either by stating that they did not have a reason to seek psychological services, or to explain another reason.

Because the Perceptions of Psychologists and Ethical Standards Instrument was designed for use in this research, there are no normative data or measures of reliability, or validity available regarding its use. A complete copy of the instrument is included in Appendix A.

### *Procedure*

A list of all courses offered during the 2002 Summer Session at the University of Wisconsin-Stout was obtained. From this list, professors representing a number of disciplines within the University were e-mailed. Arrangements were made with the first five professors who agreed to allow the primary investigator to ask their students if they would participate in the research.

Upon arrival in the selected classes, a set of standard instructions were read aloud to the class (see Appendix B). The standard instructions contained information regarding students' rights when participating in research, potential risks and benefits to completing the research, and how to contact the primary investigator if students had questions after completing the survey. Students were assured that no negative consequences would be imposed upon them if they decided at any point to not complete the survey. Students were asked to refrain from providing any identifying information on the survey, so that their anonymity could be maintained.

Surveys were distributed to the students and they were asked to read the informed consent form (see Appendix C). Questions about the survey were answered. Students were informed that the survey took approximately 10 minutes to complete, and that they could begin. When it looked like all students had finished, the surveys were collected by the primary investigator, and placed in a large envelope. All students were individually thanked for participating, and a brief explanation of the nature of the research was given.

### *Data Analysis*

The statistical analysis program, Statistical Package for the Social Sciences (SPSS), version 11.0 was used to analyze data. Pearson product-moment correlation coefficients ( $r$ ) were computed to identify whether correlations exist between the variables under investigation. Although many variables were ordinal in nature, approximately equal distances existed between items on the Likert-type scales used in this research. Therefore, it was not necessary to use Spearman's rho to analyze data. Effect size for significant correlations was determined by squaring the value of  $r$ . This provides an indication of the

amount of variance in the dependent variable that is explained by the independent variable, or the amount of shared variance (Newton & Rudestam, 1999). Additionally, *t* tests for independent samples were conducted to determine whether significant differences exist between the groups under investigation in regard to the variable being investigated.

The 14 hypothesis in this research were derived from combinations of items taken from the four parts of the Perceptions of Psychologists and Ethical Standards Instrument. Each hypothesis investigates a relationship or a difference between two of the items on the survey. Hypothesis 1 investigates the difference between item #1 from the Therapy Experience section and item # 1 from the Ethical Standards section. Hypothesis 2 investigates the difference between item #1 from the Therapy Experience section and item #2 from the Ethical Standards section. Hypothesis 3 investigates the difference between item #1 from the Therapy Experience section and item #4 from the Ethical Standards section. Hypothesis 4 investigates the relationship between item #1 from the Ethical Standards section and item # 4 from the Ethical Standards section. Hypothesis 5 investigates the relationship between item #5 from the Ethical Standards section and #1 from the Ethical Standards section. Hypothesis 6 investigates the relationship between item #5 from the Ethical Standards section and item # 1 from the Ethical Standards section. Hypothesis 7 investigates the difference between item #2 from the Therapy Experience section and item #1 from the Ethical Standards section. Hypothesis 8 investigates the difference between item #2 from the Therapy Experience section and item # 4 from the Ethical Standards section. Hypothesis 9 investigates the difference between item #1 from the Therapy Experience section and the composite score from items 1-6 from the Professional Standards section. Hypothesis 10 investigates the relationship between item

#5 from the Ethical Standards section and the composite score from items 1-6 from the Professional Standards section. Hypothesis 11 investigates the relationship between item #5 from the Ethical Standards section and item #4 from the Therapy Experience section. Hypothesis 12 investigates the relationship between item # 1 from the Demographics section and item #1 from the Ethical Standards section. Hypothesis 13 investigates the relationship between item #1 from the Demographics section and the composite score from items 1-6 from the Professional Standards section. Hypothesis 14 investigates the relationship between item #1 from the Demographic section and item #2 from the Ethical Standards section.

#### *Assumptions*

The following assumptions were made about the sample of individuals who completed the Perceptions of Psychologists and Ethical Standards Instrument.

1. Individuals participated voluntarily in this research, and were confident that their responses could not be individually identified in any way.
2. Individuals responded carefully and honestly to the survey.
3. Individuals responded to the survey in manner that best describes their current perceptions and past experiences.

### *Limitations*

There are several potential methodological limitations to this research. They include the following:

1. The generalizability of these results may be limited to the sample population at the University of Wisconsin-Stout.
2. Although this research is not meant to be generalized to the entire population, factors such as ethnicity, race, and previous experience with mental health providers other than psychologists may have influence upon those to be included in the population to which this research can be generalized.
3. There may have been a selection bias on behalf of the professors who responded to allow this research to take place in their classes. Professors who value research in the human services field may have been more likely to allot class time for this research.
4. One class surveyed was taught by a psychologist at the University, which may influence their perceptions of psychologists in general.
5. Overall, the classes surveyed were ones that prepared students for the human services profession. Students in these classes may be more familiar with the work of psychologists than students in disciplines such as industry, mathematics and science. Due to the research utilizing a convenience sample, a more representative sample of University of Wisconsin-Stout students was not obtained.
6. Due to differences in the way that individuals interpreted scales within the survey, variation in increments between responses may be relative to each individual.

7. The Perceptions of Psychologists and Ethical Standards Instrument was first used with this sample of students. Therefore, at this time, the instrument has no comparative normative data, nor measures of reliability or validity.

Although it is possible that one or a combination of these limitations exist, the current study can be used as a basis for additional research about public perceptions of psychologists. In the future, researchers may be better able to control for extraneous factors that could influence the robust nature of the research.

## CHAPTER IV

### Results

#### *Introduction*

This chapter will provide a summary of the data collected, and a description of the statistical procedures used to analyze data. A summary of the following research results will be discussed: differences between participants' previous experience with therapy and their perceptions of psychologists, the level of correlation between attitudes toward psychologists and the likelihood of psychologists to uphold professional standards, and the relationship between the perceived ethical nature of psychologists, and influence by the popular media. For all appropriate statistical tests, a two-tailed test with an alpha level of .05 was used.

#### *Findings*

*H<sub>01</sub>: There is no difference in the way that individuals who have or have not had previous therapy experience will rate the favorability of psychologists.*

A *t* test for independent samples was conducted to determine whether a difference exists between the groups within this hypothesis. Data analysis revealed a significant difference between groups  $t(103) = 2.59, p = 0.01$ , with individuals having seen a therapist or counselor for psychological services in the past ( $M = 3.96, SD = .83$ ) exhibiting a more favorable view of psychologists than individuals who had not seen a therapist or counselor ( $M = 3.51, SD = .94$ ).

*Ho<sub>2</sub>: There is no difference in the way that individuals who have or have not had previous therapy experience will rate their familiarity with ethical standards that psychologists follow.*

A *t* test for independent samples was conducted to determine whether a difference exists between the two groups under investigation. Data analysis revealed a significant difference between groups  $t(103) = 2.89, p = .005$ , with individuals having seen a therapist or counselor for psychological services in the past ( $M = 3.24, SD = 1.08$ ) confident that they possess a greater awareness of ethical standards psychologists follow than individuals who had not seen a therapist or counselor ( $M = 2.60, SD = 1.18$ ).

*Ho<sub>3</sub>: There is no difference in the way that individuals who have or have not had previous therapy experience will rate proneness for psychologists to follow the profession's ethical guidelines.*

A *t* test for independent samples was conducted to determine whether a difference exists between the two groups under investigation. No significant difference was detected between the beliefs individuals hold about psychologists' proneness to follow the profession's ethical guidelines ( $M = 4.06, SD = .62$ ), and individuals' previous therapy experience ( $M = 3.87, SD = .75$ ),  $t(103) = 1.39, p = .17$ .

*Ho<sub>4</sub>: There is no relationship between views regarding the favorability of psychologists and views regarding the ethical nature of psychologists' actions.*

A Pearson product-moment correlation coefficient was calculated to assess the relationship between the two variables under investigation. Data analysis revealed a weak

positive correlation between views regarding the favorability of psychologists, and views regarding the ethical nature of psychologists' actions,  $r(103) = .33, p = .001$ . The effect size  $r^2 = .11$  reveals a very weak relationship between the variables. Only a small amount of variance in views regarding favorability of psychologists is accounted for by views regarding the ethical nature of psychologists' actions.

*Ho<sub>5</sub>: There is no relationship between the media's influence upon student perceptions of psychologists and views regarding the favorability of psychologists.*

A Pearson product-moment correlation coefficient was calculated to assess the relationship between the two variables under investigation. Data analysis fails to reveal a relationship between the media's influence upon students' perceptions of psychologists, and students' views regarding the favorability of psychologists,  $r(103) = .071, p = .47$ .

*Ho<sub>6</sub>: There is no relationship between the media's influence upon student perceptions of psychologists and the likelihood of a psychologist to act in an ethical manner.*

A Pearson product-moment correlation coefficient was calculated to assess the relationship between the two variables under investigation. Data analysis fails to reveal a relationship between the media's influence upon students' perceptions of psychologists, and the perceived likelihood of a psychologist to act in an ethical manner,  $r(103) = .139, p = .16$ .

*Ho<sub>7</sub>: There is no difference in the way that individuals who have not sought psychological assistance because they did not need it, compared with individuals who have not sought psychological assistance for other reasons, will view the favorability of psychologists.*

A *t* test for independent samples was conducted to determine whether a difference exists between the two groups under investigation. It was found that no significant difference exists between the way individuals who have not seen a psychologist because they did not need psychological services ( $M = 3.58$ ,  $SD = .91$ ), and those who have not sought psychological assistance for other reasons ( $n = 3$ ) ( $M = 2.63$ ,  $SD = 1.53$ ), view the favorability of psychologists,  $t(51) = 1.64$ ,  $p = .11$ .

*Ho<sub>8</sub>: There is no difference in the way that individuals who have not sought psychological assistance because they did not need it, compared with individuals who have not sought psychological assistance for other reasons, will view a psychologists' proneness to act in an ethical manner.*

A *t* test for independent samples was conducted to determine whether a difference exists between the two groups under investigation. While it was found that no significant difference exists between variables,  $t(51) = 1.92$ ,  $p = .06$ , there is a very strong trend indicating that individuals who have not seen a psychologist because they did not need psychological services ( $M = 23.24$ ,  $SD = 4.04$ ) view psychologists as being more prone to act in an ethical manner than those who have not sought psychological assistance for other reasons ( $n = 3$ ) ( $M = 18.67$ ,  $SD = 3.06$ ).

*Ho<sub>9</sub>: There is no difference in belief that a psychologist will act in a manner that upholds professional standards, for individuals who have had or have not had previous therapy experience.*

A *t* test for independent samples was conducted to determine whether a difference exists between the two groups under investigation. While it was found that no significant difference exists between variables, there is a very strong trend indicating that individuals with previous therapy experience ( $M = 24.47$ ,  $SD = 2.72$ ) tend to have greater expectations that psychologists will act in a manner that upholds professional standards, than those individuals who had not received therapy ( $M = 23.11$ ,  $SD = 4.09$ ),  $t(102) = 1.97$ ,  $p = .051$ .

*Ho<sub>10</sub>: There is no relationship between the influence of the media and respondents' perceptions that a psychologist will act in a manner that upholds professional standards.*

A Pearson product-moment correlation coefficient was calculated to assess the relationship between variables under investigation. Data analysis fails to reveal a relationship between the media's influence upon individuals' perceptions that a psychologist will act in a manner that upholds professional standards,  $r(102) = .097$ ,  $p = .36$ .

*Ho<sub>11</sub>: There is no relationship between the perceived influence of the media, and previous therapy experience, as determined for individuals with previous therapy experience, by the number of sessions.*

A Pearson product-moment correlation coefficient was calculated to assess the relationship between the two variables under investigation. Data analysis revealed a weak

to moderate negative correlation between the perceived influence of the media, and amount of previous therapy experience, as determined by the number of previous therapy sessions,  $r(47) = -.40, p = .005$ . A small to moderate amount of variance in the perceived influence of the media upon individuals' perceptions of psychologists is accounted for by the number of therapy sessions individuals attended.

*Ho<sub>12</sub>: There is no relationship between academic education and respondents' views regarding favorability of psychologists.*

A Pearson product-moment correlation coefficient was calculated to assess the relationship between the two variables under investigation. Data analysis revealed a weak positive correlation between views regarding the favorability of psychologists, and individuals' academic education level,  $r(102) = .21, p = .032$ . The effect size  $r^2 = .045$  reveals a weak relationship between the variables. Only a small amount of variance in views regarding favorability of psychologists is accounted for by individuals' academic education level.

*Ho<sub>13</sub>: There is no relationship between level of academic education and perceived likelihood to follow ethical guidelines determined by the profession of psychology.*

A Pearson product-moment correlation coefficient was calculated to assess the relationship between the two variables under investigation. Data analysis fails to reveal a relationship between individuals' level of academic education and perceived likelihood to follow ethical guidelines determined by the profession of psychology,  $r(102) = .12, p = .24$ .

*Ho<sub>14</sub>: There is no relationship between level of academic education and familiarity with ethical guidelines within the field of psychology.*

A Pearson product-moment correlation coefficient was calculated to assess the relationship between the two variables under investigation. Data analysis revealed a weak positive correlation between familiarity with ethical guidelines within the field of psychology and individuals' academic education level,  $r(102) = .25, p = .01$ . The effect size  $r^2 = .063$  reveals a weak relationship between the variables. Only a small amount of variance in familiarity with ethical guidelines within the field of psychology is accounted for by individuals' academic education level.

### *Summary*

Overall, the results of this research suggest the following conclusions for undergraduate and graduate students at the University of Wisconsin Stout. Individuals who received therapy at sometime in their lives had more favorable views of psychologists than did their counterparts who did not receive therapy. Also, individuals with previous therapy experience considered themselves to be more knowledgeable of the ethical standards psychologists follow, less prone see the media as an influencing factor in their perceptions of psychologists, and believed that psychologists were more prone to follow ethical and professional standards, than those students who never received psychotherapeutic services. Information regarding sources that most influenced individuals' familiarity with the ethical standards that psychologists follow is provided in Table 1.

Table 1

Sources Contributing to Familiarity with Ethical Standards

Source	(n = 94)	Percent
Academic Education		55.3
Media Sources		14.9
Family/Friend's Experience		5.3
Personal Experience with Therapists		17.0
Other		7.4

Note: 11 students did not respond to this item. (N=105).

It was found that as individuals' impressions of psychologists become more favorable, their belief that psychologists are likely to uphold professional standards also increases.

As an individual's level of academic education (as defined by year in school) increases, so does that individuals' knowledge of ethical guidelines in the field of psychology. Academic education also positively correlates with students' views regarding the favorability of psychologists. However, students' academic education does not correlate with their perceptions of psychologists' likelihood to follow professional standards determined by the profession.

There was not a significant relationship detected between the perceived ethical nature of psychologists, beliefs psychologists will follow professional standards, and the perceived influence of popular media. Additionally, no relationship was detected between favorability of psychologists and the influence of popular media. Information was collected about which media sources most influence individuals' perceptions of

psychologists (see Table 2). Film and television combined represent 78.4% of the media sources influencing perceptions of psychologists. This is a very large portion of the type of media that influences the public. Additionally, only 2.9% of students indicated that they were not at all influenced by any of the media sources listed.

Table 2

Media Sources Influencing Perceptions of Psychologists

Source	(n = 102)	Percent
Film		33.3
Magazines		6.9
Newspapers		6.9
Popular Books		2.9
Radio		2.0
Television		45.1
Not At All Influenced by Media		2.9

Note: 3 students did not respond to this item. (N=105).

Chapter 5 will provide a discussion of the results found in this research, and the conclusions that can be drawn from the findings. Recommendations for further research about perceptions of psychologists will also be discussed.

## CHAPTER V

### Summary, Conclusions, Implications, and Recommendations

#### *Summary*

This chapter provides a discussion of the results of this research, as well as conclusions that can be drawn from the research. Implications for the effect that this information may have a wider population are investigated, as well as recommendations for future research.

In summary, public perceptions of the field of psychology have historically been somewhat distorted. The general public makes inaccurate assumptions about the field based on messages they receive from a variety of sources, including the popular media (Stanovich, 1998). This paper examined previous research regarding psychology's public image and psychology being considered a scientific discipline (Nunnally & Kittross, 1958; Strong, Hendel & Bratton, 1971; Tinsley & Harris, 1976; McGuire & Borowy, 1979). The history of psychology's favorable, yet misconstrued 'public image' was discussed (Wood, Jones & Benjamin, 1986; Webb & Speer, 1985; Dixon, Vrochopoulos & Burton, 1997; Zytowski, Casas, Gilbert, Lent & Simon, 1988; Lent, 1990), as well as the types of issues for which the public believes they may seek psychological assistance (Gelso, Karl & O'Connell, 1972; Gelso & Karl, 1974; Gelso, Birk, Utz & Silver, 1977). Ways in which psychologists measure and attempt to dispel misconceptions about psychology were investigated, as well as the influence of ethics upon public perceptions of the field of psychology.

The purpose of this study was to investigate common perceptions college students hold about psychologists, and to determine which factors influence those perceptions.

Information regarding the perceived ethical nature of psychologists and how these perceptions are influenced by the popular media was also investigated. One hundred five undergraduate and undergraduate students at a Wisconsin university, primarily studying education or other human-service subjects, participated in this research. Students completed the four section Perceptions of Psychologists and Ethical Standards Instrument. This questionnaire gathers information about students' ideas regarding the ethical and professional standards to which psychologists adhere, demographic information, and previous experience with therapy.

Data analyses using independent samples *t* tests and Pearson's *r* correlation coefficients were used in this research. Analyses suggest that individuals who received therapy at sometime in their lives had more favorable views of psychologists than did their counterparts who did not receive therapy. Also, individuals with previous therapy experience considered themselves to be more knowledgeable of the ethical standards psychologists follow, and believed that psychologists were more prone to follow ethical and professional standards, than those students who never received psychotherapeutic services. It was found that as individuals' impressions of psychologists become more favorable, their belief that psychologists are likely to uphold professional standards also increases.

Additional findings revealed that an individual's level of academic education positively correlates with knowledge of ethical guidelines in the field of psychology. Academic education also positively correlates with students' views regarding the favorability of psychologists. However, students' academic education does not correlate with perceptions of psychologists' likelihood to follow professional standards.

No significant relationship was detected between the perceived ethical nature of psychologists, beliefs psychologists will follow professional standards, and the perceived influence of popular media. Additionally, no relationship was detected between favorability of psychologists and the influence of popular media.

### *Conclusions*

Based upon information gained from previous research, a need to investigate factors relating to perceptions of psychologists seems to be an important one. It has implications for the therapeutic relationship, especially in dispersing preconceptions about therapists and the process of psychotherapy as it begins.

The present research suggested that the amount of academic education students obtained was related to their views regarding favorability of psychologists as well as their familiarity with ethical guidelines within the field of psychology. This is an interesting finding, as McCutcheon, Davis, & Furnham (1993) found that students who had taken previous psychology courses scored only slightly higher on the McCutcheon Test of Misconceptions (MTM6) than students who had not taken psychology courses. He reported that this finding was consistent with previous research regarding college students' perceptions about psychology and previous experience with psychology classes (McCutcheon, 1991). This may suggest that overall academic education may have more of an effect upon knowledge about certain areas of psychology, for example knowledge about ethical principles.

Hillerbrand & Claiborn (1988) examined the effect that counseling experience had on college students' knowledge of ethical practices. They hypothesized that clients would

have more knowledge of ethical practices than would nonclients, as clients would have first hand experience to draw upon to support their knowledge. In their study, it was found that participants with previous counseling experience did not have greater ethical knowledge than those who had counseling experience. In the current study, it was found that individuals who had previous therapy experience reported that they had more knowledge of the ethical principles that psychologists follow than did individuals without previous therapy experience. Differences in the research may exist because the current research used a self-report inventory to identify how much individuals thought they knew about ethical principles, as compared with actual knowledge of ethical principles and ethical situations used in Hillerbrand & Claiborn's (1988) research. Regardless of the reason differences may exist, individuals who had previous therapy experience thought they knew more about ethical principles than did those who had no previous therapy experience.

This research also found a relationship between having previous therapy experience and perceiving psychologists as being more favorable, and acting in a more ethical manner than did those who did not have previous therapy experience. This finding suggests that the perceptions of individuals who have been in therapy are less influenced by sources outside the therapeutic relationship than those who have not been in therapy. This finding supports previous research that found that personal therapy experience is a strong factor in predicting perceptions of psychology (Bram, 1997).

### *Implications*

Implications exist for college students seeking psychotherapy. Based upon this research, students previously engaged in psychotherapy, students further along in their

education, and students studying human service professions will most likely have more favorable expectations of psychologists with whom they intend to work. Based upon the research finding that academic education level positively influences views regarding the favorability of psychologists, it is suggested that those who are enrolled in their first years at a university may need more instruction as to what psychology and psychotherapy entail, in order to reduce the underlying assumptions that influence less favorable views of psychologists. As other students at the University, especially those in the fields of education and human service, increase their knowledge about the field of psychology, they tend to have more favorable views of psychologists. Therefore, students who are studying professions outside the human services realm may need more information as to what the field can provide, so that the probability that they will form more favorable views of psychologists may increase. This conclusion is only speculative, as few students outside the human services field were involved in this research, due to the composition of the convenience sample.

There are also implications about the influence the media has upon opinions about psychologists. While only 15% of students report that they formed their perceptions about the ethical standards which psychologists follow from the media, 55% of students report that they formed their perceptions as a result of academic education. This research shows that students give more credit to what they have learned in school than to what they have learned from media sources that are most likely less accurate than academic ones. Overall, this research has shown that film and television make up 78% of the media sources that students report influence their perceptions of psychologists. As was previously mentioned, psychologists may benefit from discussing the ethical principles they follow with students

who have spent time watching television and films with psychologists portraying behavior that violates the ethical principles of their profession. It would be interesting to find out where first year college students who have not been in therapy get their views regarding psychologists' ethical standards. In this research, it was found that after academic education and personal experience in therapy, students attributed learning ethical standards from the media: mainly television and film. Asking students about their perceptions at the beginning of therapy might therefore increase the student's understanding of accurate ethical standards followed by the profession of psychology.

### *Recommendations*

Due to the sample of students being representative of a number of majors, but not extremely representative of all disciplines offered at the University, implications cannot be established for students enrolled in all other programs. It is recommended that this research be replicated, and include first year college students and students studying a wider variety of disciplines at the University. It is also recommended that this research be replicated with the general population to see how individuals without as much education view psychologists.

Findings within this research reveal that an individual's education level positively correlates with knowledge of ethical guidelines in the field of psychology. Academic education also positively correlates with individuals' ideas regarding favorability of psychologists. However, individuals' academic education does not correlate with ideas regarding psychologists' likelihood to follow professional standards. This is an interesting finding, as individuals with more education are not more confident than individuals with

less education that psychologists will adhere to professional standards that the profession follows. It would be helpful to know why individuals with more education, and why individuals who think they know more about the ethical standards psychologists follow, do not believe more strongly than others that psychologists will actually follow these guidelines. Specifically, more research needs to be done to find out which of the professional standards these individuals do not believe psychologists are as apt to follow.

Further research about the accuracy of knowledge about the profession of psychology and its ethical practices are important areas to be explored. The present research focused primarily on gathering information about favorability of the field, and what factors influence those perceptions. Although the research did not show that students believed that the media influenced their perceptions, there might be underlying influences that students do not realize are inaccurate. When McCutcheon first designed the McCutcheon Test of Misconceptions, (1991) he reported that many items that were thought to be pervasive misconceptions about psychology were not found as being misconceptions at all. There were unidentified influences that occurred between the time particular misconceptions arose, were identified as misconceptions, and were then dispelled. The changing nature of perceptions of psychology is a primary reason why research about this topic is so important.

Investigating some of the factors influencing public perceptions may provide more information about the specific beliefs that individuals hold about psychologists and their practices. For example, in this research, differences in likelihood for a psychologist to act in such a way that would uphold ethical standards were investigated. It would have been interesting to investigate differences amongst which professional standards students

thought psychologists would uphold. When these factors were informally investigated in this research, there appeared to be some level of difference between individuals' scores.

Therefore more investigative research, especially from a qualitative perspective may be the next step in determining which perceptions of psychologists are often held, and which are inaccurate.

## References

- American Psychological Association (1992). Ethical principles of psychologists and code of conduct. *American Psychologist*, 47(12), 1597-1611.
- Behnke, S. (2001). A question of values. *Monitor On Psychology*, 32(9), 86.
- Bram, A. D. (1997). Perceptions of psychotherapy and psychotherapists: Implications from a study of undergraduates. *Professional Psychology, Research and Practice*, 28(2), 170-179.
- Christensen, K. C., Birk, J. M., Brooks, L., & Sedelacek, W. E. (1976). Where clients go before contacting the university counseling center. *Journal of College Student Personnel*, 17, 396-399.
- Claiborn, C. D., Berberoglu, L. S., Nerison, R. M., & Somberg, D. R. (1994). The client's perspective: Ethical judgments and perceptions of therapist practices. *Professional Psychology: Research and Practice*, 25(3), 268-274.
- Dixon, D. N., Vrchopoulos, S. & Burton, J. (1997). Public image of counseling psychology: What introductory textbooks say. *The Counseling Psychologist*, 25(4), 674-682.
- Gelso, C. J., Birk, J. M., Utz, P. W., & Silver, A. E. (1977). A multigroup evaluation of the models and functions of university counseling centers. *Journal of Counseling Psychology*, 24(4), 338-348.
- Gelso, C. J., & Karl, N. J. (1974). Perceptions of "counselors" and other help-givers: What's in a label. *Journal of Counseling Psychology*, 21(3), 243-247.
- Gelso, C. J., Karl, N. J., & O'Connell, T. (1972). Perceptions of the role of a university counseling center. *Journal of College Student Personnel*, 13, 441-447.
- Gelso, C. J., & McKenzie, J. D. (1973). Effect of information on students' perceptions of counseling and their willingness to seek help. *Journal of Counseling Psychology*, 20(5), 406-411.
- Guest, L. (1948). The public's attitudes toward psychologists. *American Psychologist*, 3, 135-139.
- Hardwick, D. A. (1999). Potential clients' evaluations of the ethical behavior of psychologists (Doctoral dissertation, Miami Institute of Psychology of the Caribbean Center for Advanced Studies, 1999). *Dissertation Abstracts International*, 60, 4889.

- Hillerbrand, E. T., & Claiborn, C. D. (1988). Ethical knowledge exhibited by clients and nonclients. *Professional Psychology: Research and Practice*, 19(5), 527-531.
- Kasdan, L. (Producer/Director). (1999). *Mumford* [Motion picture]. United States: Touchstone Video.
- Lent, R. W. (1990). Further reflections on the public image of counseling psychology. *The Counseling Psychologist*, 18, 324-332.
- Lupton, D. (1993). Back to bedlam? Chelmsford and the press. *Australian and New Zealand Journal of Psychiatry*, 27(1), 140-148.
- McCutcheon, L. E. (1991). A new test of misconceptions about psychology. *Psychological Reports*, 68, 647-653.
- McCutcheon, L. E., Davis, G., & Furnham, A. (1993). A cross-national comparison of students' misconceptions about psychology. *Psychological Reports*, 72, 243-247.
- McKeachie, W. (1960). Changes in scores on the northwestern misconceptions test in six elementary psychology classes. *Journal of Educational Psychology*, 51(4), 240-244.
- McGuire, J. M., & Borowy, T. D. (1979). Attitudes toward mental health professionals. *Professional Psychology*, 10, 64-79.
- Newton, R. R., & Rudestam, K. E. (1999). *Your statistical consultant: Answers to your data analysis questions*. Thousand Oaks, CA: Sage Publications.
- Nunnally, J., & Kittross, J. M. (1958). Public attitudes toward mental health professions. *American Psychologist*, 13, 589-594.
- Pallack, M. S., & Kilburg, R. R. (1986). Psychology, public affairs, and public policy: A strategy and review. *American Psychologist*, 41, 933-940.
- Ruble, R. (1986). Ambiguous psychological misconceptions. *Teaching of Psychology*, 13(1), 34-36.
- Schneider, S. F. (1990). Psychology at a crossroads. *American Psychologist*, 45(4), 521-529.
- Stanovich, K. E. (1998). *How to think straight about psychology* (5<sup>th</sup> ed.). New York: Addison Wesley Longman.
- Strong, S. R., Hendel, D. D., & Bratton, J. C. (1971). College students' views of campus help-givers: Counselors, advisers, and psychiatrists. *Journal of Counseling Psychology*, 18(2), 234-238.

- Snyder, J. R., Hill, C. E. & Derksen, T. P. (1972). Why some students do not use university counseling facilities. *Journal of Counseling Psychology*, 19(4), 263-268.
- Tinsley, H. E. A., & Harris, D. J. (1976). Client expectations for counseling. *Journal of Counseling Psychology*, 23(3), 173-177.
- Von Sydow, K. & Reimer, C. (1998). Attitudes toward psychotherapists, psychologists, psychiatrists, and psychoanalysts: A meta-content analysis of 60 studies published between 1948 and 1995. *American Journal of Psychotherapy*, 52(4), 463-489.
- Webb, A. R., & Speer, J. R. (1985). The public image of psychologists. *American Psychologist*, 40, 1063-1064.
- Wood, W., Jones, M., & Benjamin, L. T. Jr. (1986). Surveying psychology's public image. *American Psychologist*, 41, 947-953.
- Ziskin, L. (Producer), & Oz, F. (Director). (1991). *What about Bob?* [Motion picture]. United States: Touchstone Video.
- Zytowski, D. G., Casas, J. M., Gilbert, L. A., Lent, R. W., & Simon, N. P. (1988). Counseling psychology's public image. *The Counseling Psychologist*, 16, 332-346.

## Appendix A

**PERCEPTIONS OF PSYCHOLOGISTS AND ETHICAL STANDARDS INSTRUMENT**

Two definitions that you may need to know are those for “ethical” and for “psychologist.”

The term “ethical” refers to behavior that conforms to accepted professional standards of conduct.

The term “psychologist” refers to an individual with a master’s degree or a doctorate in the field of psychology, who is legally able to provide psychological counseling, in addition to other mental health services.

**PART I - ETHICAL STANDARDS**

Please answer the following questions by marking the response that best represents your opinion:

1. Overall, what is your impression of psychologists? (Please circle one response.)

Unfavorable    Somewhat Unfavorable    Neutral    Somewhat Favorable    Favorable

2. How familiar are you with the ethical standards that psychologists follow?  
(Please circle one response.)

Not Familiar    Relatively Unfamiliar    Somewhat Familiar    Moderately Familiar    Very Familiar

3. How did you become familiar with the ethical standards that psychologists follow?  
(Check the **one** most influential source.)

Academic Education  
 Media Sources (e.g. film, magazines, newspapers, popular books, radio, television)  
 Learned from a Close Family/Friend’s Experience with Therapists  
 Personal Experience with Therapists  
 Other (Please explain): \_\_\_\_\_

4. How often do you think psychologists follow ethical principles created by their professional practice boards within their profession? (Please circle one response.)

Never    Rarely    Sometimes    Often    Always

5. How much do popular media sources (e.g., film, television, radio, newspapers, magazines, popular books) influence your perceptions of psychologists? (Please circle one response.)

Not At All    Very Little    Somewhat    A Moderate Amount    A Great Deal

6. Taking into consideration all popular media sources, which of the following most influenced your perceptions of psychologists? (Check the **one** most influential source).

Film  
 Magazines  
 Newspapers  
 Popular Books  
 Radio  
 Television  
 I marked “**Not at all**” on question #5, so this question does not apply to me.

## PART II - PROFESSIONAL STANDARDS

Part II presents professional standards and asks you to indicate how likely you believe a psychologist is to engage in the following practices and behaviors. Please indicate to the left of each statement, the number that corresponds with the level of likelihood shown by the psychologist to engage in the following practices and behaviors.

Extremely Unlikely	Moderately Unlikely	Somewhat Likely	Moderately Likely	Extremely Likely
1	2	3	4	5

- \_\_\_\_\_ 1. How likely are psychologists to work only within their level of competence in the field of psychology, and provide services only under their areas of expertise?
- \_\_\_\_\_ 2. How likely are psychologists to act with integrity in their work? Integrity includes, but is not limited to being fair with people, honest about their roles, and respectful of others.
- \_\_\_\_\_ 3. How likely are psychologists to uphold professional standards, and consult with other professionals when they are concerned about a situation potentially being ethically questionable?
- \_\_\_\_\_ 4. How likely are psychologists to respect the rights, dignity, and differences of others? This includes maintaining confidentiality (unless the psychologist is mandated by law to report an incident), and respecting cultural, individual and role differences.
- \_\_\_\_\_ 5. How likely are psychologists to be concerned about the welfare of those with whom they interact, and work in a way that minimizes harm to others?
- \_\_\_\_\_ 6. How likely are psychologists to be socially aware of professional and scientific responsibilities, such as doing beneficial research, supporting laws and social policies that help the public, and providing information about the field of psychology in order to minimize people's suffering?

## PART III - DEMOGRAPHICS

1. What is your grade classification? (Please circle one response.)

Freshman	Sophomore	Junior	Senior	Graduate/Professional School	Other
----------	-----------	--------	--------	------------------------------	-------

2. What is your age? \_\_\_\_\_ years old
3. What is your major? (Please write in): \_\_\_\_\_
4. What is your minor? (Please write in): \_\_\_\_\_
5. How many college-level psychology classes have you taken? \_\_\_\_\_ psychology classes
6. How many college-level ethics classes have you taken? \_\_\_\_\_ ethics classes

## PART IV - THERAPY EXPERIENCE

1. Have you ever seen a therapist/counselor for psychological services?  
(Please check one response.)  
 Yes (skip to question #3 and complete the survey)  
 No (continue with question #2)
  
2. If you have not seen a therapist/counselor for psychological services, why not?  
(Please check one response.)  
 I have not had a reason to seek psychological services.  
 Other (Please explain): \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

If you **have not** received psychological services, you may end the survey here. **Thank You!**  
 If you **have** received psychological services, please answer questions 3-7.

3. How many different therapists have you seen in your life? \_\_\_\_\_ therapists
4. How many therapy sessions have you attended? \_\_\_\_\_ sessions
5. What is the education level of the therapist whom you have seen for the most number of sessions? (Please check one response.)  
 Bachelor's  
 Master's  
 Doctorate  
 Unknown
6. To what extent do you believe that your experience in therapy has influenced the way you view psychologists? (Please circle one response.)  

Not At All    Very Little    Somewhat    A Moderate Amount    A Great Deal
7. Have you experienced a situation where you believed the psychologist you were seeing acted in an unethical manner toward you? (Please check one response).  
 No  
 Yes - If yes, please briefly explain the nature of the unethical behavior.  
 \_\_\_\_\_  
 \_\_\_\_\_

**\* This is the end of the survey. Your time and information are greatly appreciated.**

## Appendix B

### STANDARD VERBAL INSTRUCTIONS

Hello, my name is Lisa Voigt, and I am a student in the Guidance and Counseling/Mental Health masters' program at the University of Wisconsin-Stout. As a requirement for our program, we are to conduct research, resulting in a written investigation of a topic, or thesis. Today, your professor has been gracious enough to allow me to ask you to help me to gather information about your perceptions of psychologists. The survey should take approximately 10 minutes to complete.

Your participation in this process is strictly voluntary. It will not negatively affect you or your grade in this class if you choose not to participate. If you wish to discontinue filling out this survey at any time, you may, without any negative consequences being imposed upon you.

The information collected will be kept strictly anonymous, and you will not be able to be identified in any way. When reporting my findings, I will not share any individual responses in a public manner. I will only share information that has been combined with the responses of other students.

I cannot foresee any probable risks that would result from completing this survey. If you do experience any negative reactions in response to filling out this survey, you may talk with me, my research advisor, Gary Rockwood, Ph.D., or staff in Counseling Services to assist you.

If you have completed this survey in another class, please do not fill it out again. Also, if you are under the age of 18, I ask that you please do not complete this survey. If you have any questions, please feel free to raise your hand, and I will answer them as completely as possible. If you need special assistance completing this form, please let me know. Are there any questions at this time?

There is an informed consent form for you to keep that explains a bit more about the process of consenting to fill out this survey. I would like you to read it, and then if you choose, begin taking the survey. When everyone is finished, I will collect the surveys in this envelope. Are there any questions? I will pass out the surveys now.

Again, thank you very much for participating in this research. I greatly appreciate it. It will add to the knowledge we have about how people perceive psychologists, and may give people a more accurate view about what psychologists actually do.

## Appendix C

July 2002

Dear Research Participant,

I am asking for your cooperation in research that will determine what your perceptions of psychotherapists entail. I have created this questionnaire because there is little known about the way in which college students perceive psychologists, and the psychologist's behavior. By spending approximately 10 minutes of your time to complete this survey, you will help fill this gap in the field of research. This may help increase the information communicated when seeking the assistance of a mental health professional.

This survey has two parts. The first part asks you to provide information about your perceptions of psychologists based upon what you have experienced or have learned about them. The second part asks you to provide information about yourself, to help to determine how personal factors might influence your perceptions.

By filling out the survey, you are giving your consent to participate in this research. Your decision to participate in this survey is completely voluntary. You are not required to participate, and your decision to not participate will not provide any negative consequences. All of your responses will be anonymous, and confidential. To ensure your anonymity, you should not write your name or any identifying information on the questionnaire. When all surveys have been collected, averages and correlations will be computed. All results will be presented in a way that no individual can be identified.

Any research may involve unforeseeable risks to participants, although I do not foresee any significant risks to you. If completing the survey makes you uncomfortable, you can withdraw from the study without any negative consequences. I will simply discard your entire survey, thereby preserving your anonymity. You may contact the primary investigator listed below if you experience any negative reactions as a result of taking this survey, and a professional will assist you with your concerns, if you desire.

If you have any questions about your participation in this research, please ask before completing the survey. By completing the questionnaire, you will have given your informed consent to participate in this research. This means that you understand the nature of the research, have had an opportunity to ask and obtain satisfactory answers to your questions, and have voluntarily agreed to participate in this research.

When everyone participating is finished with the survey, you will be asked to place your survey into an envelope that will be provided. If you would like a summary of the results when they become available, please send a card with your name and address to Lisa Voigt, 10973 Quebec Avenue South, Bloomington, MN 55438. The University of Wisconsin-Stout Institutional Review Board for the Protection of Human Subjects has approved this survey. If you have any questions or concerns about the nature of this study, contact me at that address above or by telephone at (952) 943-4058. Dr. Gary Rockwood, my research advisor, is also available for consultation at (715) 232-1303. If you have questions regarding your treatment as a participant in this study please contact Sue Foxwell, Human Protections Administrator, 11 HH, UW-Stout, Menomonie, WI 54751, phone (715) 232-1126.

Thank you for your contribution to this research,

*Lisa A. Voigt*

Lisa A. Voigt, B.A