THE ASSESSMENT OF MENTAL HEALTH PROFESSIONALS'

PUBLIC IMAGE BY MEANS OF MULTI-

DIMENSIONAL SCALING

By

PATTI J. BUTTERFIELD

Bachelor of Science in Arts and Sciences
Oklahoma State University
Stillwater, Oklahoma
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Master of Science
Oklahoma State University
Stillwater, Oklahoma
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Thesis Approved:

Robert F. Stanners

Thesis Advisor

Larry T. Brown

Daniel W. McNeil, Ph.D.

Mark E. Johnson

Norman N. Durham

Dean of Graduate College

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CHAPTER I

REVIEW OF RELEVENT LITERATURE

Psychologists have been concerned with their public
image since the first organizational meeting of the
American Psychological Association in 1892 (Benjamin,
1986). Despite the early interest in psychology's image,
controlled research on the topic is a relatively recent
development (Wood, Jones, & Benjamin, 1986). A more
specific focus on the public image of psychologists as
mental health professionals is an even more recent
research development. Considering the substantial
majority of psychologists currently specializing in
clinical psychology (63%) (Dorken, Stapp, & VandenBos,
1986), the image of psychologists as mental health
professionals is certainly a worthy area of
investigation. However, only a limited number of studies
have specifically addressed the topic of mental health
care's public image (Nunnally & Kittross, 1958; McGuire &
Borowy, 1979). The purpose of the present project was to
investigate this topic through the use of
multidimensional scaling techniques.

Two studies were conducted to examine the public's
perception of mental health professionals. These studies
investigated the current public image of mental health

professionals, the possibility of changing that image through education, and, finally, the professionals' own perceptions of their field. Research to date has examined psychology's public image within three general contexts: the general public image of psychologists, clinical and nonclinical; the public image of psychologists in relation to psychiatrists; and, finally, to a lesser extent, the public image of psychologists as members of the mental health profession. Each of these areas of research is reviewed below.

The Public Image of Psychologists

Psychology's public image has been discussed in the literature fairly consistently since the 1940s. Early publications were primarily reflections on psychology's perceived image problem, rather than actual research papers (Sanford, 1952; Paterson, 1954; Fein, 1954; Newman, 1957; Carpenter, Lennon, & Shoben, 1957). These articles focused on the American Psychological Association's (APA) increased interest in public relations and encouraged further involvement in the area. In 1954, the APA published a booklet on public relations for psychology and many of the authors dealt with this publication in their articles.

Eventually, the interest in psychology's perceived image problem led to systematic research in the area. Despite the early concerns, initial research did not

support this notion. The first comparative study of psychology's public image was published in 1948 (Guest, 1948). Guest surveyed 311 adults in four states; however, no attempt was made to obtain a representative sample. Guest's survey consisted of three sections inquiring about the following topics: comparisons of psychology with several other occupations, the specific duties of psychologists, and finally, psychologists' qualifications. Sixty-one percent of the respondents reported a positive overall impression of the field. However, subjects did respond negatively to certain questions. For example, in comparison with architects, chemists, economists, and engineers, respondents rated psychologists as the group of people they would feel most ill-at-ease talking with in a social situation. Psychology was also selected as the profession respondents would least like their children to enter. Finally, the subjects demonstrated an inability to distinguish between psychologists and psychiatrists. Guest's (1948) results were supported by research conducted by Grossack (1954). In a survey of 51 Southern blacks, Grossack found that respondents had an overall positive view of psychology. However, they lacked specific knowledge about the field and most equated psychologists with psychiatrists.

Thumin and Zebelman (1967) investigated psychology's standing in relation to other occupations (surgeon,

dentist, lawyer, engineer, psychiatrist) much as Guest (1948) did. Results were obtained from 400 telephone interviews using respondents randomly selected from the St. Louis telephone directory. Psychologists ranked at the bottom of this list of occupations. Psychiatry was preferred more than two to one over psychology in this survey. However, in contrast to Guest's research, Thumin and Zebelman's survey revealed that respondents differentiated between psychologists and psychiatrists. Respondents tended to distinguish the 2 groups on the basis of the medical degree of psychiatrists and the research involvement of psychologists.

Choosing to focus on a different respondent population, Dollinger and Thelen (1978) surveyed 1,280 elementary, junior high, and high school students in Missouri. Students ranked psychology, based on desirability, in the middle range of a group of 25 occupations. The respondents demonstrated a moderate level of knowledge about psychology, e.g. only 14% of those surveyed indicated that they did not know what psychologists do or responded with an incorrect answer. The majority of the students knew that psychologists provide therapy. However, in response to an open-ended question, only 20% of the students could differentiate between psychology and psychiatry.

More recent surveys have continued to demonstrate a generally positive view toward psychology (Webb & Speer,

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1985, 1986; Wood, Jones, & Benjamin, 1986). In their study of college students and their parents, Webb and Speer (1986) found a favorable attitude toward psychologists, even more favorable than toward physicians, scientists, and teachers, and only slightly below psychiatry. However, respondents demonstrated a relative inability to differentiate between psychology and psychiatry and a general lack of knowledge of psychology. Webb and Speer's study was unique in that it employed a new strategy for analyzing public opinion, allowing the respondents to determine the dimensions on which the occupations differed, rather than responding to imposed dimensions. Webb and Speer hypothesized that respondents used 2 dimensions to differentiate among the occupations -- "tough-mindedness v. tender-mindedness" and "deals with abnormality v. deals with normality." Finally, Wood, Jones, and Benjamin (1986) surveyed 201 adults and again found a favorable attitude toward psychology but a substantial lack of knowledge of the profession.

The Public Image of Psychologists in
Relation to Psychiatrists

Although much of the research discussed has briefly considered the public's ability to differentiate between psychology and psychiatry, some researchers have focused soley on this ability or lack of ability (Tallent & Reiss, 1959; Murray, 1962; Clark & Martire, 1978). In

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the detailed surveys of Tallent and Reiss (1959) and Murray (1962), respondents demonstrated a surprising ability to correctly distinguish between psychology and psychiatry. Tallent and Reiss (1959) developed a 33-item questionnaire regarding differences between the 2 professions and administered it to nonpsychology students in adult education courses. The results indicated differentiation between the professions on the basis of such factors as the studying of behavior (attributed more to psychologists) and helping people with their problems (attributed more to psychiatrists). Murray (1962) used the questionnaire developed by Tallent and Reiss to examine introductory psychology students (nonmajors) and their friends. Murray's college population demonstrated a slightly greater knowledge of the differences among the professions, as compared to the Tallent and Reiss 1959 survey. In contrast, in a similarly designed study, Clark and Martire's (1978) research supported the general inability of the public to differentiate psychiatry from other fields, especially psychology.

The Public Image of the Mental Health Profession

Nunnally and Kittross (1958) conducted the first survey specifically exploring the public's attitude toward the mental health professions. The professions that Nunnally and Kittross examined were doctor, physician, nurse, psychiatrist, psychoanalyst,

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psychologist, clinical psychologist, research
psychologist, mental hospital attendent, and social
worker. The researchers surveyed a representative sample
of 207 adults using a semantic differential task as the
attitude measuring instrument. Results demonstrated that
respondents rated medical personnel (excluding
psychiatrists) consistently higher than psychologists on
scales of value or worth and understandability or
straightforwardness. However, psychologists were ranked
slightly higher than psychiatrists on these 2 scales.
Despite their lower ranking, in relative terms,
psychologists did receive high scores, in absolute terms,
on these scales. In fact, the mental health profession
as a whole received quite favorable ratings from the
respondents. Finally, respondents made little or no
distinction among the concepts of psychiatrist,
psychoanalyst, psychologist, clinical psychologist, and
research psychologist on the semantic differential.

Twenty-one years later, McGuire and Borowy (1979)
surveyed 85 college students in an attempt to replicate
Nunnally and Kittross's 1958 study. A somewhat different
selection of professional titles was investigated.
Doctor, psychologist, and research psychologist were
eliminated from this study; and counseling psychologist,
school psychologist, psychiatric nurse, and marriage
counselor were added. McGuire and Borowy obtained
findings quite similar to Nunnally and Kittross.

Occupations related to the field of medicine were again
associated with the most positive evaluations. Two
slight differences were discovered in this replication.
First, psychologists received a somewhat less favorable
rating than in Nunnally and Kittross's study
(approximately 1 point lower on a 7 point scale).
Second, respondents demonstrated a slightly greater
ability to differentiate among the professions identified
with the "psych-" prefix, such as psychoanalyst and
counseling psychologist.

Conclusions from the Literature to Date

Public opinion research has generally revealed a
fairly positive evaluation of psychology by the general
public (Wood, Jones, & Benjamin, 1986). Additionally,
researchers outside of psychology investigating the
prestige associated with various occupations have found
psychologists to be highly ranked (e.g., Hodge, Siegel, &
Rossi, 1964). However, a good public image does not rely
solely on popularity, but also on a well-informed public.
Generally, the public lacks sufficient knowledge of
psychology, particularly the ability to differentiate
among psychologists and other mental health
professionals, especially psychiatrists (Guest, 1948;
Grossack, 1954; Webb & Speer, 1985, 1986; Dollinger &
Thelen, 1978; Nunnally & Kittross, 1958). The few
studies suggesting that the public differentiates among

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the professions have been detailed, highly specific
questionnaires that may have "led" the respondents to
differentiate among the professions more than they would
have otherwise (Tallent & Reiss, 1959; Murray, 1962;
Dollinger & Thelen, 1978). Therefore, psychology's
primary deficit related to public opinion still seems to
be based on a relative lack of knowledge of psychology.
Since clinical psychology is the major field of
specialization, research devoted specifically to
psychologists' image in relation to other mental health
professionals is certainly warranted. Research
addressing the mental health profession is relatively
limited and somewhat dated (Nunnally & Kittross, 1958;
McGuire & Borowy, 1979). The purpose of the present
project was to investigate the public image of mental
health professionals, with a focus on psychologists' role
in the field.

Design of the Current Experiments

Since past research efforts may have revealed
artificial differences among professions by supplying the
dimensions to be rated e.g., by reflecting the
investigators' preconceptions, a technique similar to
Webb and Speer's (1986) nondimensional survey was
employed. Multidimensional scaling techniques were used
to examine this topic. Multidimensional scaling
techniques are mathematical procedures designed to

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illuminate the underlying structure of a set of concepts (Kruskal & Wish, 1978), in this case mental health professional terms, e.g. psychologist, therapist, counselor, etc. Multidimensional scaling techniques yield a visual representation, i.e., a map of a group's conceptual structure for the particular set of concepts under investigation. The task used to generate data for multidimensional scaling allows subjects to provide their own dimensions of differentiation among concepts. All possible pairs of concepts, in this case mental health professional terms, were rated for their similarity/dissimilarity. Use of a concept comparison task also allowed for the determination of whether the public lacks knowledge or simply misunderstands the area (Stanners, Brown, Price, & Holmes, 1983). For example, a lack of knowledge would yield a map with very few points of differentiation, whereas, a misunderstanding might yield a highly differentiated map based on inaccurate information. Additionally, very low subject reliability scores may also suggest a lack of knowledge.

Once the scaling results are plotted on a graph to form the map, the theoretical meaning behind the configuration can be explored. For example, Burton (1972) investigated the interrelationships among 60 occupations through multidimensional scaling. Examination of the resulting map revealed three possible dimensions which respondents used to differentiate the

occupations: prestige, status, and income. The present study was similar to Burton's work, but focused solely on mental health professional terms. Colloquial mental health professional terms were included in addition to the actual titles, since a significant portion of the general public does not refer to mental health professionals by their titles, but rather by colloquial terms, such as "psychotherapist," or "counselor."

CHAPTER II

EXPERIMENT I

Introduction

The objective of the first experiment was to
investigate a new aspect of mental health professionals'
image. This study employed the scaling techniques to
analyze the image of the mental health profession by the
professionals themselves. Psychologists, psychiatrists,
general practitioneer physicians, and clinical social
workers all performed the concept comparison task.
Competition within the field from increasing numbers of
mental health professionals has caused a great deal of
conflict among the professions (Spivack, 1984; Dorken &
VandenBos, 1986; Dorken & Bennett, 1986). Currently,
mental health professionals are questioning each other's
roles and responsibilities as they compete for mental
health "territory" (Spivack, 1984). If conflict exists
among the professions themselves, then the public will
most likely be confused as well. Therefore, research in
this area is essential to a complete view of the current
public image situation in the mental health profession.
Determining the professionals' view of their own field
and checking for consistency will be essential to future

efforts both to educate the public and to minimize conflict among professionals.

The present experiment compared four groups of mental health practitioners on the basis of the similarity of their scaling maps. Hypothetically, current conflicts and confusion in the field would be reflected in significantly different maps for each profession, with each group having its own unique view.

Method

Subjects

Subjects in Experiment 1 were eighty mental health professionals currently working in Southern Kansas. Twenty subjects from each of the following professional groups were included in the study: psychiatrists, clinical and counseling psychologists, family practice physicians, and clinical social workers. The subjects were randomly selected from professional directories of licensed/certified health professionals in Kansas. See Table 1 for further data regarding subject

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Insert Table 1 about here

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characteristics, e.g. age, sex, and years in practice.

Subject participation was obtained via contact through the postal service. See Appendix B for a copy of the letter requesting participation. Survey response rate was approximately 35% across groups, with slightly higher response rates for psychologists and social workers, and slightly lower rates for family practice physicians and psychiatrists. Once 20 surveys were obtained in a group, additional surveys that were returned were disgarded. Approximately 2-5 surveys were disgarded per group.Participants were offered an abstract of the completed study as compensation for participation in the study.

Materials

An instrument to assess the public image of mental health professionals was developed for this study. The instrument, a concept comparison task, consisted of all possible pairings of 11 mental health profession terms to be rated on a Likert-like scale for their perceived similarity. The 11 mental health profession concepts included both actual professional titles and colloquial terms. The 11 terms were psychologist, psychiatrist, physician, social worker, psychoanalyst, behavior therapist, doctor, psychotherapist, counselor, hypnotherapist, and minister/priest. These concept pairs were rated on a 7-point Likert-like scale, ranging from 1--maximally similar to 7--maximally different. Each

pair of concepts was preceded by a blank for the subjects' ratings of the pair's similarity.

The structure of the instrument was closely modeled after a previously developed concept comparison task (Stanners, Brown, Price, & Holmes, 1983). Four versions of the instrument were developed, each containing a different random arrangement of the concept pairs. An exception to this random presentation was that no concept appeared in more than 2 consecutive pairs. The words were also balanced for right-left placement, e.g., each word appeared on each side of the pairings an equal number of times. This right-left balance also applied across each of the four forms of the instrument.

Ten of the concept pairs were repeated at the end of the instrument (for a total of 65 items). These items were included to test the reliability of the instrument, allowing for verification of the subject's understanding and proper completion of the task. These additional pairs were placed at the end of the task and their original right-left presentation was reversed, but were not differentiated from the other pairs.

Brief written instructions were also included in the instrument. Two sample items illustrating the correct completion of the task were included with these instructions. See Appendix A for a copy of the concept-comparison task.

<u>Procedure</u>

Potential subjects for this study received a request for their participation via the U.S. Postal Service (see Appendix B). This request included a brief explanation of the study and the concept comparison task. A self-addressed stamped envelope was provided for return of the materials. Subject recruitment was conducted in three separate mailings; three mailings were required to obtain a sufficient number of subjects. Each of the four forms of the survey was sent to an equal number of potential subjects. An approximately equal number of each of the forms were, therefore, completed and returned.

Results

As a first step in the scaling analysis, intrarater reliability scores for the paired comparisons tasks were calculated to insure careful completion of the task by all subjects. Fenker (1975) has advocated disgarding subjects with low intrarater relability scores, on the basis that these low scores reflect careless raters. In the mental health profession groups, no subjects fell below an acceptable reliability level; all intrarater reliability scores were greater than r = .50. The mean reliability score for each group was as follows: psychiatrists, r = .83; psychologists, r = .86; social workers, r = .75; and family practice physicians, r =

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.73. The paired-comparisons rating task was scaled by the COSPA MDS computer program (Schonemann, James, & Carter, 1979). The rating data from each mental health professional group were initially scaled separately.

The COSPA program is based on Horan's (1969) model and provides statistics to assess the common space assumption and the diagonality assumption. The test of the common space assumption uses a y-statistic which measures the proportion of variance in each subject's coordinate system that can be accounted for by the coordinate system obtained for the entire group. Each y-statistic can be used to test the null hypothesis that there is a random relationship between the subject's data and the group's data. A significant number of y-statistics must fall outside the norms developed by Schonemann et al. (1979) before the common space assumption is satisfied. If the common-space assumption is not satisfied it indicates that the subjects' judgments are independent and the group map cannot be interpreted as meaningful. The test of Horan's common-space assumption was conducted on the y-statistics for each of the professional groups. The test was significant in all cases. All groups met or exceeded the .05 level for both the two- and three-dimensional solutions.

Secondly, the diagonality assumption, which indicates whether the data fit a model in which the

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scaling dimensions are independent of one another, was examined. Using a three-dimensional solution, psychologists, psychiatrists and family practice physicians met or exceeded the .05 level of significance. Social workers' three-dimensional coordinate maps did not meet the diagonality assumption. For the two-dimensional solution, all groups met or exceeded the .05 level.

The next step in the analysis required the four professional groups to be compared to one another. This comparison was obtained by conducting additional COSPA analyses. The COSPA program allows for the substitution of an external (reference) coordinate system for the one usually derived from the data. For example, the students' concept-comparison task data can be applied to the coordinate system of the professionals. By examining the COSPA results using this substitution, one can determine how closely the student and professional maps match; that is, how well the students' data "fits" the professionals' map. The v-statistics obtained from this rescaling of the data provide a measure of the amount of agreement between the reference coordinates and the comparison data. The larger the v-statistics in the comparison group, the higher the degree of agreement with the reference coordinate system. Therefore, to examine the groups for agreement between maps, each group's coordinates were used as reference coordinates for every other group's data. The tests for differences

among the four professional groups required 12 COSPA analyses rather than six, because each group difference test required that both groups have their coordinate systems treated as the reference system. Consider the comparison between psychologists and psychiatrists. There is no a priori basis for treating one and not the other as the reference, so two comparisons were made, one with the psychologists' coordinates used as a reference set and the other with the psychiatrists' coordinates used as the reference. Specifically, a t-test was conducted between the v-statistics derived from the psychologists' data and those produced by applying the psychologists' coordinates to the psychiatrists' data. Another t-test was performed between the v-statistics derived from the psychiatrists' data and those produced by using the psychiatrists' coordinates with the psychologists' data. For a group difference to be considered significant, both t-tests would have to be significant.

The same procedure was applied in all the other tests of group differences. With the two-dimensional solution, no groups differences were found to be significant (see Table 2). For the three-dimensional

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Insert Table 2 about here

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solution, one comparison, that between psychiatrists and family practice physicians, was significant, yielding the following values: family practice physicians compared to the reference group of psychiatrists, t(19)=-3.4162, p < .01; and psychiatrists compared to the reference group of family practice physicians, t(19)=-2.3171, p < .05. See Table 3 for a complete listing of the

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Insert Table 3 about here

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three-dimensional t-test results. Since the two-dimensional solution offered the highest level of consistency, both in meeting the common space and diagonality assumptions across groups, remaining analyses used only the two-dimensional solutions.

The absence of any significant differences (both tests) among the two-dimensional solutions of the four professional groups suggested that the groups could be combined to form an overall mental health profession comparison group for experiment 2. This combined coordinate map yielded a highly significant result for the common-space assumption for the two-dimensional solution, p < .001. The diagonality assumption was not met.

Discussion

According to the results of Study 1, mental health professionals generally agree on the organization of the mental health field. This agreement is most consistent when examining a two-dimensional scaling solution. Agreement is also apparent in a three-dimensional solution, with the exception of differences between psychiatrists and family practice physicians. This significant difference will be explored later in the discussion.

Since no significant differences existed among the professionals' two-dimensional solutions, the groups were combined to form a general mental health professionals' map. Examination of this two-dimensional solution for all mental health professionals revealed two interpretable dimensions (see Figure 1). The solution

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Insert Figure 1 about here

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shows a possible level of training or prestige dimension along the ordinate, anchored by a limited, general education on one end and a lengthy, specialized education on the other end. For example, social workers and counselors require less professional schooling and are associated with less prestige than psychiatrists and

physicians, with psychologists falling somewhere in the middle. This dimension might also be related to the degree to which each profession deals with abnormality or pathology. For example, a minister/priest, social worker, or counselor often deals with relatively healthy individuals with minor life problems; whereas a psychiatrist or physician treats individuals with more serious psychiatric problems. Psychologists tend to fall in the middle of this distribution, working with a wide range of pathology. A second dimension, along the abscissa, appears to be an orientation dimension, ranging from newer approaches to treatment, e.g. behaviorism, to historical approaches to treatment, e.g. psychoanalysis. This dimension might also be related to average length of treatment, with short-term care anchored on the left and long-term care on the right. Therefore, it seems, contrary to the original hypothesis, mental health professionals generally agree on the organization of the mental health field. The dimensional comparison, however, is constrained due to nonorthogonality, the failure of the data to meet the diagonality assumption required for independent dimensions.

Also of interest when examining the two-dimensional coordinate map is the placement of colloquial or slang terms, such as "psychotherapist," "doctor," and "counselor." These terms have no specific professional definition; therefore, it is important to consider how

the mental health professionals subjectively placed these terms. "Psychotherapist" was placed in closest proximity to "psychologist", thus associating it most strongly as the domain of psychology. The term "doctor" was aligned closely to both "physician" and "psychiatrist." This placement suggests a more limited interpretation of the term to include only medical doctors and not doctors of philosophy, education, or psychology. Finally, the term "counselor" was associated with both "minister/priest" and "social worker." Following the earlier interpretation of the first dimension as the degree of pathology treated, this placement suggests a more traditional interpretation of a counselor as treating minor life problems rather than serious pathology. Also of note is the placement of "hypnotherapist" near "behavior therapist" rather than "psychoanalyst." This placement reveals an updated interpretation of the term, rather than its traditional use in the context of psychoanalytic treatment (Clark, 1975; Ehrenberg & Ehrenberg, 1977).

One exception to the general agreement among professions was a difference between psychiatrists and family practice physicians using the three-dimensional solution. This difference was examined in an effort to specify the nature of the disagreement. Comparison of the maps suggested that psychiatrists (Figure 2) and family practice physicians (Figure 3) differed somewhat

in their determination of placement along the third

dimension.

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Insert Figures 2 & 3 about here

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A major distinction appeared to be in the placement of

the term "psychiatrist." Psychiatrists tended to place

the term in the same general region as "physician" and

"doctor," thereby associating themselves more closely

with the medical field. Family practice physicians, on

the other hand, tended to align "psychiatrist" near

"psychologist" and "psychotherapist," associating

psychiatrists less with the medical field.

The maps also differed in respect to overall

dimensions. The horizontal dimension of the

psychiatrists' map appeared quite different from the

horizontal dimension of the family practice physicians'

map. The horizontal dimension of the psychiatrists' map

was similar to the vertical dimension in the mental

health professionals' two-dimensional map (the prestige

or level of training dimension). However, the family

practice physicians' horizontal dimension did not

resemble the professionals' vertical dimension. Rather,

the family practice physicians' map reflected a possible

horizontal dimension of specific treatment orientation v.

generalist treatment orientation. The terms

hypnotherapist, psychoanalyst, and minister/priest
anchored the specific treatment orientation end of the
dimension; whereas doctor, physician, psychologist, and
psychotherapist anchored the generalist treatment end.

CHAPTER III

EXPERIMENT II

Introduction

In the second study, the current public image of the profession in a college student population was explored. The results were examined for their similarity to the coordinate maps of the mental health professionals. It was expected that the students would initially show little ability to differentiate among the professions, thereby exhibiting little or no similarity to the professionals' maps. This study also dealt with an important aspect of public image, education. Prior research has revealed that the public holds a favorable view of psychologists but lacks specific knowledge of the field. Since knowledge is essential to an accurate image of the field, devising a means to educate the public and hopefully alter their views would be quite helpful. The second study attempted to alter the public's view of the mental health profession, and, more specifically, change the structure of their conceptual maps. College student subjects listened to a lecture presentation of the theoretical differences among the mental health professions, or as control, a lecture on a topic

unrelated to mental health care. Previous work attempting to modify scaling maps through education has been successful (Brown and Stanners, 1983). Respondents who are exposed to the educational material were expected to have significantly different MDS maps from those students who received an alternate intervention (lecture on a different topic); both in terms of increased scatter of the concepts (differentiation), and altered placement of the points. The placement of points determines what the dimensions are.

Method

Subjects

Sixty-two subjects were selected for participation in Study 2. The subjects were students in an introductory psychology night course at a large midwestern university. The subject population was 62% female and 38% male. They ranged from 18 to 45 years of age, with a mean age of 26.5. Student subjects received extra credit in the course for participation in the study.

Materials

The concept-comparison task developed for study 1 was also used in the second study. Additionally, a written presentation of the theoretical differences among mental health professions was developed for use in this study. A number of educational guides to the various

mental health fields were used as references for the presentation (Adams & Orgel, 1975; Ehrenberg & Ehrenberg, 1977; Morrison, 1981; Schmolling, Burger, & Youkeles, 1981). The presentation was reviewed by various mental health professionals to insure a relatively objective presentation of material. See Appendix C for a copy of the presentation. A second presentation was also used for administration to the control group. This presentation dealt with the topic of Sign Language (Holmes, 1984). See Appendix D for a copy of the second presentation.

Procedure

Once students in the introductory psychology course consented to participation, the concept-comparison task was administered. Each of the four versions of the instrument were distributed to roughly one-fourth of the students. The students were asked to read the instructions silently as they were read aloud by the experimenter. All subjects completed the task within 15 minutes. Following completion of this task, students were divided into experimental and control groups, based upon previously assigned code numbers. These code numbers were written on the students' concept-comparison forms which were distributed randomly. The control group was then taken to a separate classroom. Students in the experimental group were given copies of the written

presentation. The experimenter then orally presented the
information. Each presentation lasted approximately 20
minutes. Following the lecture, students were given 10
minutes to review the written material. The concept
comparison task was then readministered, with each
student receiving a different version of the task. A
similar procedure was followed with the control group,
with the exception that a different experimenter
presented the lecture.

Results

As a first step in the scaling analysis, intrarater
reliability scores for the paired comparisons tasks were
calculated (as in Experiment 1). Subjects whose
intrarater reliability scores fell below .35 were
disgarded as careless raters, according to Fenker's
suggestions (1975). The relatively low level of
reliability was selected as a compromise between
reliability and number of subjects. A lower level of
reliability, as compared to the professionals, was
expected due to the students' relative lack of experience
with the subject matter. Six subjects were removed from
both the control group and experimental group as careless
raters. Reliability averages for the remaining 25
subjects per group, were as follows: experimental group,
pre-intervention: r = .59; experimental group,
post-intervention: r = .63; control group,

pre-intervention: r = .64; control group,

post-intervention: r = .56.

A second criterion for data rejection was required
to insure that the subjects' data showed group
consistency. Initial COSPA analyses (prior to this
second data rejection procedure) did not indicate common
space. To maintain common space within groups, subjects
with the 5 lowest v-statistics in the pre-intervention
groups were removed, thereby, discarding individuals
whose rating systems differed substantially from the
norm. This procedure was necessary to maintain
consistency within the groups for clear comparisons of
the experimental and control conditions. This deletion
of data did not bias the hypothesis, rather it provided a
consistent group to exam for effects of the intervention.
If common space had not been obtained, the results would
not be interpretable. This left a total of 20 subjects
per group for the final analysis. The subjects were then
reanalyzed using the COSPA program. The two-dimensional
solution yielded the following results for common space
tests based on the v-statistics: experimental group,
pre-intervention, p < .05; experimental group,
post-intervention, p < .001; control group,
pre-intervention, p < .001; control group,
post-intervention, p < .01. The diagonality assumption
was not met in any of the groups.

The data which met criteria (20 subjects per group) was then analyzed to assess the effect of the lectures. The objective of this analysis was to ascertain whether the lecture on mental health professions caused the students to change their ratings (and conceptual map) in the direction of the professionals' map. Therefore, the coordinates of the professionals' map were used as reference coordinates in the COSPA analyses. Four separate COSPA analyses were conducted to obtain two-dimensional solutions: pre and post conditions in the experimental and control groups. The resulting y-statistics were then analyzed using a 2 x 2 analysis of variance. This analysis served to compare the experimental and control groups in the pre- and post-intervention conditions. The professionals served as a reference group to assess the degree to which college student maps agreed with professional maps, prior to and following the lecture intervention. The interaction effect, which would test a change due to the lecture, was nonsignificant. Neither was either of the main effects significant.

Next, a comparison was made between the pre- v. post-intervention conditions. The purpose of this comparison was to assess whether the intervention changed the manner in which subjects completed the concept-comparison task. This analysis differed from previous procedures because it examined potential

differences in the groups unrelated to the professional reference group. In this analysis, the pre-intervention data were treated as reference material, in that the data reflected the subjects' knowledge in an untutored state. The question then becomes, did the lecture produce a change in the map relative to the "naive" map? Therefore, COSPA analyses were conducted using the pre-intervention coordinates as a reference for the post-intervention data. These procedures were performed for both the experimental and control groups. Resulting v-statistics were then subjected to t-tests comparing the pre-intervention map to the post-intervention map. Comparison within the experimental group yielded a significant result, t (19) = 2.0353, p < .05. The control group comparison was nonsignificant.

An additional comparison was then made to determine if the college student maps differed significantly from the professionals' map. Initially, the pre-lecture groups were scaled using an external coordinate system. In this case, the experimental and control groups were each used as references for one another, since there was no a priori basis for treating one and not the other as the reference. Therefore, the experimental group data were scaled using the control group coordinate system as the reference and the control group data were scaled using the experimental group coordinate system as a reference. The resulting v-statistics were then

subjected to a pair of $\underline{t}$-tests. There was no significant difference between the pre-intervention groups. Pre-lecture experimental and control groups were then combined (due to the lack of a significant difference) and scaled using the mental health professionals' coordinate system. The post-lecture data were not combined with the pre-lecture data because the same subjects were used. A $\underline{t}$-test was then conducted comparing the resulting $\underline{y}$-statistics to the mental health professional group's $\underline{y}$-statistics for the same coordinate system; $\underline{t}$ (39) = 5.2148, $\underline{p}$ < .001. Only one $\underline{t}$-test was performed for the comparison since there was now a reference group that could be justified as such, that is, the mental health professionals. The post-intervention data were not combined and compared to the reference group as a significant difference between the two post-lecture

groups existed.

Discussion

One hypothesis for this second experiment was that subjects from the general population would lack the ability to differentiate among the various mental health professional groups. Consistent with earlier findings (Thumin & Zebelman, 1967; Webb & Speer, 1986), the public does appear to differentiate among the various mental health professionals. This ability to make distinctions

about the professions is apparent even in an objective,

unstructured task such as concept comparison. The map of

the students does show somewhat more "clustering" of

terms, i.e. less differentiation, than that of the

professionals.   See Figures 4 and 5 for examples of the

experimental group's coordinate maps in the pre- and

post-intervention conditions.

Insert Figures 4 & 5

about here

The students demonstrated an ability to

differentiate among the professions and consistency in

their judgments. However, results also supported the

original hypothesis that the public does not

differentiate among the professional groups in a manner

similar to the professionals in the field. Comparisons

of the students' coordinates to the professionals' map

revealed significant differences in the two groups. In

comparison with the professsionals, the college students

tended to cluster the terms into three general groups.

Referring to the pre-intervention college student map

(Figure 4), a general medical group is apparent.

Psychiatrists, however, are not included in this group.

A cluster of "pure" mental health professionals is also

present, including psychologist, psychiatrist, and all of

the "-therapist" terms. Finally, a cluster of terms
which are not solely related to the mental health
profession, and non-medical in their orientation, was
included with the terms minister/priest, social worker,
and counselor. The college student map, in the
pre-intervention condition, can therefore be interpreted
most readily using a "clustering" or "neighborhood"
interpretation as discussed in Kruskal & Wish (1978).
This interpretation is advocated by Guttman (1965) who
stresses its advantage as a means of exploring shared
characteristics and focusing on perceived similarities,
rather than perceived differences.

The students' map also can be discussed within the
context of the dimensions found in the professionals'
map. As previously reviewed, the professionals appeared
to differentiate among the terms partially on the basis
of level of training or prestige (ordinate axis). This
interpretation of the first dimension also could apply to
the students' map, with the exception that psychiatrists
are clearly considered to have less training or prestige
by the students than by the professonals. The second
dimension of the students' pre-lecture map did not match
well with the professionals' second dimension of
orientation to treatment. Rather, it appeared to
differentiate purely mental health professionals from
professionals' whose practice is not solely limited to
mental health care. This interpretation may represent a

"crude" attempt at differentiation based upon orientation, using the criteria of treats mental illness v. does not treat non-mental illness instead of the subtle differentiations of treatment approaches found in the professionals' map.

The second phase of Experiment 2 involved an educational intervention. This educational intervention, a verbal and written presentation, was hypothesized to alter the public's conceptual maps to match more closely the "experts." However, the results indicated that the educational intervention had no signficant impact on the completion of the concept comparison task using the professional group as a reference. However, these results did not indicate whether the college student groups differed from one another independent of the professionals coordinate system. The within-subjects analysis did reveal a significant difference between the experimental group in the pre-lecture vs. post-lecture conditions, a difference which was not present in the control group.

Examination of the maps suggested an increased differentiation of the coordinates, as well as several differences in the placement of individual terms within the coordinate system. In the post-intervention map, the prestige or level of training dimension showed greater differentiation among the professions, although ordering remained similar; that is, instead of grouping the terms

into three levels of prestige, they now reflected a gradual continuum. The second dimension, termed orientation in the pre-condition, now appeared to be based on degree of specialization, rather than mental health care profession v. non-mental health care profession. The terms along this revised second dimension showed considerable reorganization. The terms minister/priest, social worker, and counselor differed considerably in their placement in the pre v. post-condition. In the pre-lecture condition, these terms were grouped together at the low end of the prestige dimension and the middle range of the orientation dimension. In the post-condition the terms remained clustered together, but were associated with greater prestige and a relatively generalist orientation. Hypnotherapist and psychotherapist also showed considerable movement from the pre to post-condition. Both terms were associated with much less prestige in the post-condition.

Despite these differences, the important point remains, that the educational intervention did not increase the similarity between the student's perceptions and the professional's perceptions. The most likely explanation for the lack of impact of the educational intervention is the brief and intense nature of the presentation. The intervention was fairly detailed and probably did not allow the students sufficient time for

integration and consolidation of the information. An educational intervention, similar to that developed by Brown and Stanners (1983), might provide more favorable results. Brown and Stanner's intervention included a specific focus on the students' areas of misunderstanding. These areas were obtained by examining the students' pre-intervention conceptual maps. Their intervention also involved active student participation and specific training in the concept comparison task as it related to the intervention topic. The present intervention was lacking in both these points.

CHAPTER IV

GENERAL DISCUSSION

The present study sought to investigate three
hypotheses related to the image of the mental health
profession. The three hypotheses explored in the study
included: (1) mental health professions differ in their
conceptualization of the field; (2) the general public
lacks the ability to accurately distinguish among the
various mental health care groups; and (3) an educational
intervention can aid in altering the public's perception
of the mental health care field. These hypotheses will
be discussed in detail below.

Results from this study demonstrate agreement among
several professional groups regarding the organization of
the profession, with minor exceptions of disagreement
between psychiatrists and family practitioners. This
discrepancy within the medical profession suggests the
need for further research to understand the differential
placement. Perhaps a MDS study focusing on the medical
profession as a whole, and the status of the individual
subspecialities would be useful. The general agreement
within the mental health profession regarding
organization does not exclude the possibility of conflict

within the field. For example, the study did not address the particular values that professionals attach to these dimensions. Future research can address this concern through surveys and questionnaires which directly explore attitudes and opinions of the professions toward one another.

The general public also demonstrated definite opinions about the field, although these opinions are not consistent with the professionals'. An educational intervention to alter these perceptions in the direction of the professionals' views was unsuccessful. Future research should focus on improved educational interventions as discussed above. Future research should also address the public's perception of the field by examining a non-college-educated population. It is possible that individuals not pursuing a college education may have a greater difficulty differentiating among the professional groups and making informed treatment choices.

Finally, the present project demonstrated that multidimensional scaling techniques offer a useful and informative method of examining attitudes and perceptions without the bias inherent in many questionnaires. Continuing to explore the profession through these techniques is worthwhile. For example, the public's perception of mental illness and mentally ill patients could easily be investigated using these techniques. The

public may have a quite distorted view of the mentally ill that could be explored and possibly altered using scaling techniques and educational interventions. The probable need for more extensive educational interventions to signficantly alter conceptual maps should be kept in mind. More specific, targeted interventions such as those adopted in the work of Brown & Stanners (1983) might be appropriate.

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TABLE I

DEMOGRAPHICS OF MENTAL HEALTH

PROFESSIONAL GROUPS

Group	Sex	Age	Years in Practice
Psychiatrists	62.5% M 37.5% F	41.75 (30 - 57)	11.63 (1 - 30)
Psychologists	60.0% M 40.0% F	40.20 (29 - 60)	10.35 (1 - 30)
Social Workers	37.5% M 62.5% F	46.56 (31 - 67)	17.56 (5 - 43)
Family Practice Physicians	64.3% M 34.7% F	47.29 (32 - 72)	18.50 (3 - 45)

TABLE II

TWO-DIMENSIONAL COORDINATE SYSTEM T-TEST RESULTS:

MENTAL HEALTH PROFESSIONAL GROUPS

COSPA Maps Compared			$t(19)$	p value
PSY/PSYMD	v.	PSYMD/PSYMD	-0.44168	.6667
PSYMD/PSY	v.	PSY/PSY	-0.55642	.5904
SW/PSYMD	v.	PSYMD/PSYMD	-1.47107	.1545
PSY/MD	v.	SW/SW	-0.23674	.8006
MD/PSYMD	v.	PSYND/PSYMD	-2.09191	.0476*
PSY/MD	v.	MD/MD	-1.22928	.2323
SW/PSY	v.	PSY/PSY	-0.15529	.8510
PSY/SW	v.	SW/SW	-0.08808	.8911
MD/PSY	v.	PSY/PSY	-0.40443	.6915
PSY/MD	v.	MD/MD	-2.26013	.0338*
MD/SW	v.	SW/SW	-0.92728	.3684
SW/MD	v.	MD/MD	-1.36872	.1844

* p < .05

TABLE III

THREE-DIMENSIONAL COORDINATE SYSTEM $\underline{T}$-TEST RESULTS:

MENTAL HEALTH PROFESSIONALS GROUPS

COSPA Maps Compared	$\underline{t}$(19)	$\underline{p}$ value
PSY/PSYMD v. PSYMD/PSYMD	−1.23644	.2296
PSYMD/PSY v. PSY/PSY	−0.60465	.5589
SW/PSYMD v. PSYMD/PSYMD	−1.71994	.0984
PSYMD/SW v. SW/SW	−0.27298	.7776
PSYMD/MD v. PSYMD/PSYMD	−3.41615	.0031**
MD/PSYMD v. MD/MD	−2.31711	.0301 *
SW/PSY v. PSY/PSY	−0.72270	.4850
PSY/SW v. SW/SW	−0.20707	.8192
MD/PSY v. PSY/PSY	−0.58930	.5689
PSY/MD v. MD/MD	−2.81366	.0107**
MD/SW v. SW/SW	−0.86314	.4031
SW/MD v. MD/MD	−2.58878	.0171 *

* $\underline{p}$ < .05
** $\underline{p}$ < .01
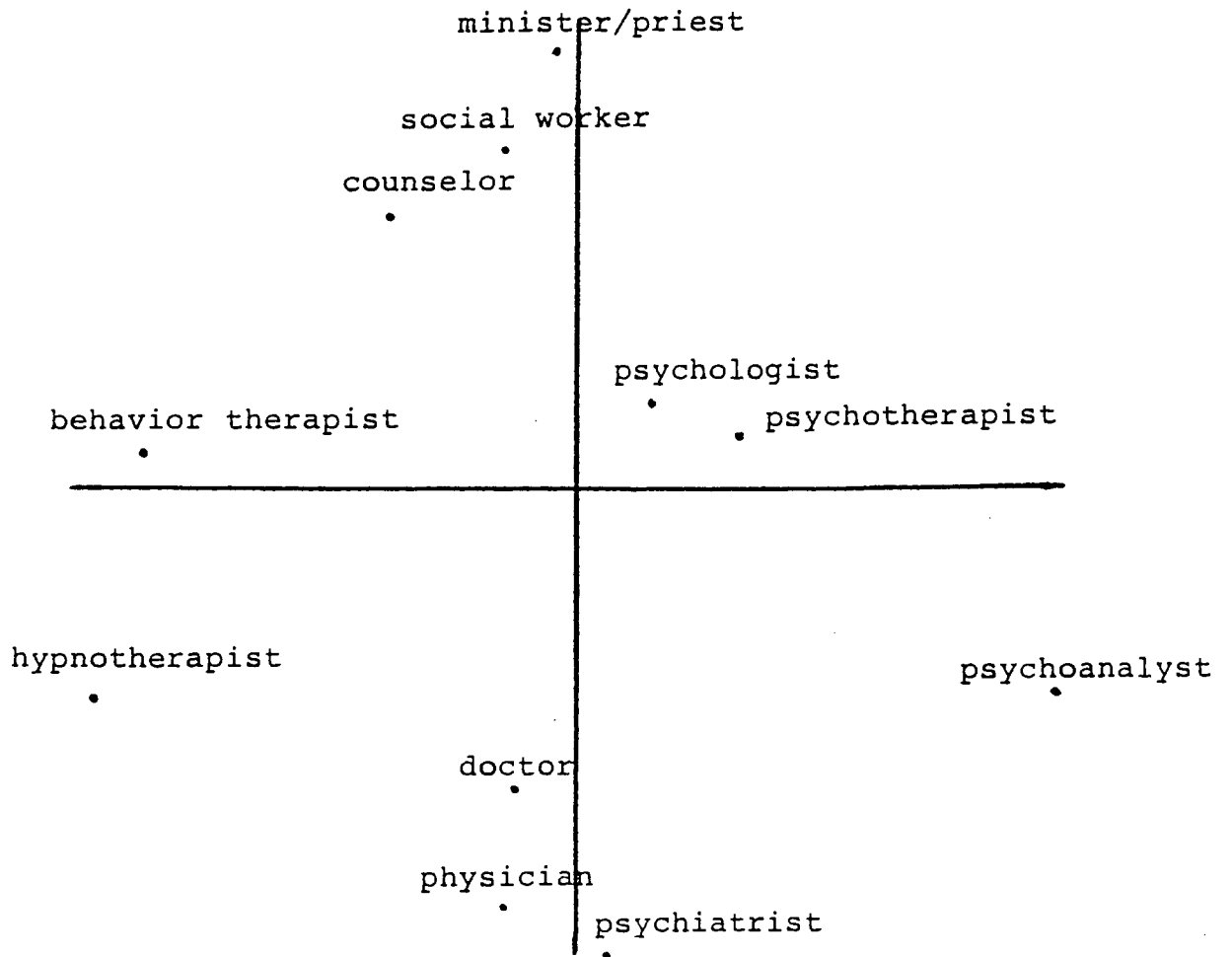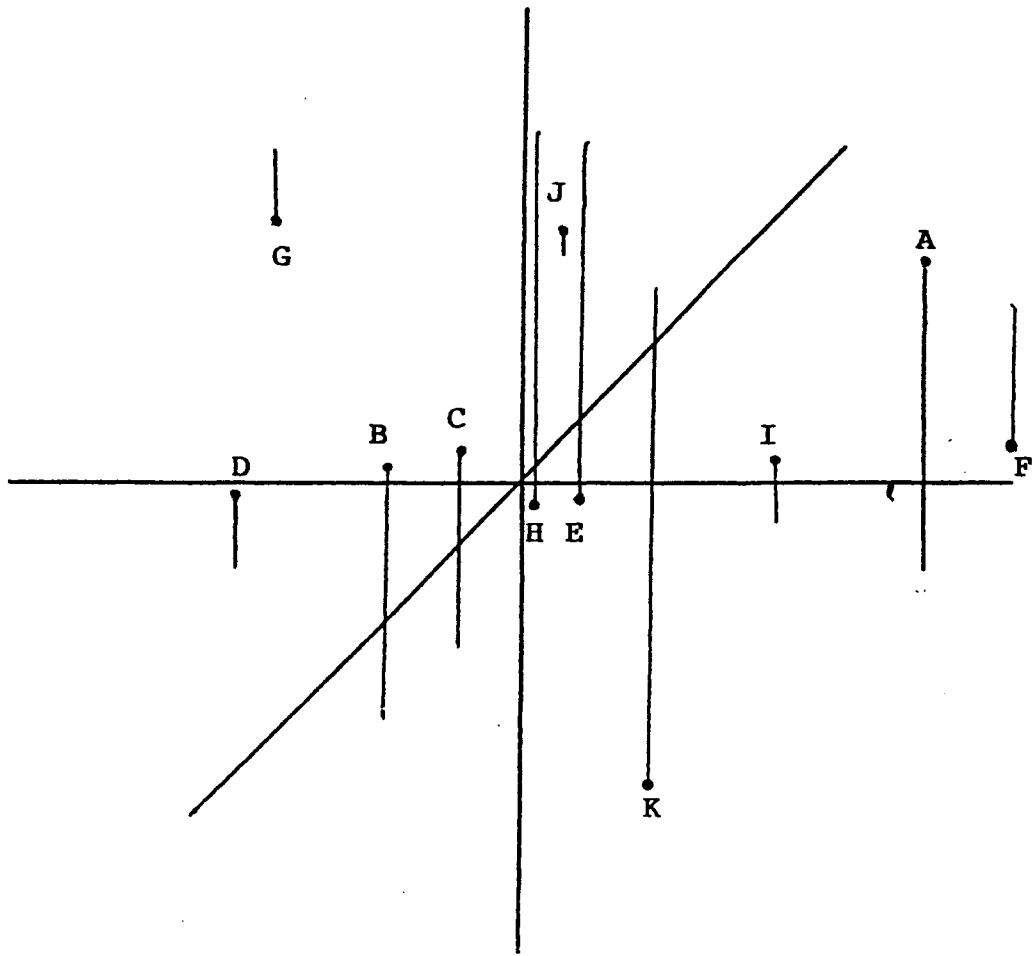
minister/priest

social worker

counselor

psychologist

psychotherapist

behavior therapist

hypnotherapist

psychoanalyst

doctor

physician

psychiatrist

A - minister/priest   G - psychoanalyst
B - physician   H - psychotherapist
c - doctor   I - counselor
D - psychiatrist   J - hypnotherapist
E - psychologist   K - behavior therapist
F - social worker

A - minister/priest   G - psychoanalyst

B - physician   H - psychotherapist

C - doctor   I - counselor

D - psychiatrist   J - hypnotherapist

E - psychologist   K - behavior therapist

F - social worker

minister/priest
•

social worker
•

counselor
•

behavior therapist   psychologist
•   •

psychiatrist
psychoanalyst   • •
•   hypnotherapist
psychotherapist   •

physician
•
doctor
•

```
                              • hypnotherapist

                                         • psychotherapist


                                    •
          behavior therapist

                                    • social worker

•psychoanalyst
                                         •counselor

                              •minister/priest
_____

                              •psychologist

                    psychiatrist
                        • • doctor
                  physician
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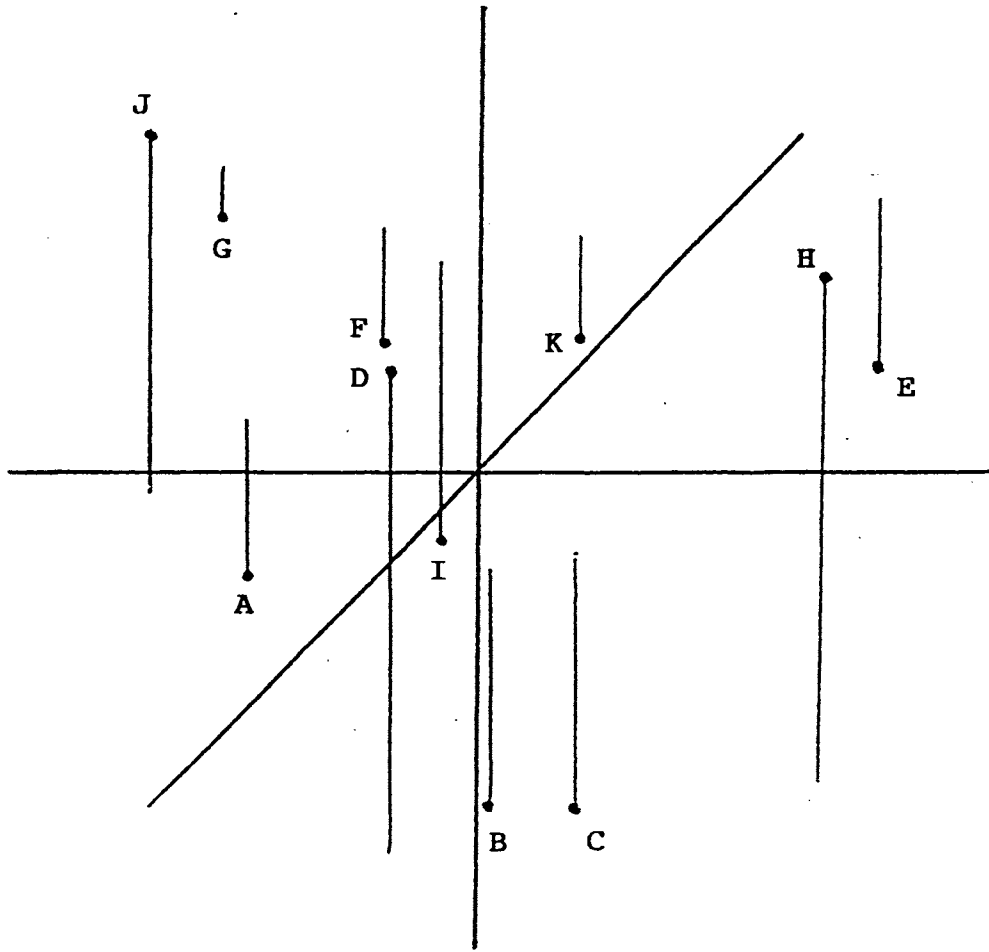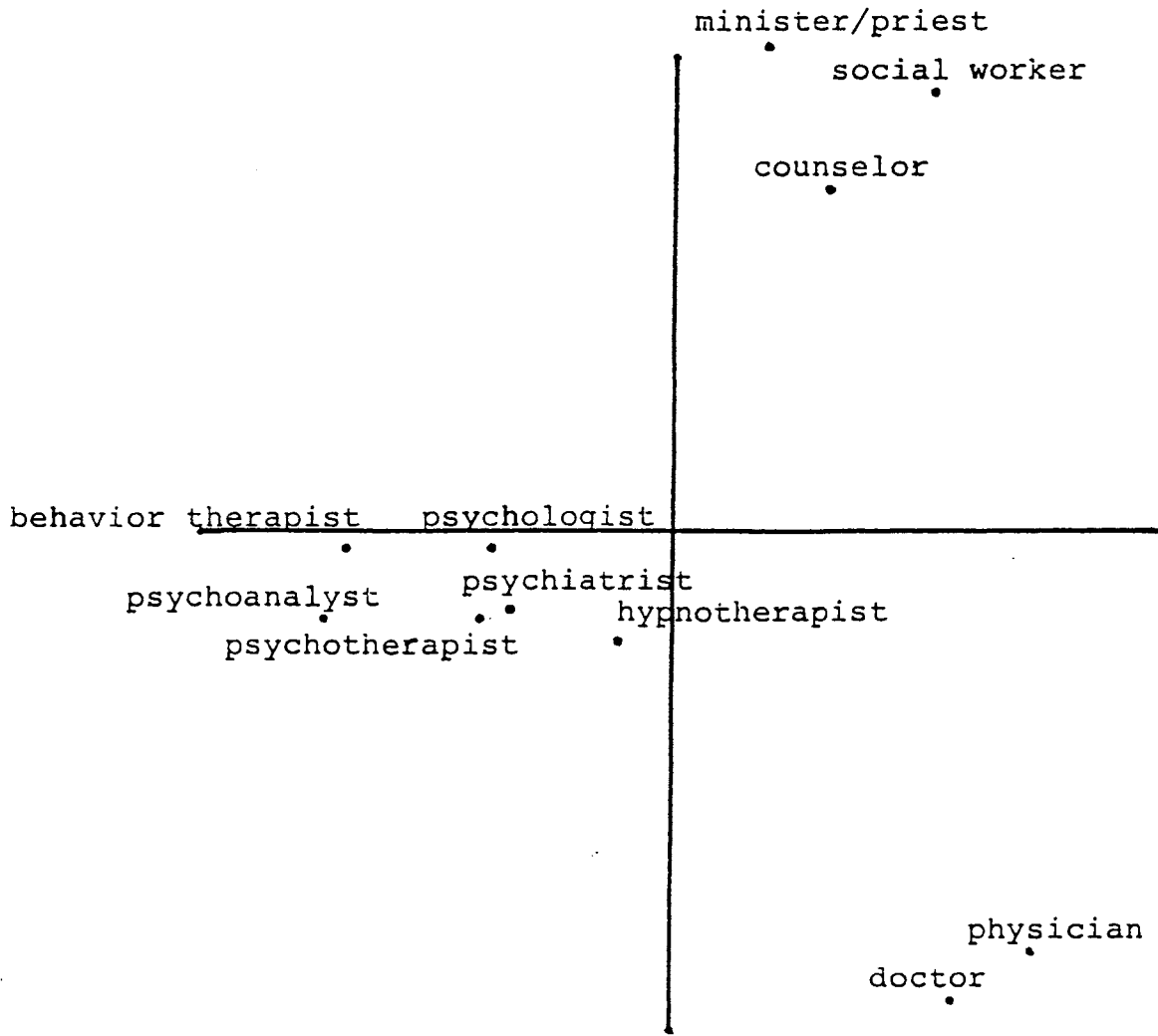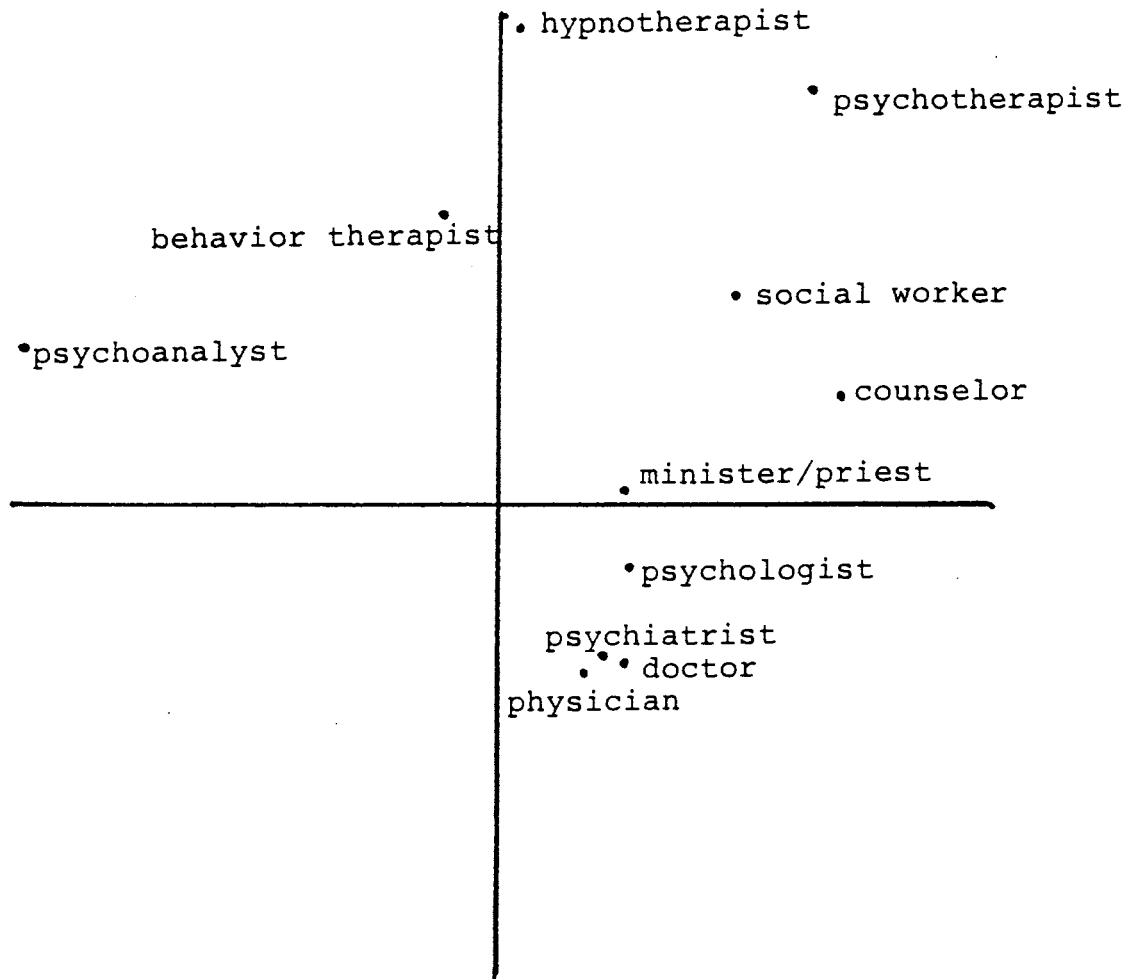
APPENDICES

APPENDIX A

MENTAL HEALTH PROFESSIONALS QUESTIONNAIRE

This questionnaire deals with terms related to the mental
health profession. These terms have been divided into 65
word pairs. Your task is to rate these pairs on the
basis of their similarity. The pairs are to be rated on
the scale depicted below, ranging from a rating of "1"
indicating that the terms in the pair are maximally
similar to a rating of "7" indicating that they are
maximally different. For example, if you were asked to
rate the terms "Kansas and Oklahoma," you might give them
a similarity rating of "2" indicating that they are quite
similar; whereas if you were asked to rate "Kansas and
California," you might give them a similarity rating of
"6" indicating they are quite different.
Rate each of the 65 pairs using the following scale:

1--------2--------3--------4--------5--------6--------7
maximally   somewhat   somewhat   maximally
similar   similar   different   different

    1._____psychiatrist and psychologist
    2._____psychotherapist and hypnotherapist
    3._____psychoanalyst and doctor
    4._____minister/priest and doctor
    5._____physician and psychologist
    6._____psychiatrist and psychotherapist
    7._____psychiatrist and psychoanalyst
    8._____physician and minister/priest
    9._____counselor and minister/priest
   10._____psychoanalyst and physician
   11._____counselor and psychotherapist
   12._____hypnotherapist and psychologist
   13._____psychologist and social worker
   14._____social worker and psychiatrist
   15._____psychotherapist and minister/priest
   16._____counselor and hypnotherapist
   17._____hypnotherapist and doctor
   18._____psychotherapist and doctor
   19._____behavior therapist and psychologist
   20._____psychiatrist and physician
   21._____psychiatrist and minister/priest

22. _____psychologist and psychotherapist
23. _____psychoanalyst and psychologist
24. _____behavior therapist and physician
25. _____behavior therapist and psychiatrist
26. _____doctor and physician
27. _____psychologist and minister/priest
28. _____behavior therapist and psychoanalyst
29. _____hypnotherapist and psychoanalyst
30. _____social worker and counselor
31. _____social worker and hypnotherapist
32. _____counselor and physician
33. _____minister/priest and hypnotherapist
34. _____behavior therapist and psychotherapist
35. _____psychoanalyst and psychotherapist
36. _____hypnotherapist and physician
37. _____social worker and minister/priest
38. _____psychiatrist and hypnotherapist
39. _____counselor and psychoanalyst
40. _____social worker and psychotherapist
41. _____behavior therapist and social worker
42. _____minister/priest and psychoanalyst
43. _____behavior therapist and counselor
44. _____doctor and behavior therapist
45. _____psychologist and counselor
46. _____physician and social worker
47. _____psychologist and doctor
48. _____doctor and counselor
49. _____physician and psychotherapist
50. _____counselor and psychiatrist
51. _____social worker and doctor
52. _____psychoanalyst and social worker
53. _____psychiatrist and doctor
54. _____minister/priest and behavior therapist
55. _____behavior therapist and hypnotherapist
56. _____physician and psychiatrist
57. _____minister/priest and psychiatrist
58. _____psychotherapist and psychologist
59. _____psychologist and psychoanalyst
60. _____physician and behavior therapist
61. _____psychiatrist and behavior therapist
62. _____physician and doctor
63. _____minister/priest and psychologist
64. _____psychoanalyst and behavior therapist
65. _____psychoanalyst and hypnotherapist

APPENDIX B

SUBJECT RECRUITMENT LETTER

Dear Health Professional,

I am a psychology intern at the University of Kansas School of Medicine in Wichita. I am currently working on my dissertation - a research project which will examine attitudes toward the mental health profession. This project will explore attitudes within the mental health field as well as attitudes of the general public. I would greatly appreciate your assistance with this project. Your participation would consist of completing the enclosed survey. This brief survey requires 10-15 minutes of your time, and asks you to rate mental health professionals on the basis of their similarity to one another. (For more information, see the directions accompanying the survey.)

If you consent to participate, please complete the identifying infomation below and the survey, and return all materials in the enclosed self-addressed, stamped envelope. You are under no obligation to participate in this study.

Results of this research project will be available upon request. Feel free to telephone me if you have any questions. Thank you for your time, and for your anticipated participation.

> Sincerely,
>
>
> Patti Butterfield, M.S.
> Dept. of Psychiatry, UKSM-W
> 1010 North Kansas
> Wichita, KS 67214
> (316) 261-2647

SEX____M ____F

AGE_____

YEARS IN PRACTICE_____

PROFESSIONAL TITLE

___PSYCHOLOGIST
___PSYCHIATRIST
___FAMILY PRACTICE
   PHYSICIAN
___SOCIAL WORKER

CURRENT PROFESSIONAL ACTIVITIES

___PSYCHOTHERAPY
___PSYCHIATRIC MEDICATIONS
___CONSULTATION
___RESEARCH
___TEACHING
___GENERAL MEDICAL PRACTICE
___ASSESSMENT

(Check all that apply.)

APPENDIX C

UNDERSTANDING THE MENTAL HEALTH PROFESSION

This presentation reviews the major professional groups
which provide mental health care, including each group's
educational background and occupational roles. Various
approaches to treatment of mental health problems are
also delineated. The primary objective of this paper is
to provide a general working knowledge of mental health
care treatment options and alternatives. There are three
professional groups that provide the majority of mental
health care. These groups include: physicians,
psychologists, and social workers.

Physicians. In the field of medicine, two professional
groups provide the majority of mental health care:
psychiatrists and family practice or general practitioner
physicians. Both are referred to as M.D.s or Doctors of
Medicine. Officially, the term psychiatrist refers to a
medical doctor who specializes in the provision of mental
health care. Typically, physicians who practice under
the title of psychiatrist complete a 3-5 year residency
program in supervised contact with patients for both
medications and psychotherapy. A greater emphasis is
usually placed on the role of biology, and psychotherapy

is used only as an adjunct treatment. However, the title
psychiatrist is not limited to those individuals who
complete a psychiatry residency. Any physician can
practice under the title of psychiatrist. And, in fact,
a large number of family practice or general practitioner
physicians do provide mental health care. Many patients
are more comfortable seeking treatment from a family
physician, rather than obtaining the assistance of a
professional specializing solely in mental health –
primarily due to the stigma associated with mental
illness. Family practice physicians do receive training
in psychiatric medicine and treatment; however, this is a
limited portion of their overall general medical
training.

Psychologists. Psychologists make up another major group
of mental health professionals – generally those
individuals classified as clinical or counseling
psychologists. To use the title psychologist, one must
be licensed. Requirements for licensure vary from state
to state, but primarily involve the completion of a
doctoral degree. A doctoral degree requires 4-5 years of
graduate training following completion of a Bachelor's
degree. A psychologist can obtain a doctorate with one
of three degree titles: Ph.D. (Doctor of Philosophy);
Ed.D. (Doctor of Education); and Psy.D. (Doctor of
Psychology). The type of degree depends upon the
department through which it is granted. These three

degrees vary very little. Psychologists place an
emphasis on the patient's personality and the
environmental influences which impacted upon its
development. In addition to psychotherapy, psychologists
are also responsible for psychological testing. They do
not prescribe medications.

Clinical Social Workers. A final major group of mental
health care providers are clinical or psychiatric social
workers. A social worker typically has an M.S.W. or
Masters of Social Work degree. The average M.S.W. degree
is a two year program following completion of the
Bachelor's degree. Licensed clinical social workers are
termed L.C.S.W.s. In general terms, clinical or
psychiatric social workers specialize in psychotherapy,
frequently placing the emphasis on the community and
family's role in the development of the problem and its
treatment. Additionally, many social workers become
actively involved in providing and accessing community
assistance for their patients. They do not prescribe
medicine, and rarely conduct psychological testing.

Only minimal requirements for occupational functioning
have been reviewed above. Each of the professional
groups can obtain additional degrees, certificates, and
licenses which include specialization in specific
treatment modes and with specific patient types. For
example, some professional specialize in treatment of

families or couples; others in substance abuse problems.
Still other mental health professionals specialize in a
particular treatment technique, such as hypnosis –
terming themselves hypnotherapists. Specific training is
available within each of these specialities. However,
terms such as family therapist; drug and alcohol
counselor; and hypnotherapist are not legally controlled
and do not require special training on the part of the
individual who uses them.

Major Treatment Options. Psychotherapy, a major
treatment ooption in mental health, can loosely be
defined as a process of alleviating personal difficulties
through the use of a personal, professional relationship.
Any definition of psychotherapy fails to completely
describe the process, because there are literally dozens
of different approaches or styles of psychotherapy.
Psychotherapy does not have an independent identity as a
profession – meaning professionals who conduct
psychotherapy do so via training in a related field (e.g.
medicine, psychology, social work). Additionally, the
term psychotherapist is not legally controlled, that is,
there are no laws regulating who may present him/herself
to the public as a psychotherapist. As mentioned above,
there are literally dozens of different approaches to
psychotherapy. Two major views have received the most
public attention: psychoanalysis and behavior therapy.
One of the oldest approaches to psychotherapy is

psychoanalysis which originated with Sigmund Freud in the late 1800s. Psychoanalysts view early life experiences and unconscious needs, wishes, and drives as responsible for our personality. Psychoanalysis tends to be long term treatment, at times lasting for years at 2-3 times per week. The other major form of psychotherapy is behavior therapy. Behavior therapy, a relatively new treatment (1950s), places the emphasis on learning theory. Behavior therapists believe that mental problems develop out of negative learning experiences. Behavior therapy tends to be short-term treatment based on learning more adaptive behaviors. Both psychoanalysis and behavior therapy are adopted by a significant number of mental health professionals (with the exception of family practice physicians who do very little psychotherapy). There is a slight tendency for psychoanalysts to be psychiatrists and behavior therapists to be psychologists or social workers. However, the majority of psychotherapists consider themselves to have an eclectic approach, meaning that they use of combination of many approaches to treatment. Medications are another major treatment option. Only physicians can prescribe medications. Currently, there are medications that help in the treatment of many mental health problems, such as depression, anxiety, and schizophrenia. There are a number of medications appropriate for each mental illness; physicians may have

to try more than one medication before a patient responds positively. A significant number of mental health problems are treated via the combination of psychotherapy and medication.

Conclusions. Mental health professionals are not the only providers of mental health care in the community. Many other individuals care for and improve mental health through informal counseling (e.g. ministers, priests, teachers and friends). Ideally, these individuals are aware when a problem is of sufficient severity to warrant professional attention.

In summary, three main professional groups provide the majority of mental health care - physicians (both psychiatrists and family practice physicians); clinical and counseling psychologists; and clinical or psychiatric social workers. There is tremendous variability within the professions - in roles, treatment approaches, and specialities. When selecting mental health care it is best to be well informed, inquiring thoroughly about a professional's training and experience. Local libraries and social service organizations can provide you with further information regarding the mental health profession. Possible referral sources include friends, a family physician, community agencies, and local referral services.

APPENDIX D

WHAT IS SIGN LANGUAGE?

Sign language is a visual-gestural system of
communication. It is the native language of deaf people
for the purpose of communicating with each other. Within
the deaf community sign language is learned naturally as
a first language from childhood. However, unlke most
languages, sign language is more often passed on from
child to child rather than from parent to child. This is
because 90 percent of deaf children are born to hearing
parents who do not know sign language. It has been shown
that in isolated locations where there is no formal sign
language, deaf people will create their own
visual-gestural language to communicate. Few hearing
people master sign language fluency because for them,
spoken languages are learned during the formative years
of language acquisition, and sign language is learned as
a second language with great effort. Hearing children
whose parents are deaf learn sign language naturally and
often become excellent interpreters.

The term "sign language" is used to describe all forms of
manual communication. In this presentation, however,
sign language will refer to American Sign Language, the

language used by approximately one-half million deaf people in the United States and Canada. Not all deaf people use American Sign Language, but those who do share a common language bond which makes them members in the "deaf community." The deaf community, like other sub-cultures, is comprised of people who share common values, experiences, and, most important, a common language, which becomes their primary identifying feature. Members of the deaf community, regardless of the severity of their hearing loss, must know and use American Sign Language in order to be included. Their language becomes the vehicle by which experiences are shared and passed on.

Nothing is known of sign language use in the United States prior to 1815. At that time, it was estimated that there were approximately 2,000 deaf people in the United States. Certainly, as demonstrated in other isolated cultures, those deaf people had established a sign language system for communicating with each other. Whether they developed it themselves or brought it from Europe is not known, but it is estimated that approximately 40 percent of American Sign Language today may be related to those early colonial signs.

In 1815, Thomas Hopkins Gallaudet went to Europe to study methods of instructing deaf individuals. His first stop was England. There he was discouraged from learning the

English methods because his instructors wanted him to stay for a long period of time to work with them; he had neither the time nor the money for an extended stay. During the time he was negotiating with the English experts, Gallaudet saw a demonstration by a visiting French lecturer, Abbe Sicard. He was so impressed by Sicard's method that he traveled to France to study with him. Gallaudet returned to the United States with a new found knowledge of French signs and a deaf Frenchman, Laurent Clerc, who became the first teacher of the deaf in the United States. During his forty years of teaching, Clerc had great influence on shaping the language used by deaf Americans. American Sign Language is heavily based on French Sign Language, with approximately 60 percent of present day signs having their origins from the French.

American Sign Language is one of the most complete sign systems in the world. Most countries, however, have their own sign languages which have been refined and standardized with varying degrees of sophistication. A deaf person traveling abroad would not immediately be conversant with a deaf person in another country without studying the sign language of that country, although communication barriers between different sign languages seem to be crossed more easily than those of spoken languages.

In an attempt to encourage international sign language communication, the World Federation of the Deaf is developing an international sign language called Gestuno. The lexicon of Gestuno consists of signs chosen by an international committee. The signs are not invented, but are selected from existing sign systems. Although Gestuno is intended for interpreting at international meetings, few deaf or hearing people know it well. Also the number of signs presently available is so limited that a great many concepts cannot be expressed. It is doubtful that Gestuno will become a full-fledged language because of the absence of grammatical rules. Each signer is permitted to use the vocabulary of Gestuno within the syntax of his or her local language. Also, since it is not used by the deaf community in any country, it will never be a living language, learned and passed on from generation to generation.

Hearing people frequently study the signs from American Sign Language without studying the grammar of the language, and then use the signs in the syntactical order of their own verbal language. This mixture of spoken and gestural language leads to the creation of "pidgin" language systems which have been formalized by some educators. Instead of signs representing concepts, as originally intended, signs are used to represent the meaning of English words. Using signs within an English syntax provides a visual way for deaf children to learn

English. Also, since this language (called "Sign English") is easier for hearing people to acquire than American Sign Language, it provides a valuable communication link between hearing and deaf people. Because deaf people are familiar with the difficulty hearing people experience in trying to learn their language, they will try to accommodate by dropping many aspects of sign language's grammar and assuming the syntax of English themselves. This process is called "code-switching" and is the reason why deaf people often begin a conversation by asking whether the other person is deaf or hearing.

Signs perform a function in sign language similar to the function of words in spoken languages. Just as words are comprised of units which work together in various ways to make each work unique from other words, so also there are four units which comprise each sign to make each one unique. These four units are its (1) handshape, (2) palm orientation, (3) movement, and (4) the locations where these occur. An omission or alteration of any one of the four parts may cause the sign to become a completely different sign. In addition to these four parts which comprise the manual characteristics of a sign, there are non-manual characteristics as well. The non-manual characteristics include movements of the face, eyes, head, and body posture. As the hands execute a given sign, specific non-manual body behavior can

simultaneously change the meaning or emphasis of that sign. Some simple examples of non-manual signals include the raising of an eyebrow to indicate a question and the shaking of the head to express a negative condition. A study of the linguistics of American Sign Language would reveal many more sophisticated uses of non-manual signals which can be incorporated into the meaning of a sign.

VITA

Patti J. Butterfield

Candidate for the Degree of

Doctor of Philosophy

Thesis: THE ASSESSMENT OF MENTAL HEALTH PROFESSIONALS'
PUBLIC IMAGE BY MEANS OF MULTIDIMENSIONAL
SCALING

Major Field: Psychology

Biographical:

Personal Data: Born in Blackwell, Oklahoma,
July 15, 1964, the daughter of Larry and Nina
Butterfield.

Education: Graduated from Blackwell High School,
Blackwell, Oklahoma, in May 1982; received
Bachelor of Science Degree in Psychology from
Oklahoma State University in July 1984;
received Master of Science Degree in Psychology
from Oklahoma State University in July 1985;
completed requirements for the Doctor of
Philosophy degree at Oklahoma State University
in December 1989.

Professional Experience: Teaching Assistant,
Department of Psychology, Oklahoma State
University, August 1984, to May 1988.