DOCUMENT RESUME

ED 029 408 EC 003 618

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The Effect of Differences in Curricula and Experiences on Social Work Student Attitudes and Knowledge about Mental Retardation.

Catholic Univ. of America, Washington, D.C.

Spons Agency-Department of Health, Education, and Welfare, Washington, D.C. Secretary's Committee on Mental Retardation.

Pub Date 68

Note-149p.

EDRS Price MF-$0.75 HC-$7.55

Descriptors-Age Differences, Changing Attitudes, Educational Experience, *Exceptional Child Research, Field Experience Programs, *Graduate Study, Marital Status, *Mentally Handicapped, Parental Background, Personal Relationship, Professional Education, Rating Scales, Religious Differences, Sex Differences, *Social Work, Socioeconomic Status, *Student Attitudes, Student Interests

To determine the effects of educational experiences on the knowledge of and attitudes toward mental retardation, 279 newly admitted graduate students and 288 graduating students in seven schools of social work completed a personal data sheet, semantic differential rating scales, a knowledge inventory, and a client preference rank order scale. Subjects having little experience with the retarded rated them less favorably on all 21 semantic scales (p.01) while subjects with retarded siblings or relatives tended to be more favorable and knowledgeable. Students had a general image of the retarded based on characteristics of the severely and moderately handicapped; the retarded ranked sixth in preference among 10 client groups. Client preference changes occurred more often in high exposure schools but rank ordering of client groups remained basically unchanged. Students in field instruction placements serving the retarded were superior in knowledge (p=.05) and showed greater attitude changes and greater extremes in client preference (predominantly in a positive direction). Conclusions were that the introduction of content on mental retardation in social work curriculum does not materially affect knowledge and attitudes. (RJ)

THE EFFECT OF DIFFERENCES IN CURRICULA AND EXPERIENCES ON SOCIAL WORK STUDENT ATTITUDES AND KNOWLEDGE ABOUT MENTAL RETARDATION

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service -- National Institutes of Health
National Institute of Child Health and Human Development

The Effect of Differences in Curricula and Experiences on Social Work Student Attitudes and Knowledge about Mental Retardation

ABSTRACT

The Problem: This study was concerned with the impact of differences in curricula and experiences on social work students attitudes and knowledge about mental retardation. The role of demographic-ecological variables and antecedent life experiences in attitude formation and change were also explored.

Procedure and Methods: The sample consisted of 279 randomly selected, newly admitted and 288 graduating students in seven schools of social work. The schools were purposively sampled on the basis of variations in the degree of their curriculum activity in mental retardation. Data were collected through a series of self-administered instruments including a personal data sheet, semantic differential rating scales, a knowledge inventory and a client preference rank order scale.

Between and within group comparisons were computed with respect to knowledge levels, attitudes about mental retardation and preferences for working with the retarded as a client group. Analysis was also made of the relationship between cognitions, attitudes and action tendencies.

Results: Six hypotheses were tested relative to: knowledge and attitudes of newly admitted students; the relationship of demographic-ecological variables to knowledge and attitudes; and change in knowledge and attitudes as a function of differences in graduate school education. The major findings follow:

1. Students with little or no direct contact or personal life experience with retarded persons demonstrate moderately unfavorable attitudes toward and limited knowledge of the mentally retarded.
2. Students range widely in their knowledge of mental retardation, share many misconceptions regarding the nature and scope of the problem, and are oriented largely toward severe and moderate retardation.
3. Students with retarded siblings or relatives tend toward more extremeness in attitudes and preferences (generally in a favorable direction) and have significantly more knowledge about mental retardation than other students.
4. Demographic-ecological variables, except for socioeconomic status, are not significantly related to attitudes. The highest social class is least favorable in their attitudes.
5. Graduating students whatever their exposure level to mental retardation content, tend toward more favorable attitudes than beginning students, though not to a statistically significant degree on most scales.
6. Graduating students, with the exception of the field instruction group, are not better informed than the newly admitted students and share identical misconceptions about the problem.

7. Changes in client preference occur more frequently among students in high versus low exposure schools, but the rank ordering of client groups remains basically unchanged by the educational experience.
8. Students in field instruction placements serving primarily retarded clients are significantly superior in knowledge about mental retardation to other students, and demonstrate greater changes in attitude and greater extremes in client preference choice. The quality of the agency placement and field instructor are important determinants of the direction of attitude change.

Conclusions: The data in this study strongly support the conclusions that cognitions, feelings and action tendencies are not consistently related except at the extremes of the valence continuum. Knowledge derived through direct contact with retarded persons or their families, involving affective experiences, have greater impact on the changing of attitudes than knowledge alone. The sources of information are further determinants in the absorption of new knowledge and its integration in attitudes. The introduction of content on mental retardation in the basic curriculum of social work education does not materially effect student knowledge and attitudes.

THE CATHOLIC UNIVERSITY OF AMERICA

The Effect of Differences in Curricula and Experiences on Social Work Student Attitudes and Knowledge about Mental Retardation

A DISSERTATION

Submitted to the Faculty of the

Graduate School of Arts and Sciences

Of the Catholic University of America

In Partial Fulfillment of the Requirements

For the Degree

Doctor of Philosophy

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Washington, D. C.
1968

This dissertation was approved by

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and by Cletus R. Brady, Ph.D.

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PREFACE

Professional manpower shortages in the field of mental retardation are a major stumbling block to the staffing of newly emerging programs and the establishment of new resources and facilities. To combat this need, the Federal government has embarked upon a vigorous program to stimulate educational institutions of higher learning through training grants, stipends and fellowships, to include mental retardation content in their curricula.

Graduate social work students are among those disciplines with a potential contribution to the mentally retarded and their families, whose interest has been actively solicited. The effectiveness of these efforts has not been evaluated. This study is partially directed toward that goal.

The successful completion of this study could only be accomplished with the full support and assistance of many individuals. The deans, assistant deans, directors of research and faculty personnel in the participating schools of social work gave unstintingly of their time in distributing materials, following up late returns and assessing the reasons for nonresponse. The writer is deeply indebted to these individuals for their excellent and wholehearted cooperation.

To the graduate social work students who participated in this study and took the time from busy study schedules to complete the test materials, the writer expresses his sincere thanks.

I am most grateful to my colleagues at the National Institutes of Health for their assistance in the computer programming of the data. And I extend my heartfelt thanks to my co-workers in the Mental Retardation Program for their moral support and helpful suggestions in the conduct of this project.

The writer acknowledges that without the unfailing support and understanding of his wife and family, this report would not have been completed.

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INTRODUCTION

Historical Background

From the beginning of history every society has been confronted with the problem of what to do with its retarded members who are unable to meet the demands and expectations of its culture.[1]

Early Attitudes toward the Retarded

The fate of the retarded in society, guided initially by superstition, ignorance and fear, dates back many centuries. In more primitive cultures--the American Indian, for example--the strange behavior of the retarded brought them homage and reverence and caused them to be regarded as having supernatural powers. At other times, due to the compassion of religious leaders, they were given kindly treatment. Yet, even here, the doctrine of social responsibility was only sporadically applied. For much of this early period, the retarded were regarded as "extrasocial" beings. Seldom were they looked upon as individuals with needs, feelings, rights and responsibilities.

It was not until the 19th century that a significant beginning in the evolution of positive social thought toward the mentally retarded was realized. Sparked by the leadership of Itard, Seguin, Howe and others, scientific inquiry succeeded superstition and fear. Through the pioneering efforts of these

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[1]Stanley P. Davis, The Mentally Retarded in Society (New York: Columbia University Press, 1959).

leaders, sound educational and training techniques were developed to "cure" mental defect. The establishment of State institutions for the retarded as treatment resources however, was unduly optimistic considering the state of knowledge of that time. Only severely retarded persons could be identified and the capacity of these individuals for intellectual and behavioral change was seriously restricted by their biological deficits.

Of necessity, the philosophy of these early institutions shifted from educational and treatment objectives to custodial care. Nevertheless, a milestone had been passed in the acceptance of public responsibility for the retarded and the provision of humane care for them in public-supported facilities.

This perspective of mental retardation did not long endure. In the early years of the 20th century, public attitudes toward the mentally retarded, both professional and lay, were profoundly affected by two scientific developments of far reaching consequence--the invention of intelligence testing and research relating to genetics. For the first time, an instrument was available to measure the intelligence of a large proportion of the country's population and the public spotlight was focused directly on many persons whose behavior previously went unnoticed. Applied to army troops during World War I, these tests revealed an alarming number of mentally subnormal persons. In the harsh glare of this discovery, mental retardation became recognized as a social problem of the first magnitude. The search for a solution to this problem led in many directions and, inevitably, to a consideration of its eugenic aspects.

Practically all of the studies of the early 20th century--of which the Kallikaks and Jukes are best known--applied the rediscovered Mendelian concepts of heredity and the newly invented intelligence tests to an analysis of submarginally functioning families. Investigators were drawn to the same conclusion: mental subnormality was transmitted through heredity. Some authorities went

even further, seeing retardation as an expression of various forms of deviation in the ancestors, including insanity, epilepsy and other psychopathological states.

Perhaps the most alarming revelation was the extremely poor social behavior of the families studied. The high incidence noted of antisocial, immoral and other unacceptable behavior traits, and higher than average birth rates, convinced many people that civilization was in jeopardy unless effective measures of control could be devised. The public image of the retarded was mirrored in the words of Dr. Walter E. Fernald--an authority in the field--in a speech made in 1912:[2]

> The social and economic burdens of uncomplicated feeblemindedness are only too well known. The feebleminded are a parasitic, predatory class, never capable of self-support or of managing their own affairs. The great majority ultimately become public charges in some form. They cause unutterable sorrow at home and are a menace and danger to the community. Feebleminded women are almost invariably immoral and if at large usually become carriers of venereal disease or give birth to children who are as defective as themselves.... Every feebleminded person, especially the high grade imbecile, is a potential criminal, needing only the proper environment and opportunity for the development and expression of his criminal tendencies.

To combat this alarming problem, some indignant citizens proposed that all defectives be put to death; others advocated restrictive marriage laws; some of the more farsighted recommended a general improvement of the environment. Of the many recommendations made, control through life segregation and sterilization received the most popular support.

These attitudes toward social deviance have become deeply rooted in our value system and have been reinforced by an increasing complexity of social living that places even greater demands on the adaptive capacities of marginal

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[2]Ibid., pp. 47.

citizens. While more recent knowledge derived from practice and research indicates that most retarded persons can assume productive and law abiding roles in society, public attitudes still reflect to some degree, the social heritage of the past.

Concepts in Change

The great depression of the thirties and World War II partially diverted the public's concern from the problem of mental retardation to more pressing, economic, social and military problems. Once again, however, the Selective Service System called attention to the large number of males in the population rejected for mental unfitness. Studies of this group, in contrast to the early pedigree studies, indicated that most had made a reasonable adjustment to civilian life, were economically self-sufficient and socially responsible.[3]

The aftermath of the war again focused society's attention on the mentally retarded, though somewhat indirectly. A grateful Nation, concerned with the future of its disabled servicemen, greatly expanded rehabilitation programs and engaged in extensive educational campaigns to hire the handicapped. From this concentrated effort, new insights emerged regarding the remarkable, restorative capacities of the human personality. Eventually, though of much more recent origin, it was recognized that the mentally retarded, too, could profit from vocational training and placement programs.

Clearly, concepts of retardation are undergoing change. How widespread is this new knowledge and how much it has influenced the professional and scientific community is a matter for empirical testing. In the field of special education, for example, all States provide special classes for the

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[3] E. Gensberg, and D. W. Bray, The Uneducated (New York: Columbia University Press, 1953), pp. 41-43.

educable and slow learning child (generally from I.Q. 50-80) and nearly all for the trainable child (generally from I.Q. 35-50). Increasingly, day care centers for the retarded are being established, sheltered workshops expanded and more and more adults provided vocational training and placement services. All of these developments, designed to prepare the retarded for successful integration into family and community life, reflect current changes in social philosophy. Today, segregation and control, though still a prevailing attitude in some quarters for segments of the retarded population, are no longer regarded as the panacea for this social problem.

Various factors could be singled out for their potential affect on public attitudes. One of these was the organization of the parent group movement, sparked by the establishment of the National Association for Retarded Children in 1950. Motivated to secure for their retarded children the rights and opportunities available to other children and essential to their development, these parents and interested professionals and lay citizens have stimulated program development, aroused public awareness and successfully lobbied for legislation. Other national organizations, particularly the American Association on Mental Deficiency established in 1876 and the Council for Exceptional Children, have shared this leadership role and have offered professional direction to expanding programs of care, training and treatment.

Undoubtedly, the most significant recent national event in promoting services for the mentally retarded was the appointment by President Kennedy in October 1961 of a Panel on Mental Retardation. For the first time in our history, a President delivered to the Congress a National Message on Mental Illness and Mental Retardation and for the first time, a group of experts was directed to review the status of knowledge and services in the field. Their published report, "A Proposed Program for National Action to Combat Mental

Retardation" stands as a monumental contribution towards stimulating program activity and advancing public understanding. Three central themes permeate and guide the report: (1) retarded persons have potentials for productive living beyond those heretofore recognized, (2) responsibility for the mentally retarded must be shared among the Federal, State and local governments and voluntary groups and organizations, and (3) a real possibility exists of preventing mental retardation on a large scale through a broad assault on adverse environmental conditions in our society.

These concepts stand in stark contrast to the misconceptions of the past.

The Federal government took the first giant step forward toward implementing this philosophy by its enactment in 1963 of Public Laws 88-156 and 88-164. This legislation provided for the construction of research centers, university-affiliated facilities for demonstration of services and professional training, and community facilities of various types. It also made provision for training teachers of the handicapped, for support of demonstration projects and for the strengthening of health, and social services through increased grant-in-aid funds.

The sudden availability of large sums of money for new facilities and program expansion has tended to rapidly outstrip manpower resources to staff newly emerging programs. Even in the area of teacher training involving the largest number of trainees (3,816 in fiscal year 1967) for mental retardation, recruitment efforts have fallen far short of the need. The situation in other professional categories is even more critical. During the same year, only 65 persons were receiving long term training in research careers including biomedical and behavioral sciences, whereas in nursing (80), rehabilitation counseling (84), psychology (93), and social work (250), the numbers being

trained are highly inadequate to the demand.[4]

The expansion of programs for research, training and services, while they connote a positive shift in public attitudes, offer few guides to the degree of change or to the professional groups most or least affected. Many programs have in fact been initiated through the pressure of special interest groups, the stimulus effects of "pump priming" and the "bandwagon" influence of such developments. Of equal, or perhaps even greater importance to the field of mental retardation has been the visibility given the problem by key legislators or prominent citizens. The use of the television and other mass media by members of the Kennedy family, President Johnson and Vice President Humphrey to convey the message that the "retarded can be helped," illustrates this point. Whether or not these activities signify a true attitudinal change by the general public, however, has not been objectively assessed.

Significance and Aims of the Project

Interest in the mentally retarded has emerged in a period when other social problems--delinquency, mental illness, poverty, racial strife--also claim national attention. Faced with relatively unlimited work opportunities, social work students (the subject population of this study) are prone to make career choices according to their preconceptions and attitudes toward groups with whom they would work. Experience to date suggests that the mental retardation field, despite attractive opportunities for advancement has not been very successful in competing with other fields of practice for scarce personnel, especially the promising graduate student. The key role of the social work profession in meeting the comprehensive needs of the retarded and the fact that

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[4]U. S. Department of Health, Education and Welfare, Programs for the Handicapped, November 21, 1967, 67-18, 7.

large numbers of retarded persons are clients of social agencies, highlights the critical aspects of the problem.

A review by the author of case records in public welfare agencies in both urban and rural areas suggests that the level of practice is influenced to some extent by the social worker's attitudes toward the mentally retarded and lack of knowledge in this subject area. Case records revealed that if the child was known to be retarded, institutional placement was often the plan of choice without adequate reference to the actual characteristics or potentials of the child, the psychological needs of the family, or the availability of other community resources. Similar inferences can be drawn from a research project by Saenger.[5] Though the retarded clients seen in the general welfare agency were less severely handicapped than those referred for evaluation to the specialized diagnostic clinics, recommendations for institutional placement were far more frequent.

There is little question that practice tends to be significantly affected by both the worker's image of the retarded and his substantive knowledge of the condition. Knowledge in turn is assumed to affect attitudes and both may be influenced in part by the sources from which these derive--the individual reference groups. These factors will also affect how and whether the worker acts upon his cognitions and beliefs--his interpretation of the problem to the community, his recognition of gaps in community resources, and his articulation of agency goals and services.

The question arises whether some of the current limitations noted in practice are related to the content or lack of it in the professional education

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[5]Gerhart Saenger, "Factors Influencing the Institutionalization of Mentally Retarded Individuals in New York City," New York State Interdepartmental Health Resources Board, January, 1960.

received by social work students, the nature of the learning experience, and its impact on their attitudes. In recent years, schools of social work have, in response to pressure, or motivated by their own recognition of practitioner needs, directed more of their educational energies to this problem. Frequently, the introduction of special content from this field has run counter to the generic orientation of some faculty members and has caused friction in efforts to modify the curriculum. Because of these differing viewpoints regarding the content of academic training, there are great variations among schools in the nature and extensiveness of material on mental retardation presented and in the degree to which students are actually exposed to the problem through direct observation or field instruction. Since the underlying attitudes may be an important determinant of what is considered appropriate or even possible in practice, it is of considerable importance to investigate the effects of curriculum content and methods on student cognitions, beliefs and action tendencies. Put more simply--from the educator's point of view--does exposure to a special problem area influence student attitudes? Is the nature of the learning experience (emotional and/or intellectual) critical? From the view of the field of practice and the Federal agencies responsible for staffing the new resources and facilities it has created, is the pay-off in student interest and knowledge commensurate with the investment?

Schools of social work are constantly beleaguered by representatives from special fields of practice--corrections, aging, physical rehabilitation, poverty, etc.--to include content from these social problem areas into the curriculum. These requests from service agencies and practitioners are founded upon several premises:

(1) that knowledge of these problem areas will change student attitudes about the client group and their capacity to benefit from social

work help,

(2) that increased knowledge of these client groups would enhance the competence of students upon entrance to practice, whether in specialized or general social agency settings,

(3) that a portion of the student body would be sufficiently influenced by the challenges, opportunities and job satisfactions to be derived to seek careers in these "specialized" areas, thus promoting continued leadership and advancement of knowledge.

Acting on these premises, agencies in the U.S. Department of Health, Education and Welfare have obligated funds in excess of $40 million for fiscal year 1968 for professional preparation of personnel for research and services in the mental retardation field, including health, social and rehabilitative services and education. Stipends for social work students under these programs do not generally carry any commitment to work in the field. Thus, the impact of the educational experience on attitudes of students has great practical significance.

Social work educators by contrast, are largely committed to generic concepts of student training. The function of social work education in their view, is to prepare students for beginning competence in <u>any</u> field. This is best accomplished by a broad foundation of knowledge in human growth and behavior, social welfare policy and social work methods. Special content, in this context is utilized to deepen understanding of developmental processes and deviations and human dynamics, to sharpen diagnostic formulations and treatment techniques, to promote greater awareness of factors in social change and welfare policy. In brief, the introduction of special content is looked upon as essential to broadening the generic base of education. The objectives are not to prepare specialists for practice in any given area.

In actuality, social work education is a partial compromise of these somewhat contrasting orientations. Classroom courses are directed toward concept formation but rely heavily on illustrative case materials from special content areas--including mental retardation--to make these concepts and their application meaningful. More important however, in this admixture of the generic and specific, is the part played by the field instruction placement. Each student is required to spend 20 to 24 hours per week, for each of the two years in graduate school, in an agency. During this period he carries a selective caseload, chosen for its teaching value, under the supervision of qualified agency personnel or faculty field instructors. Most agencies have specific functions and serve selected client groups--child welfare, family service, child guidance clinics, correctional facilities, mental hospitals, etc. In these settings, the social work student attempts to integrate the generic concepts of the classroom with the special problems of practice. Insights from practice are conversely fed back into the curriculum for a constant reexamination and refinement of theory.

Logic would suggest that students who are exposed to content on mental retardation in the classroom and who work directly with these individuals and their families in field instruction placement, should know more about the problem and be more influenced in their attitudes than their classmate counterparts. These effects however, have not been explored, for mental retardation or for other practice areas. The training of 250 students in mental retardation for this year, while it represents only about 4% of the total enrollment, allows for this assessment. Such an investigation can serve not only the practice field in its staffing and recruitment efforts; it can also guide the school in the identification of what to teach and how to teach it to achieve specified attitudinal and action goals.

CHAPTER II

REVIEW OF LITERATURE

Attitude studies in mental retardation are relatively limited in number and are of recent origin. Most published reports have appeared within the past ten years and many within the past five years. Furthermore, most of these studies have been concerned with an assessment of existing attitudes toward or concepts about the mentally retarded, rather than attitude change and the factors involved. Few have explored the relationship between cognitions and beliefs; still fewer have looked at action tendencies either conceptually or empirically.

The Assessment of Attitudes Toward the Retarded

A survey by Hursh (1962), noteworthy because of its scope in content and general methodology, utilized an area--probability sampling procedure for the entire State of Minnesota.[6] Of the 900 Minnesotans sampled, only one in ten demonstrated specialized information about retardation, while one-fifth confused the condition with other mental and physical disorders. Many had misconceptions regarding the origin of retardation or the capabilities of the retardates. Less than half related retardation properly to some kind of mental subnormality, but in probing interviews, the level of their understanding was considered superficial.

About half the people in this study had heard or read nothing about mental retardation in the several months preceding the interview. Among those

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[6]Gerald D. Hursh, "Public Impressions of the Mentally Retarded," Social Issues Research, Inc., Minneapolis, Minnesota, Summer, 1962.

having information, television was the most common source, personal contact was second and newspapers third. The most effective means of communicating information about the retardates themselves or service programs was through personal contact.

It is significant that 80% of those interviewed claimed knowledge of retarded persons through personal life experience, most of them with more than one retardate. The known retardates were classified as relatives or family members, friends of the family, and neighbors. Although understanding of retardation in this group was regarded by the investigator as limited, a positive association was found between knowledge and degree of personal involvement. Those persons judged to have a high degree of familiarity with retardates through personal contact, had more specific information about causes, characteristics and programs than their counterparts.

The attitudes of subjects would appear more positive than could be ascribed to earlier public thinking were objective baseline data available for comparison. About three-fourths of the respondents rated the retarded as acceptable as employees, neighbors and citizens. By contrast only a minority rated them to be capable as parents or marriage partners. The majority (roughly three-fourths) were accepting of their participation at playgrounds, beaches, and theaters. Most people did not think retardates should have children and about half thought most or some retardates should be sterilized. About one in ten felt the retarded were "often" involved in undesirable sexual acts. Somewhat similar results are reported by Gottwald (1967).[7]

This study has been cited at some length because it provides a fairly recent perspective of popular conceptions of retardation and touches upon

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[7]Henry Gottwald, "Public Awareness about Mental Retardation: A Survey and Analysis," U.S. Office of Education, Department of Health, Education and Welfare, Grant Number: OEG 3-6-062448-1889, Fall 1967.

elements of the present study. While the knowledge of the respondents undoubtedly reflects certain misconceptions of the retarded, the group is clearly better informed than reported upon by Yepsen many years earlier.[8] However, the Hursh survey did not attempt to relate knowledge to attitudes, a consideration of both theoretical and practical significance to which this study is partially directed.

A study by Greenbaum and Wang (1965) further supports the view that the image of the mentally retarded is mainly a negative one.[9] Utilizing semantic differential scales, the authors noted strongly negative loadings on seven scales. The evaluation factor, on the other hand, hovers around the indifferent point.

Although similarities in the attitudes of the groups studied are noted, reliable differences between them are reported. The paraprofessional group is the most positively oriented, followed in order by parents, professionals and employers. The investigators suggest that the emotional involvement, intimate contact, sympathy and hope of parents for their children account for their relatively more favorable attitudes. The willingness of the paraprofessionals to work in an institutional setting may suggest special personality traits in these persons. It is hypothesized by the authors that this group shifts in attitude by virtue of their intimate contact with the retarded, but the possibility of bias in self-selection cannot be overlooked. The attitudes of this group were not assessed prior to their work experience.

The differences noted between the groups relect in part the statistical measures employed. The sign-test, justified in its use (by the authors) as a distribution-free statistic, does not consider magnitude of difference. Thus,

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[8]Lloyd N. Yepsen, "Facts and Fancies about Mental Deficiency," New Jersey Department of Institutions and Agencies, 1906 (third printing).

[9]Joseph J. Greenbaum and Dorly Wang, "A Semantic Differential Study of the Concepts of Mental Retardation," Journal of General Psychology, (LXXIII, 1965), pp. 257-272.

differences are reported that would not be so reported by the use of t-tests and other analysis of variance methods. For this reason, some of the attitudinal differences noted are more spurious than real, although this criticism would not apply between the extreme groups--paraprofessionals and employers.

This study also attempted to relate various demographic factors to attitudes. Lower class respondents showed a more positive conception of the mentally retarded than middle or upper class who did not differ from each other. The less educated (less than high school) were more favorable in their attitudes than the better educated. (In view of the correlation between education and socioeconomic class, this is an expected finding.) The authors suggest that the lower social classes are more likely to work with the retarded and have a more positive image than the higher status group who may advise about their training or be asked to hire them. Here too, the results may indicate an artifact in the way the sample was drawn (the lower class group were largely employees and parents). Nevertheless, education is generally related to knowledge and the finding that the better educated (i.e. most knowledgeable) have the least favorable attitudes may be significant. Differences by sex (females more favorable) and by age (older more favorable) were also observed, but these were slight and possibly confounded by other factors.

Support of the notion that people have a generally unfavorable image of the retarded is found in other studies too. Thus, in analyzing the problems of the retardates in post-institutional adjustment, investigators have concluded that the unwillingness of the family and community to accept the retarded as contributing members of society and general economic conditions were major factors in failure.[10] [11] Badt, in a study of university student attitudes found

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[10] Julius S. Cohen, "An Analysis of Vocational Failures of Mental Retardates Placed in the Community after a Period of Institutionalization," American Journal of Mental Deficiency, (LXV, 1960), pp. 371-375.

that students choosing to enter the field of education were just as unwilling to teach special classes for exceptional children as other respondents.[12] They were more negative to crippled children and held unfavorable stereotypes of the mentally retarded and socially maladjusted.

Research into the attitudes of parents of retarded children is probably not fully comparable to attitudes of the general population because of the intensity of emotional factors and concrete problems involved. However, because of the possible importance of feelings and want satisfactions in attitude formation and change and the implications for the present study, some brief reference is warranted. Much of the clinical literature documents the variable reactions of parents to retardation and the oft-encountered feelings of guilt, anxiety, grief, sorrow, fear and despair in response to chronic stress.[13] Studies by Grebler, and by Bitter, (to be discussed below) are generally supportive of these observations.[14] [15] In describing her findings, Grebler noted that parent attitudes were conditioned by the frustrations inherent in the child's condition and the limitations imposed from outside sources. They tended to react to frustration according to their own personality problems, and their feelings toward mental retardation in general were interrelated with their attitudes

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[11]S. L. Warren, "Problems in the Placement and Follow-up of the Mentally Retarded," American Journal of Mental Deficiency, (LIX, 1955), pp. 408-412.

[12]Margit I. Badt, "Attitudes of University Students toward Exceptional Children and Special Education," Exceptional Children, (XXIII, 1957), pp. 286-290, p. 336.

[13]Michael J. Begab, "The Mentally Retarded Child - A Guide to Services of Social Agencies," U.S. Department of Health, Education and Welfare, Children's Bureau Publication No. 404, (Washington: U.S. Government Printing Office, 1963) 134.

[14]A. M. Grabler, "Parental Attitudes toward Mentally Retarded Children," American Journal of Mental Deficiency, (LV, 1952), pp. 475-483.

[15]James A. Bitter, "Attitude Change by Parents of Trainable Mentally Retarded Children as a Result of Group Discussion," Exceptional Children, (XXX, 1963), pp. 173-177.

toward their child. Parents who blamed others for their misfortune tended to reject the child, those who blamed themselves were ambivalent, while the non-projecting parents demonstrated accepting attitudes. The behavior problems observed in the children were attributed to unfavorable parental attitudes.

The Relationship between Knowledge and Attitudes

The research literature on opinions and attitudes about mental illness, summarized in the publication cited below, are highly relevant to the present study.[16] This condition too, has been characterized by public neglect and rejection. Public education efforts on behalf of the mentally ill however, provides a longer range perspective and more information on attitudes, associated factors and elements in change.

Surveys covering the period from 1948-1963 indicate that public attitudes toward the mentally ill are no longer wholly negative, but in many significant dimensions, the findings are equivocal. The Trenton, New Jersey Survey (1948) reported that individuals in the higher educational and occupational levels had more "enlightened" opinions about mental illness and did not associate the condition with earlier held beliefs of heredity, sin, overwork, etc. They were more optimistic about the likelihood of recovery and the value of professional treatment.

Conversely, in the Washington Survey (1960) "opinions regarding the etiology and prevention of mental illness are only slightly, if at all, related to the level of formal education---and only weakly correlated with knowledge of the technical vocabulary of psychiatry." (p. 2) This study suggested that giving the public the facts about mental illness could not be assumed to necessarily alter opinions and that frames of reference by which persons

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[16]"Public Opinions and Attitudes about Mental Health," Research Utilization Series, U.S. Department of Health, Education and Welfare, Public Health Service Publication No. 1045, (Washington: U.S. Government Printing Office, 1963), 22.

integrate factual information and personal opinion needed to be explored. Two additional surveys (Baltimore, 1962) and (Urban Leader Survey, 1962) support this position. In the former, the poorly educated, low socioeconomic urban population revealed a relatively high level of sophistication; the other showed a relatively low mental health orientation in civic leaders who had had much contact with the mentally ill.

In the Louisville Survey (1951) the majority of persons interviewed expressed relatively enlightened views about mental illness with the younger age groups and better educated revealing a more humanitarian and scientific outlook then their counterparts. Differences were also noted between professional groups. Few were able to recognize mental illness from the case vignettes presented however, and most were reluctant to seek psychiatric help except as a last resort. In brief, though attitudes were not tied to old superstitions, the respondents were not well informed.

The NORC Survey (1950) reported the average American knows mental illness can be treated and that it entails special facilities and personnel. Here too, the majority could not recognize the condition from case illustrations; in their working definition only extreme psychosis was admitted, when (1) the evidence indicated a loss of cognitive functioning, (2) loss of self-control usually to the point of violence and (3) inappropriate, nonrational behavior. In contrast to the other studies cited, persons with the most exposure to information about the problem (lectures, mass media, books) were more likely to approach professional views. The number and variety of informational sources used was directly related to knowledge regardless of educational level.

One of the most ambitious studies of public attitudes toward mental illness was conducted over a six year period (1954-59) by a team of research investigators at the Institute of Communications Research, University of Illinois. These investigators analyzed the mental health content of the mass media and

studied methods of effecting changes in public attitudes. The public's information about mental illness it was noted, was neither highly structured nor crystallized and were largely negative. Differences between groups by age and education were not significant and physicians reflected the same negative attitudes as lay persons. Mental treatment methods and institutions were held in relatively low esteem. These attitudes were attributed in part to the infrequent and distorted presentations by the mass media of mental health problems. The Illinois group concluded that the public is uninformed rather than misinformed and that negative attitudes toward the mentally ill are based on the unpredictability of sick behavior.

The Baltimore Survey referred to earlier is in striking contrast to the Illinois and other studies. This sample population, even the least educated, was better able to identify mental illness from case stories. Education and income differentiated in the knowledge level, but not age, race, marital status and urban and rural birth. Differences in orientation did exist between professional and occupational groups suggesting that variations in frames of reference are the basis for appraising deviant behavior.

It is clear from the above analysis that many uncertainties still exist regarding the relationship between knowledge and attitudes. Some of the incongruities noted probably stem from differences in methodology, populations studied, instruments used and theoretical orientations applied. The general trend appears to be toward better public understanding, tolerance and acceptance, but there remain great variations in public opinion which continue in a state of flux.

Several research studies in mental retardation are also conflicting on the relationship between knowledge and attitudes. Cohen, in a study on employer attitudes toward hiring the mentally retarded tested several hypotheses: (1) that better educated employers would be more favorably inclined to hire; (2) that attitudes would be related to prior vocational experiences of the employer

with retarded workers; and (3) that attitudes are positively related to the employer's realistic concepts of the retarded (knowledge).[17] None of the hypotheses were supportable. The author speculates that the better educated place more emphasis on formal education by their workers and that the acquisition of information does not assure attitude change. The differential response offered by employers in direct confrontation as opposed to responses on a questionnaire form, suggested that true feelings are not always recorded and that information thus obtained may not reflect action tendencies.

Simmel, in a study of regular elementary school teachers and special class teachers examined the relationship between factual information and the propensity toward acceptance of the retarded.[18] Although the latter group, as might be expected, were better informed, there was no significant variation in attitudes. Both groups were positively oriented; apparently basic teacher training promotes a positive orientation to children in general. Mahoney and Pangros assessed the relationship between exposure to course work in mental retardation and noted little impact on either accuracy of conceptions or attitudes.[19] The authors suggest a low quality of instruction and motivational levels of students as explanatory factors. They speculate further that attitudes are established early in life and that information is distorted or forgotten when it conflicts with previous beliefs reinforced by significant people in one's life. Emotional maturity, not intellectual capacities they allege, is required in the process of self-evaluation and attitude change.

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[17]Julius S. Cohen, "Employer Attitudes toward Hiring Mentally Retarded Individuals," American Journal of Mental Deficiency, (LXVII, 1963), pp. 705-713.

[18]M. I. Simmel, "Teacher Attitudes and Information Pertaining to Mental Deficiency," American Journal of Mental Deficiency, (LXIII, 1959), pp. 566-574.

[19]S. C. Mahoney and I. Pangros, "Misconceptions of College Students about Mental Deficiency," American Journal of Mental Deficiency, (LXIV, 1960), pp. 671-678.

A somewhat contrary finding is reported by Alcorn.[20] Freshmen students were compared to seniors, grouped according to whether they had course work in mental retardation. The correlation between attitudes and knowledge was moderately significant for the freshmen (.41) and seniors with course work (.54) but negatively correlated for the other senior group (-.02). Freshmen whose classes were in school buildings that brought them into contact with retarded children in special classes had more positive attitudes than where there were no classes. Seniors without course work had greater knowledge and more favorable attitudes than the freshmen, but scored lower on both counts than the other senior group. Demographic factors studied were largely insignificant, except for sex differences in the freshmen group (females more positive). Both knowledge and attitudes were reportedly improved through course work.

While several of the studies described above are concerned with attitude change, largely through the avenue of increased knowledge, none have focused directly on the role of emotional experience on such change. A few studies bear obliquely on this issue. Cleland studied the effect of institutional tours in modifying attitudes and found responses relevant to patient care to reveal significant shifts in attitudes.[21] On the other hand, Kimbrell, studying the same phenomenon, reported conflicting findings.[22] For half of the test items, there were significant shifts but most of these were knowledge oriented rather than attitudinal in content. Items which dealt with the retardates sense of happiness

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[20]D. A. Alcorn, "The Relationship between the Attitudes of College Students toward Mentally Retarded Children and Certain Other Characteristics of College Students," Dissertation Abstract, (XXIII, 1963), 1489.

[21]C. C. Cleland and I. L. Cochran, "The Effect of Institutional Tours on Attitudes of High School Seniors," American Journal of Mental Deficiency, (LXV, 1961), pp. 473-481.

[22]D. L. Kimbrell and R. Luckey, "Attitude Change Resulting from Open House Guided Tours in a State School of Mental Retardates," American Journal of Mental Deficiency, (LXIX, 1964), pp. 21-22.

or his self-awareness or which described the retardates as "shocking" or "too dull to be disturbed," elicited no changes. Feelings, in this case, remained largely unchanged.

The study by Bitter (referred to earlier) also deserves mention.[23] This investigator studied the impact of group discussion in changing parent attitudes. Parents demonstrated significant changes in their Democratic Attitudes, but not in Authoritarian Control or Hostility Rejection. Their knowledge did not increase but their ratings on two semantic scales did increase. The number of discussion sessions attended appeared to be a factor in attitude change, but largely at the extremes.

Warren, Turner and Brody, (1964) expanded on the institutional tour effect through the addition of lectures and discussion to sophomore college students in education.[24] Pre-post ranking of seven areas of exceptionality revealed that this method did not increase preference for working with the retarded and in fact had the opposite effect for a number of students. Meyers (1946) found a similar disinclination of students in teacher training toward careers involving the retarded.[25] Those who had observed special classes for the retarded had somewhat more favorable reactions.

A very recent study by Allen and Foshee (1968) of high school and college students employed under the SWEAT (Summer Work Education and Training) program, stands in contrast to many of the previous studies cited regarding attitude

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[23] Bitter, op. cit.

[24] Sue Warren, D. H. Turner and D. S. Brody, "Can Education Students Attitudes toward the Retarded be Changed?", Mental Retardation, (II, 1964), pp. 235-242.

[25] C. E. Meyers, "Realities in Teacher Recruitment," Mental Retardation, (II, 1964), pp. 42-46.

change toward the mentally retarded.[26] This federally sponsored program involved a three-month experience for students varying considerably in the nature of work assigned, the degree of contact with retarded persons, the level of interaction with and supervision from professional staff, administrative commitment by the employing agency and many other factors bearing on the quality of the learning experience. In a pre and post-test design, students in this program demonstrated significant increases in knowledge gained about mental retardation, shifted in their choice of occupations toward the group and evidenced positive changes in opinion (to a considerable degree, this instrument measured both knowledge and feelings). On all of these dimensions, gains were significantly different from the contrast group, which the authors concede were not well matched on many variables but which they do not feel alters their results. The semantic differential ratings on the other hand did not reveal between group differences. The source and direction of supervision for the students appeared to be a major factor in the change of attitudes. Although correlations were not made, the data suggest a positive relationship between knowledge and attitudes. This relationship did not obtain for the professional expert group included in the study, who though possessing the most knowledge, rated the retarded less favorably than the students on most of the semantic scales. The authors also note some contamination and confounding of results through the test-retest procedures, especially in the knowledge and opinion areas.

This review of research in mental retardation and the related studies in mental illness reveal many areas of incongruency. Despite the multiple attitudinal studies that have been completed, many uncertainties remain. These have been compounded by variations in methodology, instrumentation and perhaps in conceptualization.

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[26]B. Allen and J. G. Foshee, "Student Work Programs in Mental Retardation Facilities," U. S. Public Health Service, Contract Nos. PH-2-1639, PH-2-1751, and PH 108-66-125, 1966.

Nevertheless, a number of observations emerge which provide in part, the rationale for this study.

1. The relationship between knowledge and attitudes is unclear. It is conceivable that it is not how much factual information one possesses, but how it is obtained and from what source, that influences attitudes.
2. Professional groups appear to differ from each other in their attitudes toward the retarded even when knowledge levels are the same. Frames of reference and orientation may be critical factors. Social work students have not been studied in this regard.
3. There is the suggestion that massive efforts at public education have resulted in modest degree in enlightened social attitudes toward the mentally ill. Such efforts in mental retardation are of recent origin; their impact are not yet determined.
4. The potential relevance of antecedent life experiences and personal contact with the retarded to attitude formation and change has received little attention. The emotional content of a learning experience may be more significant than intellectual content in changing attitudes.
5. The role of formal education in attitude change has been only partially explored and has for the most part been confined to traditional classroom courses. Social work education, because of its heavy relevance on field instruction requiring direct interaction with clients, imposes "feeling" components on the learning process. Thus, focus on the nature of the educational experience, on <u>how</u> and <u>what</u> one learns about mental retardation, may shed further light on the relationship between cognition and feelings and their expression in action tendencies.

CHAPTER III

THEORETICAL CONSIDERATIONS AND ASSUMPTIONS

Attitudes develop in man as he himself develops and reflect in large measure the nature of his life experiences and his interaction with meaningful others in his environment. In the process of early growth, the family is the major source of attitude formation. Later, other socializing agents participate increasingly in the child's attitudinal world. To the extent that the lives of individuals intersect at many points and they are exposed to social systems with common norms, beliefs and values, they tend to share similar attitudes. Thus, family members, friends and neighbors are more inclined to think, feel and act like each other than like other subcultural groups. Yet every individual has life experiences unique unto himself which shape his attitudes. Though his attitudes are similar to others, they are not identical.

The factors in change with which this study is concerned, cannot be understood without reference to the nature of attitudes and the processes and factors by which they are formed. Attitudes are generally conceptualized as a "package" of particular beliefs, feelings and response tendencies.[27] As more of these attitudes are acquired through the assimilation of objects and internalization of feelings, actions become stereotyped, predictable, consistent and resistive to change. The most critical cognitions are the individual's evaluative beliefs. Feelings are the emotions connected with the object and give the attitude its

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[27] D. Krech, R. S. Crutchfield, and E. Ballachey, The Individual and Society (New York: McGraw Hill Book Co., Inc., 1962) Chapter V.

motivational character. The action tendency includes the behavioral readiness of the individual to act upon what he knows and feels.

These characteristics of attitude systems are assumed to be intercorrelated and consistent.[28] With respect to mental retardation however, and in many of the studies on mental illness, reviewed in the previous chapter, cognitions, beliefs, and action tendencies have not revealed this internally consistent pattern. Conceivably, the valence and multiplexity of an individual's cognitions may differ in intensity and scope from his feelings and actions. Strength of feeling may overwhelm intellectual cognitions. It may well be as Bettleheim and Janowitz found, that greater consistency among attitude components exists at the extremes of the valence continuum.[29]

An important consideration in attitude theory is that attitudes are formed in the process of want satisfaction. Objects and people that satisfy wants and goals will be favorably regarded; those that frustrate wants will provoke unfavorable attitudes.

The retarded child is looked upon by the intellectually normal parent as a threat to self-esteem, a potentially lifelong burden and a source of family disruption. Clinical practice and research strongly supports the view that retardation is a barrier to parental want satisfaction, especially during the initial crisis and early adjustment period. The negative attitudes evident at this period may change--and indeed do--as the child's behavior provides unanticipated satisfactions or as the family's coping strategies enable them to seek need gratifications from

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[28] D. T. Campbell, "The Generality of a Social Attitude," (Unpublished doctoral dissertation, University of California, Berkeley, 1947).

[29] B. Bettleheim and M. Janowitz, Dynamics of Prejedice: A Psychological and Sociological Study of Veterans, (New York: Harper, 1950).

other sources.

The helping professions, of which social work is a prime example, satisfy personal needs through achievement in the helping process. Physicians for example, because of their orientation toward treatment and cure, have shied clear of retarded patients in the belief that nothing could be done medically to remedy the situation. Social workers too, have been reluctant to serve the retarded in the past, on the assumption that their techniques and skills were not sufficient to the task. Whether based on fact or fancy, the belief that the retarded offered few opportunities for professional achievement and want satisfaction has influenced action tendencies.

The historical neglect of the retarded is readily explained in functional terms of wants and prejudices. Through prejudice, man--and society--were able to justify hostility, rationalize culturally unacceptable behavior, enhance feelings of self-regard and protect the self against threats of self-esteem. Earlier attitudes of segregation, control and sterilization toward the retarded can be understood in this context.

Attitudes of individuals are also shaped by the information to which they are exposed. The degree to which information changes attitudes however, may well be determined by preexisting related attitudes and prior knowledge levels. Thus, the individual who knows nothing about mental retardation and has no preformed attitudes about them may be more affected by public education efforts than the better informed or those who think they are well informed, whether their facts are accurate or not. The resistance in many communities to fluoridation is probably due to strongly held, but incorrect beliefs and is a case in point.[30]

The discrepancy between facts and beliefs is often dependent on the sources

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[30] M. Davis, "Community Attitudes Toward Fluoridation," Public Opinion Quarterly (XXIII, 1959), pp. 474-482.

of information for the individual and how authoritative and reliable the person or media is regarded. This concept, which overlaps in part with reference group theory does not suggest that information received from authoritative sources is accepted without question and is unrelated to individual wants. Its relevance however, to this study seems clear, for in the educational milieu of the graduate school the faculty member is a primary source of information. The status and esteem in which he is held by the student body can be important considerations in whether what he teaches is absorbed, distorted, or integrated in the student's attitude system.

One of the more important theoretical constructs to which this study relates is the principle of consonance. Balance theory defines a state of balance as existing in a cognitive system when the elements of the system form units which have noncontradictory relationships. When an individual is confronted with affective cognitions that conflict with other cognitive elements of the system, he attempts to achieve cognitive balance. This process is a complex one and is often not achieved. Especially is this true when balance is possible only through harboring "unpleasant" cognitions.[31] Mental retardation, because it is or appears to be antithetical to our cultural values, may produce cognitive imbalance.

The formation of attitudes, as implied earlier, depends on the individual's group affiliations in primary and secondary groups. It seems reasonable to assume that graduate university students (the subjects in this study) would have been exposed in their families to attitudes favoring achievement, independence, economic self-sufficiency and other values characteristic of middle class society. By implication at least, people who lack these personal qualities such as the mentally retarded, tend to be devalued. Though parents do not teach their children

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[31] M. J. Rosenberg and R. P. Abelson, "An Analysis of Cognitive Balancing," in M. J. Rosenberg, et al., Attitude Organization and Change (New Haven, Connecticut: Yale University Press, 1960).

specifically about the retarded, their considerable stress on traits these individuals are thought to lack, provokes the negative image so frequently reported. The observation that young children lack social prejudices and are more tolerant toward deviance, supports the notion that this behavior is not only learned, but reinforced by the school and other social institutions.

The application of these concepts to the topic under investigation would suggest that students whose life experience did not include any personal interaction or involvement with the mentally retarded would reflect the prevailing, and dominant attitudes of society toward this group. By contrast, individuals who were directly exposed to the problem through a retarded sibling, relative or neighbor or whose primary reference groups--peers, colleagues, social cliques, etc.--were particularly concerned, would be confronted with another frame of reference in the formation of attitudes and behavior. These individuals, motivated to maintain stability in family life or to enhance standing in the group, would tend to comply with group sanctions and norms and would be influenced by member interaction. According to reference group theory, member behavior depends on one's sentiments toward the significant others who serve as representatives of the reference group.

University students--especially those who reside on campus--belong to various reference groups within the student body. Several possible groupings could be noted--friendship groups, clubs, fraternal orders, class groups, field instruction units, etc.. Those groupings involving common motives and interaction as measured by frequency and regularity of association over a time span, would appear to be potentially the most influential. Since graduate social work students for the most part, do not reside on campus and therefore, are apt to be less involved in socially oriented groups, class and field associations assume added significance as reference groups. During the course of their graduate experience, students are generally in most frequent association with other

students sharing a common field instruction placement or classroom courses, in that order. Students spend twenty or more hours per week in an agency setting, ranging from individual placements to units as high as eight or more students. Thus, the student also spends more time with field instruction than classroom faculty.

The amount of interaction between field faculty and students may be balanced in part by the differential status between the two types of faculty position. In the school hierarchy, field instructors generally occupy lower rank and often have less say in curriculum matters than classroom faculty. Their role as authoritative sources of information may thus be more a function of personality and conviction than ascribed status. Personal influence, through face-to-face contact, it should be noted however, is an effective method of inducing attitude change.[32]

Since motivations are influenced by settings and common group activities, it may be postulated that students sharing a field unit placement in mental retardation, of which the faculty instructor is an integral part, constitute a reference group for each other. These students should reflect attitudes more similar to each other than to the larger student body. The influence of this group on the other students, would rest on opportunities for communication between them about this problem through course work and seminars. Whether the former serve in fact as a reference group to the latter, is an open question and would require study in its own right. Nevertheless, to the extent that knowledge and attitudes may be related, the general student body in those schools having specialized faculty, field instruction units and expanded content on mental retardation in the curriculum should demonstrate greater attitude change.

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[32]P. F. Lazarsfeld, B. Berelson and H. Gaudet, The People's Choice (New York: Duel, Sloan and Pearce, 1944).

The processes and factors underlying attitude formation are not readily distinguished from those concerned with attitude change. The distinctions are probably more meaningful in the formative years of attitude development than during adulthood by which time life experiences have been organized into an attitude system covering an extremely broad and complex range of objects and people. Yet, despite the inclination to conservation and stability, changing social conditions and new discoveries challenge previously cherished ideas and feelings and compel--with varying degrees of ease or difficulty--shifts in attitudes.

Efforts to change attitudes toward mental retardation have been largely cognitive oriented. The mass media, periodicals, brochures and other communication media are directed toward conveying the facts and dispelling ignorance. An extremely small segment of the population (other than family and relatives) are involved in personal interaction with retarded persons on an intimate level and to a considerable extent these persons have voluntarily initiated the contact.

Graduate students in social work, like the other helping professions--but perhaps more intensively--engage in practicum experiences as part of the educational requirements. Clients of social agencies present a wide range of emotional disorders, family pathology, concrete problems of daily living and other symptoms of social dysfunction. These problems often arouse in students feelings of anxiety and stir up dormant personal problems. The sense of self-awareness the student must develop in order to help the client as well as the nature of the problems themselves, makes the learning process both an emotional and intellectual experience. A study of the effect of the educational curriculum on the attitudes of graduate social work students therefore, may shed light on the comparative impact of emotional and cognitive experiences.

Research indicates that attitudes differ in their modifiability depending

on the characteristics of preexisting attitudes, the personality of the individual and his group affiliations. Change in a congruent direction (toward the same value as originally held) is easier to induce than incongruent change (toward the opposite value). Congruent change is more likely to take place the more extreme, multiplex, consistent, interconnected, consonant, want-serving and centrally valued the attitudes.

Of these various characteristics, consonance (and its corollary of dissonance), want-serving and centrality of value are most pertinent to this study and its objectives. The latter two items have already been touched upon. Festinger's theory of cognitive dissonance holds that two cognitions "...are in dissonant relation if, considering those two alone, the obverse of one element would follow from the other."[33] In essence, the individual confronted with new information on cognitions that conflict with prior conceptions becomes psychologically uncomfortable as a result and is motivated to try to reduce dissonance and achieve consonance. Inner attitudes are shifted to correspond more closely with outward expression.

The source of psychological discomfort in an individual may derive from exposure to information, group affiliations, personal influence or emotional interaction with the attitude object. Of special interest to this study is the impact of intimate contact with the retarded, forced upon the student by life circumstances, agency requirements, or field instruction placement in a setting that is frequently contrary to the students' preferred choice.

Enforced contact with the object of an attitude may strengthen or weaken an existing attitude with respect to its valence or intensity. Research on prejediced attitudes toward Negroes indicates that when Negroes and whites live together in the same neighborhoods and get to know each other, autistic distortions

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[33]L. Festinger and J. M. Carlsmith, "Cognitive Consequences of Forced Compliance," Journal of Abnormal Social Psychology, (LVIII, 1959), pp. 203-210.

and stereotyped beliefs are sometimes corrected.[34] Also, when one is compelled to come to terms with a "negative" object, there is a tendency to seek favorable aspects about that object, to bring attitudes into greater congruence.

We might assume that students who have had no personal contact with retardation upon entrance to graduate school would reflect the attitudes of the general public. If, in the course of their educational experience they are compelled into direct contact with retarded clients (as in the field instruction placement), a shift in attitude would be expected. The intensity or direction of the shift (which could be in either direction) would depend on previous beliefs and whether the behavior of the retarded conflicts with or reinforces these beliefs. Considering the wide range of adaptive capacities between persons designated as mentally retarded, it is clear that previous beliefs will be tested against the type of clients served as well as the intimacy of the contact with them. Thus, the student who has an image of the retarded as severely damaged, totally dependent, non-responsive persons but encounters a client group of mildly retarded adults capable of productive, independent behavior and able to form satisfactory interpersonal relationships, will find it difficult to distort his new perceptions and to maintain old prejudices. The converse is also true. Studies on prejudice toward minority groups support this general prediction.[35]

Summary of Principles and Assumptions

In summary, the guiding principles, assumptions and theoretical framework for this study may be outlined as follows:

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[34]T. M. Newcomb, "Autistic Hostility and Social Reality," Human Relations, (I, 1947), pp. 69-86.

[35]M. Deutsch and Mary E. Collins, Interracial Housing: A Psychological Evaluation of a Social Experiment (Minneapolis: University of Minnesota Press, 1951).

1. Attitudes develop and change in the process of want satisfaction.

The mentally retarded are looked upon by the general public as possessing personal qualities and limitations incompatible with want satisfaction. Persons who have had intimate contact with the retarded through life experience will be either more frustrated in their wants or will have learned through experience to cope with frustrations or find substitute satisfactions. The intensity of their attitudes constitutes a barrier to change.

The attitudes of students with no previous exposure to the problem will depend upon their view of the professional satisfactions to be derived from work with the retarded as a client group. The nature of their educational experience will bear upon this perspective.

2. Attitude change is brought about through additional information, the influence of reference groups and enforced modification of behavior toward the attitude object. The relationship between cognitions and beliefs, though conceptually valid, has not been fully borne out in prior research on mental retardation or mental illness. The complexity of many interacting factors bears on this relationship. Students sharing common learning experiences in mental retardation and frequency of interpersonal contact in a field instruction placement may be inferred to constitute a reference group and share similar attitudes. Similarly, these students compelled to interact with retarded clients in the fulfullment of their educational requirements should show greater change in attitudes than those who do not have such contact. This consideration may not apply to those who already hold strong feelings deriving from earlier life or work experience.

3. The direction and degree of attitude change is influenced by the

authority and esteem ascribed to the informant. Field instructors in schools of social work generally have less status than classroom faculty, though their frequent and intimate contact with the students assigned to them for supervision, places them in a strategic position to convey information and influence attitudes. The potential impact of these instructors on student attitudes would appear to depend then, on personality factors, their stature as "experts" in mental retardation, their own convictions about the problem and ability to instill these feelings in others.

Hypotheses

Based on the above principles and assumptions, the following hypotheses will be tested:

a. Beginning social work students who have had little or no direct contact or personal life experiences with retarded persons will demonstrate moderately unfavorable attitudes and limited knowledge toward this group.

b. Beginning students who have had meaningful life experiences with retarded persons will evidence more extreme attitudes (positive or negative) and greater extremes in knowledge (more accuracy or more distortions).

c. Terminating students with no or little exposure in the curriculum will show less change in knowledge and attitudes than those with exposure through class or field teaching.

d. Terminating students with field instruction in mental retardation will evidence greater attitude change (in either direction) than

those exposed only to formal classroom materials.

e. Terminating students with prior personal life experience with the retarded will not be significantly influenced by the graduate educational experience.

f. Terminating students with field experience in mental retardation will share a level of knowledge and attitudes about mental retardation, distinct from the general student body.

CHAPTER IV

METHODOLOGY AND PROCEDURES

The purposes of this study are to assess the effects of differing educational experiences on the knowledge and attitudes of social work students to mental retardation. Attitude change however, as conceptualized in the previous chapter, is, or may be related to variables other than information per se. Some of these variables may be demographic or personal in character, such as age, sex, marital status, social class, religion, etc. More central to the hypotheses formulated in this study are those events antecedent to the graduate school experience which are presumably significant to attitude formation. These variables have been designated as personal life experience with retarded persons or their families, and work experience with retarded clients. In the analysis of results, these factors are treated as both independent and control variables.

Major independent variables relate to the curriculum itself as determined by the exposure to knowledge, the nature of the learning experience and the sources of information.

These factors and objectives are incorporated in the research design to be described below.

Research Design

This study compares the cognitions, beliefs and action tendencies of social work students at the beginning and termination of their graduate course of study. The basic design is cross sectional in approach, although the data are

treated as if the same students were studied longitudinally. Preference for the cross-sectional approach is dictated by economic factors, time lapse and by concern with potential bias through test-retest experience. Conceivably, participating students might be sufficiently motivated by the test procedures to look beyond the regular curriculum for answers to puzzling questions.

The utilization of cross-sectional techniques for this study on attitudinal change rests on the assumption that the two groups of students--beginning and terminating--are highly homogeneous. Considering the short time lapse (2 years) between enrollment in graduate school for the two groups, there appears to be no logical reason that they should differ in any significant way. It is highly unlikely that standards for admission would change or that students would differ in their antecedent life or work experiences. The possibility that students entering school two years later may be better informed about mental retardation through the influence of mass media than their counterparts, should be acknowledged. However, in view of the fact that public education efforts date back a number of years, and the findings from the other research studies reported upon reveal no significant change in public attitudes, this potential bias seems highly remote.

The assumption of homogeneity is highly supported by the data. (Table 1) Except for the distribution by age (which analysis indicates to be insignificant) and the associated factors of marital status and children, the two groups of students are strikingly alike. The higher prevalence in the under 25 year age group is readily explained by the two year time lapse, for many students would move into the next older category during the course of their graduate study. In the categories more salient to this study--personal life experience and work experience with retardates, the numbers are nearly identical.

TABLE 1

FREQUENCY DISTRIBUTIONS OF CHARACTERISTICS OF BEGINNING AND TERMINATING SOCIAL WORK STUDENTS

By Age and Sex

Student Status	Age				Sex	
	Total	25	25-35	35+	Male	Female
Beginning	279	157	90	32	113	166
Terminating	288	97	143	48	141	147

By Marital Status and Children

Student Status	Status		Children	
	Total	Married	Single	Yes	No
Beginning	279	97	182	63	216
Terminating	288	158	130	85	203

By Race and Religion

Student Status	Race					Religion			
	Total	W	C	Y	UnK	Prot.	Cath.	Jew	Other
Beginning	279	239	22	2	16	145	72	32	30
Terminating	288	235	13	2	38	169	60	26	33

Table 1--Continued

By Personal Life Experience and Relationship

Student Status		Experience		Relationship		
	Total	Yes	No	Imm. Fam.	Relative	Neighbor
Beginning	279	115	164	10	19	86
Terminating	288	129	159	8	25	96

By Professional Work Experience and Retarded Cases Carried

Student Status		Professional Experience (years)				Retarded Cases	
	Total	0	< 2	2-5	5+	0-4	5+
Beginning	279	118	91	56	14	213	66
Terminating	288	115	105	49	19	223	65

By Father's Occupation and Parent Income

Student Status		Occupation						Income				
	Total	Dead or Unstated	Unskilled	Skilled	Clerical	Semi-professional	Professional	< 7,500	7,500 - 10,000	10,001 - 15,000	15,001 - 20,000	20,001+
Beginning	279	25	47	55	72	47	33	95	60	55	40	29
Terminating	288	44	32	63	54	43	52	114	69	63	18	24

All students were administered the same instruments:

(1) Personal Data Sheet

(2) a knowledge inventory

(3) the semantic differential rating scales

(4) the client preference rank order scale

These instruments, to be discussed below, correspond to cognitions, beliefs and action tendencies, though some desirable overlap undoubtedly exists. Comparisons are made between beginning and terminating students on mean Knowledge Scores, mean Semantic Ratings and mean Client Rank Order according to prior experience or contact with retarded persons. Within group comparisons are made for terminating students only on demographic and personal characteristics, relating these factors to the dependent variables just noted. A further analysis is made of those terminating students who were placed in field instruction settings serving primarily retarded clients and compared with other student categories. (Since field instruction is part of the educational curriculum, comparisons with beginning students on this dimension are obviously not possible.) Student groups are thus contrasted with each other on the basis of antecedent experiences and curricular variations in experience with the retarded.

As a check question, terminating students were asked to judge whether they would have ranked the retarded differently at the beginning of their graduate work and to indicate the assigned rank. Computation of these results is presumed to indicate attitude change and direction of change and are analyzed in terms of antecedent experiences and educational variables.

The Personal Data Sheet was altered as appropriate to reflect relevant information for each group of students. Thus, beginning students were not asked to provide any information about field instruction but were instead requested to list in order of preference, the three client groups they wanted to work with in

their field instruction placements. (Appendix, pages 111-135) This information was secured as a measure of action tendencies and attitudes for beginning students and is analyzed in terms of antecedent factors.

All forms were self-administered and every effort was made to have the materials completed and returned within a short time period. Computer programs were used to assist in analysis of the data where appropriate. Statistical techniques were employed to determine the significance of differences between and within groups. The .05 level of significance was employed for all such tests.

All instruments and procedures were pretested on a random sample of graduating social work students and changes made as deemed appropriate for greater clarity, ease of completion, discriminatory power and instructions to respondents.

Selection of the Sample

The graduate schools of social work from whom the student subjects for this study were drawn, are all accrediated by the Council on Social Work Education. Schools differ from each other in size of student enrollment, ratio of faculty to students, range and quality of field instruction placements, qualifications of faculty and in other dimensions bearing on the content and quality of the instructional process. With respect to mental retardation content in the curriculum, the range of variation may be even greater. Some schools, through federal training grant support, have hired faculty with specialized knowledge in mental retardation as field instructors or classroom teachers or have assigned these persons responsibility for integrating materials into the basic curriculum and coordinating training efforts. These same schools provide field instruction placements for students, generally in units, in agencies serving primarily retarded clients. Most schools, in response to increasing national interest in this field, have made some effort to enhance student knowledge by the use of case materials, audio-visual aids, lectures and bibliographical references. The range, however, is of some magnitude.

In order to accommodate for some of these variations, to ensure the inclusion of a sufficiently large number of students in special field placements (only 5% of the total enrollment are in such placements) and potentially significant differences in exposure to information, a purposive sampling procedure was applied. The procedure (described below) is intended to include students whose exposure to mental retardation could be presumed to vary in significant ways. Furthermore, this study is not concerned with interschool comparisons. Thus, any bias that may exist between schools in terms of the factors noted above, is partially mitigated at least, by the nature of the analysis and research design.

On the basis of a survey conducted one year ago by this investigator and a colleague (unpublished material), it is possible to classify schools on a "curriculum exposure gradient." The primary purpose of that survey was to ascertain the degree to which schools were utilizing field placements in mental retardation. Information was also obtained, however, on the following items:

1. Number of field units and students in mental retardation settings.
2. Number of faculty carrying special responsibility for mental retardation in field or class positions.
3. Number of basic sequences in which content is used--methods, human growth and social environment, social welfare policy, research.
4. Range of teaching materials and methods employed.
5. School attitudes toward mental retardation as reflected in supporting letters, sponsorship of training institutes or curriculum plans.

Returns from the 55 schools (a 75% response rate) indicated that 32 had field units in a total of 57 agencies. More than half of these units were in residential settings. On the basis of data from the questionnaires, all of the schools were plotted on a curriculum exposure gradient, allotting two points for each special faculty member and one point for each student in a mental retardation field placement, and one point for each sequence and method. Schools were then

arbitrarily divided into high, medium and low exposure groups. The final sample of schools was drawn from these categories, giving full consideration to the degree possible, to include schools varying in size, academic standing and geographic location. It should be stressed that these indices are quantitative, not qualitative, and can therefore, provide only an approximation of exposure.

The schools (not identified by name) in the study are shown below:

CURRICULUM EXPOSURE GRADIENT

	Total Points	Numbers of Spec. Place. Students	Faculty*	Sequences	Methods	School Size
High Exposure						
1	30	17	2	4	5	135
2	21	12	2	4	6	112
3	26	12	3	4	4	186
Medium Exposure						
4	13	5	0	4	4	200
5	18	8	1	4	4	227
Low Exposure						
6	9	2	0	4	3	294
7	6	0	0	3	3	112

*Each faculty member is assigned a value at two.

The second step in the sampling procedure involved the selection of students. Students were selected according to random sampling procedures from a complete alphabetical listing of newly admitted students and graduating students, respectively. In each school, a personal contact was made by this investigator, either by interview or phone, to interpret the study's objectives and procedures. This faculty person, generally the director of research, the Dean or someone else in a high administrative position assumed responsibility for the sampling, distribution of questionnaires and follow up.

Instructions for sampling were sent to each school, requesting that every nth interval on the list be selected, but not to exeed more than 50

students from any school. For example, in a population of 75 students, every fifth person listed, would be deleted from the sample. Because of variations in size of student body, different intervals were applied, resulting in disproportionate representation from the smaller schools. This procedure actually increases national representativeness since a majority of schools have enrollments between 100 and 150 students.

Graduating students were administered the questionnaire in April 1967 (term ends in late May or early June) and new students at the beginning of the Fall term in September 1967. A total of 336 forms were distributed to the first group and 298 returned, a percentage of 89%. Four of the schools returned between 95 and 100% of the forms; the lowest respondent rate was 72% in one school occasioned by a late distribution of the materials and departure of students. Follow up of the reasons for nonresponse did not reveal any bias. Ten forms were incomplete and were discarded, leaving an N of 288.

For the second round of questionnaires (the new students) each school was given the same number, as originally returned. The response rate was nearly 100%. Four questionnaires were discarded due to incompleteness, leaving an N of 279.

Instruments

The Knowledge Inventory consists of 50 multiple choice and 50 true and false questions. Each correct answer in the multiple choice category was scored two points; T-F answers one point each. A perfect score is 150 points. In the selection of questions, special attention was directed toward testing the students' understanding of the nature of the phenomenon, its causes and manifestations, the characteristics, capacities and needs of the retarded and of changing concepts in care, management and treatment. Specific, factual type questions were largely avoided. The objective was to test those areas of knowledge that bear most directly on the students' conceptualization of the problem and therefore, his assessment of the retarded as a client group capable or incapable of profiting

from professional social work techniques.

This investigator in his prior capacity as consultant on training and social services in mental retardation for a Federal agency, has worked intensively with schools of social work and the Council on Social Work Education on curriculum planning in this subject area. Questions were formulated from this extensive experience, from a review of earlier research studies (Allen and Foshee, 1968)[36] and published articles and from discussion with other experts in the field. The entire Knowledge Inventory was then submitted to a jury panel of seven experts for scoring and comment. Items on which the jury scored different answers were reviewed and those of a controversial nature deleted. Ambiguously worded questions were rephrased so that all agreed on the proper answer choice. This procedure attested to the content validity of this instrument.

The reliability of the Knowledge Inventory was established by the split-half method, dividing the questions into even and odd numbers. This was accomplished through pretesting procedures on a random sample of 30 graduating students from a school not included in the formal study. Students were given the full test, but the two halves were scored separately, yielding a coefficient correlation of .92. The pretesting procedures also supported the discriminatory capabilities of this instrument.

The semantic differential scales developed by Osgood and his associates[37] were utilized as a measure of attitudes to rate six concepts on a series of 21 bipolar seven point adjective scales. The concepts (Average Person, Juvenile Deliquent, Myself, Mentally Retarded, Welfare Client, Mentally Ill) were selected because they represent major client groups of social agencies and could therefore,

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[36]Allen and Foshee, op. cit.

[37]C. E. Osgood et al., The Measurement of Meaning (Urbana: University of Illinois Press, 1957).

yield meaningful comparative information on student attitudes toward these groups. These same categories form part of the client preference rank order scale, thus providing a measure of the correlation between attitudes as revealed on the semantic differential and action tendencies as reflected in rank ordering. In addition, the concept of Average Person offers a base for comparing ratings on the Mentally Retarded.

Two other objectives are served by the inclusion of these several other concepts. First, it provides the student with a frame of reference in his rating of the retarded. Second, the absolute mean value of the ratings on the bipolar adjectives, while they provide some approximation along a favorable-unfavorable continuum, may have less significance than its relative mean value compared to other population groups. For the purposes of this study, it is especially critical that relative values be assessed since client preferences will be determined by such criteria.

Factor analytic work on semantic differential data indicates a high degree of consistency among the factors of evaluation, activity and potency in their description of the semantic space. In the present study, 11 scales were used to index these three factors. Each of the factors have been found by Osgood, et al. to be heavily loaded on the appropriate factor. The remaining 10 scales were selected as representing the attributes that frequently appear in technical and popular literature by which most people characterize the retarded and differentiate them from other groups. These scales may be grouped into three areas: social stimulus value; physical health; and psychological attributes (also described by Osgood, et al.).

Table 2 shows the 21 bipolar adjective scales classified by the factor or area they are used to index. Adjectives which have been applied in other studies, but which appeared to this investigator as inherent in the definition

of retardation (foolish-wise; intelligent-not intelligent), or not especially pertinent to the concepts being evaluated (hot-cold, large-small) were deleted and substitutions made. Analysis of the data by the Duncan Multiple Range Test indicates that adjectives within the clusters specified are not entirely homogeneous. However, ratings are generally in the same direction and more important, statistical comparisons of mean values by adjective or factor-area yield, with few exceptions, the same distinctions between students according to the variables tested. Therefore, tests of significance are handled largely on a factor-area basis, though adjectives are used where more detailed analysis of specific meanings are desired.

TABLE 2

Twenty-One Bipolar Adjective Scales of the Semantic Differential Classified by Factor and Area

Factor Classification	Area Classification
Factor I - Evaluation	**Factor IV - Social Stimulus**
Valuable - worthless	Easy to get along with - difficult to get along with
Useful - useless	Beautiful - ugly
Good - bad	Neat - untidy
Kind - cruel	Self-reliant - dependent
Clean - dirty	Reliable - unreliable
	Not dangerous - dangerous
Factor II - Activity	
Deep - shallow	**Factor V - Health**
Prolific - sterile	
Strong - weak	Healthy - sick
	Not physically handicapped - physically handicapped
Factor III - Potency	
Active - passive	**Factor VI - Psychological Attributes**
Motivated - aimless	
Predictable - unpredictable	Happy - sad
	Calm - emotional

The client preference rank order scale is a straightforward measurement of student choices of the client groups with whom they would like to work. Those groups were selected that represent major fields of social work practice. The ranking of mentally retarded as between beginning and ending students and within the latter group according to differences in educational experience are intended to provide a measure of change in action tendencies.

Treatment of Data

As noted earlier, comparisons are made bwtween the two groups of students or within the terminating group with respect to antecedent life experiences, demographic and other personal characteristics and variations in educational experience. Outcome variables are level of knowledge, feelings, and action tendencies as measured by the instruments described above.

Three statistical methods of analysis are utilized. Where means are compared on two values, (e.g. sex, marital status, pre-post comparisons, etc.) t-tests of significance are applied; in situations involving more than two variables (e.g. age, income, education, semantic factors, etc.) analysis of variance is computed by means of the New Multiple Range Test developed by Duncan.[38]

The NMRT is used to rank the treatment means after they become known. This is in direct contrast to individual degree of freedom and least significant difference where the hypothesis is formulated before the treatment means are known. The principle of this test is quite similar to that of the least significant difference and can be explained in terms of the latter. The formula for the least significant difference between two treatment means at the 5% level is $LSD.05 = t.025\sqrt{\frac{2s^2}{n}} = \sqrt{2}t.025\sqrt{\frac{s^2}{n}}$ where t.025 is 2.5% point of the

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[38]Jerome Cheng, Statistical Inference (Ann Arbor, Michigan: Edwards Brothers, Inc., 1965), I, pp. 270-273.

t-distribution, s^2 is the error mean square of the analysis of variance, and n is the number of observations each treatment mean is based on. The NMRT extends Students' t-distribution test to more than two comparisons. The estimated variance s^2 is used instead of the population variance σ^2. In the present study, all computations are made at the .05 level of significance.

Coefficients of correlation is the third method used in the analysis of data. These are applied to determine the relationship between knowledge, semantic ratings, rank order preferences and other measurements as appropriate.

The analysis of variance tests specified above (or equivalently the t-test when k=2) are used to compare sample means and sample variances. The tests are derived from a number of assumptions, particularly that the observations are normally distributed. Usually, little is known of the populations from which the samples are drawn and these tests are used, of necessity, as if the assumption or normality could be ignored. In applying <u>comparative</u> tests on means, this practice is largely justifiable, for there is abundant evidence that these comparative tests on means are remarkably insensitive to general, non-normality of the parent population. (Non-normality means that the departure from normality, in particular skewness, is the same in the different groups. In tests in which sample means are compared, general skewness tends to be cancelled out.)

The sensitivity to non-normality of the tests for comparing <u>two</u> variances has been pointed out by several authors. Box has shown that the sensitivity is even greater when the number of variances to be compared exceeds two, and can be of the same order of magnitude as the sensitivity of criticism to test normality.[39] He indicates further that the common suggestion to test homogeneity of variances before making an analysis of variance test for homogeneity on means is

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[39]G. E. P. Box, "Non-Normality and Tests on Variance," <u>Biometrika</u>, 1953, XV, 318-335.

inappropriate. When little is known of the parent distribution, this practice may lead to more wrong conclusions than if the test were omitted. It has been shown that in cases where the group sizes are about equal (see Table 1) the analysis of variance test is affected surprisingly little by variance inequalities. Since the test is also known to be insensitive to non-normality, it can be used safely under most practical conditions.

Although the hypotheses for this study, as stated in Chapter III, are expressed in positive form, the statistical model employed is designed to test its alternative--a null hypothesis. If the null hypothesis is true, i.e., the difference between means is zero, predictions can be made of what would happen statistically; similarly accurate predictions cannot be made if the positive hypothesis was true. The null hypothesis, which underlies the statistical techniques employed in this study, can be stated mathematically as a particular, well-defined, testable case.

CHAPTER V

PRESENTATION AND ANALYSIS OF DATA

The data obtained in this study offers a wide range of possibilities for analysis. Each variable in its own right has potential salience to the assessment of attitudes and each bears, at least indirectly, on the various hypotheses formulated. Demographic and personal data for example, have been shown in some previous studies to distinguish between subgroups of the population with respect to attitudes toward the mentally retarded. Similarly, the educational level of respondents, while not a factor in this study (since they are homogeneous in this regard) is presumed related to level of knowledge and by implication, to attitudes.

In order to properly assess the impact of the school curriculum on attitude change and its possible relationship to antecedent life and work experiences, the potentially confounding influence of personal and demographic factors must also be considered. Consideration of these latter factors also permits some comparison with other studies and a determination of whether graduate social work students differ in any significant way from the general population. Such comparisons bear on the generalizability of the results obtained.

An attempt has been made to identify and analyze the most salient and meaningful data. Various approaches are employed: descriptive statistics, measures of association and measures of differences between and within groups. Statistical techniques are utilized as appropriate to the nature of the

instruments and particular assumptions of that test. The general format for reporting the analysis of data follows:

A. Analysis of data according to demographic and personal characteristic variables
   1. Age
   2. Sex
   3. Marital Status
   4. Children
   5. Religion
   6. Parent Education
   7. Parent Income

B. Analysis of data according to specified hypotheses and between and within group comparisons on independent variables of life experience, work experience and type of curriculum exposure.

C. Analysis of relationship between knowledge, attitudes and action tendencies.

Demographic and Personal Data

The characteristics of the graduate social work students included in this study have been identified in Table 1. Upon enrollment in school, approximately 56% are under age twenty-five, 32% between twenty-five and thirty-five, and 12% over age thirty-five. These percentages shift between the two younger age groups during the course of education, suggesting that many students enroll between twenty-three and twenty-five years of age. About 55% of the students are female and apparently a significant number marry during their graduate work. This may also account in part for the differing proportion of married and single students between beginning and terminating students. Approximately 90% of the students designating "race," were white. Because of

the small number of nonwhite students specified, this variable has been omitted from the analysis.

The socioeconomic status of the families of students indicates that nearly 60% of the parents have high school education or less and that roughly the same percent have incomes under $10,000 per year. About one-third report father's occupation as semi-professional or professional.

A significant proportion of the students (40% approximately) report prior life experience with retarded persons, though it should be noted that these contacts are predominantly with neighbors. A very small percentage (3-4%) have retarded siblings in their immediate families and another 7 to 8% have relatives who are retarded. It may be logically assumed that immediate family contacts present a high degree of intimacy or affect in the relationship; however, similar assumptions cannot be applied with respect to relatives or neighbors in the absence of more definitive information. The failure to secure such information represents a limitation in the study.

The analysis of the relationship between demographic and personal characteristics and attitudes are presented for terminating students only. The assumption is made that while such variables may bear upon the formation of attitudes, they are not significantly related to attitude change. With the exception of sex (some studies indicate females are slightly more persuasible) earlier studies reported upon do not support any relationship; however, to test the validity of this assumption, trial computations were made of the factors of age, religion and parent education for the beginning students, also. Since the results revealed almost identical relationships to those for the terminating group, inclusion in this analysis would add nothing to our understanding.

The semantic differential ratings and the client preference rank order scale are both considered measurements of attitudes. Comparisons on demographic and personal characteristic variables are shown in the tables below.

TABLE 3

SEMANTIC DIFFERENTIAL MEAN RATINGS FOR TERMINATING STUDENTS BY AGE AND SEX

Factor		Age			Sex		
		< 25	25-35	35+	Male	Female	t
I	Evaluation	3.08	3.11	3.08	3.16	3.04	1.77
II	Potency	4.45	4.33	4.41	4.42	4.35	.77
III	Activity	3.79	3.92	4.23**	3.91	3.95	.529
IV	Social Stimulus	3.84	3.89	4.06**	3.93	3.88	.708
V	Health	4.50	4.40	4.54	4.60	4.32	2.59*
VI	Psychological Attributes	4.02	4.19	4.11	4.11	4.13	.118

* .05 level of significance; t-test
** .05 level of significance; new multiple range test

Comparison of mean ratings by <u>age</u> on each bipolar adjective was also computed. With the exception of Motivated - Aimless, no statistical difference between groups was evident. The two variations noted above, while significant statistically at the .05 level and in the same direction, denoting a less favorable attitude in the oldest age group cannot be regarded as supporting generally significant differences in attitude by age.

The findings on the rank order scale suggest, what may appear at first glance, to be contrary findings (Table 4). In this instance, the oldest age group show the greatest preference toward the mentally retarded as a client group. The somewhat more favorable ratings on the Social Stimulus factor (IV) (see Table 2) may be looked upon by students as attributes of the retarded subject to change or amenable to management through social work practice. The comparatively favorable rating on Factor I - Evaluation reflects a central concept of social work education that every client must be valued and his dignity and integrity honored.

TABLE 4

CLIENT PREFERENCE RANK ORDER FOR TERMINATING STUDENTS
BY AGE AND SEX

Grouping	Number	Mean	df	t-value	P
Age:	281		278		
< 25	94	6.15			N.S
25-35	139	6.65			N.S.
35+	48	5.85			N.S.
Sex:			279	1.05236	
Male	136	6.50			N.S.
Female	145	6.20			N.S.

Differences by sex are also insignificant. The trend toward more favorable attitudes by the female group is consistent with other studies but of little import. Analysis on the adjective rather than factor level, reveals significant differences on only five of the twenty-one scales; healthy-sick; prolific-sterile; clean-dirty; neat-tidy; not physically handicapped-physically handicapped. All of these scales indicate more favorable attitudes by the females (Table 5). As might be anticipated, the students' marital status or the presence or absence of children have little bearing on their attitudes toward retardation (Table 6).

The relationship between religious affiliation and attitude ratings reveals several consistent trends (Table 7). Jews and Catholics do not differ significantly from each other, except on Factor I, although the former indicate a more unfavorable attitude on the majority of scales. On all scales Protestants score toward the more favorable end of the scale than Jews and Catholics, with several at the .05 level of significance. The most favorable ratings are noted in the Other or Unknown category, but this is difficult to evaluate because of the relatively large number within this group who failed to record any information on this question.

TABLE 5

SEMANTIC DIFFERENTIAL MEAN RATINGS FOR TERMINATING STUDENTS BY MARITAL STATUS AND CHILDREN

Factor		Status			Children		
		Married	Single	t	Yes	No	t
I	Evaluation	3.07	3.13	.872	3.01	3.13	1.659
II	Potency	4.34	4.43	1.118	4.36	4.39	.389
III	Activity	3.90	3.96	.617	3.89	3.95	.519
IV	Social Stimulus	3.85	3.96	1.575	3.86	3.92	.845
V	Health	4.51	4.39	1.121	4.58	4.40	1.575
VI	Psychological Attributes	4.09	4.16	.671	4.07	4.14	.659

TABLE 6

CLIENT PREFERENCE RANK ORDER FOR TERMINATING STUDENTS BY MARITAL STATUS AND CHILDREN

Grouping	Number	Mean	df	t-value	P
Marital Status:	281		279	0.69387	
Married	154	6.44			N.S.
Single	127	6.24			N.S.
Children:			279	0.32662	
Yes	84	6.27			N.S.
No	197	6.38			N.S.

As noted with respect to seeming discrepancies between semantic differential ratings and client rank order by age, similar relationships are evident in religious affiliations, (Table 8) though of lesser magnitude and not significant statistically. The Other category, most favorable on the semantic scales, is least inclined to choose the retarded as a client group. The Jews on the other hand are as favorably inclined as the Protestants despite higher mean scores (less favorable) on four of the six semantic factors.

TABLE 7

SEMANTIC DIFFERENTIAL MEAN RATINGS FOR TERMINATING STUDENTS BY RELIGIOUS AFFILIATION

Factor	N=169 Protestant (1)	N=60 Catholic (2)	N=26 Jewish (3)	N=33 Other or UnK (4)	Between Group Comparisons* .05 Level
I	3.02	3.04	3.49	3.27	(3) (4) (2) (1)
II	4.36	4.49	4.43	4.30	(2) (3) (1) (4)
III	3.87	4.06	4.11	3.84	(3) (2) (1) (4)
IV	3.81	4.13	4.03	3.84	(2) (3) (4) (1)
V	4.29	4.70	4.90	4.48	(3) (2) (4) (1)
VI	4.05	4.31	4.44	3.86	(3) (2) (1) (4)

* Connecting lines indicate homogeneity between categories. Nonconnected categories are statistically significant at .05 level.

TABLE 8

CLIENT PREFERENCE RANK ORDER FOR TERMINATING STUDENTS BY RELIGIOUS AFFILIATION

Religion	Number N=281	Mean	df	P
Protestant	164	6.36	277	N.S.
Catholic	59	6.20		N.S.
Jewish	26	6.31		N.S.
Others	32	6.56		N.S.

The relationship between the socioeconomic status of graduate social work students and their parents is more likely to be the same for situations involving middle and upper class parents than for lower class parents. Students from lower class homes, who have completed undergraduate college work and who seek professional careers, with or without an intervening work experience, can

be assumed to be upwardly mobile. On the other hand, graduate students whose parents have achieved entreprenurial or professional status are not downwardly mobile since they also aspire to professional careers. Their values, beliefs and life style would be expected to approximate their upper class parents.

An analysis of the data on parent education and income--which could be regarded as a two factor index of socioeconomic status--supports a high correlation. A comparison of mean ratings between parents of less than high school education and those with 12 to 16 years reveals only one instance of a significant difference between these two categories (Father's Education; Factor II) (Table 9). By contrast, students of parents with 17 or more years of education differ on 5 of 12 factors (6 each for mother and father) with those in the other categories at a .05 level of significance. In 9 instances, the 17+ category reveals the most unfavorable rating. Upper social class students, the data clearly indicates, have less favorable attitudes toward the retarded. The relationship between social class and attitudes as measured by this scale, can be regarded as statistically related.

The findings on client rank order are highly consistent with the semantic differential. Here too, students of parents with 17+ years of education are least inclined to work with the retarded (Table 10).

Considering the high correlation between parent income and education, one would expect to find a similar relationship between income and attitudes as noted for education. The data in Table 11 supports this expectation. Students of parents in the upper income brackets are less favorably inclined toward the retarded. Client rank order ratings are in the same direction (Table 12). The means for the $15,001+ group are in each instance the least favorable. On Factors I and IV, the differences are significant statistically (.05).

TABLE 9

SEMANTIC DIFFERENTIAL MEAN RATINGS FOR TERMINATING STUDENTS BY PARENT EDUCATION

Factor	Father			Mother			Between Group Comparisons
	(1) N=110 12	(2) N=139 12-16	(3) N=39 17+	(a) N=76 12	(b) N=186 12-16	(c) N=26 17+	.05 level
I	3.09	3.00	3.29	3.09	3.06	3.34	(3) (1) (2) (c) (a) (b)
II	4.61	4.32	4.31	4.38	4.35	4.50	(1) (2) (3) (c) (a) (b)
III	4.14	3.84	3.97	3.95	3.89	4.16	(1) (3) (2) (c) (a) (b)
IV	3.82	3.82	4.14	3.84	3.89	4.13	(3) (1) (2) (c) (b) (a)
V	4.39	4.40	4.62	4.38	4.45	4.67	(3) (2) (1) (c) (b) (a)
VI	4.07	3.95	4.50	4.01	4.19	3.92	(3) (1) (2) (b) (a) (c)

TABLE 10

CLIENT PREFERENCE RANK ORDER FOR TERMINATING STUDENTS BY PARENT EDUCATION

Parent Education	Number	Mean	df	Between Group Comparisons
Father:	281		279	
<12 years	106	6.44		N.S.
12-16 years	136	6.15		N.S.
17+ years	39	6.77		N.S.
Mother:			279	
<12 years	72	6.33		N.S.
12-16 years	183	6.28		N.S.
17+ years	26	6.81		N.S.

TABLE 11

SEMANTIC DIFFERENTIAL MEAN RATINGS FOR TERMINATING STUDENTS BY PARENT INCOME

Factor	Income			Between Group Comparisons
	<7500 (1)	7500 - 15,000 (2)	15,001+ (3)	
I	3.03	3.07	3.36	(3) (2) (1)
II	4.39	4.35	4.47	(3) (1) (2)
III	3.90	3.92	4.06	(3) (2) (1)
IV	3.79	3.91	4.19	(3) (2) (1)
V	4.50	4.36	4.60	(3) (1) (2)
VI	4.06	4.14	4.21	(3) (2) (1)

TABLE 12

CLIENT PREFERENCE RANK ORDER FOR TERMINATING STUDENTS BY PARENT INCOME

Income	N=281 Number	Mean	df	Between Group Comparisons
<7500	111	6.33	279	N.S.
7500 - 15,000	129	6.23		N.S.
15,001+	41	6.73		N.S.

The foregoing analysis of social work student attitudes toward mental retardation according to their demographic and personal characteristics can be summarized briefly as follows:

1. Age, sex of respondent, marital status and presence of children are not significant. There is a trend toward more favorable attitudes by female students, but these are not statistically

significant. These findings are consistent with the study by Gottwald.[40]

2. Jews and Catholics are more like each other in their attitudes than like protestants. The tendency toward more unfavorable ratings on the semantic differential however, is not borne out in client preference ratings.
3. Income and education, or the socioeconomic status of students, is significantly related to attitudes. Students whose parents have more than 17 years of education and income above $15,000 per year are less favorable in their attitudes and less inclined to work with the retarded.

Analysis of Data, by Hypotheses

The examination of the demographic and personal variables noted above, because of their relatively weak relationship to attitudes (except for socio-economic status) lends confidence to an interpretation of attitude change, if any, as due to the effects of the school educational experience. To examine this influence however, antecedent factors bearing on the formation of attitudes must also be considered. Variables related to personal life experience and work experience are treated as both control and independent variables in the presentation of data that follows.

Hypothesis 1

Beginning social work students who have had little or no personal life experiences with retarded persons will demonstrate moderately unfavorable attitudes and limited knowledge toward this group.

Social work students as a group generally reflect a high level of

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[40]Gottwald, op. cit., pp. 45, 60, 131, 144.

altruism toward humanity and a desire to help people. It should be anticipated therefore, that students, while reflecting the negative attitudes of the public at large toward the retarded, are more favorably disposed than the general population. Figure 1 supports this observation. In a comparison of ratings between the average person and the mentally retarded, it is clear that on all 21 bipolar adjectives, the retarded are less favorably regarded. In all cases, the differences are significant at the .01 level. The configuration is consistent with that reported by Gottwald for the general population, except that the differences between the means (where the same adjective scales are used) are smaller in this study.[41]

This graphic presentation includes those students with retarded siblings or relatives. When attitudes are analyzed separately for these groups (see Hypothesis 2) there is a shift toward the more unfavorable end of the scale for the other students but not of sufficient magnitude to cancel out the differences with the general population cited above. It should be noted that only 11 of the 21 scales actually fall beyond the neutral point (4) toward the negative side. Absolute values however, may be misleading if interpreted without reference to baseline data. Greenbaum and Wang for example, found that their professionals rated the retarded negatively, i.e., over 4.0 on all scales.[42] These respondents are guided in their judgments by whether or not a frame of reference is provided. The relative ratings are clearly indicative that student attitudes are unfavorable, but only moderately so.

Student preferences for the mentally retarded as a client group are also in a negative direction, but at a moderate level. Of the 10 client groups ranked, the retarded are sixth in order of preference (Table 13).

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[41] Op. cit., p. 44

[42] Greenbaum and Wang, op. cit., p. 263

FIGURE 1

SEMANTIC DIFFERENTIAL RATINGS FOR BEGINNING STUDENTS:
AVERAGE PERSON AND MENTALLY RETARDED

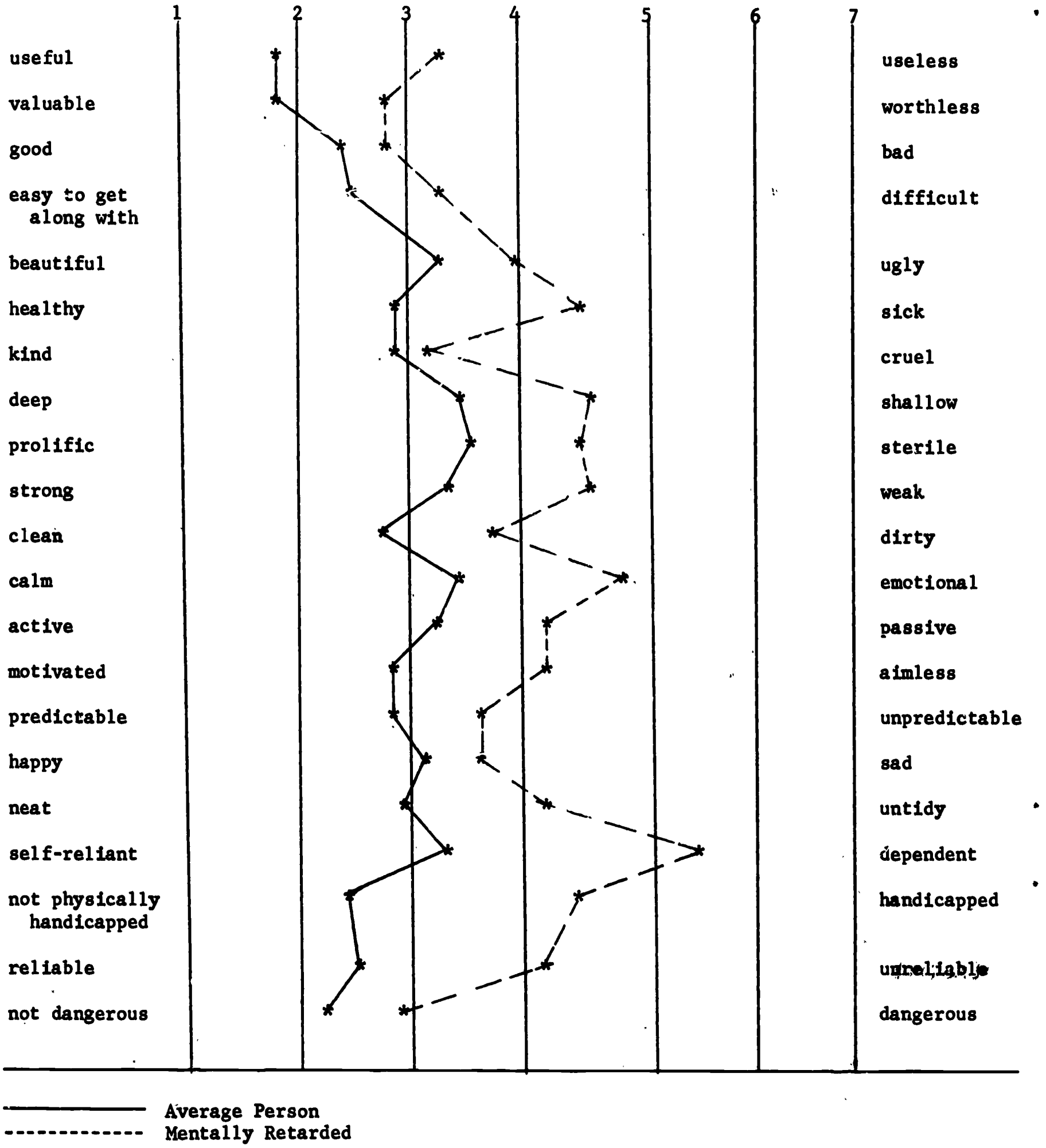

TABLE 13

CLIENT PREFERENCE RANK ORDER, FOR ALL CLIENT GROUPS, BEGINNING STUDENTS

Rank Order	Group	Average Rank	Rank Order	Group	Average Rank
1.	Neglected and dependent	3.3	6.	Mentally retarded	6.2
2.	Emotionally disturbed	3.4	7.	Public assistance client	6.5
3.	Juvenile delinquent	3.9	8.	Adult offender	7.0
4.	Unmarried mother	4.7	9.	Physically handicapped	7.3
5.	Mentally ill	4.8	10.	Aged	7.8

An examination of the semantic scales indicates that social work students do not regard the retarded as useless, bad, difficult to get along with, cruel, unhappy, or a menace to society. They do however, look upon them as sick persons, weak, excitable, aimless in their behavior, physically handicapped, and very dependent. Clearly, their image of the retarded is oriented largely toward the organically damaged, severely handicapped individual and tends to exclude the mildly retarded, culturally disadvantaged group who constitute approximately three-fourths of the retarded population.

A comparison of ratings for the retarded with the other client groups included in the semantic differential offers some interesting observations (Table 14). On only two of the six factors--Potency and Health--are the retarded rated less favorably than any of the other groups. Despite this comparatively good rating in these selected client groups, the retardate is considered significantly less attractive as a client (Table 15). Although the juvenile delinquent and the mentally ill are less "valued" and are considered to have undesirable social and psychological attributes, the student apparently feels

These traits and problems can be changed. The retarded, on the other hand, are thought to be sick and handicapped and therefore, not very amenable to social work help.

TABLE 14

SEMANTIC DIFFERENTIAL MEAN RATINGS,
FOR SELECTED CLIENT GROUPS, BEGINNING STUDENTS

Client Group	Semantic Factor					
	Evaluation I	Potency II	Activity III	Soc. Stimulus IV	Health V	Psych. Attr. VI
Juv. Del.	3.78	3.77	3.68	4.52	3.46	5.31
Ment. Ret.	3.13	4.52	4.11	3.99	4.54	4.16
Welf. Client	2.95	3.74	4.04	3.71	3.73	4.53
Ment. Ill	3.27	3.90	4.36	4.43	4.37	5.55

TABLE 15

FREQUENCY DISTRIBUTION OF CLIENT PREFERENCE RANKINGS
FOR SELECTED GROUPS, BEGINNING STUDENTS

Group	Rank Order									
	1	2	3	4	5	6	7	8	9	10
Juv. Del.	54	36	46	37	30	16	10	15	13	8
Ment. Ret.	10	12	23	17	30	31	56	41	28	17
Welf. Client	20	15	18	13	23	27	37	33	29	50
Ment. Ill	49	17	25	31	31	35	24	23	16	14

Client preferences, as expressed in rank ordering techniques cannot be equated fully with actual career choice. The professional positions students occupy following graduation are influenced by many factors: salary, promotional opportunities, work conditions, available opportunities in specific

fields, etc. It is reasonable to assume that some of the students identifying the retarded as their first client choice will not actually accept employment in a specialized agency serving the group, while others, specifying this group as second or third choices might do so if their first preferences cannot be fulfilled. Thus, the ten first choices for the retarded, or 3.5% of the student body, in contrast to the 19.3, 7.2 and 17.5% respectively of the other groups supports the hypothesis of unfavorable attitudes.

How much do beginning social work students know about mental retardation?

Quantitative measurements of knowledge levels imply a standard for comparison. The knowledge inventory developed for this project represents concurrence of experts on central concepts in mental retardation, but there is no general population knowledge level. Applying a grade score of 70% as "passing"--a reasonable expectation for most course requirements--it is clear that an overwhelming majority of beginning students have very limited knowledge of this phenomenon. Scores range from a low of 34 to a high of 86, with the mean scores for the different groups fairly similar (Table 16). It will be noted that at least 60% of respondents in the No Contact, Work Experience and Personal Experience-Neighbor groups score within the 50-64 ranges and that the frequencies in these categories closely approximate a normal distribution curve. The Immediate Family and Relative categories--both presumed to involve more intimate contact--reveal higher proportions in scores above 66, however, the numbers are too small to attribute statistical significance.

The raw scores presented in these tables offer little insight into the nature of student misconceptions about retardation and therefore, limited guidance regarding curriculum modification. To gain further understanding of knowledge deficits, and their relation to attitudes, analysis was made of the 15 most frequently missed multiple choice questions. These are designated below (Table 17).

TABLE 16

DISTRIBUTION OF KNOWLEDGE SCORES,
BY GROUPS, BEGINNING STUDENTS

Score	Total	No Contact		Work Exp.		Life Experience							
						Imm. Family		Relative		Neighbor	
		N	%	N	%	N	%	N	%	N	%
34-40	10	5	3.8	2	3.0	0	0	-	----	3	3.5
42-48	52	25	19.2	7	10.6	2	20.0	3	15.8	15	17.8
50-56	98	39	30.0	25	37.8	4	40.0	5	26.3	25	29.8
58-64	87	40	30.8	16	24.3	1	10.0	4	21.0	26	30.9
66-72	52	18	13.8	13	19.7	3	30.0	5	26.3	13	15.5
74-80	9	3	2.3	3	4.5	0	----	2	10.5	1	1.2
82-88	1	0		0	----	0	----	0	----	1	1.2
TOTALS	309*	130	100	66	100	10	100	19	100	84	100
Mean Score		56.4		58.5		56.6		59.7		56.7	

* exceeds total number of subjects because of overlapping categories.

TABLE 17

QUESTIONS MOST FREQUENTLY MISSED
BY BEGINNING STUDENTS

Question Number	Times Missed	Question Number	Times Missed
3	262	14	196
7	232	2	188
9	232	11	186
42	229	20	182
16	217	45	180
35	196	23	172
4	196	10	164
44	196		

Student misconceptions about mental retardation are highly consistent with their semantic differential ratings discussed earlier. They tend to regard mental retardation as a static, permanent condition of biological origin, randomly distributed throughout all social classes of the population.

Apparently they have limited awareness of the concentration of retardation among the disadvantaged, of the role played by psychosocial deprivation in its etiology, and the fact that most retarded children are not identified until reaching school age. Confusion remains about the role of intelligence in adaptive responses and about the criteria by which mental retardation and mental illness can be distinguished. These misconceptions play a large part in their unfavorable assessment of the retarded as a potential client group.

The data are strongly in support of Hypothesis 1.

Hypothesis 2

Beginning students who have had meaningful life experiences with retarded persons will show more extreme attitudes (positive or negative) and greater extremes in knowledge (more accuracy or more distortions.)

This hypothesis is based on the concept that intimate experience with the retarded has direct bearing on want satisfaction or want frustration and is crucially related to attitude formation. The intensity of interaction would appear to follow a gradient from (high) the immediate family, to (middle) relatives, to (low) neighbors. Clearly, this presumed gradient does not apply to all cases. Contacts with relatives may be distant or remote and interactions with neighbors can on occasion be very intense. Because of the uncertainty about the nature of life experiences with neighbors who are retarded, the analysis of meaningful life experience factors is interpreted in this study as limited to family members and relatives. Examination of semantic differential ratings between students with life contacts, including neighbors, and the non-contact groups reveals statistically significant differences on two of the six factors. Factor I, as noted earlier, is especially denotative of evaluative beliefs (Table 18).

Table 18 also clearly indicates that students with a retarded sibling differ in their attitudes from other students, including those with retarded

relatives. On 16 of the 21 scales, their mean ratings are in a more favorable direction. The data on students with relatives are inconclusive, indicating more favorable ratings on about half of the scales and less favorable ratings on the other half. The differences are of lesser magnitude than reported for the immediate family group.

It is understandable that students regard their retarded siblings more extremely (favorably in this sample) than do either those with relatives or the general student group The emotional involvement, intimate contact and intense social interaction with these siblings would strongly influence attitude formation. The "relative" group indicates an ambivalent attitude, fostered perhaps by emotional stimuli that are not readily resolved in the absence of day to day contact with the retardate.

Some of this ambivalence is also evident in the client preference choices of the two groups. The "immediate family" students are apparently sufficiently satiated by life experiences with their siblings that they are not inclined to seek careers in this field. By contrast, students with retarded relatives are either highly inclined or disinclined to work with retarded clients. Table 19 reveals these preferences. While the data tends to support the hypotheses, the numbers are too small to draw statistical conclusions. It is of some interest that 35% of the life experience (relative) group identify the retarded client within their first three choices, in comparison to 16% of the others. The same trend is evident at the other end (the last three choices); 18.8% to 34.0% respectively.

TABLE 18

SEMANTIC DIFFERENTIAL MEAN RATINGS,
BY UNDIFFERENTIATED LIFE EXPERIENCE

Factor	Personal Experience	All Others
I	3.04*	3.61
II	4.20*	4.60
III	4.07	4.07
IV	3.90	4.04
V	4.50	4.34
VI	4.11	4.21

* Significant at .05 level

BY SPECIFIC LIFE EXPERIENCE

Scale Number	N=250 All Others	N-10 Immediate Family	N=19 Relative
1	3.21	2.80	3.21
2	2.74	2.10	2.84
3	2.90	2.10	2.53
4	3.29	3.20	3.42
5	3.90	3.40	4.10
6	4.40	4.50	4.63
7	3.10	2.60	2.84
8	4.70	4.20	4.68
9	4.36	4.20	4.68
10	4.48	4.40	4.95
11	3.80	3.40	3.73
12	4.70	5.40	4.36
13	4.12	3.50	4.78
14	4.33	4.50	4.42
15	3.90	3.50	3.36
16	3.66	3.10	3.16
17	4.05	3.80	4.16
18	5.66	5.70	5.73
19	4.60	5.10	5.10
20	4.10	3.30	3.52
21	2.99	2.40	2.73

TABLE 19

CLIENT PREFERENCE RANK ORDERS,
BY LIFE EXPERIENCE, BEGINNING STUDENTS

Rank	Imm. Fam. N=10	Relatives N=17	Others N=238	Rank	Imm. Fam.	Relatives	Others
1	0	1	9	6	1	5	25
2	0	3	9	7	2	3	51
3	1	2	20	8	0	1	40
4	2	0	15	9	2	1	25
5	2	0	28	10	0	1	16

The relationship between knowledge of retardation and intimacy of contact has already been alluded to in Table 16. The largest proportion of students scoring above 64 are to be found in the "relative" group (36.8%). This trend is maintained when the combined total life experience students (immediate family and relatives) are compared with the other categories combined (no contact, work experience, neighbors). In this comparison, the former group has 34.5% above a score of 64, the latter only 18.6 per cent. One would also expect to find that students with prior work experience in retardation should have more knowledge about the problem and this expectation is also supported. In fact, knowledge scores at the higher levels follow almost perfectly the order of intensity of contact: relatives, 36.8%; immediate family, 30.0%; work experience, 24.2%; neighbors, 17.9%; no contact, 16.1%.

The use of percentages to compare differences--especially for the smaller categroies--tends to exaggerate the magnitude of variation between the groups. However, the apparently high correlation between knowledge and degree of contact with retarded persons, when coupled with the other data presented on semantic ratings and client choice, tend to support this hypothesis.

Hypothesis 3

Terminating students with low exposure in the curriculum will show less change in knowledge and attitudes than those with high exposure through class or field teaching.

It will be recalled that the sample of students selected for this study was drawn from a purposive sample of schools based upon a curriculum exposure gradient. Criteria for assessing student exposure were noted to be quantitative, not qualitative in nature and school ranking on this dimension of necessity rests on the statements of school officials. Every school in the study indicated increasing attention to mental retardation content in the curriculum and each relies on the integration of material into basic sequence courses rather than on elective course approaches. Variations in classroom exposure are thus difficult to measure in the absence of additional information. Known differences do exist however, in the use of field instruction placements, in the employment of specialized faculty, and in a few schools, in the utilization of seminars, visiting faculty, etc. In three of the schools (4, 5, 6) these faculty members carry responsibility for classroom or seminar teaching as well as field unit supervision.

Although comparison between schools is not a central objective of this study, such comparisons can shed light on the theoretical relationship between knowledge and attitudes and whether "curriculum enrichment" efforts have implications for practice. It is believed that differences within student bodies (see Hypotheses 4, 5 and 6) are probably more significant than between student bodies in different schools and that the ranking of schools on a curriculum exposure gradient (from the kind of survey data used) is at best tenuous. Nevertheless, the data are worth examining from this point of view. The question might be asked:

"Does the general student body show more change in knowledge and attitudes

toward mental retardation as a function of degrees of exposure to information in this area?"

Table 20 indicates that on the semantic differential, the data are inconclusive. Although terminating students from the high exposure schools rate the retarded more favorably on 12 of 18 scales (6 factors x 3 schools), the low exposure students show an even greater shift in a positive direction (11 of 12 scales). The middle exposure students change on 5 of 12 scales. It is noteworthy however, that for the entire student body studied, terminating students rated the retarded more favorably than beginning students on 16 of the 21 semantic scales (Table 21).

TABLE 20

SEMANTIC DIFFERENTIAL MEAN RATINGS
FOR BEGINNING AND TERMINATING STUDENTS
BY SCHOOL

School	Semantic Factor											
	Eval.		Potency		Activity		Soc.Stimulus		Health		Psych. Attr.	
	B	T	B	T	B	T	B	T	B	T	B	T
High Exposure:												
4	3.23	2.88	4.65	4.37	4.09	3.73	4.01	3.75	4.66	4.57	4.36	4.17
7	2.94	3.00	4.36	4.21	4.00	3.67	3.96	3.79	4.69	4.61	4.06	4.04
5	3.09	3.25	4.66	4.70	4.32	3.79	3.99	4.16	4.73	4.75	3.97	4.06
Middle Exposure:												
3	2.96	3.18	4.36	4.35	4.06	4.13	3.96	3.96	4.43	4.35	4.15	4.15
6	3.07	3.25	4.61	4.33	4.19	4.12	4.04	4.11	4.57	4.51	4.18	4.40
Low Exposure:												
1	3.36	2.85	4.48	4.35	3.88	4.02	3.88	3.64	4.24	4.10	4.08	3.83
2	3.29	3.25	4.59	4.46	4.27	4.00	4.06	3.95	4.50	4.39	4.26	4.17

TABLE 21

SEMANTIC DIFFERENTIAL MEAN RATINGS,
BEGINNING AND TERMINATING STUDENTS

Scale	N=27› Beginning	Variance	N=288 Terminating	Variance	t
1	3.20	1.739	3.10	1.868	0.918
2	2.73	1.800	2.67	1.734	0.579
3	2.86	1.653	2.78	1.452	0.722
4	3.29	1.752	3.18	1.851	0.911
5	3.91	0.929	3.98	0.662	0.968
6	4.43	1.449	4.29	1.427	1.375
7	3.06	1.154	3.13	1.158	0.708
8	4.67	1.897	4.58	1.735	0.800
9	4.38	1.144	4.29	1.106	1.031
10	4.51	1.560	4.29	1.301	2.164*
11	3.78	1.020	3.82	0.783	0.478
12	4.71	1.906	4.42	1.540	2.627*
13	4.15	1.860	4.00	1.606	1.361
14	4.35	1.760	4.10	1.749	2.220*
15	3.84	2.308	2.71	2.117	1.044
16	3.61	1.585	3.83	1.368	2.197*
17	4.06	1.057	4.09	1.082	0.378
18	5.68	1.369	5.47	1.434	2.169*
19	4.65	2.112	4.63	1.810	0.232
20	4.03	1.942	3.87	1.704	1.417
21	2.95	1.785	2.85	1.733	0.889

df = 565
* .05 level of significance

The data on knowledge scores by school, are somewhat more supportive of the hypothesis (Table 22). With the exception of School 5, the net increase in knowledge score closely approximates the exposure gradient. The scores obtained by beginning students in School 5 do not reflect a geographical phenomenon and is not easily explained. The likeliest explanation is that the group includes a number of students with prior life experiences in mental retardation, relatively knowledgeable in the field and motivated to enroll in this school because of its curriculum emphasis on this problem. The net loss shown probably reflects a "ceiling" effect, but is also an artifact of the cross sectional design employed. It should be noted however, that the field instruction

students in the high exposure group, may introduce a confounding effect and that this superiority may account for the school differences noted.

TABLE 22

KNOWLEDGE SCORES BY SCHOOL,
BEGINNING AND TERMINATING STUDENTS

School	Beg.	Var.	Term.	Var.	Net Change	df	t
High Exposure:							
School 4	53.0	61.78	63.0	112.37	+10.0	74	4.671*
7	55.1	183.12	62.4	108.84	+ 7.3	78	2.715
5	64.4	70.12	62.9	102.36	- 1.5	64	0.652
Middle Exposure:							
School 3	54.1	67.19	58.4	104.44	+ 4.3	93	2.24*
6	56.0	73.30	58.6	218.24	+ 2.6	87	1.02
Low Exposure:							
School 1	59.6	128.03	58.1	64.83	- 1.5	76	0.669
2	55.6	50.13	58.5	129.38	+ 2.9	81	1.385

* .05 level of significance

An analysis of the data for changes on client preference by school is conflictual. For the total student body, there is almost no shift in client preferences, not only with respect to retarded clients but to other client groups as well (Table 23). This does not mean that individual students may not shift in their rank ordering of client groups, but changes occur largely at the lower rank levels rather than in the primary choice groups (ranks 1 to 3) (Table 24).

Thus graduating students may approach the retarded with more wholesome attitudes than upon entering school and they may in fact be slightly more receptive to work with them, but they are for the most part not inclined to seek work in agencies serving primarily the retarded. Nevertheless, some changes in attitudes do occur and they are more likely to occur in schools of high exposure. Terminating students were asked whether they would have ranked

the retarded differently at the beginning of their graduate work. Of the 281 students who responded (7 failed to complete this form) 79, or 28% indicated a change in preference, 65 in a positive direction, 14 in a negative direction. An analysis of these responses by school is shown in Table 25. The percentage of student change in the high exposure schools is significantly greater than in the exposure group.

The data would appear to be partially supportive of Hypothesis 3.

TABLE 23

CLIENT PREFERENCE RANK ORDER MEANS,
FOR ALL CLIENT GROUPS
BEGINNING AND TERMINATING STUDENTS

Students	Neg. 1	Emot. 2	J.D. 3	U.M. 4	M.I. 5	M.R. 6	P.A. 7	A.O. 8	P.H. 9	Aged 10
Beg.	3.3	3.4	3.9	4.7	4.8	6.2	6.5	7.0	7.3	7.8
Term.	3.3	3.3	4.4	4.7	4.7	6.3	6.3	7.1	7.3	7.5

TABLE 24

FREQUENCY DISTRIBUTION OF RANK ORDER
BY MENTALLY RETARDED, BY SCHOOL

Rank Order	Frequency Distribution											
	High Exposure						Middle Exposure				Low Exposure	
	(4)		(7)				(3)		(6)		(1)	(2)
	B	T	B	T	B	T	B	T	B	T	B T	B T
1	2	3	3	2	1	0	0	1	2	2	1 1	1 0
2	0	4	1	1	2	3	2	0	3	3	3 0	1 3
3	5	2	0	3	6	4	4	0	3	4	4 1	1 2
4	1	2	3	2	1	2	2	6	4	3	4 0	2 2
5	4	3	4	6	4	5	7	7	5	11	4 8	2 3
6	5	7	3	6	3	4	4	7	7	4	4 7	5 11
7	8	7	6	7	5	3	9	8	13	5	8 5	7 4
8	3	6	10	4	1	3	6	4	5	6	6 6	10 3
9	5	3	4	4	4	6	5	2	1	3	3 6	6 6
10	4	1	2	6	4	4	3	4	1	1	2 2	1 7
Totals	37--38		36--41		31--34		42 - 49		44 - 42		39 - 36	36 - 41

TABLE 25

CHANGES IN RANK ORDER OF RETARDED CLIENTS
FOR TERMINATING STUDENTS, BY SCHOOL

School	Frequency and Direction of change					Mean Rank	
	N	+	-	0	%	+	-
High Exposure:							
4	38	17	2	19	50	4.06	3.00
7	41	9	1	31	24.4	2.56	3.00
5	34	10	4	20	41.1	3.90	2.25
Middle Exposure:							
3	49	11	4	34	30.6	3.36	1.75
6	42	11	0	31	26.1	3.55	----
Low Exposure:							
1	36	3	2	31	13.8	3.00	3.00
2	41	4	1	36	12.1	4.00	1.00
Totals	281	65	14	202			

Hypothesis 4

Terminating students with direct contact through field instruction will evidence greater attitude change (in either direction) than those exposed only to formal classroom materials.

In the discussion in Chapter III on theoretical considerations in attitude formation and change, emphasis was directed to the role played by feelings in absorbing or rejecting new cognitions and to the importance of the sources of information. The field instruction experience for students, by virtue of intimate interaction with the client and his family, represents for them an emotional as well as intellectual learning event. Furthermore, the close and prolonged relationship with the faculty field instructor, who plays a critical function in the students achievement of career goals, places the latter in a strategic position to influence attitude change.

Although information was not obtained from subjects on their regard for, or relationship with their field instruction supervisors, this investigator, because of his extensive work with the schools and knowledge of personnel in the mental retardation field, is highly familiar with the status, leadership qualifications and personality characteristics of the faculty concerned. This information, while necessarily subjective, adds another dimension to the interpretation of data that might otherwise appear to be conflictual. It has particular relevance to the hypothesis under discussion and to Hypothesis 6 and will be incorporated in explanation of the objective data presented.

Of the 32 students placed for field instruction in agencies serving primarily retarded clients (in either the first or second year of graduate work), only 3 had relatives who were retarded, none had retarded siblings, while another 10 had antecednet work experience with this group. The remaining 19 had no prior contact. It should be noted that only 11 students of the 279

enrolling identified mental retardation as their first field placement choice. This coincides almost identically with the rank order assigned this group by both beginning and terminating students. It is reasonable to assume therefore that the large majority of students were placed in agency settings contrary to their first preference and that motivational factors could not be a major determinant of knowledge and positive attitude outcomes. Since 60% of the students had no prior contact with the retarded, the field instruction experience can be regarded with confidence as the prime independent variable.

The data clearly indicates that the field instruction students are significantly better informed than the rest of the student body (Table 26). Inasmuch as they are exposed to the same classroom materials, their added knowledge would appear to be derived largely from learning through direct client contact, interaction with the field instructor and each other in case conferences, and possibly through self-initiated outside readings.

TABLE 26

KNOWLEDGE SCORES FOR FIELD INSTRUCTION AND OTHER STUDENTS, BY SCHOOL

School	Knowledge Scores				Variance		df	t
	All Students		Field Instr.					
	Number	Mean	Number	Mean	Other	F.I.		
High:								
School 4	31	60.8	7	72.6	101.27	55.62	36	2.897*
7	30	59.6	12	69.2	108.39	49.06	39	2.915*
5	29	61.3	5	72.4	99.79	14.80	32	2.425
Middle:								
School 3	45	56.8	4	75.5	82.09	41.00	47	4.011*
6	39	57.8	3	69.3	218.48	137.33	40	1.315
Low:								
School 1	39	58.2	0	----	------	------	--	-----
2	43	59.9	1	60.0	------	------	--	-----

* .05 level of significance

The client preferences of the field instruction students are significantly different from the general student body, and as hypothesized, tend to cluster at both ends of the choice continuum. It seems clear from the data on Table 27, that field instruction has a telling impact on student attitudes toward work with the retarded and that the experience though predominantly positive, is not always so. The high level of agreement between students in each school supports the importance of the source of information and the esteem in which the field instructor is held by the students.

TABLE 27

CLIENT PREFERENCE RANKING FOR FIELD INSTRUCTION STUDENTS BY SCHOOL

School	Mentally Retarded Rank Order											
	1	2	3	4	5	6	7	8	9	10	Total	Mean
4	3	3	0	1	0	0	0	0	0	0	7	1.9
7	1	0	2	1	2	2	3	0	0	1	12	5.3
5	0	2	2	0	1	0	0	0	0	0	5	3.0
3	0	0	0	0	2	0	0	0	2	0	4	7.0
6	1	1	1	0	0	0	0	0	0	0	3	2.0
1	-	-	-	-	-	-	-	-	-	-	0	---
2	0	1	0	0	0	0	0	0	0	0	1	---
Totals	5	7	5	2	5	2	3	0	2		32	

The greater diversity of choice among students in School 7 is easily explained, though documentation is not possible. The large majority of students in mental retardation placements are in units of 3 to 4 students in a single agency. This school has 12 students in three different settings, each with a different supervisor. Three of the students (and an additional one with a

rating of 4) cluster at the top of the continuum, while six fall toward the negative end of the scale. On the basis of personal knowledge, it is clear that some of the field instructors employed in this program and the agency placements utilized are not especially suited to the promotion of positive attitude change. The same situation prevails in School 3. By contrast, the special faculty person in School 4 is a dynamic individual of national reputation, extensive background, and a strong commitment to the field. He also carries responsibility for integrating content and classroom teaching. The same characteristics apply to the faculty person in School 6, whereas the others fall somewhere toward the middle on the basis of these criteria.

A comparison of the frequency distributions for mentally retarded in Table 27 with the figures in Table 24, indicates that 17 of the 32 students in field instruction account for 43.6% of the first three choices (17/39). Thus, 11.4% of the total student body (the field instruction group) is responsible for a highly disproportionate and statistically significant share of the top rankings. It is also of interest that 13 of the 22 top ranking choices recorded for the high exposure schools are accounted for by the field instruction group, lending further support to the interpretation that <u>how</u> knowledge is obtained (cognitions <u>and</u> feelings) may be more important in attitude change than how much the student knows.

The question may be raised whether a self-selective bias may exist among the field instruction students. Students sometimes are able to select their area of field placement, but it is clear from the data in this study that approximately three times as many students were placed in mental retardation settings as had expressed a preference for same. Admittedly, these are not the same students, but as has been noted earlier, the terminating students were asked what rank they would have assigned the retarded at the beginning of

their graduate work. Table 28 indicates the positive change in rank order and the absence of any artifact.

TABLE 28

CHANGE IN CLIENT PREFERENCE RANKING
OF FIELD INSTRUCTION STUDENTS

Time of Ranking	Rank Order										
	1	2	3	4	5	6	7	8	9	10	Total
Original	4	2	0	2	1	5	9	1	3	5	32
Present	5	7	5	2	5	2	3	0	2	1	32

On the basis of original preferences, 72% of these students ranked the retarded from choice 6 to 10. Following their education, this percentage had dropped to 25%. Compared with the general student body, the field instruction group showed a greater proportion of change (72% to 22.4%) and a greater magnitude of positive change (4.0 to 3.4).

A comparison of field instruction versus other students on the semantic differential is not presented here. Analysis indicates no statistical significance though the mean ratings on all factors are consistently lower for the former. This finding is compatible with the data presented above, since the group while predominantly favorably inclined, contains a number of students who are negative toward the retarded. Because of the small numbers, these differences in attitude tend to cancel each other out in a computation of means. Treatment of the data in this instance, by comparison of means would preclude testing of the hypotheses that change would be in either direction.

This hypothesis is strongly supported by the data. The field instruction experience effects greater change in student knowledge and attitudes than formal classroom teaching. It should be noted however, that the N is comparatively small.

Hypothesis 5

Terminating students with prior life experience with the retarded will not be significantly influenced in their attitudes by the graduate educational experiences.

This hypothesis is based on the concept that strongly held cognitions and beliefs, formed in the context of intimate life experiences with retarded siblings or relatives, are less susceptible to change through educational processes. On this premise, we would expect to find that terminating students in the life experience category would not differ significantly in their attitudes from beginning students with similar family backgrounds.

On a comparison of knowledge scores, it is clear from Table 29 that the terminating students reflect a relatively slight increment in knowledge and that the two groups are almost identical in the distribution of their scores. Their means scores are significantly lower than the field instruction students (Table 26) and although they show a greater scatter of knowledge upon school entrance, the average score for this group is comparable to other students. The factor of personal involvement, it would appear, does not make them any more or less receptive to new sources of information about the problem (Table 29).

On the matter of client preference, students in this category indicate almost no change as a result of the eudcational experience (Table 30).

These figures do not indicate by themselves that changes between ranks have not occurred. Further examination of student response indicates that of the 26 students with retarded relatives, 19 did not change their ranking, while of the 8 students with retarded siblings, 6 did not change. The proportion of change (or relative lack) is similar to the general student body, but much less than the field instruction group (27% versus 72%). Apparently, strongly held beliefs resist change, while lack of contact provides little motivation to change.

TABLE 29

DISTRIBUTION OF KNOWLEDGE SCORES,
BY PERSONAL LIFE EXPERIENCE

Scores	Immediate Family		Relative	
	Beginning	Terminating	Beginning	Terminating
34 - 40	0	1	0	0
42 - 48	2	6	3	2
50 - 56	4	1	5	5
58 - 64	1	4	4	10
66 - 72	3	1	5	6
74 - 80	0	0	2	3
82 - 88	0	1	0	0
Totals	10	8	19	26
Mean Score	56.6	60.2	59.7	61.4

TABLE 30

CLIENT PREFERENCE RANK ORDER,
BY PERSONAL LIFE EXPERIENCE

Students	Rank Order										
	1	2	3	4	5	6	7	8	9	10	Total
Immediate Family:											
Beginning	0	0	1	2	2	1	2	0	2	0	10
Terminating	0	0	0	1	1	3	1	1	1	0	8
Relatives:											
Beginning	1	3	2	0	0	5	3	1	1	1	17*
Terminating	3	2	1	1	3	5	3	2	3	3	26

* Two persons in this category did not complete client preference

The semantic differential rating for the terminating students follows the pattern revealed in Table 21, with 18 of the 21 scales shifting in a positive direction for the relative group, though not to a statistically significant degree. The opposite shift is evident for the immediate family group, with the same

proportion of scales moving toward the negative pole.

Though the data suggests that students with personal life experience are not significantly affected in their attitudes by graduate school work, the numbers involved are too small to permit definitive conclusions. The most reasonable interpretation of this data is that the highly favorable semantic ratings of the beginning students leaves little room for positive change, thereby, imposing a ceiling effect. These students are apparently neither more nor less susceptible to attitude change.

The cross sectional design of this study, in the absence of a larger subject population, is probably not suited to an adequate testing of this specific hypothesis. The hypothesis is not clearly supported, but it is clearly not rejected.

Hypothesis 6

Terminating students with field instruction experience in mental retardation will share a common level of knowledge and attitudes about mental retardation, distinct from the general student body.

On the assumption that students in a field unit placement constitute a reference group for each other, of which the faculty supervisor is a part, one would expect less divergence in knowledge scores and client preference rankings than characterizes the rest of the student body.

The data pertinent to this hypothesis have already been partially presented in Tables 26 and 27. The distribution of knowledge scores for this group differs significantly from the rest of the student body. Reference to Table 31 indicates that none of the 32 students had scores below 58, while over 81% had scores over 66 compared to 25% of the other students. The superiority of these students is clearly highly significant statistically.

A comparison of knowledge levels between beginning and terminating

students, undifferentiated by category, reveals only a slight superiority by the latter group, a margin that is unquestionably due to the high scores of the 32 field instruction students (Table 32). Assuming the integration of mental retardation content into the basic curriculum, as alleged by the schools, it would appear that formal classroom instruction has had little effect on the general knowledge level of the total student body. The differences between high and low exposure schools are accounted for largely by these field instruction students. Content learned through direct interaction and emotional involvement with the client is apparently more readily absorbed and integrated than in the classroom.

The data on attitudes of field instruction students as revealed by the semantic differential indicates a trend toward more favorable ratings on five of the six factors, though none are statistically significant. These findings however, are consistent with expectations, for as noted earlier the field instruction students were expected to show greater shifts in attitudes, but in either direction. The students demonstrating positive attitude change predominate in this group, but there are sufficient numbers negatively inclined to cancel out differences in a computation of means (Table 33).

The analysis of client preferences (Table 27) of students, by school clearly supports the "cluster" concept. These data have already been interpreted under Hypothesis 4. Four of the five schools with field units (School 7 excepted) show a high level of agreement between students in their ranking of the retarded as a client group. Only School 7 shows the full 10 rank dispersion, whereas the other schools cluster at either ends of the continuum.

This hypothesis is strongly supported.

TABLE 31

DISTRIBUTION OF KNOWLEDGE SCORES,
FIELD INSTRUCTION STUDENTS

Score	Field Instruction	%	All Others	%
34 - 40	0	----	7	2.7
42 - 48	0	----	27	10.5
50 - 56	0	----	59	23.0
58 - 64	6	18.7	99	38.7
66 - 72	12	37.0	51	19.9
74 - 80	10	31.4	9	3.5
82 - 88	4	12.5	4	1.5
Totals	32	100	256	100

TABLE 32

DISTRIBUTION OF KNOWLEDGE SCORES
BEGINNING AND TERMINATING STUDENTS

Score	Beginning	%	Terminating	%
34 - 40	8	2.8	7	2.3
42 - 48	50	17.9	27	10.5
50 - 56	90	32.2	59	23.0
58 - 64	81	29.0	105	38.7
66 - 72	43	15.4	63	19.9
74 - 80	6	2.1	19	3.5
82 - 88	1	0.4	8	1.5
Totals	279	100	288	100

TABLE 33

SEMANTIC DIFFERENTIAL MEAN RATINGS,
FIELD INSTRUCTION STUDENTS

Factor	F I Students	All Others	P
I	2.80	3.00	N.S.
II	4.41	4.51	N.S.
III	3.90	3.98	N.S.
IV	3.67	3.92	N.S.
V	4.68	4.44	N.S.
VI	4.03	4.11	N.S.

The Relationship between Cognitions, Feelings and Tendencies

In the discussion of theoretical considerations and review of the research literature, reference has been made to the conflicting evidence regarding the internal consistency between attitude components. Much of the data already presented bears on this issue, although the question has not been directly tested. The fact that field instruction students for example, are the most knowledgeable and for the most part the most favorable in their attitudes, does not negate the observation that the field students in School 3 have the highest mean score on the knowledge inventory (75.5), but the lowest average client preference rank (7). In this instance at least, knowledge and attitudes are unrelated.

To test these internal relationships on a larger scale and because of the obvious implications for the method as well as the content of instruction, the correlation coefficients between these components were computed. Table 34, undifferentiated by nature of school experience for the terminating students clearly supports the earlier interpretations.

The correlations between factors on the semantic differential are for the most part moderately significant. This is consistent with the notion that each

scale or cluster of scales (factors) measure related, but somewhat different characteristics of the retarded. It is wholly logical that a retarded person be looked upon as possessing favorable evaluative traits, but unfavorable with respect to one or more other factors. The social stimulus factor is the most highly correlated with the other factors.

It is clear in this study, as has been reported elsewhere, that knowledge, attitudes and client preferences (response tendencies) are not correlated, when undifferentiated by nature of experience. These data stand in marked contrast to relationships between these components of attitudes when the learning experience involves affective events, as for the field instruction students.

TABLE 34

CORRELATIONS OF SEMANTIC RATINGS, CLIENT PREFERENCES AND KNOWLEDGE SCORES, FOR TERMINATING STUDENTS

Variable	Factor						Rank	Knowledge Score
	I	II	III	IV	V	VI		
Factor								
I	1.000							
II	0.382	1.000						
III	0.467	0.490	1.000					
IV	0.691	0.458	0.627	1.000				
V	0.300	0.358	0.320	0.424	1.000			
VI	0.320	0.267	0.386	0.524	0.405	1.000		
Rank	0.055	0.076	0.055	0.065	-0.011	0.041	1.000	
Knowledge Score	-0.065	-0.074	-0.168	-0.128	-0.031	-0.002	-0.231	1.000

In the treatment of the data on the semantic differential by parametric statistical measures, the assumptions of homogeneity and approximations of normal distribution were postulated. Trial tests for homogeneity were supported and the data on standard deviations (Table 35) further tend to validate these assumptions.

The greater scatter on client preferences and knowledge scores, already reported upon and further documented here, is consistent with expectations in view of the hsitorical neglect of the problem and the general public concept of retardation.

TABLE 35

MEANS AND STANDARD DEVIATIONS,
SEMANTIC RATINGS, CLIENT PREFERENCES AND
KNOWLEDGE SCORES

Variable	Number	Mean	Standard Deviations
Factor I	288	3.10	0.8438
II	288	4.38	0.8729
III	288	3.93	0.9908
IV	288	3.90	0.7670
V	288	4.45	1.0376
VI	288	4.12	0.9607
Rank	288	6.19	2.5543
Knowledge Score	288	60.12	11.0928

Interpretation of Results

The impact of the educational experience on the change in attitudes of graduate social work students has been the major focus of this study. In the formulation and testing of hypotheses and in the research design, an attempt has been made to consider factors antecedent to the school experience that relate to attitude formation and change in order that the school experience be properly evaluated.

It is clear that students differ in their knowledge and attitudes about the retarded upon their enrollment in graduate school and that these differences are related more to antecedent life experiences than to demographic factors. Students with retarded siblings are significantly more favorable in their perspective of the retarded, but the same does not obtain for students with retarded relatives. Tha latter appear to be more ambivalent, tending to cluster

more toward both positive and negative extremes of the attitude continuum. Direct contact with retarded persons as neighbors or as clients in a work setting also tends to influence attitude formation, but here too, as the data on field instruction students implies the nature of the contact determines whether feelings are positive or negative.

These findings are consistent with concepts on attitude formation. The fulfillment or frustration of want satisfactions are a critical factor in the way people feel about objects in their environment and the degree to which they stand ready to absorb new cognitions that conflict with previously held beliefs. Students with retarded siblings cannot escape the emotional impact of a handicapped person in the family and must develop coping strategies to handle the feelings engendered. Unlike their parents, they are not burdened with a sense of guilt or ego threat at having created an "imperfect" child, but they may well be the unwitting victims of distorted family relationships. Clinical observations and research indicate that in some families the normal child is neglected by the parents because of their over absorption in the retarded child and that the former develops attitudes of resentment and emotional problems. In other situations however, intimate interaction with the sibling and the ability to handle stress promotes a greater sense of tolerance, patience and emotional maturity.[43] The point to be made here is that persons who have been exposed to meaningful life experiences with retarded individuals are seldom neutral or indifferent in their attitudes. Apparently, the subjects in this study were extremely, but not negatively affected, an expected finding in view of the selective nature of the population.

We may reasonably assume that students with retarded relatives and

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[43]Elizabeth Kramm, Families of Mongoloid Children, U.S. D.H.E.W., Children's Bureau, Publication No. 401 (Washington: Government Printing Office, 1963), p. 56.

neighbors have less intimate contact with these persons than where immediate family members are involved, but that in these groups too, attitudes would be more extreme than among students with no personal contact. The data generally supports this assumption. Personal wants may or may not be at stake in this type of interaction process, but the needs of meaningful others may well be a source of concern to respondents. Thus, one may expect sympathy for relatives or neighbors, or possibly resentment toward the latter, should the presence of the retarded person constitute or be looked upon as a threat or damaging influence. The impact of these encounters, if emotional in content, strongly influence attitude formation, but in the absence of continuous interaction and problem-solving activities, these attitudes are not reinforced. As a consequence, these students tend to be ambivalent; their susceptibility to attitude change is related to the valence and intensity of their attitudes.

Students with prior work experience with retarded clients are directly exposed to the intense problems experienced by the parents, but their want satisfactions are embraced largely in the context of job performance. To the extent that their professional skills are successfully applied to the resolution of parental problems, their attitudes toward the retarded as a client group would be expected to be favorable. Conversely, the inability to handle these problems because of limited community resources, insufficient knowledge, or real or imagined professional inadequacy, would tend toward the other direction. From an analysis of the data and the number of retarded clients served by students, it is evident that these individuals were served within general social agencies rather than specialized facilities. Experience with the group is thus relatively limited, but perhaps more important, the retarded client is seen in contrast to other client groups for whom resources are generally more available and for whom solutions can be more readily found. In these agencies, workers serve an

undifferentiated caseload, i.e. they cannot select the retarded cases to which they would like to be assigned. By contrast, students on field placement as part of the educational curriculum are assigned cases selected for their teaching value. Cases which have little chance for resolution may have educational value, but tend to undermine the students' confidence in his skills and are for the most part therefore, avoided. As the data suggests, students with antecedent work experience, fall somewhere between the life experience and no contact students in their attitude ratings. The difference, though in an expected direction are not statistically significant and may be explained in this context.

Students who have had no prior contact with retarded persons must of necessity be influenced in their attitudes by the culture's values and beliefs. The cognitions and feelings of these students are derived largely from what they hear, see and read and the manner in which the problem is generally treated by society. In view of society's tendency to devalue its less endowed members and the long history of segregation and control of the retarded, we would expect these students to reflect general negative public attitudes. The recent extensive use of the mass media for public education, presents to these individuals information that is incongruent with previous beliefs. The moderately unfavorable attitudes of this group as reflected in the data suggests a shift in attitudes over the past five years. The overall configuration of attitudes approximates that reported in other studies cited in this investigation, though the mean ratings are slightly more positive. This suggests that individual frames of reference are important determinants of attitude formation. Social work students, highly motivated toward helping others in need, would tend to regard deviant members of society more favorably than other groups in nonhelping roles. These differences in attitudes between professional groups is consistent with other

studies.[44]

The relationship between demographic variables and attitudes toward the retarded, with the exception of socioeconomic status, does not follow any statistically significant pattern. Similar findings are reported in other studies on the general population.[45] These results, however, should not be generalized to families or relatives of the retarded or to other persons whose status and roles may be directly affected by the presence of a retarded person.[46] The number of students with retarded relatives in this study was too small to permit within group analysis on the basis of demographic, role-related variables.

The findings on socioeconomic status are similar to those reported by Farber.[47] While this study is not focused on family reactions, these observations regarding the relationship between social status and dependency would appear to have general application. Since the subject population is essentially middle or upper class--for the reasons stated earlier--it cannot be determined whether the social class variable in its broader dimensions is inversely related to attitudes. In this study, the data consistently supports the interpretation that the higher class students view the retarded less favorably than their middle class counterparts.

The impact of formal class instruction on student knowledge and attitudes is relatively minor. Despite school claims of increasing integration of mental retardation content in the curriculum, the graduating students in this study knew little more about the problem than their counterparts at admission. Although an

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[44]"Public Opinions and Attitudes about Mental Health", op. cit.

[45]Gottwald, op. cit., pp. 41, 58, 129, 142, 190.

[46]B. W. Farber, W. Jenne and R. Toigo, "Family Crisis and the Retarded Child", Research Monograph, Council for Exceptional Children, (National Education Association, I, 1960), 66.

[47]Ibid., pp. 59-60.

apparent relationship exists between knowledge scores and level of exposure (as defined in this study) the increments are accounted for largely by the field instruction students. It is of considerable import that student misconceptions of the retarded, as revealed in an analysis of the most frequently missed questions, remains basically unchanged by the school experience.

The data on knowledge scores strongly suggests that (1) the content being introduced is highly circumscribed, (2) is scattered throughout the curriculum and poorly integrated by the students, or (3) both of these. There is strong support for the observation that the generic orientation of schools of social work and the practice of content integration into basic sequence courses does little to enhance student understanding of mental retardation. The question of educational objectives is pertinent here and one cannot dismiss lightly the schools' expressed goals of preparing students for beginning competence in all practice fields. However, if knowledge affects attitudes and both determine a student's predispositions to work with the retarded and his skill in job performance, then clearly the current efforts of schools fall short of expectations.

It is difficult to assess the impact of new information on attitude change in the absence of significant increments in the former. The explanation does not appear to lie in resistance to knowledge based on incongruence with previous attitudes, since the majority of students do not feel strongly about the problem upon school admission. Rather, the problem seems rooted in the method of integrating special content. The student who is exposed to pieces of information on retardation within the context of courses on psychopathology, social work methods, social welfare policy, human growth and behavior, etc. apparently fails to develop a gestalt of mental retardation. There is also the possibility that the amount of material being introduced and the content selected

is very limited in scope, thus contributing to the students' narrow perspectives of the problem. As implied earlier, both factors are probably involved. In fact, they may be interdependent, for the unguided selection of materials by individual faculty members for inclusion in the courses they teach, mitigates against a holistic presentation of the problem.

The lack of knowledge per se in students represents a serious limitation in current school activities, irrespective of the theoretical relationship between knowledge and attitudes. Students who are misinformed about the nature of the problem and its remediation through social work methods are not apt to approach cases referred to them with either confidence or skill. This deficiency may be remedied by the introduction of elective courses or seminars on mental retardation or through controlled curriculum planning under special faculty supervision. The latter method is the least preferred for it does not resolve the students' difficulties in integrating concepts from various sources, nor does it ensure that faculty members uncommitted to the problem will transmit the knowledge effectively and with attitudes of conviction.

In review of the research literature in Chapter II, several references were made to the tenuous relationship between levels of knowledge and attitudes. This study supports the observations made by Cohen,[48] by Mahoney and Pangros[49] and by Simmel,[50] that knowledge alone does not materially affect attitudes. While the students in the "high exposure" schools evidence greater increments in knowledge, they are not any more inclined toward the retarded as a client group, when the field instruction group is excluded from the analysis. Similarly,

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[48]Cohen, op. cit.

[49]Mahoney and Pangros, op. cit.

[50]Simmel, op. cit.

individual students with the highest scores are not differentiated in their attitudes from the less knowledgeable students.

The lack of relatedness between knowledge and attitudes as revealed in this and the other studies reported upon, must be interpreted with caution. The content analysis of student misconceptions undertaken in this study, indicates a general perspective of retardation as a permanent, static condition, biologically determined (organic damage), randomly distributed throughout the general population and characterized by severe retardation, associated physical handicaps and prolonged dependency. This interpretation of the students' image of the retarded is reinforced by their ratings on the semantic scales. This perspective of the retarded on these scales as sick, physically handicapped, excitable and severely dependent persons is a fairly accurate perception of the lower end of the intellectual spectrum, comprising perhaps 10-15% of the total retarded population. These views are in part, a carryover of stereotypic thinking, possibly reinforced by the public education activities of the parent associations and the mass media. The poster campaigns of the National Association for Retarded Children and the television presentation invoking the President of the United States and other national leaders, depict the retarded child as having organic deficits. While the message that these children can be helped is forcefully and sympathetically presented, the problem is not presented as one susceptible to change through social work techniques. It is obvious that the newer concepts in the field representing mental retardation as a dynamic condition subject to change through a variety of therapeutic proceudres and embracing about five million individuals from socioeconomically disadvantaged homes, have not yet permeated either public thought or the school curriculum. Lack of knowledge, interpreted in this context, offers additional insights into the relationship with attitudes and better explains the relative disinterest of students in the

retarded as a client group offering job satisfactions.

The trend toward more favorable attitudes exhibited by terminating students as compared to beginning students, does not appear related to degree of classroom exposure. Students in the "high exposure" schools are not any different from the "low exposure" group. Nevertheless, the overall change in a positive direction suggests some impact of the educational experience. The results are similar to those reported by Simmel in his study of regular elementary school teachers and special class teachers.[51] The investigator suggests that basic teacher training promotes a positive orientation to children in general. The data on this aspect of the study can be understood in the same vein. Basic social work education stresses the resilience of the human personality, the virtues of ego support and the potentialities for enchancing human adjustment through supportive services and environmental manipulation. It emphasizes too, the rights and dignities of individuals whatever their status, capabilities and life circumstances. In this indoctrination process, social work students may well learn to view all persons, including the retarded, more favorably.

The nebulous relationship between knowledge and feelings may also apply to action tendencies. Social work students who value the retarded as human beings and who otherwise regard them favorably, may not look upon them or their families as attractive clients. With respect to client preferences, the "high exposure" schools do appear to have a greater impact on students. These findings are compatible with earlier explanations. Generic education sensitizes the student to common human needs; special content on mental retardation helps to translate these needs as subject to social work action.

Lest this impact of the curriculum be overstated, it is important to note that less than one in four students change their client preference rankings and

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[51] Simmel, op. cit.

that most of these are the mental retardation field instruction students. Furthermore, where shifts in rank do occur, they occur largely from the lower ranks. Thus, few students are motivated to work with the retarded as a primary client group, though they may approach them with improved attitudes should they be confronted with such cases in a general agency setting.

The practical implications of this finding warrant mention. The objectives of federal training grant support are twofold: (1) to prepare all social work students in whatever setting they may work, to better handle the problems of their retarded clients; and (2) to interest some students in working specifically with this client group. The first objective is probably more consistent with school philosophy than the latter, which reflects practice needs.

The question of student competence to work with the retarded is beyond the scope of this study. However, the willingness to serve retarded clients would seem to have important implications for what kind of services are extended and how successfully they are applied. In this sence, the data indicates that this objective is at best, only partially achieved. The second stated objective remains to be staisfied, even minimally. Of the total student body, only 9 (less than 3%) chose the retarded as their preferred client group and some of these had made their choice before school admission.

The influence of the school experience on client choice appears to be minimal for other client groups as well. This would appear consistent with generic education goals. From the view of special fields of practice however, this finding raises many questions about the efficacy of existing educational practices for recruitment. It is not altogether clear what factors predispose a student toward certain fields of practice or specific client groups. Undoubtedly, educational leave stipends and interpretive and recruitment efforts from fields of practice play a part. What is clear from the data however, is that <u>as a group</u>,

the client preferences of students remain essentially unchanged by the educational experience. The answer probably lies in the schools' practice of field instruction assignment. To the extent possible, student preferences are honored in such assignments and as evidenced in this study, the field experience has the greatest impact on attitudes and client choice. In effect, original inclinations are reinforced. The net effect for fields of practice is to maintain the existing disparities in deployment of social work personnel.

The most significant findings in this study--theoretically and practically--are based on data from the field instruction students. These data strongly support the interpretation that how much one knows is not as important in the changing of attitudes as the nature of the learning event and the sources of information. This finding is consistent with the report by Allen and Foshee.[52] These students have more knowledge about mental retardation and evidence a greater disparity in attitudes and client preferences than the rest of the student body. Relatively few of these students remain unchanged in their attitudes by this phase of the educational process. Most shift in a positive direction.

The importance of emotional interaction in the learning event as a stimulus to attitude change is well documented in the data. This observation is neither new nor surprising and is consistent with concepts on attitude formation. Yet, its meaningfulness for education may not always be appreciated or applied in curriculum planning. The field instruction placement offers a tailor-made opportunity to affect attitude change toward the retarded in a positive direction, but only if cases are selected in which the potentials for helping the retarded client or his family are promising. The negative reaction of some students to this experience may well be due to poor case selection.

Clearly, only a small proportion of the student body can be placed in

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[52]Allen and Foshee, op. cit.

mental retardation settings. If feelings must be affected before new information can be absorbed and attitudes changed, then ways must be found by which other students may be similarly influenced. Formal classroom lectures, discussion, textbooks, and case materials are intellectually, not emotionally oriented. These teaching techniques are essential but need to be supplemented by direct observation of retarded persons in educational, institutional, sheltered workshop and other settings. The use of films and audiovisual aids of a nonclinical nature may also have emotional meaning. Books that are nontechnical and describe personal life experiences are also useful in this regard. The need to modify feelings as well as cognitions in the learning process at least in mental retardation, may well be applicable to the training of other professional and subprofessional students.

This study also suggests that the source of information is critical in shaping student attitudes. Field instruction faculty spend more time with students than other faculty and play a vital role in helping the student develop a sense of self-awareness, understanding of behavior, the helping process and technical skills. The lesser status of these faculty on the school hierarchy makes it even more essential that they be persons of considerable knowledge, conviction and teaching skill if they are to be effective sources of information and attitude change.

Schools of social work, prompted by demands from practice and federal training grants to give more attention to mental retardation, have on occasion been compelled to fill positions with inadequately qualified practitioners from the field. Students tend to identify the status of the field itself with the stature and competence of its representative--the field instructor. While objective data was not obtained regarding student assessment of their field instructors, it is clear that the qualifications of these individuals cover a wide range of

abilities. The negative shift in the attitudes of some of the field instruction students is best explained as due to poor case selection, faulty choice of agency settings of field instructors, or combinations of these factors. The conclusion seems highly justified that how a student learns and whom he learns it from, may be more critical in shaping his attitudes than what he learns, assuming of course that in all instances accurate information is conveyed.

There is also support for the view that reference groups are influential in attitude change. Because of the small numbers involved, and the difficulty within this research design of identifying the specific reference groups of students, this concept could not be adequately tested. However, it is reasonable to assume that students sharing a field instruction placement, by virtue of their intimate interaction, common goals and shared learning experience, influence each others attitudes. The high level of agreement between students on client preference supports this observation.

From a theoretical viewpoint, there appears to be little internal consistency between attitudinal components. Cognitions and feelings about mental retardation are not correlated in this and the other studies cited. The relationship between feelings and action tendencies are somewhat closer, though not truly significant. Action tendencies in this study, it should be noted, are defined as preferences for working with retarded clients and should not be generalized to other areas of behavior.

There is good support for the observation that greater consistency among attitude components exists at the extremes of the valence continuum. Students with personal life experience or field instruction in mental retardation tend to know more about the problem, feel more strongly about it and exhibit more extreme response tendencies toward working with the group. The data thus supports the

findings of Bettleheim and Janowitz reported earlier.[53]

This study suggests that the intensity of feelings about an object may be the key factor governing internal consistency. Affective cognitions derived from direct interaction with the object (the retarded person) often conflict with previous cognitive elements and compel the individual to change in order to achieve balance. Thus, he is more receptive emotionally to new sources of information, and reinforced by this knowledge, more willing to act upon it. Feelings provide the motivational character to learning and behavior.

This conceptualization of factors in attitude change is well documented by the data in this study. For the bulk of graduate students, factual information alone creates little conflict with prior beliefs, or inducement to change. To modify attitudes deeply ingrained in the value system of our culture and therefore, shared by other meaningful persons in the students' environment, positive affective experiences must be made available. This approach to attitude change may well apply to the training of other students and to other problems characterized by stereotypes and prejudice.

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[53]Bettleheim and Janowitz, op. cit.

CHAPTER VI

Summary and Conclusions

The research reported in this project was concerned with the impact of differences in curricula and experiences on social work students attitudes and knowledge about mental retardation.

The Variables

The variables included in the study were classified into three categories: (1) demographic-ecological variables--age, sex, marital status, race, children, religious affiliation, socioeconomic status; (2) antecedent life experiences--personal life experience with retarded persons, the type of relationship (immediate family, relative, neighbor) and place of residence of the retarded person; professional work experience with retarded clients prior to graduate school admission; and (3) the degree and type of educational exposure--extent of classroom content and primary client group served in the field instruction placement.

These variables were investigated regarding their influence on student knowledge, attitudes and preferences for the retarded as a client group.

Sample

The sample consisted of 279 newly admitted and 288 graduating students in 7 schools of social work, selected on the basis of variations in the degree of their curriculum activity in mental retardation. All schools of social work

were rated on a curriculum exposure gradient and a purposive sample was drawn incorporating additional criteria of size and scholastic standing to approximate national representativeness. Students were selected from each school according to random sampling procedures and the number of beginning and graduating students included from each school were near equal.

The two groups of students were highly homogeneous on demographic-ecological characteristics. The majority of students were under age 35, caucasian, female and of middle or upper social class status. Most of them are unmarried at school entrance and the majority of those married have no children. By religious affiliation, they approximate the general distribution of the population. A significant proportion of the students report personal life experience with retarded persons and approximately one-fourth have prior work experience with this group.

Procedure

The data in this study were collected through the use of a series of instruments, self-administered by each student. Instruments consisted of a personal data sheet, semantic differential rating scales, a knowledge inventory of 50 multiple choice and 50 true-false questions and a client preference rank order scale. Approximately 45 minutes was required to complete the total battery. In the analysis of data, parametric statistical tests were applied.

Results and Conclusions

Six hypotheses were tested. The results regarding each hypothesis have been presented in detail. The summary below includes the major findings which pertain to the general problems of the research. These problems are (a) the assessment of student knowledge and attitudes toward mental retardation upon

admission to graduate schools of social work, (b) the relationship of knowledge and attitudes to demographic-ecologic variables, (c) the assessment of change in student knowledge and attitudes as a function of differences in graduate social work education.

Knowledge and Attitudes of Beginning Students

In general, the results support the hypothesis that student knowledge and attitudes toward the retarded are influenced by prior life experiences. The major findings follow:

1. Students with little or no direct contact or personal life experience with retarded persons demonstrate moderately unfavorable attitudes toward and limited knowledge of this group. Compared to the average person, the retarded are rated less favorably on all of the 21 semantic scales employed, at the .01 level of significance. Similar comparisons do not apply to other selected client groups served by social workers. Attitudes reveal the same configuration reported in other studies for the general public, but are less extreme.
2. Students vary considerably in their level of knowledge, but as a group, share many misconceptions about the nature and scope of the problem and the capacities of the retarded to profit from social work help. Their general image of the retarded seems based on the characteristics which predominate in the relatively small proportion of moderately and severely retarded persons--ill health, weakness, excitability, aimless behavior, physical handicap and extreme dependency.
3. The retarded are ranked sixth among ten client groups with respect to their preference as clients. Less than 4% of the students select

them as their most preferred choice.

4. Students with retarded siblings or relatives tend toward more extremeness in their attitudes and client preferences (generally in a favorable direction) and have significantly more knowledge about mental retardation than other students.
5. Except for the students whose knowledge appears derived in part from personal life experience, there is no significant correlation between level of knowledge and attitudes.

Demographic-Ecclogical Variables

The role of demographic-ecological factors in attitudes about retardation is not part of the hypotheses tested. However, these factors were assessed to ensure confidence in the educational experience as the independent variable. The major findings follow:

1. Age, sex, marital status, religious affiliation and whether or not the student has children, are not significantly related to attitudes.
2. The socioeconomic status of students is significantly related to attitudes as reflected in semantic scale ratings and client preference choice (.05 level of significance). Students in the highest social class have less favorable attitudes and are least inclined to choose the retarded as a client group.

Change in Student Knowledge and Attitudes

The analysis of change in student knowledge and attitudes was explored as a function of variations in curriculum exposure and nature of the learning experience. Comparisons were made between groups of students and within the graduating group, controlling for antecedent experiences. The major findings follow:

1. Graduating students show a trend toward more favorable semantic ratings than beginning students though not to a statistically significant degree on most scales. Comparisons between schools based on levels of exposure show no significant differences.
2. The general body of graduating students (field instruction students excepted) is not superior to beginning students in their knowledge about mental retardation and share identical misconceptions about the problem. The integration of content on mental retardation in other formal classroom courses is largely ineffective in increasing student knowledge or changing attitudes or client preferences.
3. Changes in client preference occur more frequently among students in high versus low exposure schools, but the rank ordering of client groups between beginning and graduating students remain unchanged by the educational experience.
4. Students in field instruction placements serving primarily retarded clients are significantly superior in knowledge about mental retardation to other students, and demonstrate greater changes in attitude and greater extremes in client preference choice. These changes are predominantly in a positive direction, though only one in six choose the retarded as their most preferred client group. The quality of the agency placement and field instructor are important determinants of the direction of attitude change.
5. Field instruction students share a common level of knowledge and demonstrate a high level of agreement with similarly placed students in the same school, in their rankings of the retarded as a client group.

The data in this study strongly support the conclusion that cognitions,

feelings and action tendencies are not consistently related except at the extreme valences of the attitude continuum. Knowledge derived through direct contact with retarded persons or their families, involving affective experiences, have greater impact on the changing of attitudes than knowledge alone. The sources of information are further determinants in the absorption of new knowledge and its integration in attitudes.

APPENDIX

Personal Data Sheets

Semantic Differential Rating Scales

Knowledge Inventory

Client Preference Rank Order Scale

TO THE STUDENT

Mental retardation ranks as a major national health, social, and economic problem. It directly afflicts millions of children and adults in our society and in many instances seriously blights the future of their families. The economy is affected too, for every year the Nation is denied several billion dollars of economic output because of the underachievement, underproduction and/or incapability of the mentally retarded.

The magnitude of this problem and its complexity, requires for its solution the concerted effort of many agencies and disciplines. This commitment in turn depends upon the prevailing knowledge and attitudes of the helping professions toward this group. Of the various professionals involved, the role of the social worker is especially critical.

Under the stimulus of Federal legislation, many training programs have been launched in recent years on schools of social work devoting special attention to mental retardation content in classroom and field teaching. The impact of these efforts is not known. This is the objective toward which this study is directed.

Your participation in this project will require no more than an hour of your time. Do not worry about the accuracy of your knowledge or your feelings about mental retardation. Just do the best you can!

Your cooperation is most sincerely appreciated.

Michael J. Begab

Enclosures: Personal Data Sheet
Semantic Differential Scales (6)
Knowledge Inventory Score Sheet
Knowledge Inventory
Client Preference Rank Order Scale

PERSONAL DATA SHEET

Beginning Students

1. Age: Under 25 ____
   25-35 ____
   Over 35 ____

2. Sex: M ____
   F ____

3. Status: Married ____
   Single ____

4. Race: _____

5. Children: Yes ____
   No ____

6. Religion: Protestant ____
   Catholic ____
   Jewish ____
   Other (specify)
   _____

7. Country of Birth _____

8. Country of Residence _____

9. Have you had any personal life experience with retarded persons?
   Yes ____ No ____

10. If yes, did it involve:
    A member of your immediate family ____
    A close relative ____
    A neighbor ____

11. Does that retarded person live at
    Home ____ Institution ____
    Other _____

12. Have you worked with the retarded in a volunteer or other capacity?
    Yes ____ No ____

Work Experience:

13. Professional social work experience:
    None ____
    Less than two years ____
    2 to 5 years ____
    Over 5 years ____

14. Cases carried involving retarded clients:
    None ____
    Under 5 ____
    5 to 10 ____
    Over 10 ____

15. List in order of preference the client groups with whom you would like to work in your field instruction placement this year.
    (1) _____
    (2) _____
    (3) _____

Parental Data:

16. Father's occupation _____

17. Parent education:

	Mother	Father
Less than 12 years	____	____
12 years	____	____
13 to 16 years	____	____
17 years or more	____	____

18. Parent income:
    Under $7500 ____
    $7500 - $10,000 ____
    $10,001 - $15,000 ____
    $15,001 - $20,000 ____
    Over $20,000 ____

PERSONAL DATA SHEET

Graduating Students

1. Age: Under 25 ____
   25-35 ____
   Over 35 ____

2. Sex: M ____
   F ____

3. Status: Married ____
   Single ____

4. Race: _____

5. Children: Yes ____
   No ____

6. Religion: Protestant ____
   Catholic ____
   Jewish ____
   Other (specify)
   _____

7. Country of Birth _____

8. Country of Residence _____

9. Have you had any personal experience with retarded persons?
   Yes ____ No ____

10. If yes, did it involve:
    A member of your immediate family ____
    A close relative ____
    A neighbor ____

11. Does that retarded person live at
    Home ____ Institution ____
    Other _____

12. Have you worked with the retarded in a volunteer or other capacity?
    Yes ____ No ____

Work Experience:

13. Professional social work experience:
    None ____
    Less than two years ____
    2 to 5 years ____
    Over 5 years ____

14. Cases carried involving retarded clients:
    None ____
    Under 5 ____
    5 to 10 ____
    Over 10 ____

Graduate School Experience:

15. Full time student ____
    Part time student ____

16. Reside: On campus ____
    Off campus ____

17. Field instruction placements:
    In agency serving primarily retarded clients ____
    In agency serving primarily non-retarded clients ____
    Individual placement ____
    Unit placement ____

18. If field placement in general agency setting, did you carry any cases of retarded clients?
    Yes ____ No ____

19. If yes, how many? ____

Parental Data:

20. Father's occupation ____

21. Parent education:

	Mother	Father
Less than 12 years	____	____
12 years	____	____
13 to 16 years	____	____
17 years or more	____	____

22. Parent income:
    Under $7500 ____
    $7500 - $10,000 ____
    $10,001 - $15,000 ____
    $15,001 - $20,000 ____
    Over $20,000

3

INSTRUCTIONS

SCALES FOR DIFFERENTIAL MEANING

THE PURPOSE OF THE FOLLOWING PAGES IS TO MEASURE THE MEANINGS THE DIFFERENT CONCEPTS AT THE TOP OF EACH PAGE HAVE FOR YOU. EACH CONCEPT IS TO BE RATED ON THE DESCRIPTIONS BELOW IT. RATE THE CONCEPT ON EACH OF THESE SCALES AS FOLLOWS:

If you feel the concept at the top of the page is very closely related to one end of the scale you should place your checkmark as follows:

good	X	___	___	___	___	___	___	bad
				or				
good	___	___	___	___	___	___	X	bad

If you feel the concept is closely related to either end of the scale (but not extremely), place your checkmark as follows:

valuable	___	X	___	___	___	___	___	worthless
				or				
valuable	___	___	___	___	___	X	___	worthless

If the concept is slightly related to either end, but not neutral, check as follows:

active	___	___	X	___	___	___	___	passive
				or				
active	___	___	___	___	X	___	___	passive

If you consider the concept to be neutral, both sides equally associated, or if the scale is completely irrelevent to the concept, place your checkmarks in the middle space.

Be sure your marks are in the middle of the selected space.

Be sure you check every descriptive scale for every concept.

Do not omit any.

Never put more than one checkmark on a single scale. Sometimes you may feel as though you have ckecked the same item before on the scale, but this will not be the case. Do not look back and forth through the items. Do not try to remember how you checked a similar description for a different concept. Make each item a separate and independent judgment. Do not worry or puzzle over individual items. It is your first impression, your "feelings" about the concept that we want. Do not be careless, however. We want true impressions.

I. AVERAGE PERSON

1.	useful	___	___	___	___	___	___	___	useless
2.	valuable	___	___	___	___	___	___	___	worthless
3.	good	___	___	___	___	___	___	___	bad
4.	easy to get along with	___	___	___	___	___	___	___	hard to get along with
5.	beautiful	___	___	___	___	___	___	___	ugly
6.	healthy	___	___	___	___	___	___	___	sick
7.	kind	___	___	___	___	___	___	___	cruel
8.	deep	___	___	___	___	___	___	___	shallow
9.	prolific	___	___	___	___	___	___	___	sterile
10.	strong	___	___	___	___	___	___	___	weak
11.	clean	___	___	___	___	___	___	___	dirty
12.	calm	___	___	___	___	___	___	___	emotional
13.	active	___	___	___	___	___	___	___	passive
14.	motivated	___	___	___	___	___	___	___	aimless
15.	predictable	___	___	___	___	___	___	___	unpredictable
16.	happy	___	___	___	___	___	___	___	sad
17.	neat	___	___	___	___	___	___	___	untidy
18.	self-reliant	___	___	___	___	___	___	___	dependent
19.	not physically handicapped	___	___	___	___	___	___	___	physically handicapped
20.	reliable	___	___	___	___	___	___	___	unreliable
21.	not dangerous	___	___	___	___	___	___	___	dangerous

II. JUVENILE DELINQUENT

1.	useful	___	___	___	___	___	___	___	useless
2.	valuable	___	___	___	___	___	___	___	worthless
3.	good	___	___	___	___	___	___	___	bad
4.	easy to get along with	___	___	___	___	___	___	___	hard to get along with
5.	beautiful	___	___	___	___	___	___	___	ugly
6.	healthy	___	___	___	___	___	___	___	sick
7.	kind	___	___	___	___	___	___	___	cruel
8.	deep	___	___	___	___	___	___	___	shallow
9.	prolific	___	___	___	___	___	___	___	sterile
10.	strong	___	___	___	___	___	___	___	weak
11.	clean	___	___	___	___	___	___	___	dirty
12.	calm	___	___	___	___	___	___	___	emotional
13.	active	___	___	___	___	___	___	___	passive
14.	motivated	___	___	___	___	___	___	___	aimless
15.	predictable	___	___	___	___	___	___	___	unpredictable
16.	happy	___	___	___	___	___	___	___	sad
17.	neat	___	___	___	___	___	___	___	untidy
18.	self-reliant	___	___	___	___	___	___	___	dependent
19.	not physically handicapped	___	___	___	___	___	___	___	physically handicapped
20.	reliable	___	___	___	___	___	___	___	unreliable
21.	not dangerous	___	___	___	___	___	___	___	dangerous

III. MENTALLY RETARDED

1.	useful	___	___	___	___	___	___	___	useless
2.	valuable	___	___	___	___	___	___	___	worthless
3.	good	___	___	___	___	___	___	___	bad
4.	easy to get along with	___	___	___	___	___	___	___	hard to get along with
5.	beautiful	___	___	___	___	___	___	___	ugly
6.	healthy	___	___	___	___	___	___	___	sick
7.	kind	___	___	___	___	___	___	___	cruel
8.	deep	___	___	___	___	___	___	___	shallow
9.	prolific	___	___	___	___	___	___	___	sterile
10.	strong	___	___	___	___	___	___	___	weak
11.	clean	___	___	___	___	___	___	___	dirty
12.	calm	___	___	___	___	___	___	___	emotional
13.	active	___	___	___	___	___	___	___	passive
14.	motivated	___	___	___	___	___	___	___	aimless
15.	predictable	___	___	___	___	___	___	___	unpredictable
16.	happy	___	___	___	___	___	___	___	sad
17.	neat	___	___	___	___	___	___	___	untidy
18.	self-reliant	___	___	___	___	___	___	___	dependent
19.	not physically handicapped	___	___	___	___	___	___	___	physically handicapped
20.	reliable	___	___	___	___	___	___	___	unreliable
21.	not dangerous	___	___	___	___	___	___	___	dangerous

IV. MYSELF

1.	useful	___	___	___	___	___	___	___	useless
2.	valuable	___	___	___	___	___	___	___	worthless
3.	good	___	___	___	___	___	___	___	bad
4.	easy to get along with	___	___	___	___	___	___	___	hard to get along with
5.	beautiful	___	___	___	___	___	___	___	ugly
6.	healthy	___	___	___	___	___	___	___	sick
7.	kind	___	___	___	___	___	___	___	cruel
8.	deep	___	___	___	___	___	___	___	shallow
9.	prolific	___	___	___	___	___	___	___	sterile
10.	strong	___	___	___	___	___	___	___	weak
11.	clean	___	___	___	___	___	___	___	dirty
12.	calm	___	___	___	___	___	___	___	emotional
13.	active	___	___	___	___	___	___	___	passive
14.	motivated	___	___	___	___	___	___	___	aimless
15.	predictable	___	___	___	___	___	___	___	unpredictable
16.	happy	___	___	___	___	___	___	___	sad
17.	neat	___	___	___	___	___	___	___	untidy
18.	self-reliant	___	___	___	___	___	___	___	dependent
19.	not physically handicapped	___	___	___	___	___	___	___	physically handicapped
20.	reliable	___	___	___	___	___	___	___	unreliable
21.	not dangerous	___	___	___	___	___	___	___	dangerous

V. WELFARE CLIENT

1.	useful	___	___	___	___	___	___	___	useless
2.	valuable	___	___	___	___	___	___	___	worthless
3.	good	___	___	___	___	___	___	___	bad
4.	easy to get along with	___	___	___	___	___	___	___	hard to get along with
5.	beautiful	___	___	___	___	___	___	___	ugly
6.	healthy	___	___	___	___	___	___	___	sick
7.	kind	___	___	___	___	___	___	___	cruel
8.	deep	___	___	___	___	___	___	___	shallow
9.	prolific	___	___	___	___	___	___	___	sterile
10.	strong	___	___	___	___	___	___	___	weak
11.	clean	___	___	___	___	___	___	___	dirty
12.	calm	___	___	___	___	___	___	___	emotional
13.	active	___	___	___	___	___	___	___	passive
14.	motivated	___	___	___	___	___	___	___	aimless
15.	predictable	___	___	___	___	___	___	___	unpredictable
16.	happy	___	___	___	___	___	___	___	sad
17.	neat	___	___	___	___	___	___	___	untidy
18.	self-reliant	___	___	___	___	___	___	___	dependent
19.	not physically handicapped	___	___	___	___	___	___	___	physically handicapped
20.	reliable	___	___	___	___	___	___	___	unreliable
21.	not dangerous	___	___	___	___	___	___	___	dangerous

VI. MENTALLY ILL

1.	useful	___	___	___	___	___	___	___	useless
2.	valuable	___	___	___	___	___	___	___	worthless
3.	good	___	___	___	___	___	___	___	bad
4.	easy to get along with	___	___	___	___	___	___	___	hard to get along with
5.	beautiful	___	___	___	___	___	___	___	ugly
6.	healthy	___	___	___	___	___	___	___	sick
7.	kind	___	___	___	___	___	___	___	cruel
8.	deep	___	___	___	___	___	___	___	shallow
9.	prolific	___	___	___	___	___	___	___	sterile
10.	strong	___	___	___	___	___	___	___	weak
11.	clean	___	___	___	___	___	___	___	dirty
12.	calm	___	___	___	___	___	___	___	emotional
13.	active	___	___	___	___	___	___	___	passive
14.	motivated	___	___	___	___	___	___	___	aimless
15.	predictable	___	___	___	___	___	___	___	unpredictable
16.	happy	___	___	___	___	___	___	___	sad
17.	neat	___	___	___	___	___	___	___	untidy
18.	self-reliant	___	___	___	___	___	___	___	dependent
19.	not physically handicapped	___	___	___	___	___	___	___	physically handicapped
20.	reliable	___	___	___	___	___	___	___	unreliable
21.	not dangerous	___	___	___	___	___	___	___	dangerous

KNOWLEDGE INVENTORY SCORE SHEET
MARK WITH X

	1	2	3	4		1	2	3	4		1	2		1	2
1.	___	___	___	___	26.	___	___	___	___	51.	___	___	76.	___	___
2.	___	___	___	___	27.	___	___	___	___	52.	___	___	77.	___	___
3.	___	___	___	___	28.	___	___	___	___	53.	___	___	78.	___	___
4.	___	___	___	___	29.	___	___	___	___	54.	___	___	79.	___	___
5.	___	___	___	___	30.	___	___	___	___	55.	___	___	80.	___	___
6.	___	___	___	___	31.	___	___	___	___	56.	___	___	81.	___	___
7.	___	___	___	___	32.	___	___	___	___	57.	___	___	82.	___	___
8.	___	___	___	___	33.	___	___	___	___	58.	___	___	83.	___	___
9.	___	___	___	___	34.	___	___	___	___	59.	___	___	84.	___	___
10.	___	___	___	___	35.	___	___	___	___	60.	___	___	85.	___	___
11.	___	___	___	___	36.	___	___	___	___	61.	___	___	86.	___	___
12.	___	___	___	___	37.	___	___	___	___	62.	___	___	87.	___	___
13.	___	___	___	___	38.	___	___	___	___	63.	___	___	88.	___	___
14.	___	___	___	___	39.	___	___	___	___	64.	___	___	89.	___	___
15.	___	___	___	___	40.	___	___	___	___	65.	___	___	90.	___	___
16.	___	___	___	___	41.	___	___	___	___	66.	___	___	91.	___	___
17.	___	___	___	___	42.	___	___	___	___	67.	___	___	92.	___	___
18.	___	___	___	___	43.	___	___	___	___	68.	___	___	93.	___	___
19.	___	___	___	___	44.	___	___	___	___	69.	___	___	94.	___	___
20.	___	___	___	___	45.	___	___	___	___	70.	___	___	95.	___	___
21.	___	___	___	___	46.	___	___	___	___	71.	___	___	96.	___	___
22.	___	___	___	___	47.	___	___	___	___	72.	___	___	97.	___	___
23.	___	___	___	___	48.	___	___	___	___	73.	___	___	98.	___	___
24.	___	___	___	___	49.	___	___	___	___	74.	___	___	99.	___	___
25.	___	___	___	___	50.	___	___	___	___	75.	___	___	100.	___	___

KNOWLEDGE INVENTORY

PLEASE DO NOT MARK TEST BOOKLET. PUT YOUR ANSWERS ON THE ANSWER SHEET PROVIDED.

1. Most individuals who are mentally retarded would be classified as:

   (1) severely retarded
   (2) moderately retarded
   (3) mildly retarded
   (4) profoundly retarded

2. Severe retardation is caused for the most part, by:

   (1) disorders of pregnancy
   (2) damage to the infant in the birth process
   (3) metabolic disorders
   (4) head injury

3. Mental retardation is most prevalent among:

   (1) children under 2 years of age
   (2) three to five year olds
   (3) ten to fourteen
   (4) all age groups according to the general distribution of the population

4. Most retarded persons come from:

   (1) the highest socio-economic levels
   (2) the middle socio-economic levels
   (3) the lower socio-economic levels
   (4) all socio-economic levels, somewhat randomly distributed

5. The structure of group activities for the retarded:

   (1) should employ the same program media utilized for normal children
   (2) should rely largely on interaction between the group leader and the retardates on a one-to-one level
   (3) should guard against experiences of repeated failure
   (4) should be highly permissive and unstructural

6. Mental retardation is defined as:

   (1) low intelligence
   (2) a learning disability
   (3) impaired social behavior
   (4) low intelligence and behavioral impairment

7. Mental retardation is best distinguished from mental illness in that:

   (1) the former involves an impairment of intellectual functioning
   (2) the former is a phenomenon of arrested development whereas the latter is largely an adult disability
   (3) the retarded are not responsive to therapeutic procedures as are the mentally ill
   (4) intelligence is not subject to change but mental illness can be cured

8. Mental retardation is:

   (1) a disease of the mind
   (2) a condition arising from damage to the brain
   (3) a complex of symptoms deriving from a variety of causes
   (4) a disorder of the intellect

9. Most retarded persons live in:

   (1) city slums and deprived rural areas
   (2) state or private institutions
   (3) all areas of the city, somewhat randomly distributed
   (4) the better areas of the city and the suburbs

10. The percentage of retarded cases in which a specific cause can be determined is:

   (1) more than 75%
   (2) 50% to 75%
   (3) 30% to 49%
   (4) under 30%

11. The percent of mentally retarded individuals living in institutions is:

   (1) about 5 to 10 percent
   (2) about 20 percent
   (3) about 50 percent
   (4) about 75 percent

12. Most <u>mildly</u> retarded children:

   (1) are likely to develop emotional disturbances
   (2) have potentials for independent living in adulthood
   (3) will always be dependent on others
   (4) have little capacity for vocational self-support

13. Most retarded persons:

   (1) have special talents to compensate for their intellectual defects
   (2) are retarded in several areas of development
   (3) have unusual ability to work with their hands
   (4) are physically superior

14. The incidence of delinquent behavior among the retarded is:

(1) considerably higher than in the normal population
(2) less than in the normal population
(3) higher in the mildly retarded than the moderately retarded
(4) equally distributed through the various levels of retardation

15. The most feasible treatment plan for a retarded girl with an I.Q. under 30 is:

(1) habit training in self-care skills
(2) academic training
(3) sterilization
(4) industrial job training

16. The interest in the field of mental retardation over the past decade was brought about largely by:

(1) the enactment of legislation by the Kennedy Administration
(2) the activities and efforts of organized parent groups
(3) the concern with culturally deprived groups
(4) developments in the field of special education

17. At the present time, the preferred placement of most mentally retarded children of school age is in:

(1) special education classes in the public school system
(2) regular classes of the public schools
(3) public or private residential schools
(4) day care or acticity centers

18. An educational program for children with I.Q. 's between 35- 50 should emphasize:

(1) the three R's
(2) the development of reading skills primarily
(3) occupational training for industrial placement
(4) personal and social adjustment skills

19. For the retarded child, a competitive school situation:

(1) is a stimulus to increased motivation
(2) generally results in a high level of achievement
(3) generally causes frustration and failure
(4) promotes social acceptance by the other children

20. Most cases of mental retardation are first recognized by:

(1) physicians
(2) parents
(3) teachers
(4) psychologists

21. Which of the following is common to most retarded children of preschool age?

(1) presence of physical stigmata
(2) slowness in language development
(3) slowness in walking
(4) problems in adjusting to family demands

22. Mildly retarded persons who commit delinquent acts do so for the most part, because:

(1) they cannot distinguish right from wrong
(2) they are by nature violent and agressive
(3) they have no control over their impulses
(4) none of the above

23. Probably the most contributory factor to retarded intellectual development in the U.S. today is:

(1) central nervous system damage
(2) psychosocial deprivation
(3) prematurity and complications of pregnancy
(4) parental neglect and abuse

24. The factor most responsible for the poor mental health of some retarded persons is:

(1) low intelligence
(2) lack of adequate schooling
(3) lack of self-acceptance
(4) limited earning capacity

25. Casework with retarded clients is ineffective because:

(1) they cannot verbalize their problems
(2) they lack the capacity for insight
(3) they cannot relate meaningfully to people
(4) none of the above

26. The majority of mentally retarded children resemble other children mostly in:

(1) personality characteristics
(2) physical development
(3) emotional development
(4) social development

27. A retarded person's feelings of inferiority are derived from:

(1) chronic frustration and failure
(2) standards and expectations of the community
(3) comparisons of self with others
(4) all of the above

28. A common characteristic of mentally retarded individuals is:

(1) their insensitivity to what others think of them
(2) their unconcern about wrong doings
(3) their difficulty in planning ahead
(4) their antisocial tendencies

29. Which of the following defense mechanisms are <u>least</u> common to retarded persons:

(1) denial
(2) projection
(3) avoidance
(4) rationalization

30. In the development of retarded intellect, it is generally agreed that:

(1) environment is far more important
(2) heredity is far more important
(3) the relative importance of heredity and environment is yet to be determined
(4) none of these

31. I.Q. test scores of children should be viewed as:

(1) descriptions of present functioning level
(2) predictors of later adult capacities
(3) measures of daily life-problem solving ability
(4) irrelevant to diagnostic procedures

32. Phenylketonuria (PKU) can be treated:

(1) at any time before school age
(2) by a special diet
(3) by surgical procedures
(4) by antibiotics

33. PKU is the result of

(1) RH blood incompatibility
(2) an inborn error of metabolism
(3) nutritional deficiencies
(4) German measles during the first trimester of pregnancy

34. Cerebral palsy is:

(1) a form of muscular dysfunction
(2) unrelated to mental retardation
(3) usually associated with mental retardation
(4) a speech handicap

35. Mongoloid children are generally:

(1) profoundly retarded and born to younger mothers
(2) moderately retarded and born to older mothers
(3) profoundly retarded and born to older mothers
(4) moderately retarded and born to younger mothers

36. Mongoloidism is for the most part caused by:

(1) a thyroid dysfunction
(2) an exzyme deficiency
(3) failure of two chromosomes to separate during gametogenesis
(4) an hereditary factor

37. Successful adult adjustment of the mentally retarded is related most positively to:

(1) the individual's attitude toward school
(2) interpersonal and social skills
(3) reading skills and I.Q.
(4) work performance

38. An important principle in working with the retarded is that:

(1) intelligence is fixed at birth
(2) behavior can be modified
(3) they can learn as well as other people
(4) failure stimulates them to try harder

39. Residential facilities for the retarded would be best placed:

(1) in isolated rural areas away from the complexities of urban life
(2) in or near population centers
(3) near university medical schools
(4) in small, separate communities devoted specifically to the needs of this group

40. the emerging philosophy of residential care stresses:

(1) the institution as a place of last resort
(2) the institution as a permanent living arrangement for the retarded
(3) the institution as an integral part of community service
(4) the institution as a resource for the rehabilitation and training of all residents

41. The American Association on Mental Deficiency is an organization of:

(1) parents of the retarded
(2) teachers in special education
(3) medical and related research scientists
(4) various professional disciplines, primarily

42. Most retarded persons are identified as retarded:

(1) at any age in their life span
(2) from early infancy on
(3) only during their school years
(4) when faced with situations of social stress

43. Marked environmental changes in a child's life:

(1) can alter the rate of intellectual growth, up or down
(2) can do little to alter intelligence which is genetically fixed
(3) cannot affect capacity for reason and judgment
(4) may affect personality but not intellect

44. The kind of adaptive responses employed by the mentally retarded are:

(1) the same as for other people
(2) highly related to the degree of the individual's intelligence
(3) dependent upon the nature of the interpersonal relationships he experiences, regardless of intellectual abilities
(4) none of the above

45. The behavior of the retarded delinquent is due largely to:

(1) his limited capacity for reason and judgment
(2) imitation of peers
(3) the lack of community recreational facilities
(4) the same personality traits that characterize the delinquent of normal intelligence

46. Culturally deprived children are not identified as retarded before they reach school age because:

(1) intelligence tests lack discriminatory power
(2) the demands of family and community generally do not exceed their adaptive capacities
(3) they generally do not come to the attention of professional workers
(4) their families are able to adequately meet their needs

47. Decisions regarding the placement of the severely retarded child should be <u>primarily</u>:

(1) based on the child's medical care needs
(2) based on the expectation of his negative impact on family life
(3) based on the expectation he will survive his parents and no one will be available to care for him
(4) none of the above.

48. Which of the following parents might be expected to encounter the most difficulty in emotionally accepting a retarded child?

(1) the culturally deprived parent
(2) the professional or college graduate parent
(3) the unskilled laborer of limited education
(4) all would have equal difficulty

49. In extending help to mentally limited, disadvantaged parents, one should be guided by the principle:

    (1) that clients cannot be helped unless they seek help of their own volition
    (2) that these families will recognize their child's limitation and seek appropriate services
    (3) that unless aggressive reaching-out efforts are made to contact them, they tend to remain social isolates
    (4) that they distrust community representatives and must be approached authoritatively

50. Psychotherapeutic approaches with the retarded:

    (1) should not be undertaken since the retarded cannot profit from these techniques
    (2) are no different than with normally intelligent persons
    (3) often requires a more active role by the therapist in the problem-solving process
    (4) require a wholly unique technique geared to the individual's low intelligence

THE FOLLOWING QUESTIONS ARE TO BE SCORED AS TRUE OF FALSE.
USING THE SCORING SHEET, MARK TRUE AS NUMBER 1, FALSE AS 2.

51. Most mentally retarded children can become vocationally independent adults.

52. The mentally retarded are most likely to realize their fullest potentials through education and training in institutions.

53. Institutional placement is the best plan for the retarded child with normal brothers and sisters.

54. Intelligence is an abstract concept and can be measured with reasonable accuracy on standardized tests.

55. Low intelligence is a highly reliable predictor of general adaptive behavior in adulthood.

56. Many mildly retarded children function acceptably as parents in adulthood.

57. There are more mentally retarded girls than boys.

58. About 75 percent of the retarded are not distinguishable by their physical appearance from the average person.

59. About 20 percent of the retarded are so severely handicapped they cannot survive unless constantly protected.

60. Approximately 200 pathological conditions are known to cause mental retardation.

61. Sensory handicaps, speech difficulties, and neuromuscular impairments occur with equal frequency among the retarded and normal populations.

62. Most of the retarded in state institutions are mildly retarded.

63. Severe nutritional deficiencies or head injuries in adolescence can cause retardation.

64. Genetic factors are the primary cause of retardation in those families characterized by successive generations of retarded persons.

65. The normal parent frequently tends to blame others for his child's deficiency.

66. In the face of obvious sysmptoms of retardation, parents are quick to accept a diagnosis of retardation.

67. Retardation is a source of psychological stress to all families.

68. Scales to asuess adaptive behavior are more reliable instruments than standard intelligence tests.

69. Operant conditioning techniques are not applicable to the mentally retarded.

70. Spacing of children and family planning can have a major impact in reducing the frequency of mental retardation.

71. Enrichment programs for culturally deprived children are most effective for school aged children.

72. For the majority, mental retardation is a dynamic, rather than permanent condition.

73. Most retarded persons have very little awareness of their mental, social and vocational limitations.

74. The range of adaptive responses utilized by retarded persons is highly related to the degree of intelligence.

75. Severely retarded children develop psychosexually the same as normal children except at a slower rate.

76. Mentally retarded persons are more vulnerable to the development of conduct disorders than the average person.

77. Most of the mentally retarded who commit delinquent acts are not able to understand the consequences of their behavior.

78. Within the range of intellectual retardation, the frequency of delinquent behavior decreases with higher intelligence.

79. Culturally retarded individuals generally are strong physically.

80. Manipulation of the environment cannot alter the social adequacy of retarded persons.

81. Retarded persons should have the same freedom for choosing between alternative courses of action as other persons, in problem-solving situations.

82. The disparity between the intelligence of the parent and child is an important factor in parental reactions toward mental retardation.

83. Hard core disadvantaged families cannot be helped unless they seek help of their own volition.

84. Retarded persons should be selected for group activities on the basis of their mental age.

85. All children who are below average in intelligence are mentally retarded.

86. Mildly retarded children are generally not recognized until they reach school age.

87. Mental retardation and mental illness are essentially the same.

88. A child who cannot learn to read is mentally retarded.

89. Marriage between cousins is one of the main causes of mental retardation.

90. If a mentally retarded, brain-injured child is put in a good home environment, he will become normal.

91. Mental retardation is rarely caused by a child falling on his head.

92. You can generally tell whether a person is mentally retarded or not by looking at the size of his head.

93. A mentally retarded person can become mentally ill.

94. An intellectually normal adult who becomes mentally ill can also become mentally retarded.

95. Mentally retarded women nearly always give birth to mentally retarded children.

96. Most children with convulsive disorders are mentally retarded.

97. The mentally retarded are very much like each other.

98. There are relatively few mentally retarded children who cannot be helped at all.

99. Placement in a state institution is the worst thing a parent can do for any retarded child.

100. Severe emotional distrubances in a child may retard intellectual development.

CLIENT PREFERENCE RANK ORDER SCALE

Beginning Students

PLEASE RANK THE FOLLOWING CLIENT GROUPS FORM 1 TO 10 ACCORDING TO YOUR WORK PREFERENCES, RANKING AS NUMBER ONE, THE GROUP YOU WOULD MOST PREFER TO WORK WITH, AND NUMBER TEN, THE LEAST PREFERRED GROUP.

_____ the juvenile delinquent

_____ neglected and dependent child

_____ the emotionally disturbed child

_____ the recepient of public assistance

_____ the mentally retarded

_____ the adult offender

_____ the aged

_____ the physically handicapped

_____ the mentally ill

_____ the unmarried mother

CLIENT PREFERENCE RANK ORDER SCALE

Graduating Students

PLEASE RANK THE FOLLOWING CLIENT GROUPS FROM 1 TO 10 ACCORDING TO YOUR WORK PREFERENCES, RANKING AS NUMBER ONE, THE GROUP YOU WOULD MOST PREFER TO WORK WITH, AND NUMBER TEN, THE LEAST PREFERRED GROUP.

_____ the juvenile delinquent

_____ the neglected and dependent child

_____ the emotionally disturbed child

_____ the recepient of public assistance

_____ the mentally retarded

_____ the adult offender

_____ the aged

_____ the physically handicapped

_____ the mentally ill

_____ the unmarried mother

A. Looking back to the beginning of your graduate social work education, would you have ranked the mentally retarded differently than shown above?
Yes _____ No _____

B. What rank order number would you have assigned? _____

C. If a change has occurred, what factors do you believe have influenced you? Remarks:

GPO 868-024