Recent proliferation at training and educational programs for paraprofessional and non-professionals has occurred without systematic evaluation of systems' utilization of newly trained people. It was the purpose of this study to assess both job functioning and attitudes of paraprofessionals in relation to professionals and the interaction of systems' variables that would impact the effectiveness of its individual members. A multi-method, multi-criteria study revealed significant systems, group, and individual differences between teams and team members in community mental health centers committed to medical-illness/clinical (MIC) paradigms of mental health and those committed to psycho-social learning/community (PSLC) paradigms. There were differences in teams' utilization of professionals and paraprofessionals, and psycho-social differences in the members themselves. Compared to their MIC peers, paraprofessionals in the PSLC systems experienced the system as more positive and reported themselves being utilized more fully. Also, PSLC professionals reported greater sense of cohesiveness, influence, and satisfaction with co-workers than their MIC peers. Implications of these results were discussed in terms of training for both paraprofessionals and professionals (especially with regard to transfer of learning and utilization of resources) and in terms of understanding human behavior/performance within an individual-system interaction framework. (Author)
Relationship Between Systems' Mental Health
Paradigm and Personpower Utilization

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to the educational resources information center (ERIC) and users of the ERIC system."
Over the past two decades, the mental health system in the United States has been confronted with two very critical problems: the perception of a severe shortage of personpower and the questioning of the effectiveness of present service efforts to an overwhelming majority of the nation.

Beginning in the late fifties, the conclusion has been repeatedly reached that the need and demand for mental health services far exceeds the supply (with most people getting no help or less than they need). (See Albee, 1959, 1965, 1969; Joint Commission on Mental Illness and Health, 1961; Rossi, 1962, Reiff and Riessman, 1965; Cowen, Gardner and Zax, 1967; and Cowen 1973.) At the same time, it became apparent that the unanswered needs were not to be found randomly distributed across the population. It has been a repeated criticism that the mental health system has turned away from lower-socioeconomic groups, racial minorities and the severely disturbed to devote its energy and resources to the young, affluent, verbal, intelligent, and successful — those who represent a very small minority of those in need of mental health services.

For the purpose of this analysis, these two issues will be viewed as anomalies, reflections of crucial shortcomings in the existing paradigm of mental health/illness. Kuhn (1962) defines the concept of "paradigm" as a constellation of values, beliefs, and assumptions that form the nature of the methods, problem-field, solutions, and personpower
acceptable within any mature scientific community at a given time. Within this framework, a paradigm crisis marks that time in which the basic assumptions and values of the existing paradigm are questioned, and alternative competing paradigms begin to crystallize around very different assumptions and values. With the acknowledgement of the two problems cited previously, many people began to re-evaluate the adequacy of the current mental health paradigm. For the mental health system, this evaluative exercise has resulted in the generation of a range of co-existing models, represented at the poles by two different alternatives: One pole represents an extension of the existing medical-illness/clinical paradigm, subsequently referred to as MIC model. At the other pole, the competing model represents a new psycho-social learning/community paradigm - PSLC model.

Throughout most of this century, the mental health system of the United States has been guided by a medical illness/clinical paradigm. The core assumptions of this model are: (1) the primacy of the intra-psychic life of man, and (2) the parallelism between the onset, nature and treatment of psychological and physical dysfunctions. The theoretical base is derived from individual personality theory, (especially analytic theory) abnormal psychology and medical pathology. The goals are basically rehabilitative ones: to diagnose and minimize the effects of the pathology. The sanctioned technique or solution is psychotherapy and the appropriate setting for the solution is the hospital or clinic. The sanctioned medium for work within this model is the doctor-patient relationship. The "doctor" role has expanded slowly to include non-medical professionals; however, staff hierarchies are still honored. The doctor/therapist is
still assumed to require extensive training, to be well-schooled, to be an "expert" with extensive knowledge and background, and to be sanctioned and accredited by the professional helper-guilds. The patient is assumed to be not responsible for the cure (or his fate), the one in need of help, the passive recipient to whom specific cures are administered.

Other mental health professionals have seen the personpower and service delivery problems as most basic ones. These professionals envisioned the future of community mental health as necessarily linked to the development of a new paradigm. This still-crystallizing alternative paradigm will be referred to as a psychosocial learning/community (or PSLC) model.

The core assumption here is that the individual is inextricably related, both proactively and reactively, to the social systems to which one belongs. Human behavior is assumed to be the product of a complex interaction between individual (personalistic, dispositional) variables and system (structuralistic, situational) variables. Human behavior is defined as a psycho-social learning process, a radically different phenomenon from physical illness. Individual behavior is placed on a continuum of response effectiveness, based on competence in dealing with personal, developmental and situational tasks. The knowledge base is derived from psychology of learning, human development, community, organizational and social psychology, human ecology, general systems theory, and community organization, as well as clinical psychology and personality theory. The problem field delineated consists of individual system interactions. The multiple goals are: improvement of the quality of life of the individual, improvement of the quality of the relationship between individual and community/system, and the improvement of the
effectiveness and social well-being of the community as a whole. To achieve these goals, the PSLC model proposes a new set of mental health techniques. This new repertoire includes: teaching individuals to be more competent problem-solvers, training existing community-based change agents, consultation to community groups and agencies, coordination of and participation in community problem-solving and service efforts; and evaluation research. The sanctioned setting is expanded to community-based settings that include schools, housing developments, political meetings, police stations, and community mental health centers. There is also a reconceptualization of the medium - the professional-client relationship. The mental health worker functions more in the role of a teacher or consultant, affecting changes in a much more cooperative process with shared responsibility. At the individual, group, and community levels, the working alliance is one of partners, each teaching and learning, each generating and contributing resources in a common problem-solving effort to produce change.

Utilization of Paraprofessionals

Interestingly enough, despite the major and consistent paradigmatic differences that exist, proponents of both models (MIC and PSLC) have seized upon a common solution to these problems - the use of paraprofessional mental health workers. Paraprofessionals in the form of volunteers, students, psychiatric aides, indigenous community residents, Associate of Arts mental health workers, teachers, parents, peers, etc., have been incorporated en masse into the mental health system. They are being used in settings as diverse as the private in-patient hospital and the storefront community center, the inner-city and the Indian reservation.
The rationale for such a solution has come from a number of different sources. In the literature, studies presenting the effectiveness of employing psychiatric aides, volunteers, housewives, college students, and parents as effective therapeutic agents represent one source. Descriptive studies reporting the use of Indigenous paraprofessionals as mental health workers, technicians, associates, and counselors represent another source. While primary descriptive and/or lacking scientific, controlled evaluation, these reports and findings have been presented as evidence and justification for the widespread use of paraprofessional personpower across mental health service systems.

However, this failure to evaluate critically or discriminate the applicability or "goodness of fit" of such a solution within the subcomponents of the mental health system is most evident and critical. Indeed, such critical evaluation needs to be done before the investment and cost become too high to permit change. A critical evaluation of the paraprofessional literature to date reveals both conceptual and methodological limitations. Discussed at length elsewhere (Hurley and Tyler, 1976), the conclusions will be summarized briefly here. At the conceptual level, the critical issues include: (1) the confounding of the concept of a paraprofessional; (2) lack of adequate consideration of situational determinants of effective utilization; and (3) failure to consider the relationship between patterns of paraprofessional utilization and an agency's operating mental health paradigm. Methodologically, existing evaluation suffers from: (1) the descriptive nature of much of the data presented; (2) unanswered threats to the internal and external validity
of some at the present findings due to use of "pilot" programs; (3) criterion deficiency (use of therapy outcome as single indicator); and (4) criterion contamination (what exactly are the paraprofessionals doing that is being rated for effectiveness). In light of the critical nature of the problems addressed by the utilization of paraprofessionals, it seems all the more important to sort out both the strengths and weaknesses inherent in the solution.

Purpose

It was the purpose of this research effort to address the limitations just discussed and to provide channels for research development at both conceptual and methodological levels. Specific conceptual advances begin with specifying the particular paraprofessional group addressed—here defined as formal employees of community mental health centers. In addition, the research focus is an individual-systems focus—on the interaction of paraprofessionals and professionals within the community mental health system. The final conceptual advance here rests on the study's main hypotheses. There is a growing body of data supporting the hypothesis that a system's commitment to a given mental health paradigm does have an effect on that system's functioning (Greenblatt, 1957; Kotin and Sherif, 1967; Baker, 1968). Building on this data base, the present study takes the following main hypothesis: systems committed to different mental health paradigms will have different patterns of staff functioning and interaction. A second hypothesis is that the quality of this relationship will be different for paraprofessionals and professionals. The independent variables are the presently-articulated medical-illness/clinical model (MIC) and
Relattonship Between Systems' and the psycho-social learning/community model (PSLC). These variables are operationally defined here as community mental health teams whose functions and allocation of person hours tend, on a range, to represent a greater commitment to one of the two (MIC and PSLC) paradigms.

In designating dependent variables, this study moves beyond single-criterion, single-method studies with an isolated focus on the para-professional to a systems analysis using multiple criteria and multiple methods. The variables reflect processes at individual, group and systems-levels. Systems-level variables included: (1) system flexibility: the number of different tasks that a worker performs; (2) systems role assignment: percentage of work hours devoted to MIC and PSLC-related functions; (3) systems assessment: components of team functioning that worker would like to see (a) kept the same; and (b) changed; (4) systems goals: workers' ratings of importance of MIC- and PSLC-related mental health goals. Group-level variables were: (1) influence process: worker's ratings of other staff members' ability to influence what they did on the job; (2) group cohesiveness: workers' ratings of the team's attractiveness to remain in the group. Individual level variables were: internal - external focus of control: (1) workers' rating of perceived outcome rewards on job as consequence of own actions or of luck, chance, fate or powerful others; (2) job satisfaction: workers' ratings for degree of satisfaction with work, supervision, promotion, pay and co-workers. These dependent variables were chosen to reflect important parameters of organizational functioning in general, and, more specifically, in a mental health system's implementation of a personpower program.
Methodology

Subjects

The subject sample included ten community mental health center teams, six committed to a medical illness/clinical (M1C) paradigm and four committed to a psycho-social learning/community (PSLC) paradigm. Teams were sorted into groups on the basis of committing a majority at their person-power hours to paradigm-related activities (M1C: assessment and diagnosis; individual, group, and family therapy; client advocacy / PSLC—consultation, interagency coordination, staff training, supervision, and program development and administration). There were no significant differences between the two groups of teams for size, members' average length of time on team, number of functions performed by team, and ratio of professionals to paraprofessionals. Each team was composed of both professionals and paraprofessionals. The individual subjects (n=53) comprise the formal staff members of these teams. They represent the two groups of professionals (N=30; N_M1C=18, N_PSLC=12) and paraprofessionals (N=23; N_M1C=14, N_PSLC=9).

There were no significant differences between M1C and PSLC individuals for the demographic or personalistic variables of sex, race, number of years of mental health experience and number of years in present position.

Procedure

Following an observation period, questionnaires including measures of the individual, group, and systems level dependent variables were administered to each team member. Finally, the team leader completed a time-budget measure (Mental Health Paradigm-Commitment Scale) for distribution of total team person-hours across team functions.
Results.

Data was analyzed for differences between teams, using team score or average members' score, and between total individuals committed to each model. Where this latter analysis yielded significant results or trends, planned comparisons between professionals and between paraprofessionals were carried out.

Results indicated significant support for the hypothesized relationship between a system's mental health paradigm and its patterns of personpower utilization. There was consistent evidence across individual, group, and systems levels for the establishment of significant differences between teams and team members committed to the different paradigms (MIC and PSLC). For both clarity and brevity, the major patterns will be outlined below by groups, rather than for each variable.

For the systems-level criteria, the PSLC teams were significantly more flexible ($U=2$, $P < .02$), and assessed different strengths and needed changes in their teams. For group-level criteria, the PSLC teams rated paraprofessionals as having significantly greater influence in the team ($U=1$, $P < .01$) and were rated as significantly more cohesive ($U=3.5$, $P < .05$).

For the comparison of total PSLC team members to MIC individuals, the PSLC individuals reported significantly greater flexibility ($F=5.73$, $P < .02$), greater influence on team functioning for both professionals and paraprofessionals (Prof: $F=4.12$, $p < .05$; Para: $F=10.10$, $p < .003$), greater sense of team cohesiveness ($F=13.20$, $p < .001$), and greater perception of internal personal control in the work setting ($Z=1.89$, $p < .03$).

Different patterns in the nature of the relationship between para-
digm commitment and staff functioning were found for professional and paraprofessionals. As predicted, the differences between professionals were markedly fewer. Specifically, PSLC professionals differed significantly from their MIC counterparts in terms of having perceived themselves (t=2.41, p < .01) and their paraprofessional team members (t=1.67, p < .05) as having greater influence on team functioning, and greater satisfaction with co-workers (t=2.41, p < .01). Even more striking were the differences between the PSLC and MIC paraprofessionals. PSLC paraprofessionals reported having more flexible roles (U=2.41, p < .01); were assigned qualitatively different roles (U=19.5, p < .01); perceived different changes as needed in their teams (t=1.67, p < .05), rated themselves (t=2.41, p < .01) and their professional co-workers (t=3.5, p < .001) as having greater influence; rated greater team cohesiveness (t=2.41, p < .01); reported a greater sense of internal control on the job (z=1.90, p < .03); and reported greater satisfaction with work (t=1.67, p < .05); supervision (t=1.67, p < .05), and co-workers (t=1.67, p < .05).

In summary, the results have provided evidence to support the existence and differential nature of the hypothesized relationship between a systems mental health paradigm and patterns of personpower utilization. The general pattern of the results was to indicate significant team and/or total individual differences (with the one exception of system goals), to show some differences between the professionals, and to show widespread significant differences between the paraprofessionals.

Discussion

The implications of this study are far-reaching, especially in light of its focus on the attempted solution to very critical problems within the mental health system. In particular, there are implications for
paraprofessional and professional training, the mental health system, and the development of a body of theory and research for the study of individual-system interactions.

For the newly-developed paraprofessional programs, these results have some definite implications for the future. First, it seems very apparent that the different systems offer very different experiences for the paraprofessional. Paraprofessionals in the PSLC systems need to be prepared for role expectancies that include flexible, open, and active functioning, and demands similar to those imposed on the professionals. Their counterparts in the MIC systems need to be prepared to confront role expectancies that include markedly less active, varied, influential and satisfying functioning. In order to be responsive to this differential utilization of its graduates, paraprofessional training programs will need to incorporate flexible and diverse training patterns. For the MIC-bound graduates, training will need to address ways in which the paraprofessionals can work within the system to promote fuller utilization of their ideas and skills. Realizing the potential gulf between training and on-the-job performance, training programs themselves must engage in increased, ongoing negotiation with the mental health system to create a viable role for paraprofessionals. Training program evaluation must not only assess ability and performance of paraprofessionals during and immediately after training, but transfer of learning to on-the-job functioning as well. It is only by acting in these ways can paraprofessional training programs insure the optimally-effective utilization of their trainees, and hence be responsible and accountable for the vast amount of human and financial resources invested in their programs.
With regard to professionals' training, one implication here is that these programs have an obligation to begin having professionals assess and redefine their roles, their "inherited" status, and their resources. There is evidence here to suggest that training a professional to assume the top hierarchical positions not only may have negative implications for the mental health system and its paraprofessionals, but also may be costly to the professional personally in terms of lower job satisfaction, higher frustration, a perceived loss of self-influence and a lower attraction to one's work team. The process of defining a professional role that does not need to rest on a presumptive status, but rather on competence, and of defining a professional role that can maximize the benefits of professional-paraprofessional teamwork needs to begin in the formative training process.

The findings of this study also have meaningful implications for the mental health system. It was stated earlier that the development of paraprofessional personpower had the purpose of meeting the very critical problems of personpower shortages and inequality of service delivery. The findings of this study indicate that the simple introduction of paraprofessionals into MIC systems will not solve these long-range problems. The significantly lower job satisfaction, team attractiveness, and limited role functioning of the MIC paraprofessional all seem to be valid predictions of a short work-life, high absenteeism and turnover, for these MIC paraprofessionals. If such is the case, the need for more personnel will simply be a recurrent one for MIC systems. In addition, MIC systems cannot make a strong appeal to alienated consumers, as long as it alienates those staff within the system that most resemble these same consumers.
Finally, there is no available evidence that would indicate that the paraprofessionals with the greatest skills are going to PSLC systems. Therefore, the inescapable conclusion is that MIC systems are under utilizing the skills and resources of its paraprofessional staff. It seems a reasonable and just demand that the mental health system in general be held accountable for determining how these new paraprofessional resources can be exploited most fully and effectively. Only in this way will the system begin to provide a viable solution for its major problems.

Regarding implications for individual-systems interaction theory and research, this study has accomplished the empirical establishment of the existence of a relationship between individual functioning and systems characteristics. This was a major purpose of this study, and in and of itself, is a major finding. The study adds both theoretical and empirical contributions that should be important in further attempts to refine our understanding of individual-systems interactions. It has also established that the quality of that relationship is different for people with different status. In this regard, the study has accomplished its purpose. In another regard, it is simply a first step in the empirical process. The conclusions here lead to necessary subsequent formulations of how this relationship is established and what are the mediating mechanisms.
Footnotes


2One might hypothesize a theoretical distribution for the MIC-PSLC continuum to be from MIC - 0% to MIC - 100%, with a mean of 50%.

Given the current status of the community mental health program, it seems more realistic to speculate that the distribution is skewed toward the MIC - 100% end. A natural break in the distribution of the data occurred with two different clusters resulting, one from 49% to 55% MIC and another from 65% to 80% MIC. Thus, it was decided that a cut-off of 55% would be more realistic.
References


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