FAMILY MEMBERS AS CASE MANAGERS:

PARTNERSHIP BETWEEN THE FORMAL AND INFORMAL SUPPORT NETWORKS

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Introduction

In his analysis of the family's role in the care of the elderly, Sussman (1977) posited two main functions, that of direct and indirect care provider. The literature contains numerous descriptions and analyses of the important contribution made by the family as direct care provider (Broder, 1985; Brody, et al, 1978; Lowy, 1983; Shanas and Maddox, 1976). However, while the role of the family as indirect care provider has been mentioned in the literature (Silverstone, 1979), this case management function has received considerably less attention than its direct care function. Sussman (1976) noted that if the aged are to survive in a bureaucratic world and receive entitlements, then they must learn to cope with formal organizations. In this context, it is usually the family who is called upon by the elderly person to deal with the formal service system and is thus placed in an "interstitial position between the elderly individual and the organization" (Sussman, 1976, p. 221). In Sussman's conceptualization, the family serves as facilitator, protector, advocate, buffer against the bureaucracy, and source of information about housing, pensions, medical care and other service options. While the formal service sector can fulfill all of these functions, the history and continuity of a family member's interest in an elderly relative enhances the family's potential to serve as a case manager. Indeed, Lowy (1985) noted that case management (which he calls care management) is the most important care providing function that a family can fulfill on behalf of an elderly relative.

Case management has emerged as a useful strategy with which to respond to a fragmented and complicated service delivery system (Austin, 1981; Brody, 1979; Monk, 1981; Steinberg and Carter, 1983; Wylie and Austin, 1978). Case management is a service coordination mechanism designed to provide multiple services to clients with complex needs. It attempts to reach out to clients, promote service awareness, provide a needs assessment, develop a service plan, and finally, ensure that clients receive prescribed services. Among the activities included in the case management function are screening, assessment, care planning, service arrangement, service provision, service monitoring, linkage and reassessment. The essence of the case management approach is to establish responsibility for the coordination of services within a single locus of control. Service control is retained by the case manager who acts as consultant and facilitator, integrating and individualizing services and establishing an ongoing personal relationship with the client.

In their review article on case management, Cantor et al (1981) noted that families are often called upon to plan services

on behalf of relatives and to perform other case management functions. However many families are insufficiently aware of community entitlements and resources, and hence require information and training to make them effective consumers and case managers of community services (Silverstein et al, 1985). The need for social service agencies to provide direct training to families in case management has been recognized (Schlesinger et al, 1980; Tuzil, 1978; Walz, 1975). However, while the literature is replete with exhortations for professionals to cooperate, collaborate and coordinate their services with the informal support system, there is little specific guidance on how sharing is to be accomplished. Smyer (1980) noted that currently there is a paucity of information about the best methods of collaboration between the formal and informal service systems.

As a response to the need to form a partnership between the formal and the informal support systems of elderly persons, the Jewish Family and Children's Service of Greater Boston and the Boston University School of Social Work collaborated in a research and demonstration project designed to train family members of elderly persons as case managers. The purpose of this paper is to present the findings of this study and to address the following research questions:

(1) Can family members be trained to increase their responsibility for the case management of services for their elderly relatives?

(2) Can the training of family members in case management be accomplished without increasing costs for the social service agencies that conduct the training?

(3) Are the service needs of elderly persons adequately met when their case management is provided by family members in partnership with a social worker?

(4) What are the characteristics of family members who are most likely to assume case management responsibility for their elderly relatives?

Method

Subjects

Starting on January 1, 1982, and continuing for two full years, all elderly persons who were referred to the Jewish Family and Children's Service, with several exceptions, were invited to participate in the study. The exceptions were: 1) individuals requiring information and referral only; 2) emergencies requiring a response within 24 hours; and 3) persons unable to understand the informed consent form.

In total, 264 elders were viewed as appropriate candidates for the study. They were told that if they elected to participate in the study, a family member or close friend of their

choice would be interviewed by the social worker and in some cases would work with the social worker on case management. Elders who were reluctant to have a family member participate in case management were encouraged not to volunteer for the study. Fully 202 (77%) agreed to participate, and were randomly assigned to either the experimental or control groups. Subsequently, 45 cases were dropped from the study due to unavailability of family members (n=17) or early termination of agency services (n=28). The final sample consisted of 81 experimental group and 76 control group elderly clients and their designated family members. Table 1 presents the characteristics of the 157 elderly persons and family members. Nearly all elderly sample members (96.1%) were Jewish.

Procedures

In both the experimental and control groups, elderly clients and their families received the usual services provided by the agency, including counseling, crisis intervention, and concrete services (e.g., homemakers, transportation). All services were provided by Master's level social workers assigned to the agency's Unit for Older Persons. In addition, those families who were assigned to the experimental group received the family-centered training, which was delivered individually through contact between the social worker and the family member. The training program, which has been described in detail elsewhere (Seltzer et al, 1984; Simmons et al, 1984), consisted of four components:

a. the expectation that the participating family member, who was identified by elderly client, would assume responsibility for the performance of at least one new case management task, dictated by the needs of the elderly client, during the course of agency service.

b. collaboration between the social worker and family member on the development of a case management service plan for the elderly client, and social worker. This plan was to be signed by both the social worker and family member as an indication of their willingness to share responsibility. There was space on this form to keep track of who performed each task (social worker, family member, elderly client, other) and the status of each task (successfully completed or not).

c. provision to the family member of information on community resources and entitlements. Family members received the following five training booklets specifically developed for the project:
   - o Guide to In-Home Services
   - o Guide to Housing, Day Care, Respite Care and Nursing Home

- o Guide to Transportation and Social Opportunities
- o Guide to Financial Entitlements and Legal Protective Services
- o Guide to Advocacy

d. regular contact with family members via telephone or in-person meetings on a bi-weekly basis or more often. The objectives of systematic contact between the caseworker and the family member were: 1) to provide individualized consultation on how to perform assigned case management tasks; 2) to monitor case management performance; 3) to provide supportive counseling; and 4) to ensure on-going assessment of client needs.

The purpose of the control group in this study was to provide an indication of how the family members in the experimental group would have functioned if they had not received the training. As noted above, it is common for families of elderly persons to perform some case management functions without the benefit of any special agency involvement. The control group revealed whether the experimental intervention altered the level of family member's case management involvement from where it would have been had training not been provided.'

Two social workers were assigned to the control group and two to the experimental group, with no mixed caseloads. All data were collected by the social workers themselves. Inter-rater reliability, as measured by percentage of agreement, was 93%.

Measures

The independent variable was experimental vs. control group membership. There were six dependent variable domains:

A. Case Management: The extent of case management (CM) performance by social workers, family members, and elderly persons was assessed by ten measures:

1. performance of at least one new CM task by family member
2. performance of at least one new CM task by elderly person
3. number of new CM tasks performed by family member
4. number of new CM tasks performed by social worker
5. number of new CM tasks performed by elderly person
6. number of new CM tasks completed by family member
7. number of new CM tasks completed by social worker
8. number of new CM tasks completed by elderly person
9. total number of new CM tasks performed
10. total number of new CM tasks completed

The first two of these measures reflected the minimum level of case management performance. Measures 3, 4, 5, and 9 reflected the number of case management tasks which family

members, elders, and social workers agreed to perform. Measures 6, 7, 8, and 10 indicated the success of case management performance by each of these individuals as defined by satisfactory task completion prior to agency termination of service to the client. "New" case management tasks were defined as those which were not being performed at the time of service initiation by the agency. Those included tasks never performed on behalf of the elderly person and those performed in the past but not at the point of case intake.

B. Duration of service: the duration of service was measured by the number of days between case intake and termination of service.

C. Services delivered: the extent of services delivered to the elderly person was measured by:
   1. number of services received by the elderly person at the time of case termination.
   2. number of unmet service needs as defined by the number of needed services minus number of received services. Judgments about the need for each service category were made by the social worker assigned to the case.

D. Informal support network: the informal support network was assessed by the following eight measures:
   1. the number of children of the elderly person.
   2. the number of siblings of the elderly person.
   3. whether the elderly person had a spouse.
   4. the frequency of in-person contact with children measured on a 7-point scale, with 1 signifying once a year or less, 2 signifying several times per year, 3 signifying monthly, 4 signifying several times a month, 5 signifying weekly, 6 signifying several times a week, and 7 signifying daily.
   5. the frequency of in-person contact with siblings, measured on the same 7-point scale.
   6. the frequency of phone contact with children, measured on the same 7-point scale as for in-person contact.
   7. the frequency of phone contact with siblings, measured on the same 7-point scale.
   8. the strength of the informal support network, as judged by the social worker on a 4-point scale, with 1 signifying no support, 2 signifying some support, 3 signifying sufficient level of support, 4 signifying an extremely high degree of social support.

E. Health and functional abilities: the health and functional abilities of the elderly subjects were assessed by six measures:

1. physical health rating of the elderly person as rated by the social worker on a five-point scale, with a score of 1 signifying totally impaired, 2 signifying severely impaired, 3 signifying moderately impaired, 4 signifying mildly impaired, 5 signifying good physical health.
2. number of health problems reported by the elderly person.
3. activities of personal daily living performance by the elderly person as assessed by the Barthel Scale (Mahoney & Barthel, 1965); scale ranges from 16, signifying totally dependent to 64, signifying totally independent. Internal consistency reliability (alpha) was .96.
4. performance of instrumental activities of daily living by the elderly person; scale ranges from 14, signifying totally dependent to 56, signifying totally independent. Internal consistency reliability (alpha) was .94.
5. mental functioning rating of the elderly person by the social worker on a five-point scale, with a score of 1 signifying severely disoriented, 2 signifying somewhat disoriented, 3 signifying occasional memory lapses, 4 signifying substantially intact, and 5 signifying good mental functioning.
6. percentage of elderly persons who died during the course of agency service.

All judgments (measures 1, 3, 4, and 5) were made by the social worker assigned to the case.

F. Residential Status: the residential status of the sample at post-test was assessed by the percentage of elderly persons who lived in community vs. institutional settings.

Hypotheses and Analytic Strategy

It was hypothesized that the independent variable (experimental vs. control group status) would have an impact on the first three of these dependent variable domains (case management, duration of service, and services delivered) but not on the last three (informal support network, health and functional abilities, and residential status). If the training in case management had its desired effect, there should be discernable differences between the experimental and control groups in the distribution of case management tasks between social worker and family member, in the duration of service delivery, and in the degree of unmet service needs of the elderly client upon termination of agency services. Specifically, it was hypothesized that experimental group family members would perform a greater number of case management tasks than controls, that experimental group social workers would perform fewer case management tasks than controls,

that the duration of service would be shorter for experimental group elders than controls, and that experimental group elders would have fewer unmet service needs than controls.

In contrast, no differences were hypothesized between experimental and control group cases with respect to the elders' informal support network, the health and functional status of the elderly subjects, or their residential status at case termination, These domains were not viewed as being dependent upon family performance of case management responsibilities. Data were collected about these three domains for descriptive purposes and in order to detect unanticipated positive or negative effects of the experimental intervention. The research of Blenkner et al (1971) highlights the need for monitoring unanticipated consequences of social gerontological interventions.

Experimental and control group elderly clients and family members were compared on the 15 background variables listed in Table 1 in order to determine whether the randomization procedure was successful in producing comparable groups. No significant differences were found for any of these variables at the $p < .05$ level. The statistical analyses included t-tests (two-tailed) and hierarchical multiple regressions, with the .05 level of significance used in all analyses. The Statistical Package for the Social Sciences (Nie et al, 1975) was the computer package used to analyze the data.

Results

As shown in Table 1, at pre-test the elderly clients in the sample were predominantly female, averaged over 80 years of age, and were moderately impaired in health and mental status. While they were nearly independent in their personal activities of daily living, they had more difficulty with instrumental activities of daily living. At pre-test (i.e., prior to the onset of agency service), these elderly clients received an average of two services from formal service providers.

The family members were related to the elderly clients as follows: child (57%), sibling (10%), spouse (6%), other relative (21%), or friend (6%). In that their average age was 62, this study involved the "young old" serving as case managers for the "old old". Nearly all family members were employed in either full or part time jobs in addition to being married. In addition to these commitments, they had very frequent in-person or telephone contact with their elderly relatives, averaging once a week for in-person contact and several times per week for telephone contact. The performance of case management tasks was not new to these family members, as they had in the past performed an average of six case management tasks on behalf of their elderly relatives.

Table 2 presents the post-test comparisons between experimental and control group cases with respect to each of the six dependent variable domains. regarding case management, family members in the experimental group were significantly more likely to perform at least one case management task than control group family members (88% vs. 62%, respectively), as hypothesized. They also performed and completed significantly more case management tasks than those in the control group.

As additional evidence that the training intervention facilitated the sharing of case management responsibility between family member and social worker, the social workers in the experimental group were found to perform significantly fewer case management tasks than those in the control group, as hypothesized. Unexpectedly, the elderly clients in the control group were found to be more likely to perform at least one new case management task than those in the experimental group (53% vs. 22%, respectively), and to perform and complete significantly more case management tasks than those in the experimental group. There were no differences between the experimental and control groups in the total number of case management tasks performed or completed.

The duration of service was significantly shorter for the experimental than the control group by nearly 80 days per case, on the average. Further, while control group cases received significantly more services than experimental group cases, there was no difference in their number of unmet service needs.

Finally, as hypothesized, there were no between-group differences in the health, functional abilities, or mental functioning of the elderly clients. In addition, the experimental and control groups did not differ in the percentage of deceased elders (8% bs. 3%, respectively), or in the percentage of survivors who lived in institutional settings at case termination (22% vs. 21%, respectively).

Tables 3, 4, and 5 present the results of the hierarchical multiple regression analyses in which the dependent variables were number of new case management tasks performed by the designated family member, the social worker and the elderly client, respectively. The same set of independent variables was used in each regression analysis, including experimental/control group status, five background characteristics of the elderly client (age, sex, health status, mental status, and ADL skills), and four background characteristics of the designated family member (age, sex, frequency of visits with the elderly person, and number of case management tasks performed prior to agency contact). All of these variables were assessed at pre-test and were selected because they represent the type of information usually available to health and social service agencies at the point of client referral. Furthermore, it is possible that these

variables could be useful in identifying predictors of case management performance by family member, elderly person, and social worker.

Together the ten independent variables explained 39% of the variance (R^2) in the number of case management tasks performed by family members (see Table 3). The two largest predictors were the mental status of the elder and whether the family member was in the experimental or control group. A low score on the mental status rating and the family member being in the experimental group were associated with more case management performance by the family member. The number of case management tasks performed by family members prior to agency contact explained less than 1% of the variance in the number of case management tasks performed during agency contact.

As shown in Table 4, the ten independent variables accounted for 26% of the variance (R^2) in the number of case management tasks performed by social workers. Social workers were likely to perform more case management when the family member was older, when the elder had poorer ADL skills, and when there was less contact between the elderly person and the family member.

Fully half of the explained variance in the number of case management tasks performed by elderly clients on their own behalf was accounted for by the age of the elderly person, with younger clients found to perform more case management tasks (See TAble 5). Not unexpectedly, a higher mental status rating was predictive of more case management performance by the elderly clients.

Discussion

While the literature contains a number of references regarding the potential for families of elderly persons to assume case management responsibility on behalf of their elderly relatives, there is little specific information available on the extent to which families actually fulfill this important function. This study described the distribution of case management performance among family member, social worker, and elderly person during a period of formal service provision.

The control group, in which there was no agency training or elevated expectation for family performance of case management, provided an estimate of the typical level of case management performance by each of these potential partners. Surprisingly, as many as 62% of the control group family members performed at least one new case management task while their elderly relative was receiving service from the agency social worker, and the average number of new case management tasks performed by control group family members was 1.6. These tasks were in addition to the 5.6 case management functions that they had performed on behalf of their elderly relatives at any time prior to the

beginning of agency service. Thus, the performance of case management appears to be a normative function for family members of elderly person, especially when the elders reach their 80's.

The comparison between the level of case management performance in control and experimental group family members gives an indication of the impact of the training intervention. Fully 88% of the experimental group family members performed at least one new case management task during the study period (an increase of 40% over the control group). Furthermore, the average experimental group family member performed twice as many case management tasks as his/her counterpart in the control group. Thus, the training intervention boosted the level of family performance of case management substantially.

A complementary finding was that social workers in the experimental group performed significantly fewer case management tasks than control group social workers, without resulting in a higher level of unmet service needs for the elderly client. Another effect of the agency-family partnership was the substantial difference in the duration of agency service between the experimental and control groups, with the experimental clients completing service near4ly 80 days earlier than control group clients. Thus, the cost-benefit ratio of this training intervention appears to be favorable.

The shorter duration of service was not found to impact negatively on clients, as the two groups did not differ in residential status, health, or functional abilities at post-test. In this context it was interesting that the control group elderly clients received significantly more services during the course of agency service than those in the experimental group. In light of the comparability of the two group in degree of unmet service need, residential status, health status, and functional status, one explanation for the greater number of services received by the control group might be that nonessential services were provided to them during the extra 80 days that they were carried as cases of the agency.

The elderly client in this study, though quite old, moderately frail, and not a targeted partner in the family-centered intervention, was found to be an active partner in case management. In the control group, fully 53% of the elderly clients performed at least one new case management task during agency service even though there was no special expectation that they should do so. However, only 22% of the elders in the experimental group performed at least one new task, perhaps because the experimental group social workers' focus on the family unintentionally resulted in a diminution of the role of the elderly person.

Two points are noteworthy regarding the role of the elderly person in case management. First, while previous researchers and practitioners have conceptualized the role of the family member as case manager in conjunction with the formal service system, the elderly person as case management partner has received less attention. The need for case management ordinarily arises when a person is no longer able to coordinate services on his or her own behalf. Yet, it may not be necessary for an elderly person to completely relinquish this role to either the formal or informal support system. The fact that over half of the elders in the control group performed new case management tasks in the absence of special training or support suggests that elders should be seen as potential case management partners who can share responsibility with social workers and family members. Their willingness and ability to do so could perhaps be increased if elders, like family members, were provided with informational booklets and ongoing training and support.

Second, the risks and benefits of expecting elders-particularly the old-old - to do their own case management should be explored. While on the face of it, increasing an elderly person's autonomous performance of case management appears to be desirable, there undoubtedly will be instances in which elders are too frail to be asked to do so. Future research should thus examine not only the feasibility but also the desirability of extending the family-centered training to the elder.

The results of the multiple regression analyses suggest the potential of a triage approach in the identification of who should assume responsibility for case management. When elders are confused, have poor functional skills, and when there is frequent contact between elder and family member, it seems appropriate for the social service agency to reach out to the family member and provide case management training and support to him or her. Alternatively, when the elderly client is younger and not confused and when there is less frequent contact between the elder and the family member, the best approach may be to provide case management training and support directly to the elderly person. Finally, when the elder has impaired functional skills, has less frequent contact with a family member, and when that family member is elderly, it may be necessary for the social worker to take primary responsibility for case management.

The finding of this study suggested four additional research questions, each of which is currently being investigated. First, are the effects of the family centered training durable? Do trained family members continue to assume responsibility for case management once the formal service sector is no longer involve? A follow-up study of half of the sample is currently being conducted in order to address these issues. Second, how generalizable are the findings of this study to the general population of elders and their family members? As nearly all sample

members were Jewish and family members were generally middle-class, it is not known whether the same pattern of findings would emerge with different racial, ethnic or socioeconomic status groups. A replication study with a mixed sample will begin shortly. Third, can the case management training be delivered in formats other than individual case by case training conducted by social workers? The replication study will examine the efficacy of group training and booklets-only training formats as well as individual training. Finally, can the elderly person be trained to serve as a member of the case management team along with or independent of the family member? The replication study will also examine this question.