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TRANSITIONS IN LONG-TERM CARE

Care transitions can be defined as "a series of movements back and forth from one functional state to another and from one service setting to another" (Kane & Kane, 1989, p. 218). For individuals in long-term care, the concept of care transitions is extremely important. The natural history or trajectories of chronic illnesses treated within long-term care are cyclic and prolonged and are quite different from the episodic trajectories of acute illnesses. For many long-term care recipients, health problems are never absent regardless of the medical treatment; they are only better or worse. The cycles of "better" and "worse" often are characterized by repeated hospitalizations and subsequent movement among multiple treatment settings (e.g., nursing homes, home care, residential care facilities). Critical issues such as continuity of care among treatment settings, monitoring and supporting the client and the family to suppress the triggers of exacerbation cycles, and adapting treatments and treatment environments to maximize function, to prevent iatrogenic illness, and to prevent premature functional decline are central to meeting the needs of individuals in long-term care. The concept of care transitions is also important for a discussion of nursing research priorities. The need for nursing care is the common theme that characterizes all individuals who require long-term care, regardless of the treatment setting. Whether the focus of the problem is on the need to maintain or enhance existing levels of competence or the need to remediate deficits in competence, these particular problems fall squarely within the domain of nursing practice. Because the necessity for nursing care across settings is central to the illness experience of all individuals in long-term care, there is an unequivocal need for nurses to document the problems inherent in care transitions and to devise research-based strategies to reduce the problems associated with care transitions.

State of the Science

Nature of Transition Problems

This overview of research on the nature of transition problems is, to a large extent, taken from the comprehensive review by Robert and Rosalie Kane found in *Aging and Health Care: Social Science and Policy Perspective*, Table 10.1 and 10.2, pp. 222-227, 232-233 (Ory & Bond, 1989). Although clients within the long-term care system often are dichotomized into two groups, long-stayers and short-stayers, this may be an erroneous view. Long-stayers, approximately 90 percent of the residents in nursing homes, are likely to have some form of dementia. Short-stayers, the other 10 percent of residents, are often individuals with diagnoses such as hip fracture, stroke, or some condition for which intensive rehabilitation is useful. This dichotomization fails to describe fully the experience of an individual client. For example, some short-stayers simply may be individuals who require the same kind of care as long-stayers who are discharged from the nursing home to the hospital due to an acute illness or transferred to another long-term care setting (e.g., another nursing home).

Movement from Nursing Homes. Manheim and Hughes (1986) followed a sample of older persons at high risk of institutionalization over a 4-year period. Only 8 percent of the individuals who left the nursing home were permanent discharges to the community. Ninety-two percent of the discharges were temporary; that is, the individual was soon readmitted. Most of the temporary discharges were to a hospital. It appears that most admissions to nursing homes are permanent. There is some cycling between long-term care and acute care, but because

there are few permanent discharges, it is more accurate to consider the transitions between long-term care and acute care as part of the same episode of care. Many studies indicate that approximately one-fourth of the discharges from nursing homes are due to deaths, with the remainder split between discharges to hospitals and homes. There appears to be enormous dynamic, cyclic movement among settings (Kane & Kane, 1989).

Retsinas and Garrity (1986) studied 419 residents discharged from a proprietary nursing home to predict the factors important both to discharge and tenure. Factors evaluated were age, gender, past residence, prognosis, and family ties. The factors important in predicting nursing home discharge included time spent within the institution, the presence of a living relative, the resident's previous home, and the initial admission prognosis, with prognosis being a key factor for both discharge and tenure. The authors hypothesized that 1) nursing home residence is inherently iatrogenic (thus, short-term residents are more likely to be discharged); 2) residents with living relatives and those who lived in the community previously are more likely to return home; and 3) the resident's perceived ability to function in the community, which is related to the resident's initial prognosis, influences the probability of discharge. After analyzing the discharge data, Retsinas and Garrity (1986) concluded that the reason many people never leave the nursing home is not because nursing home life is inherently iatrogenic, or because these residents have no families. The evidence from this study suggests that the nursing home is an end-stage home for most people admitted with a negative prognosis.

Lewis, Cretin, and Kane (1985) examined the natural history of care and use of health services following nursing home discharge until death or 2 years after discharge. A random sample of 24 nursing homes, stratified according to bed size, was identified from 47 facilities in the San Bernadino area of California. Data on characteristics at admission, length of stay, and discharge status were collected from the medical records of 197 persons who were admitted to a nursing home for the first time. Of 123 persons who survived the initial nursing home discharge, 39 percent were transferred between nursing home and hospital two or more times, and 21 percent were transferred four or more times. There were four subsets of patients: single admission patients who died quickly; single admission patients with good functional status who returned home; multiple admission patients who tended to be incontinent; and confused patients with poor functional status. The investigators considered the relationship between patient characteristics on admission to a nursing home and subsequent outcomes at discharge and two years after, including discharge to home, transfers to skilled nursing facilities, transfers to hospitals, and death. Findings showed that upon discharge 28 percent of the sample went home or to community facilities. Thirty-six percent went to a general hospital where 11 percent died and 25 percent returned to nursing homes. Of 529 discharged individuals, only 38 were alive and at home at the end of two years; 401 had died. Mental orientation, urinary incontinence, functional status, hip fracture, and dementia were predictors of immediate and followup outcomes (Lewis, Kane, Cretin, & Clark, 1985).

Gordon, Kane, and Rothenberg (1985) looked at acute hospital transfers from a 229-bed home for the aged. The symptoms and signs leading to hospitalization, the diagnosis established, and the various outcomes were explored. Data on a population of 239 persons hospitalized 503 times in a 4-year period were analyzed; subjects were followed for 1 additional year. Four variables were significantly associated with death at 6 months after the first hospitalization. These were age, hospital complication, surgical procedure, and a diagnosis of acute myocardial infarction. Shapiro

(1983) examined hospital utilization patterns of elderly decedents as compared with elderly survivors. Decedents, who accounted for 5 percent of the study populations, used 20 percent of the total hospital days. It is important to note that impending death raised the odds of hospitalization sixfold for those aged 68 to 74, sevenfold for those 75 to 84, and fivefold for those 85 and over. Once admitted to the hospital, decedents were 52 times more likely than survivors to use more than 18 hospital days. Advancing age lowered the relative odds of high use among decedents, but gender had almost no effect. Kayser-Jones, Weiner, and Barbaccia (1989) conducted an ethnographic examination of the clinical and social-structural factors that contributed to the hospitalization of nursing home residents. These factors were related to insufficient nursing staff and staff unprepared to perform procedures such as intravenous therapy or to monitor or report impending serious clinical problems (e.g., dehydration or infection). The authors report that in 48 percent of the cases, hospitalization could have been avoided had appropriate nursing care been delivered and adequate support services been provided.

In summary, studies of hospital admission from a nursing home suggest that there is substantial movement between long-term-care facilities and hospitals, although the factors associated with moves are not always clear. It should be noted also that the studies cited were descriptive, but none except Kayser-Jones et al. (1989) described the kind of nursing care delivered to patients in nursing homes prior to admission to the hospital. Descriptive studies, particularly longitudinal descriptive studies, of nursing care are greatly needed.

Movement to Nursing Homes. Kane and Kane (1989) reviewed studies of patient movement from hospitals to nursing homes and noted that the information is surprisingly limited. Very few studies traced the outcomes of patients discharged from hospitals or identified those characteristics associated with increased likelihood of admission to nursing homes (Kane and Kane, 1979). Stark, Gutman, and McCashin (1982) conducted a study examining transitions between acute care and long-term care (including the number of admissions to long-term care directly from acute-care settings versus the community), the number of long-term-care persons hospitalized at least once in the 12 months after admission to long-term care, and the outcomes of these hospitalizations. This descriptive study included 3,518 clients admitted in 1978 to home care or nursing home services at any one of five levels of care in two health care units. One unit was urban and one semi-rural in the British Columbia long-term-care program. About 20 percent of new admissions to the long-term-care program were from an acute-care hospital. Only 37 percent of the admissions were to nursing home care, mainly at the urban study area. About 75 percent of the clients had no acute-care admission in the first year, and about 50 percent of those with such admissions returned to the facility and care level from which they had come. In the same study, Stark, Kliwer, Gutman, and McCashin (1984) found that 54 percent of clients admitted to the lowest level of home care were still in the program after three years, about 50 percent at the same place and level of care. A higher proportion of home care clients than facility clients remained unchanged at year one. Twenty-five percent of those admitted to the highest level of home care, and 14 percent admitted to the highest level at facilities, remained in the program for three years. Moves to a lower level of care from the highest level were infrequent.

Kane, Matthias, and Sampson (1983) conducted a pilot study of ten non-teaching hospitals and one large area teaching hospital in West Los Angeles. Records of nursing home patients admitted directly from acute hospitals were studied to identify those at nursing home risk. Of the nine percent discharged to nursing homes, those age 85 and over were ten times more likely to be institutionalized than those age 65. Women were twice as likely as men to be admitted to nursing homes, and patients diagnosed with mental illness were more likely to be admitted than those with physical illness. The teaching hospital was less likely than the non-teaching hospital to discharge patients to nursing homes. Lamont, Sampson, Matthias, and Kane (1983) gathered data on elderly persons admitted to a 290-bed county community hospital in California. The medical records of 203 patients age 75 and over, who were discharged from hospital in 1981, were analyzed. Information

collected included demographic variables, admission source, discharge location, diagnosis, procedures, complications, and social support. The most important predictors of functional deterioration were older age (especially age 85 and over) and abnormal mental status. When discharge location was compared with admission source, 47 percent of the patients remained at the same level of care following the discharge; the rest required a higher level of care. Elderly surgical patients were three times more likely to return to baseline functioning than medical patients. Davis, Shapiro, and Kane (1984) studied the extent to which persons age 75 and over, admitted to a university teaching hospital, received supportive care or a nursing home placement at discharge. Demographic information was collected from 233 consecutive patients admitted to the medical service of the hospital. Charts were reviewed for evidence of hospital-associated complications and discharge diagnosis. Few medical patients (6 percent) were placed in nursing homes after discharge. Sixty-five percent returned to the same level of care as on admission, 10 percent returned home at an increased level of care, and 18 percent died or were discharged to another acute facility. Of the variables studied (age, female sex, being unmarried, and abnormal mental status during hospitalization), only abnormal mental status significantly correlated with nursing home placement.

In a study by Narain et al. (1988), factors predictive of short- and long-term outcomes for hospitalized elders in an acute-care Veterans Administration hospital were identified. All patients age 70 and over admitted to acute-care beds on the medical service wards during a one year period were included in the study. Factors most predictive of six month mortality were decreased functional status, admitting diagnosis, and decreased mental status. Factors most predictive of nursing home admissions were decreased functional status, living location, and decreased mental status. Functional status was a stronger predictor of length of stay, mortality, and nursing home placement than was principal admitting diagnosis. The authors note that these data may be helpful in improving discharge planning, in resource allocation, and in targeting patients for different specialized geriatric programs. Rubenstein et al. (1984) indicated that a careful interdisciplinary assessment that identifies high-risk cases has been shown to produce dramatic effects in reducing subsequent long-term care utilization, reducing mortality, and improving function. Clearly, studies of this nature would need to be replicated, but they point to the potential positive outcome of an investment in assessment and placement programs, at least at the point of discharge, for those presently targeted for nursing homes.

Issues of Community Care. Turning attention to the issues of care provided in the community, researchers at the University of Washington noted several areas of concern on the part of community health agencies. These include: 1) the demand for increased time needed by agency staff to provide care adequately; 2) an increased demand for personal care services including home health aides, choreworkers, and housekeepers; and 3) the lack or limited availability of needed community resources such as extended care, meals on wheels, and transportation (Pesznecker, Horn, Werner, & Kenyon, 1987). Branch, Katz, Kniepmann, and Papsidero (1984) did a six year prospective study estimating the functional status of white elders living in the community. Data were analyzed according to age, gender, and previous functional status. A Massachusetts statewide, stratified-area probability sample comprising 1,625 elderly respondents was interviewed in 1974 with followup in 1976 and 1980. About 50 percent of the sample remained independent in activities of daily living for the six year period. Those age 85 and over had three times the probability of being dead or dependent, and seven to nine times the probability of being in a nursing home. Of those dependent at baseline, one-quarter to one-third regained independence at the end of 15 months. One-fifth regained independence at the end of five years. The increased acuity level in the home raises clinical issues for which we do not have a knowledge base. For example, what type of nursing interventions are appropriate when older persons are discharged from the hospital before they or their families are able to master the complex treatment regimens they must manage? At this point, there are no reliable screening tools to determine the characteristics of families or caregivers who are capable of learning and managing complex and highly technical procedures. The increase

in acuity level of persons receiving home care services has created a situation in which community agencies are hiring nurses experienced in acute care to provide home health care. We do not know the effects of using nurses with no community nursing background in such positions.

Similar increases in severity levels are being recognized in nursing home admissions, with greater potential for acute episodes. Thus, there is a greater risk of hospitalization that in some cases could be avoided by improving the ability to provide acute care in nursing homes. A pilot study designed to enhance such care was conducted by the ACCESS program of Rochester, N.Y. Medicare waivers were used, allowing for payment of increased per diem rates, payment for diagnostic evaluation, and increased rates for daily physician visits, as necessary, to care for acute illnesses in the facilities contracting for the program. A retrospective evaluation concluded that 60 percent of the first 112 patients found eligible for the program very probably were saved a hospital admission (Zimmer, Eggert, Treat, & Brodows, 1988).

The ethically complex interface between acute care and long-term care arises when highly technical and intensive nursing care are provided for persons at the end of life. From a clinical perspective, there is little or no research on which to base clinical decisions regarding who would benefit from receiving such care. Are there ways to make initial assessments in emergency situations that would allow us to predict who would benefit from such care? From an ethical perspective, we know little about the consequences of rationing highly technical care based on the expected functional outcomes of the patient.

Innovative Programs

The delivery of nursing services to older persons in need of long-term care is complex for the same reasons that long-term care in general is complex. Our systems for the delivery of such services are underfunded, inadequate, disorganized, and complicated by ephemeral eligibility and reimbursement guidelines. The current and projected increases in demand for long-term nursing care are accompanied by an unprecedented focus on the reduction of costs for such services. Within this context, and to some degree because of it, several innovations in care have been evaluated over the past two decades. This section reviews the research related to these demonstrations and includes: 1) long-term-care demonstration projects; 2) case management; and 3) teaching nursing homes and geriatric nurse practitioners (GNP's)/geriatric nurse clinicians (GNC's). These topics relate to the delivery of nursing care to older persons in need of long-term care, and each has both clinical and organizational components.

Case Management. The term "case management" is found throughout the literature regarding long-term care of older persons. However, much of the developmental work related to case management was done in the area of chronic mental illness. In the long-term care literature, case management generally is viewed as including the functions of case finding, assessment, care planning and implementation, and monitoring (Kane & Kane, 1987). However, as noted by Austin (1987), there is considerable variation within and across agencies in the implementation of the case management role. In some situations, case managers serve as service brokers for an institution, rationing services according to eligibility guidelines. In others, case managers contract with individuals or families to coordinate the services needed by the older person. Some case management models currently being tested involve services outside of the hospital to reduce the use of emergency rooms and to reduce patients' acuities on admission, thus reducing the length of hospital stay (Ethridge & Lamb, 1989). Preliminary evaluations of these case management models are under way. Public health and visiting nurses traditionally have considered their roles to include case management. However, there is very little nursing literature available on the consequences of designing case management or defining its functions in a particular way by the professional doing the case management, based on her/his background and training (Kane & Kane, 1987). The literature that does exist suggests that case managers may be particularly effective at transition points, for example, in shortening the time

older persons spend in nursing homes by hastening their return to the community (Miller et al., 1984). Data from the ACCESS program, for example, indicate that intensive, personalized case management, as compared with standard low intensity case management, was more effective in reducing hospital days, home health, transportation, and other services (Zimmer, Eggert, Trent, & Brodows, 1988). The area of case management is expanding exponentially. However, like many of the intervention strategies used in nursing, evaluations often are designed poorly, data among studies often cannot be compared, and the definition of the independent variable is theoretical. Tremendous improvements are required before the validity of these studies can be determined.

Teaching Nursing Homes and GNP's/GNC's. One longstanding criticism of institutional long-term care in this country is poor quality. The registered nurse (RN) is the most critical factor in maintaining quality of care in nursing homes (IOM, 1986; Tellis-Nayak, 1988; Mezey & Lynaugh, 1989). In spite of this recognition, very few RN's are employed in nursing homes and, when they are, their functions are primarily supervisory rather than direct patient care. Two strategies to improve quality of care in nursing homes have been tested over the past 15 years: the establishment of the Teaching Nursing Homes (TNH) and the institution of specially prepared nurses (the GNP and the GNC) in long-term-care settings including TNH's, conventional nursing homes, and home care settings. Two types of TNH's were created in the 1980's. In 1981, seven TNH's were funded by the National Institute on Aging (NIA) for the purposes of: 1) stimulating clinical research in nursing home settings; 2) developing diagnostic techniques and methods of treatment adapted specifically for older persons; 3) establishing a research base for care, rehabilitation, and system revision; and 4) developing cost containment strategies (Butler, 1981). Each NIA-sponsored TNH is affiliated with a school of medicine and a school of nursing. Because these projects focused primarily on medicine, they will not be reviewed in depth here. In 1982, twelve TNH's were funded by the Robert Wood Johnson Foundation (RWJF) for the purposes of: 1) upgrading clinical care of patients in nursing homes by introducing a cadre of nursing specialists; 2) creating an environment supportive of the education of undergraduate and graduate nursing students; and 3) promoting clinical research (Mezey & Lynaugh, 1989). The RWJF TNH's were partnerships between the nursing home and a university school of nursing. These projects were based on the assumption that nurses are the building blocks by which to improve care in nursing homes. The central question addressed in these programs was how to enhance care within the context of limited resources.

The evaluation of the RWJF TNH's was conducted by the Health Care Financing Administration (HCFA) and Shaughnessy, Kramer, and Hittle from the University of Colorado Health Services Research Center. Shaughnessy (personal communication, November 20, 1989) indicated that, overall, the evaluation of the RWJF TNH's yielded unusually positive and strong results in the area of quality of care. Hospitalizations among patients in RWJF TNH's were significantly lower than in the control nursing homes after controlling for hospital risk and existing societal trends. For example, one site (Wykle & Kaufmann, 1988) reported a decrease of 7 percent in hospitalizations. Also, patients in the RWJF TNH's demonstrated significantly greater improvements in function and status than patients in the control homes. Wykle and Kaufmann (1988) reported a decreased use of urinary catheters, decreased incontinence, and more appropriate use of medications in the TNH. There was decreased use of both physical and chemical restraints in the management of wandering and aggressive behavior in brain-failed residents (Wykle & Kaufmann, 1988). In addition, the RWJF TNH's reported declines in decubiti and use of enemas (Joel & Johnson, 1988) and reduced prevalence of infections and falls (Wykle & Kaufmann, 1988; Ferrario & Franklin, 1988; Dimond, Johnson, & Hull, 1988). Other benefits resulting from the TNH's were improved patient and family satisfaction with care, better staff morale, and decreased turnover among both licensed and unlicensed staff (Aiken et al., 1985). Key to the success of the RWJF TNH's was the use of GNC's (nurses prepared at the masters or doctoral level with experience in the nursing care of older persons). In all the RWJF TNH's, GNP's/GNC's were involved in assessment and care planning; nursing aides also were more involved in assessment and care planning. Although more focused clinical trials need to be done to determine specific ways in which GNP's/GNC's affect the quality

of care for nursing home residents, some attribute improvements to the assessment, planning, and staff teaching done by the GNP's (Shaughnessey, Kramer & Hittle, 1990).

The effectiveness of GNP's also has been documented in both community-based and institutional settings outside of TNH's. In 1976, the Mountain States Health Corporation project, funded by the W.K. Kellogg Foundation, was instituted to evaluate the role of the GNP in institutional settings. Kane et al. (1989) report the effects of GNP's on the process and outcome of nursing home care. This retrospective analysis of data from 30 nursing homes with GNP's and 30 control nursing homes indicates that beneficial changes were seen in two out of eight activities of daily living measures, five of the 18 nursing therapies, and two of the six drug therapies. In addition, there was a reduction in hospital admissions and total days in the GNP nursing homes. Specifically, Kane et al. (1989) report reduced use of physical restraints, decreased medication orders and laboratory tests for new admissions, increased activities related to bowel and gait training, decreased use of psychotropic medications, and increased use of physical therapy, podiatry, dental care, and occupational therapy among new admissions. An increased proportion of GNP patients were discharged to home from the nursing home. Kane et al. (1989) developed a series of tracers for several common conditions (diabetes, congestive heart failure, hypertension, new urinary incontinence, chronic urinary incontinence, feeding difficulties, acute confusion, and fever) to determine whether appropriate steps in care were taken by the GNP. Favorable changes were seen in six of these eight tracers. In the newly admitted group, positive findings in quality of care were observed for diabetics, residents with feeding difficulties and residents with new urinary incontinence. Among the long-stayers, positive effects were found in congestive heart failure and acute confusion. For both new admissions and long-stayers, positive findings were reported for the management of fever. The investigators concluded that there is a useful role for GNP's in nursing home settings.



Courtesy, Susan S. Jay; photo taken in Foxboro, MA

A randomized, controlled trial of a home care team, including a physician, GNP, and a social worker, although not isolating the GNP as the only intervention, demonstrated positive outcomes of team care for chronically and terminally ill home-bound patients (Zimmer, Grothe-Juncker, & McCusker, 1984; 1985). Team patients had fewer hospital and nursing home admissions, shorter lengths of stay, fewer outpatient visits, and lower estimated total health care costs. The effect was especially strong for terminal-care clients who more frequently died at home. Satisfaction with care was significantly greater among caregivers of team cases than among those of control cases.

Research Needs and Opportunities

Nature of Transition Problems

Most studies on the nature of transition problems, whether prospective or retrospective, have been descriptive. Although quality of care during transitions must be based on factors identified by such descriptive investigations, a great need exists for studies that go beyond description. For example, several studies cite complications as a factor in determining post-hospital placement. However, critical questions remain unanswered. These include: What kinds of complications are most common in the acute setting? Are they preventable? Are some complications due primarily to the lack of knowledge of hospital staff about the susceptibility of the very old to certain kinds of complications? Similarly, much of the research on movement within the long-term care system does not report the nursing care received prior to and following a transition. Questions that remain unanswered include: Can selected nursing care strategies limit some transitions, for example,

nursing home to emergency room? Can nursing strategies enhance patient outcomes within a transition event? In addition, it is documented that transferring nursing home residents to the hospital when death is imminent is extraordinarily costly and often has no redeeming outcomes. Answers to questions about terminal care need to be answered, including: Can hospitalization be avoided at the end of life by preparing staff to care for dying residents? Will family participation in decisions about terminal care reduce transfers to hospitals at the end of life?

In addition to more sophisticated descriptive research, there is a need for basic exploratory research related to the transition experiences and illness trajectories of individuals who are experiencing long-term chronic illnesses. Despite recent attention to the phenomenon of long-term care, our knowledge base regarding the everyday life of older persons experiencing long-term care needs is limited. There is still a tendency for researchers and clinicians to compartmentalize the illness experiences of chronically ill individuals by illness episodes. Only by exploratory research that focuses on the care recipient's experience across treatment settings and across illness episodes will it be possible to design transitional care that actually meets the needs of the clients.

There is also a need for research on patient assessment and discharge planning between acute- and long-term-care settings. There is a need for more accurate information regarding the post-acute-care needs of frail elders, whether in a nursing home or a community setting. There is a need to assess iatrogenesis of all kinds in all kinds of settings. Iatrogenic problems increase the use of services, increase cost, decrease functional well-being, and decrease quality of life for older adults. Carefully controlled studies of nursing care to diminish preventable complications should be initiated.

Although we are beginning to understand the factors that predict transitions between various segments of the health care system, we know very little about how decisions are made at critical moments of transition (Kane & Kane, 1989). For example, we have little information about whether inexpensive moves are necessarily good moves. Much more work needs to be done on the perplexing but critical question of how we value different outcomes along the spectrum of long-term and acute care. As we begin to talk more seriously about the rationing of services, we must have a better appreciation for how these services influence the outcomes of care, and for which outcomes thus should receive priority (Kane & Kane, 1989).

Innovative Programs

In general, innovative programs in long-term care for older persons reach the public's awareness only if they are large or are associated with extensive evaluation projects. It is likely, however, that many small, innovative clinical programs, designed to re-duce problems associated with the current long-term care system, exist in this country. A systematic survey of community-based and institutional agencies that deliver long-term care to older persons would enable clinicians and researchers to understand the depth and scope of innovations in this area.

Although evaluations of innovations in long-term care delivery have focused on global outcome variables such as hospitalizations, nursing home days, and quality of life, we know little about the processes of each of the interventions themselves. What, specifically, does the GNP do in nursing home and community settings that leads to lowered levels of hospital use on the part of subjects in the treatment group? What is it about "intensive" case management that makes it more effective than "regular" case management in reducing hospital days? Research focused on the processes of long-term care, and the clinical decisionmaking of nurses in long-term-care settings, would help us to understand what makes a difference in outcomes.

A key question for any innovative service, in addition to whether the service is beneficial, is for whom is it beneficial? Rarely have our evaluation research projects been sensitive enough to answer this question; yet, it is a crucial one in the area of long-term care. What individual and family

characteristics would lead the clinician to recommend day care to one older person and family and respite care to another? Unfortunately, these clinical decisions usually are made because of limitations in the local service system. But even in geographic areas that are well-served in terms of community-based long-term care, clinicians make such recommendations without an adequate research base.

Most of the summaries of the evaluations of innovations in long-term care (e.g., the long-term-care demonstrations) comment on the difficult methodological issues confronting researchers in this area. Although data regarding the number of hospitalizations and nursing home days are clearly relevant to policymakers, data regarding the effects of the interventions on the lives of patients and families are equally important. Our outcome measures need to be sensitive enough to detect the changes expected from various long-term-care interventions. To accomplish this, we need to focus on the development of instruments. In addition, we need better assessment tools to predict which patients will have good outcomes from expensive, highly technical acute care at the end of life.

In situations where the benefits of an innovation in long-term care nursing are well documented (e.g., the GNC's in the RWJF TNH's and the GNP's in the interdisciplinary community-based teams), research projects designed to implement the intervention within different organizational settings is appropriate. Research would focus on questions such as: What modifications would need to be made in the TNH model to make it successful in states where there is only one school of nursing?

Recommendations

Based on the foregoing assessment of research needs and opportunities in "Transitions in Long-Term Care," the Panel has made the following recommendations for research.

- Describe and evaluate nurse-managed care designed to promote the transfer of practical technologies and reduce preventable complications among long-term care settings and acute care hospital settings, and to reduce or eliminate unnecessary transfers among home, nursing home, and acute-care hospital settings.
- Explore the experiences of older persons with long-term chronic illnesses across treatment settings to determine those innovations in transitional care that would best meet the needs of older persons. "Examine the processes through which nurses deliver direct and indirect care, focusing on care delivery by case managers, cooperative care planners, discharge planners, clinical nurse specialists, and GNP's to identify those techniques that are successful, and those that are not.
- Develop more sensitive outcome measures to evaluate the effects of various long-term care interventions.
- Examine the costs and benefits of current and proposed interventions to assist in identification of the most appropriate target groups.

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CHAPTER 13