Integrating Theory, Basic Research, and Intervention: Two Case Studies From Caregiving Research

Karl Pillemer, PhD, 1 J. Jill Suitor, PhD, 2 and Elaine Wethington, PhD 1

Purpose: The premise of this article is that interventions should be based explicitly on theory and basic research findings. Although there appears to be general agreement with that assertion, the connections among theory, research, and intervention in the field of gerontology are often tenuous or nonexistent. In this article, we argue for better integration of these three domains, providing two case studies from the Cornell Roybal Center that illustrate the positive role theory and research can play in intervention designs and broader applicability of findings. Design and Methods: Study 1 involved a social support intervention for persons making the transition to becoming a family caregiver. Study 2 was an organizational intervention designed to improve interpersonal relationships and increase mutual support between family caregivers and staff in nursing homes. Results: Several benefits emerged as a result of creating theoretically grounded and research-based interventions, including guidance for innovative intervention design and the production of findings that inform both basic research and intervention. Implications: A much closer link between theory and basic research and intervention studies is indicated, suggesting that current federal support of translational research initiatives is justified and worthy of expansion.

Key Words: Intervention studies, Research–practice relationship, Caregiving, Nursing homes

Throughout the social sciences, perceived conflicts exist between basic research and the practical applications of research knowledge. In its most extreme form, basic research may be regarded as pointless, while applied research is seen as trivial (Hoffmann & Deffenbacher, 1993). Gillian and Schvaneveldt (1999) noted that both mutual distrust and a lack of meaningful communication often exist between basic scientists and designers of interventions. Reasons for the poor relationship include differences in research mission, motivation for research, actual research activities, and the way in which results are communicated to relevant audiences.

To some extent, the field of social gerontology has been spared such animosity between the worlds of research and practice. Many, if not most, researchers in the sociology or psychology of aging have taken at least some interest in the practical and policy implications of their work. The broad membership of The Gerontological Society of America, which embraces both basic researchers and practice and policy experts, is evidence of this fact. However, this apparent lack of animosity between research and intervention in social gerontology does not mean that connections between these areas are strong.

Over the past several decades, there has been tremendous growth in basic research in geriatrics and gerontology. At the same time, on the practice level, programs have proliferated to assist elderly persons and their caregivers in various domains of life. However, the expansion in both fields has made increasingly obvious the weak connection between them. On the one hand, many programs intended to benefit elderly persons are not scientifically tested. On the other, insights from theory and basic research are rarely used systematically to guide the development of new intervention programs.

A critical need, therefore, is to bring theory and basic science to bear on improving care and support delivered to older persons. At the federal level, this theme has emerged in the growing emphasis on translational research; that is, “systematic...
translation of basic behavioral research findings into the development of innovative research interventions that may ultimately improve real-world practices” (National Institute of Mental Health [NIMH], 2000 p. 3). Proponents of translational research hold that useful scientific knowledge is not adequately exploited to help persons with illness, disability, or disadvantage. The reverse is also asserted to be true: that basic researchers lose the opportunity to test theories of human behavior and to increase fundamental knowledge (NIMH, 2000).

The National Institute on Aging responded to such concerns in establishing the Edward R. Roybal Centers on Applied Gerontology. The Roybal Center program’s goal is to foster the translation of basic behavioral and social science theories and research findings into outcomes that will benefit older people, enhance their quality of life and productivity, and reduce their care needs. An explicit focus of the program is bridging the gap between theoretical paradigms, basic research, and programs that can offer practical benefits to older adults.

Thus, extensive support exists for integrating the activities of basic science and interventions for older persons. Ideally, this would be a seamless translation process whereby theory and basic research activities lay the groundwork for developing intervention projects. In a second step, interventions are rigorously tested using randomized controlled trials methodology. Finally, the findings from intervention research lead to a reconfiguration of the program design, as well as to implications for or modifications of theory and the generation of new ideas for basic research studies (see Figure 1). Such a process is likely to improve the quality of interventions, as well as ensure that results serve the additional purpose of informing theory and research.

Following this model, the Cornell Roybal Center focuses specifically on intervention studies that promote the social integration of older persons, particularly in the forms of social networks, social support, and involvement in meaningful roles. The center places a special emphasis on major life course transitions and the risks to social integration associated with such transitions in middle adulthood and later life. The overall goal of center projects is to integrate individuals into the community and thereby enhance physical and mental well-being. Research projects address these issues in the contexts of retirement, social isolation, formal services, and network deficits of family caregivers to impaired elderly persons.

In this article, we review two intervention studies from the Cornell Roybal Center that attempted to bridge the divide among theory, research, and intervention along the lines suggested in Figure 1. Both studies were designed to enhance interpersonal support and reduce interpersonal stress experienced by family members who provide care to older relatives. The theoretical framework in each case directed us toward specific intervention components, which were tested in the interventions.

### Caregiver Support Interventions

Considerable attention has been paid in the past several years to the effectiveness of interventions for family caregivers. Recent reviews have shown that small to moderate statistically significant effects are frequently found (Sorensen, Pinquart, & Duberstein, 2002). Further, a limited number of interventions had results that could be judged clinically significant (Schulz et al., 2002). However, the effects are quite variable depending on a wide variety of factors, including the caregiving context, study methodology, and the specific type of intervention (Sorensen et al., 2002).

Despite such differences, most caregiving interventions reported in the literature share two characteristics that the Cornell Roybal Center research was designed to address. First, caregiver intervention studies are typically not derived from social or psychological theory. Indeed, the atheoretical nature of most interventions has been commented on in the literature (Cohen, Gottlieb, & Underwood, 2000; Ory, 2000). In addition, most caregiver intervention studies typically make only limited reference to the role of basic research findings in designing the intervention.

Second, because most interventions include multiple components, it is difficult to determine the precise intervention mechanism or mechanisms that bring about effects. As Schulz and colleagues (2002) noted, interventions are usually multidimensional, with caregivers receiving combinations of education, support, and professional services. Therefore, it is quite difficult to attribute an outcome to a specific cause. For this reason, Ory (2000) has suggested that researchers move “from broad evaluations of global intervention efforts to the design and assessment of particular interventions that are theory-based and generalizable” (p. 177).

Attention to theory in intervention design may provide two advantages. First, targeted, theoretically
driven evaluations of caregiver intervention programs can test the efficacy of specific intervention components. Attention to theory and basic research allows investigators to select specific intervention mechanisms from a potentially vast array of possible services that might be helpful to caregivers. This is especially useful given the well-documented tendency of caregivers to report most interventions, regardless of content, as having benefited them (Schulz et al., 2002).

Second, and in our view equally important, theoretically grounded interventions have the potential to inform basic science. Indeed, if an intervention study serves as a test of theoretically derived hypotheses and basic research findings, the results may then be highly useful, regardless of whether the intervention is a success. There is a tendency to discount any intervention study that does not obtain significant results as a failure. From a basic research perspective, however, the absence of effects in a theoretically derived intervention provides a useful opportunity to revise the theory and to inspire new fundamental and applied research. In Study 1 below, this was in fact the case: Although main effects were not found, the study nevertheless helped to inform basic research and theory. Study 2 provides a contrasting example, in which sociological theory and research identified specific intervention components that proved to be successful.

Study 1: Social Network Enhancement for Caregivers

Need for Intervention

A large body of research accumulated across the past 25 years has demonstrated that providing care to elderly family members with Alzheimer’s disease (AD) takes a substantial emotional, and often physical, toll on caregivers (Buckwalter, 1996; Lawton & Rubinstein, 2000; Pillemer & Suitor, 1996; Schulz, 2000; Schulz & Williamson, 1994). In the face of such stressful circumstances, high levels of positive social interaction and social support are especially likely to be important to maintain well-being (cf. House, Umberson, & Landis, 1988).

However, a common finding is that individuals’ relationships with friends and family are often negatively affected by assuming the role of primary caregiver. In particular, caregivers tend to engage in less socializing outside the home, have fewer contacts and visits with social network members, and experience reductions in other types of social participation (Clipp & George, 1993; Coen, O’Boyle, Swanwick, & Coakley, 1999; Morritz, Kasl, & Berkman, 1989; Shaw, O’Bryant, & Meddaugh, 1991; Wallsten, 2000). Further, individuals may experience conflict and interpersonal stress with friends and family regarding caregiving responsibilities (Creasey, Myers, Epperson, & Taylor, 1990; Fiore, Becker, & Coppel, 1983; Pillemer & Suitor, 1998; Suitor & Pillemer, 1994, 1996). These factors can in turn have negative effects on caregivers’ psychological well-being (Bass, McClendon, Brennan, & McCarthy, 1998; Creasey et al., 1990; George & Gwyther, 1986; Goode, Haley, Roth, & Ford, 1998; Li, Seltzer, & Greenberg, 1997; Stuckey & Smyth, 1997; Zarit, Todd, & Zarit, 1986).

Theoretical Basis for the Intervention: Similarity and Interpersonal Relations

We drew on structural social psychological theories in developing the intervention design. These theories suggested that issues of support and caregiving should be viewed from a dynamic perspective. Caregiving has typically been viewed as a specific activity, rather than as a social status that individuals move into and out of at various points in the life course. In contrast, we hold that family caregiver meets the sociological definition of a social status—particularly when individuals assume primary responsibility for the care of an elderly relative (Suitor & Pillemer, 1990). It is therefore important to view the process of becoming an AD caregiver as a status transition, similar to other transitions in the life course, such as becoming a new parent, a widow, or a retiree.

Reconceptualizing caregiving as a status transition allowed us to draw on the broader literature on life course transitions and social support to understand family caregiving. This literature shows that acquiring a new social status generally produces changes in individuals’ social networks that affect both the provision of social support and psychological well-being. Most important, when people acquire new statuses, they often reduce contact with associates to whom they have become less similar and intensify existing relationships (or develop new ones) with others to whom they have become more similar (Bost, Cox, & Payne, 2002; Gottlieb & Pancer, 1988; Kong, Perrucci, & Perrucci, 1993; Newman, 1988; Rose, 1990; Suitor, 1987; Suitor & Keeton, 1997; Wortman & Lehman, 1985).

A significant body of sociological theory encourages attention to the role of similar others as supporters. Proponents of homophily theory hold that individuals are more likely to develop and maintain supportive relationships with others who are similar to them on important social dimensions (cf. Bell, 1981; Feld, 1982; Lazarsfeld & Merton, 1954; Marsden, 1988; Merton, 1968; Suitor, 1987; Suitor & Keeton, 1997; Suitor, Pillemer, & Keeton, 1995). It has been theorized that sharing social statuses produces supportive relationships because similar individuals tend to have similar values and interests (Duck, 1994; Homans, 1950; Lakey, Ross, Butler, & Bentley, 1996; Lea & Duck, 1982), and similarity promotes liking and interaction (Homans, 1950; Lazarsfeld & Merton, 1954; Newcomb, 1961).
Of particular importance is similarity of experience; that is, whether the network member has personally experienced the status transition. In our work, we have drawn on Thoits’s (1986) conceptual framework in making this argument. Thoits argued that experiential similarity increases empathic understanding, which is critical to the support process. She proposed three reasons why coping assistance from similar others should be particularly efficacious. First, distressed persons frequently fear that something is seriously wrong with them. Others who have been through the same experience can help the stressed individual view his or her feelings as expectable and within the range of normality. Second, similar others may be less likely to reject persons because of their distress or strong emotions. This greater sense of acceptance allows the stressed individual more freedom to discuss his or her feelings with similar associates than with nonsimilar associates. Third, advice and intervention from dissimilar others may be perceived as unwelcome and intrusive.

In summary, there is a sound theoretical basis for hypothesizing that members of individuals’ networks who have experienced the same status transition are most likely to be sources of support and least likely to be sources of stress.

**Empirical Foundation for the Intervention**

Longitudinal research we conducted on family caregivers to AD patients supported this theoretical approach. In several related analyses, we found that members of the caregivers’ networks who had themselves cared for an elderly relative were more likely to be a source of support and less likely to be a source of interpersonal stress, such as criticism, direct interference, or unmet expectations for support (Suitor & Pillemer, 1993, 1996, 2000, in press; Suitor, Pillemer, Keeton, & Robison, 1995). Further, the presence of status-similar others in social networks reduced psychological distress among caregivers. Specifically, the number of other caregivers in caregivers’ social networks was negatively associated with depression (Pillemer & Suitor, 1996b), and these effects were even stronger in situations where caregiving stress was greatest.

**Designing the Intervention: Maximizing the Benefits of Similarity**

Theory and basic research findings just reviewed suggested that an intervention to enhance caregivers’ access to experientially similar others would be beneficial. Although a variety of social support intervention programs for caregivers have been designed and evaluated, most have featured professionally led support groups, and relatively few were rigorously evaluated (Pillemer & Suitor, 2002). The few circumstances in which more rigorous designs have been used have revealed inconsistent findings, with interventions typically showing that participants reported high levels of satisfaction with support groups but failed to improve significantly on outcome measures such as caregiver burden and psychological well-being (cf. Gottlieb, 2000; Haley, Brown, & Levine, 1987; Sorensen et al., 2002; Zarit, Anthony, & Boutselas, 1989).

We questioned whether the absence of clear and consistent findings in the social support intervention literature might stem from the largely atheoretical nature of many of the studies. Perhaps projects informed by broader theoretical perspectives would yield more successful interventions. Our attention to theory and basic research led directly to the following design decisions.

**Peer, Not Professional, Support.** Unlike most previous programs, the Peer Support Project (PSP) did not involve professional intervention of any kind. Given the theoretical framework, the intervention was based on “indigenous” support—that is, support that persons in the same life situation can provide to one another without professional intervention (Heller, Thompson, Trueba, Hogg, & Vlachos-Weber, 1991). As such, the study represented an initial effort to isolate the various features of caregiver support programs (peer support, education, professional counseling, etc.) to ascertain which components are effective and which are not. Our goal was to test the specific benefits of support from similar others, in the absence of other program components. For this reason, the PSP made use of community volunteers who themselves had been caregivers to persons with AD.

**Grafting on a Social Tie.** On the basis of the conceptual framework, the intervention mechanism consisted of adding a new, status-similar, informal social tie; that is, making available regular contact with another person who shared the status of caregiver. The volunteer peer supporters were recruited by the Alzheimer’s Association of Central New York and were provided with training in communication and listening skills. After training, the volunteers were then matched with family caregivers to persons who had been recently diagnosed with AD at a large, hospital-based dementia screening program. The resulting relationship was expected to extend over an 8-week period, meeting between 1 and 2 hr each week. In line with the intervention design, the content of the visits was not specified; instead, the model was one of friendly visiting, in which the pair could choose how to spend their time. In most cases, the visit was largely devoted to discussing caregiving experiences and problems.
Dyadic Intervention.—The program was designed as a dyadic rather than a group intervention. Research described earlier has indicated that miscarried support and negative interactions are difficult for caregivers, and support groups can increase the possibility that this will occur (Helgeson & Gottlieb, 2000). This research suggested that a dyadic intervention might avoid these difficulties.

Maximizing Similarity.—Additional criteria for matching peer supporters with caregivers were used to maximize similarity. The pairs were matched on gender and on relationship to the care recipient (spouse or adult child). In addition, volunteers and caregivers were matched according to county of residence. This led in effect to a regional match, with caregivers and volunteers in rural areas matched with one another and the same in urbanized counties.

Study Findings

Caregivers who agreed to participate were randomly assigned to either the treatment group or the control group. The outcome evaluation was based on a preintervention interview (Time 1) and a 6-month postintervention interview (Time 2). Findings reported here are based on the 115 persons who completed both the pretest and posttest interviews (54 in the treatment group and 61 in the control group).

We were very encouraged by process evaluation data collected regarding the caregivers’ and volunteers’ reports of their experiences in the PSP. Virtually all of the caregivers assigned to the treatment condition (those who were matched with a “friendly visitor”) provided glowing reports about their experiences. Fully 96% said that they would recommend the project if they had a friend in the same situation, 98% reported that they and the volunteer had shared their experiences, and 96% found the volunteer with whom they met to be highly supportive. In fact, more than half of the caregivers (55%) said that they could not think of any ways that the PSP could have been improved.

It is important to note that in extensive qualitative data collected as part of the evaluation, participants highlighted experiential similarity as the reason for satisfaction with the PSP. A typical statement, similar to those offered by almost all participants, was “I enjoyed speaking with someone who had had similar experiences or incidents. It’s kind of lonely. And it was nice in particular to know that you’re not the only one who is dealing with these issues and situations.”

These strong and consistent indicators of what Schulz and colleagues (2002) termed social validity led us to anticipate that caregivers who had been assigned to the experimental condition would show substantial effects of the intervention on psychological well-being. However, no main effects were found for any outcome variable, including caregiver burden or psychological well-being indicators (Pillemer & Suitor, 2002), leading us to conclude that increasing peer support alone was insufficient as an intervention. The conclusion that we drew from these contradictory findings is that although caregivers enjoy interaction with individuals who share their caregiving status, these “grafted” relationships are not sufficient to have effects on well-being.

Given the absence of main effects of the PSP, it is important to explore whether such “failed” interventions are of further value. As noted earlier, we believe that they are highly valuable if they provide a forum for reconsidering the theory on which the intervention was developed. In the case of the PSP, in trying to understand our nonfindings, we returned to the theoretical framework that we had used in designing the intervention. The theory of experiential similarity that we had developed focused on the importance of similarity within naturally occurring networks. The strength and consistency of these findings in explaining support, interpersonal stress, and well-being when exploring naturally occurring networks stood in stark contrast to the weak effects on well-being produced by artificially grafting a new member onto the caregivers’ existing networks. Had we developed the intervention without a strong theoretical underpinning, we would have searched for explanations for the nonfindings exclusively in some aspect of the design (to be sure, design features may have played a role; see Pillemer & Suitor, 2002).

However, the theoretical perspective we used allowed us to consider that the explanation for the findings may lie in differences in the effectiveness of naturally occurring versus artificially created experiential similarity. The substantial difference in effects of these two delivery mediums of experiential similarity may lead basic researchers to design studies to explore these differences, perhaps ultimately resulting in a new approach to providing caregivers with low-cost but effective support interventions (Pillemer & Suitor, 2002). For example, interventions that train members of the existing network to provide more frequent and effective support may be promising.

Another benefit results from closely connecting basic research to the development of interventions. The data that theoretically grounded interventions collect are often useful for addressing empirical questions that go beyond the particular interventions for which they were collected. For example, in the absence of any consistent effects of the intervention, we have pooled data from the experimental and control groups from the PSP study to examine such issues as social support and interpersonal stress following bereavement (Suitor & Pillemer, 2000) and gender differences in the effects of experiential
similarity (Suitor & Pillemer, in press), among others.

Equally important, the findings of the PSP led us to explore alternative intervention venues in which to test the theoretical model. In particular, we believed that it was crucial to build on our finding that similarity has important benefits in naturally occurring social networks. To this end, we designed an intervention in which the goal was to increase perceptions of similarity among individuals who interact in nursing homes. These components of the intervention were hypothesized to increase intergroup support and reduce conflict, and in turn to have positive effects on well-being.

**Study 2: Promoting Social Support in the Nursing Home**

**Need for Intervention**

Despite a popular impression that nursing homes are locations where families abandon elderly relatives, there is clear evidence that caregivers typically maintain close ties to institutionalized family members. However, many family members experience considerable stress regarding placement and negotiating life in the nursing home (for a review, see Pillemer et al., in press). A significant cause of this stress appears to be problematic relations with nursing home staff. Indeed, poor relationships with staff are predictive of family members’ depression, anxiety, and emotional response to caregiving (Brody, Dempsey, & Pruchno, 1990; Brody et al., 1990; Pruchno & Kleban, 1993; Stephens, Kinney, & Ogrocki, 1991). These problems have likely been exacerbated by the fact that conditions in nursing homes have deteriorated sharply in the United States, due to funding cutbacks and a critical shortage of staff (Pillemer & Lachs, in press).

In the face of such evidence, one might expect that interventions to address these problems would be widespread; however, this has not been the case. The few programs reported in the literature have focused only on the family, offering individual counseling or support groups for relatives of residents (Hansen, Patterson, & Wilson, 1988; Peak, 2000; Sancier, 1984; Tobin, 1995) or inviting family members to participate in their relatives’ care or serve as volunteers in the facility (Anderson, Hobson, Steiner, & Rodel, 1992; Linsk, Miller, Pilau, & Ortigara-Vick, 1988). Although we were initially inclined to develop an intervention focusing on family adjustment, the theoretical framework established in Study 1 suggested that such an individualized approach might not be fruitful. Instead, Study 2—the Partners in Caregiving (PIC) intervention—focused on increasing perceptions of similarity between family members and staff in the facility, with the goal of enhancing empathy and exchange of support and reducing conflict between the two groups.

**Theoretical Basis for the Intervention: Barriers to Perceptions of Similarity**

Sociological theory directed our attention to structural factors that lead family members and staff to perceive each others’ situations as dissimilar and to feel limited empathy toward one another. Litwak’s (1985) theoretical work emphasized that fundamental differences exist between large-scale formal organizations and primary groups, such as families. Formal organizations are characterized by bureaucratic structure, formal rules for behavior, and impersonal ties, and families—as primary groups—are based on ties of birth and love, concern for special characteristics of individuals, and a lengthy (often life-long) period of contact.

This theoretical framework suggests that problems emerge when there is a mismatch between the structure of the formal organization and the types of tasks it seeks to take over from families. In nursing homes, the potential for poor communication and intergroup conflict is heightened because long-term care facilities represent the classic case of a formal institution seeking to take over primary group tasks (such as personal care) and fit the performance of such tasks into a bureaucratic, routinized framework (Litwak, 1985; Litwak, Jessop, & Moulton, 1994).

This structure leads to polarization of staff and families and results in family and staff perceptions that they occupy different worlds that have very little in common with one another (Gubrium, 1997). This theoretical work suggests that family problems in nursing homes will not be easily solved by educational or support programs directed to them alone, but rather that an attempt at changing the perceptions and interaction styles of both groups is necessary. The findings of Study 1 suggest that a key mechanism to bring about such change is to increase perceptions of similarity between families in staff; that is, as the project name implies, to encourage them to see each other as partners in providing optimal care for the resident.

**Empirical Foundation for the Intervention**

Although a detailed review is not possible here, several lines of research have suggested that an intervention aimed at changing perceptions of similarity, increasing empathy, and improving communication skills would be beneficial for families. Further, this research has strongly indicated that the intervention must focus on both family members and staff. In particular, studies have found marked discrepancies between staff and family perceptions of appropriate tasks for each group (Nolan & Della-sega, 1999; Stephens et al., 1991), often producing staff–family conflict (Duncan & Morgan, 1994). Research has identified a number of barriers to family–staff communication, including (a) time
pressure on the part of the staff (Pillemer, 1996), which can make interactions difficult; (b) the hesitancy of relatives about offering suggestions and criticism for fear that such comments might negatively affect the care provided to the resident (Hertzberg & Ekman, 1996); and (c) ethnic and socioeconomic status differences between families and staff that make communication more difficult.

The end product of these barriers to communication can be a climate of distrust between the two groups (Duncan & Morgan, 1994; Foner, 1995; Heiselman & Noelker, 1991; Krause, Grant, & Long, 1999; Stull, Cosbey, Bowman, & McNutt, 1997; Tobin, 1995; Vinton & Mazza, 1994). Families and staff members are sometimes annoyed and angry toward the other group (Foner, 1995; Vinton & Mazza, 1994). In this context, promotion of perceived similarity between the two groups—with a particular emphasis on developing empathy, uncovering shared goals, and pointing out common concerns and issues about the facility—appeared to be an intervention mechanism with high potential.

**Designing the Intervention: Promoting Perceived Similarity, Empathy, and Communication**

Three sets of intervention components were designed to promote empathy and mutual understanding and support.

**Training Both Families and Staff.**—The conceptual framework made clear the need to train both family members and staff. The PIC program consisted of two parallel workshop series, one for nursing staff (including registered nurses, licensed practical nurses, and nursing assistants) in a long-term care facility and one for family members of residents in the same facility. The workshops lasted approximately 7 hr. It is important to note that the training components for both groups were nearly identical and that this fact was made known to participants. Thus, participants understood that the other group had gone through the same activities, which enhanced the sense of shared experience.

**Exercises to Promote Similarity and Empathy.**—An extensive pilot-testing process led to the development of a variety of training exercises designed to promote a greater sense of similarity between families and staff. These included (a) a component in which participants explored perceived differences in values between families and staff and identified ways in which core values are shared in the nursing home; (b) role-playing exercises in which participants enacted the parts of members of the other group (e.g., a family member playing a staff person under time pressure); and (c) case study discussions of problematic interactions, in which empathy for the other group was emphasized (for a detailed description, see Pillemer, Hegeman, Albright, & Henderson, 1998).

**Joint Meeting Regarding Organizational Change.**—After receiving communication training, participants in both groups attended a joint meeting with the facility administrator. Bringing together family members and staff in a structured meeting (in which conflict or blaming could be handled by a trained facilitator) fostered the goal of perceiving one another as partners in the caregiving process. In addition, it placed the families and staff in the position of describing their joint concerns to the facility administration, which engendered a sense of shared perceptions and solidarity. Concretely, the joint meeting provided an opportunity to decide on changes in facility practices or policies that might detract from family–staff cooperation (in every intervention facility, several changes in policies and/or procedures were implemented as a result). Thus, families and staff had the opportunity to experience concrete positive outcomes of working together.

**Study Findings**

The treatment and control subjects in the study were drawn from relatives of residents in 20 nursing homes in the Central New York region. The 20 facilities were randomly assigned to the intervention condition or to the nonintervention condition. Two randomly selected units in each intervention facility were again randomly assigned to two conditions: cooperative communication training and control condition. Thus, the study involved intervention units compared with two types of control units: one unit in the same facility where the intervention took place, and one unit in a purely control facility, where no intervention took place. Staff and family data were collected by means of telephone interviews in three waves: prior to intervention, 8 weeks following intervention, and 6 months following the pretest (4 months after the intervention). A total of 932 individuals participated at Time 1 (at Time 2, 785 subjects remained in the study, and at Time 3, 683).

In brief, the PIC intervention showed several significant treatment effects for families. A scale measuring family perceptions of staff understanding and empathy increased from baseline to the 2-month posttest and again to the assessment at 6 months, for those in the treatment group but not for controls. In addition, there was a decline in depression measured by the Center for Epidemiologic Studies Depression scale from baseline to 6 months relative to an increase for controls. We analyzed an additional model for each outcome to determine whether the effects of the intervention were greater for families in which the relative had dementia. These analyses showed one interaction effect. For the full sample, staff–family conflict increased for both treatment
and control groups, with a particularly marked increase between baseline and 2 months. For the dementia subgroup, however, conflict increased for controls but remained unchanged for the treatment group, resulting in a significant treatment effect across both follow-up assessments. Process evaluation data from the study strongly indicate that an enhanced interpersonal climate was the mechanism of change.

Although not the focus of this article, it is worth noting that main effects were also found for staff. Perceptions about the supportiveness of family behaviors improved between baseline and follow-ups for the intervention group and declined for the control group. Positive effects were also found on other outcomes, such as predicted likelihood of quitting the job in 12 months and job burnout (for a detailed description of findings, see Pillemer et al., in press).

Thus, in the case of the PIC intervention, we were able to extend the theoretical framework developed in Study 1 to design a social support intervention in a different context. Unlike previous programs in this area, both theory and basic research suggested avoiding an individualistic approach to the problems families experience with nursing homes. Conceptualizing the problems of family caregivers in nursing homes as resulting from perceived dissimilarity, lack of empathy, and poor communication led to what one might term an ecological intervention rather than the conventional focus on family members alone. Basic research on interpersonal conflict and on communication issues suggested the specific method of the intervention (promoting perceived similarity and empathy). Without this connection to basic scientific work, it is possible (and even likely) that the intervention would not have produced effects.

**Conclusion**

In this article, we examined interventions designed to improve the lives of family caregivers in two settings: the community and nursing homes. The two research examples presented in this article demonstrate several advantages of taking both theory and basic research into consideration in designing social interventions. Because the studies addressed somewhat different needs, took place in different contexts, and used different intervention methods, it is not meaningful to directly compare the results. Rather, we intend these two descriptions to be seen as case studies of the challenges and promise of translational research.

The results of Study 1 raise an issue that requires researchers’ attention. Specifically, the experience of the PSP reveals a paradox regarding theoretically based interventions and translational research more generally. Theory and basic research led us to develop an intervention based on a single factor—enhancing caregivers’ social networks with essentially similar others. Given basic research support for the efficacy of peer support from similar others, such a strategy seemed reasonable. However, in this case, the need to isolate a specific intervention mechanism came into conflict with the fact that the problems of caregivers are likely to be multidimensional. Further, multicomponent interventions, although largely atheoretical, have tended to find stronger effects (cf. Mittleman, Ferris, Shulman, Steinberg, & Ambinder, 1995).

Thus, researchers in various fields within applied gerontology may find themselves confronted with a paradox: Although testing theoretically based propositions contributes to basic science, multicomponent interventions, even if they are atheoretical, may have greater effects. The challenge for future researchers is to develop a theoretical basis for multicomponent interventions, testing individual components. In the specific example of the PSP, the intervention may have failed because a narrow focus on “grafted” social support cannot adequately address the host of challenges facing family caregivers. It may be the case that peer support is a necessary but not sufficient intervention mechanism. If that is the case, it is possible that peer support is effective only in combination with other intervention components. This hypothesis could be tested by offering, for example, peer support, caregiver education, respite care, and professional counseling in different combinations.

A second issue relates to the degree to which interventions in applied gerontology should be based on practical experience. Indeed, many caregiver support interventions represent attempts to address problems identified by practitioners. In no way do we call into question the possible utility of such interventions; arguments have in fact been made for placing primary emphasis on practical and clinical experience in developing solutions to human problems (Heckathorn & Broadhead, 1996).

We would argue, however, that social theories about human behavior and the basic research that relate to these theories provide unique opportunities for intervention design. First, sociological theory injects a perspective that transcends individual cases and points toward innovative alternatives (Heckathorn & Broadhead, 1996), avoiding one potential danger of relying on practical experience in program design: a tendency toward fine-tuning current practices. Interventions based on clinical impression or practice wisdom may miss important avenues for personal or organizational change. In the present case, we were reoriented by scientific work away from individual-level interventions in the nursing home setting.

Second, by contributing to general scientific knowledge, even an intervention that “fails” can produce important and useful results that inform the research base. In the case of the PSP, it was informative to find that the crucial role of similarity...
in relationship formation appears not to operate in artificially induced settings as it does in naturally occurring networks. Further, when conducted in the context of a larger scientific model, study results allow nonfindings to be interpreted in a useful way. Third, when an intervention study is designed as part of a larger basic research program, the data can serve a dual purpose and be used for empirical purposes beyond testing intervention effects.

In resolving the paradox described above, we believe that the ultimate solution is likely to be the interplay between researchers’ attention to theory and basic research and the grounded experience of human needs provided by practitioners. We suggest that collaboration between researchers and clinicians who specialize in diagnosing and treating aging-related problems can ultimately bring about a balance between these perspectives. This interaction will lead to more creative intervention research designs, which is the major goal of translational research such as that promoted by the Royal Centers.

References


