Order Number 9510680

Social role identity, social support, competence and psychological well-being among Hispanic women with arthritis

Lanza, Ana F. Abraído, Ph.D.

City University of New York, 1994

U·M·I
300 N. Zeeb Rd.
Ann Arbor, MI 48106

H

SOCIAL ROLE IDENTITY, SOCIAL SUPPORT, COMPETENCE AND PSYCHOLOGICAL WELL-BEING AMONG HISPANIC WOMEN WITH ARTHRITIS

by

ANA F. ABRAIDO LANZA

A dissertation submitted to the Graduate Faculty in Psychology in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York

1994

This manuscript has been read and accepted for the Graduate Faculty in Psychology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy

19 September 1994
Date

Tracey A Revenson
Chair of the Examining Committee

9/21/94
Date

Executive Officer

Tracey A. Revenson, Ph.D.

Kay Deaux, Ph.D.

Michelle Fine, Ph.D.

Supervisory Committee

THE CITY UNIVERSITY OF NEW YORK

Abstract

SOCIAL ROLE IDENTITY, SOCIAL SUPPORT, COMPETENCE AND PSYCHOLOGICAL WELL-BEING AMONG HISPANIC WOMEN WITH ARTHRITIS

by

Ana F. Abraído Lanza

Advisor: Professor Tracey A. Revenson

Numerous studies document the beneficial effects of social support in promoting mental health and adjustment among individuals facing chronic illnesses. Recent evidence, however, suggests that social support may sometimes have deleterious effects on psychological well-being. Unfortunately, these research efforts have largely ignored Hispanic populations. A theoretically-grounded conceptual model that is both general to chronic illnesses and relevant to Hispanic women is proposed. Specifically, social role identity is proposed as a critical moderator of the relationship between social support and psychological well-being. The model is based on the following propositions: (1) people often derive satisfaction, self-worth and self-esteem from social roles they value; (2) individuals need to feel competent in performing valued roles; and (3) illness often intrudes upon performance of these roles. Social support may have detrimental effects on psychological well-being by making individuals feel more incompetent in performing valued roles and undermining self-esteem. Therefore, social support intended to help individuals feel better may actually make individuals feel worse.

The sample consisted of 109 predominantly low-income Hispanic women with arthritis, more than half of whom had rheumatoid arthritis. Quantitative and qualitative data were collected via a structured interview, the majority of which were conducted in Spanish. Six roles were studied (homemaker, mother, grandmother, wife, worker and friend). All roles were rated as highly important identities. Sex-role non-traditionalism was associated with less importance of the homemaker, mother, and grandmother roles. High levels of illness intrusion were reported, especially in the homemaker role. Identity moderated the relationship between illness intrusion and negative affect, such that negative affect increased as a function of intrusions into valued identities. Little support was found for the hypothesis that homemaker role identity moderates the relationship between housework social support and psychological well-being. Cultural and normative role expectations about who ought to provide support, however, may help explain these null findings. Competence processes (operationalized as self-esteem, illness self-esteem, and self-efficacy) mediated many effects of pain, identity, illness intrusion and emotional support on psychological well-being. Results suggest such processes play an important role in subjective well-being, and highlight the need for more research on self-esteem and self-efficacy in arthritis populations in particular and adaptation to chronic illness in general.

Acknowledgements

I am deeply grateful for the various institutions that have supported my work. This research was supported by grants from the Spring Foundation for Contemporary Research on Women; a Dissertation Grant from the Minority Fellowship Program of the American Psychological Association; a City University of New York President's Dissertation Year Award from the MAGNET program, and a Stanley Milgram Research Award. Support for conducting this research was also provided by a Summer Student Fellowship from the New York Chapter of the Arthritis Foundation, and a grant to the Spanish Arthritis Self-Management Program Evaluation study (K. Lorig, Principal Investigator), awarded by the National Center for Nursing Research (#1 R01 NR03146-01). This research would not have been possible without the help of these institutions.

Many of the ideas that contributed to my work were sparked over the years by my advisors. I would like to thank Kay Deaux for introducing me to the literature on identity, and providing a venue by which I could "flesh out" my ideas. I thank Michelle Fine, who always seems to be able to view phenomena from a creative vantage point, for helping me see that chronic illness is not necessarilly a negative life event, and for sparking my interest in qualitative data. I thank Suzanne Ouellette for exposing me to the writings of Robert White and other influential thinkers, and for providing many informal yet inspiring "hallway" conversations. I thank Gary Winkel for getting me through LISREL applications, for his wonderful style of making concepts in path analysis seem simple, and for his encouragement and interest in my

work. And importantly, to my principal advisor, Tracey Revenson, I owe my interest in arthritis research. I thank her for helping me see the "big picture", which was so clear to her yet elusive to me. In many ways, Tracey has gone above and beyond the "call of duty" as my advisor, and I sincerely thank her for all her support over the years. Because of her help, trust in me, willingness to let me try things on my own, and her wisdom in knowing when to do what, I have grown tremendously as a researcher. There is no way I can ever repay this debt, except by passing her love of and dedication to teaching and mentoring to my own students in the future.

I thank all my friends at CUNY for providing lots of shoulders to lean on, and most importantly, laughter. Our program is aptly named Social-Personality because of the atmosphere they create. I also thank my life-long friend, Ana García Gilligan, who in a telephone conversation, revealed feeling bad about receiving help with housework during a period of disability, and in so doing helped spark my thinking for this dissertation.

I thank my parents for their love and encouragement over the years. I thank my son, Tony, for putting up with my late nights and other peculiarities of having a graduate student for a mother. I only hope, someday, he'll understand. I thank my husband, Robert Lanza ("Lanza"), for providing an un-ending source of love and support. I wouldn't have been able to get through without his understanding and humor. (Don't worry, just two more years of post-doc work, and I'll be done!) Finally, I thank God for giving me all these blessings.

Table of Contents

Page

Page

Page

List of Tables

List of Figures

Page

Introduction

Numerous studies document the effects of chronic illness and disability on psychological distress (e.g., Anderson, Bradley, Young, McDaniel & Wise, 1985; Turner & Noh, 1988). Anxiety and depression are common outcomes of these stressors (Taylor, 1990). A number of variables that help individuals deal with chronic illness have been studied. This dissertation focuses on one variable that has intrigued researchers: social support.

Much research attests to the beneficial effects of social support on psychological well-being and adjustment to chronic illness (see reviews by Cohen & Wills, 1985; Taylor, 1990; Wallston, Alagna, DeVellis, & DeVellis, 1983; Wortman & Conway, 1985). Social support speeds physical recovery, enhances use of health services, promotes adherence to medical regimens, and helps individuals cope with illness. Social support may even lower mortality rates (Berkman, 1985; House, Landis & Umberson, 1988).

Other research indicates, however, that social support may also have negative consequences for psychological well-being. Early evidence of the ill effects of support was reported in two studies. In a sample of elderly widowed women, Rook (1984) found that problematic social interactions were more predictive of well-being than supportive interactions. Among a sample of caregiving spouses of Alzheimer's patients, Fiore, Becker and Coppel (1983) found that upsetting social support was more predictive of depression than helpful social support. More recent studies continue to demonstrate adverse effects of social support (e.g., Revenson, Schiaffino,

Majerovitz and Gibofsky, 1991). These findings are significant because they demonstrate that problematic support may be more detrimental than positive support is beneficial. In parallel fashion, they also raise the question of whether well-intended supportive transactions may lead to negative effects.

Most of the research on social support has been based on non-Hispanic white samples. Some research, however, indicates that social support also enhances psychological well-being among Hispanics, although less has focused on Hispanics with chronic illnesses. In a community sample of Puerto Rican adults, social support was the best predictor (followed by income) of stress symptoms and an aggregate measure of emotional, substance abuse and family problems (De La Rosa, 1988). In a study of low-income Mexican immigrant women, confidant support (someone with whom to share innermost thoughts and feelings) was a strong predictor of depression, even after controlling for income, education and marital status (Vega, Kolody, & Valle, 1986). Similar beneficial effects of emotional support have been reported in other studies of Mexican Americans (Golding & Burnam, 1990).

A fair amount of research has also focused on social support and psychological well-being among non-Hispanic individuals with rheumatic diseases, the illnesses of concern for the present research study. Social support is related to greater self-esteem (Fitzpatrick, Newman, Lamb, & Shipley, 1988), psychological adjustment (Affleck, Pfeiffer, Tennen & Fifield, 1988), life satisfaction (Smith, Dobbins & Wallston, 1991), effective coping (Manne & Zautra, 1989), and less depression (Brown, Wallston & Nicassio, 1989; Fitzpatrick, Newman, Archer, & Shipley, 1991;

Goodenow, Reisine & Grady, 1990; Revenson et al., 1991).

Little is known, however, about social support among Hispanics with rheumatic diseases, who constitute an overlooked population in this field of research (Bill-Harvey, Rippey, Abeles & Pfeiffer, 1989). Do similar adjustment processes, specifically, reactions to (and effects of) social support--operate among Hispanics as those observed among non-Hispanic rheumatic disease samples? These questions are important, as ethnicity does not merely define group membership, it can also affect basic psychological processes (Jackson, 1989).

The available research on Hispanics with rheumatic disease has not focused on psychological processes and adjustment, but on the use of medical vs. self-care in treating the disease (e.g., Bill-Harvey et al., 1989; Coulton, Milligan, Chow & Haug, 1990), beliefs about arthritis (Lorig, Cox, Cuevas, Kraines & Britton, 1984), and responses to health education (Robbins, Allegrante & Paget, 1993). Two research projects, currently in progress, are evaluating the efficacy of a behavioral intervention (Padilla, Hurwicz, Berkanovic & Anderle, 1993) and educational program (Lorig, 1993) for Hispanics with arthritis. Thus, research on psychosocial adaptation among Hispanics with rheumatic diseases is clearly warranted. There is a great need for more theoretical, process-oriented research on health and adaption among ethnic minorities in general (Johnson et al., in press).

The present study offers a theoretically-grounded conceptual model that is both general to all chronic illnesses and relevant to the experiences of Hispanic women. It investigates a theoretical issue prominent in health psychology in the 1990's--the

beneficial effects of social support on health and well-being. It focuses on Hispanic women, a neglected research population in arthritis research (and the field of health psychology in general). The proposed model draws from social interactionism, identity, helping and social support theories. Specifically, the model proposes that social role importance moderates the relationship between social support and psychological adjustment to illness. Social role identity is offered as an explanatory variable for why social support sometimes has unintended negative effects on psychological adjustment. The model also considers how cultural values may relate to the importance of social role identities.

A Proposed Model of Social Support and Social Roles

Cobb (1976) defined social support as information leading the recipient to feel cared for and loved, esteemed and valued, or a sense of belonging to a network of communication and mutual obligation. Although support is motivated often by good intentions, it may sometimes have unintended negative consequences. The term "negative support" denotes such support. For example, advice on how to cope with a chronic illness or how to discipline an unruly child may be perceived as unhelpful if it is offered by a friend who has not had similar experiences. The term "negative support", however, holds some conceptual ambiguity (Revenson, 1990) as negative support transactions often are "negative in terms of their effects, not their intent" (p. 95). Understanding why well-intended support is perceived as unhelpful, and how it may adversely affect psychological adjustment may help to more clearly delineate how support works.

The main focus of the present research is on describing and testing a theoretical model of how well-intended social support may make individuals feel worse. I illustrate the mechanisms underlying this effect by describing how social interactions and role relations are interpreted through identity and the self-concept, and affect competence, self-esteem and psychological well-being. Although the model centers on well-intended help, similar identity processes may operate among more antagonistic interactions (e.g., criticism may threaten the self-concept and lower self-esteem).

Cobb (1976) argues that social support facilitates identity and role change. Social support can similarly have unintended negative consequences through role processes. Well-intended support efforts may undermine competence and self-esteem in performing valued roles. It is useful to draw from symbolic interactionist theory (e.g., Mead, 1934) in proposing how social support can have this effect. Interpersonal transactions form and maintain identity. Support transactions "have an impact...because of who we are and the role relationships developed with significant others" (Heller, Swindle & Dusenbury, 1986, p. 468). Social support that helps an individual fulfill a highly-valued role can be appraised negatively as the action symbolically reflects the inability to perform one's role. This can be detrimental as roles provide a sense of self-affirmation and identity (Cohen & Wills, 1985; Pearlin, 1983; Thoits, 1986). Role-based identity not only adds meaning to an individual's life, but provides information about how to behave in particular situations because of normative role expectations (Thoits, 1983). Thus, adequately fulfilling roles, i.e.,

competent role performance, should contribute to self-esteem and psychological well-being (Thoits, 1991a). Paradoxically, support or help from others can actually make the person feel worse by undermining competence and self-esteem. Role importance, then, may be a moderating variable that determines when support will have negative effects on psychological well-being.

A critical assumption of this model is that individuals need to feel competent in performing important social roles. This is congruent with White's (1987) belief that individuals need to feel competent in areas that are important to them. Competence in valued roles is important, but a strong sense of competence "is perfectly consistent with gross incompetence along lines that do not matter" (p. 109). White traced this notion to William James (1890/1963), who wrote that he was mortified if others knew much more psychology than he, but was "content to wallow in the grossest ignorance of Greek". The former, but not latter, was an important self-view to James. White (1987) argues that this basic sense of competence affects psychological well-being as competence is negatively related to anxiety. Anxiety often stems from feelings of helplessness, which can be mitigated to the extent one has mastery over the environment (see Pearlin, 1983, for a similar concept).

Drawing from these theoretical assertions, I propose a conceptual model to explain how social support in the context of chronic illness may actually make individuals feel worse. Figure 1 depicts this model. In brief, chronic illness is often detrimental to psychological well-being. One reason for this is that illness often interferes with the ability to perform highly-valued social roles (**path a**). Cultural

background may affect the extent to which particular roles are valued (**path b**). Important roles provide people with a sense of identity, competence, self-esteem and worth (**path c**), which, in turn, contribute to psychological well-being (**path d**). Individuals receive social support to assist them with the various adaptive tasks presented by illness, which contributes to adjustment (**path e**). Social support enhances psychological well-being by providing emotional assurances or instrumental assistance, which may contribute to self-esteem, and a sense of competence that one has the resources to deal with illness stressors (**path f**). However, social support intended to assist individuals fulfill highly-valued roles may make individuals feel worse. In these situations, social support makes salient the inability to perform important roles, undermining self-esteem, competence and mastery. Thus, role importance moderates the effects of social support on psychological well-being (**path g**).

Next, I provide a review of theories and research evidence supporting this model. Conceptual and empirical linkages among social roles, identity, self-esteem and well-being are described first (paths c and d), as well as cultural differences in role importance (path b). The effects of chronic illness on social roles are then described (path a). The processes by which social support affects psychological adjustment (path e) are numerous, but neither well understood nor subjected to intensive empirical investigation (Cohen, 1988). This paper focuses on two possible mechanisms: the effects of social support on competence and self-esteem (path f) and social role importance as a moderator of these effects (path g). Evidence for the

moderating effect of social role importance is presented next by using this conceptual model to reinterpret results of studies finding a negative effect of social support on well-being. This is a somewhat challenging task, as no studies have specifically tested path g. Instead, findings implicating social role processes as suggested by the model are described.

Role importance, identity, self-esteem, and well-being

Several theorists argue that social roles form the basis for identity, with different roles being more central to the self-concept than others. Stryker and Serpe (1982), for example, argue that identities are organized in a salience hierarchy. Salience refers to the probability of performing a role behavior. Moreover, individuals are committed to roles to the extent that others expect them to behave in those roles. The more committed a person is to a particular role or identity, the more salient the identity, the more opportunities to perform the role will be sought, and the more self-esteem will be affected by role performance. Stryker and Serpe (1982) presented some evidence for these hypotheses. For example, both commitment and salience were positively related to the amount of time spent performing religious role activities. As self-esteem was not measured in this study, however, the effect of role performance and salience on self-esteem was not demonstrated.

Whereas Stryker and Serpe discuss role centrality in terms of salience or probability of performance, other theorists conceptualize centrality in terms of importance to the self-concept (e.g., McCall & Simmons, 1966; Thoits, 1991a). Rosenberg (1979) proposes that important aspects of the self contribute to feelings of

worth. Attributes that have more "psychological centrality" have a stronger impact on self-esteem than those that are more peripheral or less important. Aspects of the self that are valued tend to be those in which the person is competent (p. 266).

Although several theoretical perspectives suggest that important facets of the self-concept contribute to well-being, there is relatively little evidence for this hypothesis. Rosenberg (1979) found a strong relationship between income and self-esteem among people who valued money; the relationship was much weaker among individuals who did not think money was important. Further attempts to document the relationship between important aspects of the self-concept and self-esteem have not met with consistent success, however. In Hoge and McCarthy's (1984) study, weighting aspects of the self-concept by individuals' importance ratings did not increase the correlation between self-esteem and simpler unit-weighted self-concept ratings (in fact, importance weightings decreased the correlation). Improving on Hoge and McCarthy's methodology by standardizing self-concept ratings and ipsatizing importance scores, Marsh (1986) found only limited evidence that more important facets of the self-concept contributed to self-esteem. Using yet a more idiographic approach than either of these two previous studies, Pelham and Swann (1989) found that important aspects of the self-concept did contribute to self-esteem, but only among participants who endorsed relatively few positive self-views and were confident about having these positive attributes. All of these studies relied predominantly on undergraduate or high school samples and did not specifically measure social roles. Instead, attributes associated with the self-concept (e.g.,

physical ability) were assessed. In a community sample that did measure social roles, Thoits (1991b) found that self-rated importance of roles were not predictive of psychological distress or substance abuse. Note that the outcome measures in this study were indicators of psychological maladjustment, rather than self-esteem. Thus, the evidence is somewhat mixed that important aspects of the self-concept contribute to self-esteem and well-being.

The contribution of important social roles to self-esteem and psychological well-being may be most apparent when these aspects of the self-concept are disrupted. Research examining situations where important identities are disrupted, or the ability to perform roles is threatened, may uncover the best evidence for the effect of important roles on self-esteem. Brown and McGill (1989), for example, propose an identity disruption model whereby events are detrimental to psychological and physical well-being only if they disrupt one's identity. In an interesting test of the model, they showed that among low self-esteem students, positive life events predicted increased self-reported symptoms and visits to a university health clinic, even after controlling for symptoms assessed four months earlier. That is, positive life events disrupted the "less worthy identity" of low self-esteem individuals. Their data, however, were based on predominantly white and upper-class high school and undergraduate samples.

Other similar "identity-disruption" theorists (Oatley & Bolton, 1985; Pearlin, 1983; Thoits, 1991a) examined adult samples. Thoits (1991a) argues that "identity-relevant" stressful events should be more disturbing than "identity-irrelevant" events.

That is, the same event will have differential impact on psychological well-being depending on whether it threatens important aspects of the self. In a community sample, Thoits (1991b) found that role identities were psychologically beneficial only when perceived stress within roles was low.

Thoits discusses the relative importance of different roles to the individual, with an explicit focus on idiosyncratic values. Other role disruption theories take a less idiosyncratic stance, seeking instead to demonstrate that as social roles are important in how individuals define themselves, threats to the self (identity disruptions) are detrimental to psychological well-being. Oatley and Bolton (1985) focus on depression as an outcome of role disruptions. Events that pose a threat to selfhood, defined as social roles that provide identity, increase the vulnerability to depression. Pearlin and his colleagues (Pearlin, 1983; Pearlin, Lieberman, Menaghan & Mullan, 1981) further specify the psychological processes leading to depression. They suggest that the effects of disrupted social roles on psychological well-being are mediated by specific threats to the self: a decreased sense of mastery and self-esteem. These, in turn, lead to depression. They show that over a four-year period, the effects of job loss on psychological well-being (i.e., depression) are partially explained by changes in mastery and self-esteem (Pearlin et al., 1981). In a longitudinal study of men recovering from myocardial infarction, Waltz (1986) similarly found that mastery and self-esteem mediated the effects of both marital role strains and illness strains on subjective well-being. In a cross-sectional study of Mexican women, Van Meek (1992) also found that mastery and self-esteem mediated

the effects of role strains (operationalized as daily hassles) on depression. Although none of these studies assessed role importance, Pearlin (1989) does argue that individual values influence the meaning of role disruptions, implicitly suggesting that roles may vary in importance.

As self-esteem is derived from roles, Oatley and Bolton further argue that role loss increases the vulnerability to depression when no other alternative roles are available as sources of self-worth. Evidence for this can be found in studies of multiple roles, which report enhanced well-being among individuals holding several roles (e.g., Kandel, Davies & Raveis, 1985; Moen, Dempster-McClain & Williams, 1992; Thoits, 1983, 1986; Waldron & Jacobs, 1989).

In addition to role disruptions, Oatley and Bolton (1985) stress the importance of other people in affirming an individual's role identity. Depression may occur when there is a discrepancy between role-related expectations of how significant others should behave and their actual behavior. In other words, significant others can affirm role-identities by fulfilling behavioral role expectations or threaten identity when behaving in ways that contradict societal or personal rules.

The effect of interactions with others on competence and well-being is also described by Pelham and Swann (1991), who argue that people strive to verify their important self-views and sense of competence by obtaining esteem support or approval of others. Because important self-views are related to perceived competence, they propose that the negative feedback people receive about their important attributes has detrimental effects on psychological well-being and even health, perhaps a greater

effect than emotional support. In a study of undergraduate roommates and married couples, symptom reports were highest among subjects whose partners negatively evaluated their important attributes. These evaluations, in turn, were related to feelings of competence (Pelham & Swann, 1991).

Gender and ethnic differences in role importance and well-being

Socialization practices may result in different role values across gender, age and ethnic background. Women, for example, are socialized into nurturing roles emphasizing interpersonal transactions (Kessler & McLeod, 1984). In a community sample, Kandel et al. (1985) found that 35% of the women they interviewed mentioned that family-related roles were most important in how they saw themselves, whereas only 7% mentioned work or career. Some research indicates that women value roles based on primary relationships more than men, and men value work and achievement-oriented roles more than women (McCrae & Costa, 1988; Thoits, 1991b), although these gender differences also vary by marital status, occuring primarily among married individuals (Thoits, 1991b). And, younger individuals are more likely to describe themselves in terms of nuclear family roles and personal relationships than older individuals, probably because of changing role relations with age (McCrae & Costa, 1988).

Because of differences in the roles they hold and value, women and men may face unique stressors that differentially affect well-being (Thoits, 1987). For example, homemaker role problems affect women's psychological distress (Link, Palamara, Mesagno, Lubner & Dohrenwend, 1990), and in one study, marital and

household stressors had a greater effect on women's psychological well-being than occupational stressors (Kandel et al., 1985). Similar effects on men are seldom reported (Hibbard & Pope, 1993). However, some studies found that men and women were equally affected by parental concerns (Ensminger & Celentano, 1990), job concerns and stress (Barnett, Marshall, Raudenbush & Brennan, 1993) and the stress of unemployment (Ensminger & Celentano, 1990). Some studies report beneficial effects of work, marriage and parenting on women's health and well-being (e.g., Kandel et al., 1985; Waldron & Jacobs, 1989). The benefits of employment for women's well-being, however, are controversial (see Frankenhaeuser, Lundberg & Chesney, 1991).

The differential effects of roles in women's lives may be especially apparent among cultures that strongly adhere to traditional roles. Hispanics, for example, are thought to prescribe to traditional sex-role beliefs (Canino, Rubio-Stipec, Shrout, Bravo, Stolberg & Bird, 1987; Vazquez-Nuttall, Romero-Garcia & De Leon, 1987). Such activities as household chores and child care responsibilities are women's tasks (Hubbell, 1993). Moreover, Hispanics' identities (like those of other ethnic minority groups) are largely entwined in family roles (Landrine, 1992). In an ethnographic study of 16 elderly Puerto Rican women, Sánchez-Ayéndez (1988) reported that respondents largely defined themselves in terms of their roles as mothers. Their activities centered around the family and household.

If ethnic background contributes to the value placed on roles, the inability to fulfill roles (e.g., because of role conflict or illness) may be especially stressful and

thus detrimental to well-being among Hispanic women. In one study of Mexican immigrant women, respondents who felt they would be unable to fulfill their roles as wives in their new unfamiliar environments were more likely to experience depression than women who did not express this belief (Salgado de Snyder, 1987). Studies of Hispanic women holding multiple roles would shed further light on the relative contribution of roles to well-being. With some notable exceptions, however, few studies have investigated multiple roles among Hispanic women; most have focused on traditional roles.

Ross, Mirowsky and Ulbrich (1983) found no differences in psychological distress between working Mexican and Anglo women. In both groups, working women experienced less psychological distress than housewives. This study did not assess sex-role traditionalism, however. Krause and Markides (1985) found that work was associated with decreased positive affect among Mexican American married women with traditional attitudes, but was associated with increased positive affect among those with non-traditional sex role orientations. Among divorced or separated women, sex role attitudes were not predictive of psychological distress. (There was a trend showing that divorced or separated women with traditional attitudes benefitted from work, and the authors proposed that the desire to establish a new identity may have accounted for this trend.) In another sample of Mexican Americans, Ybarra (1982) reported that husbands of employed wives judged their "wives' effectiveness with the children and household more favorably than the wives judged themselves" (p. 176). Working women expressed guilt about not being home to care for the

household and children. Acculturation, however, was not related to egalitarian division of labor or childrearing practices. Instead, the wife's employment status was the strongest predictor of these variables. If the wife was employed, housekeeping chores and childcare were more evenly divided between spouses than if the wife did not work.

The effects of multiple roles on well-being may also depend on the values of and interactions with significant others. In a study of Hispanic women professionals (Amaro, Russo & Johnson, 1987), having a Hispanic (vs. non-Hispanic) spouse was associated with greater stress in balancing roles and greater psychological distress. Furthermore, women with Hispanic spouses received less support for their work and career. The authors suggested that Hispanic husbands may have held more traditional views on women's roles, creating conflict and distress for the women. Clearly, more studies of traditional and non-traditional roles and values held by Hispanic women are needed.

The studies on identity and role importance discussed thus far suggest that role importance may be an important variable in understanding the effects of social support on well-being. These studies suggest that: (a) social roles are important sources of identity from which individuals derive self-worth, (b) the value placed on different roles may vary across gender and ethnic background, (c) stressors that impact or disrupt important social identities have adverse effects on psychological well-being, and (d) interpersonal relationships that involve important self-views and values may affect well-being.

I now turn to a specific stressor, chronic illness. Chronic illness presents various threats to the self-concept. It may disrupt the ability to perform valued roles and affect psychological well-being.

The impact of chronic illness on social roles and self-concept

Although positive life experiences may result from having a chronic illness, such as the ability to share similar experiences with others (Simon, 1988), interviews of individuals with various chronic illnesses (e.g., cardiovascular disease, diabetes, cancer, multiple scleroses, systemic lupus erythematosus) and disabilities indicate that chronic illness often creates serious threats to the self-concept (Charmaz, 1983). These are the result of a number of adaptive tasks that chronic illness presents (Moos, 1982). For example, chronic illness often involves pain, discomfort, and disability. As documented by studies of musculoskeletal patients, these illness stressors intrude on the ability to perform important social roles. Osteoporosis impacts upon ability to perform housework and requires other lifestyle changes (Roberto, 1988). Rheumatoid arthritis (RA) intrudes upon a number of important life domains (Devins, Edworthy, Guthrie & Martin, 1992); for example, it affects both the ability to perform the instrumental (e.g., cleaning) and nurturant tasks of the homemaking role (Reisine, Goodenow & Grady, 1987).

Fulfilling valued role activities may be an important part of psychological well-being, especially among people with limited physical abilities (Heller, Thompson, Vlachos-Weber, Steffen & Trueba, 1991). In one qualitative study of people with RA (most of which were women), respondents "frequently complained of

their diminished role as homemaker" (Wiener, 1984, p. 96), and the need to keep up with normal housework activities in order to maintain their self-images. Blalock et al. (1992) found that satisfaction with the ability to perform important role activities predicted psychological adjustment in a study of people with RA. Katz and Yelin (1994) suggest that the high rates of depression observed among arthritis samples may be due, in part, to the inability to perform valued activities.

Intrusion into valued roles may lead to a sense of incompetence, which ultimately affects psychological adjustment. A sense of competence appears to mediate the relationship between illness stressors and psychological adjustment indices such as life satisfaction and depression (Smith et al., 1991). Intervention studies of people with rheumatoid arthritis also report beneficial effects of self-efficacy on depression (O'Leary, Shoor, Lorig & Holman, 1988). Devins et al. (1992) posit that illness intrusion affects psychological well-being through at least two processes: the lack of positive rewarding experiences in important life domains, and a diminished sense of personal control over the illness. Moreover, evidence from one study suggests that feelings of self-efficacy mediate the relationship between perceived control over illness and disability (Schiaffino & Revenson, 1992). The ability to maintain a certain level of role functioning despite pain and physical limitations probably leads to a combined sense of accomplishment, self-worth, and self-efficacy over illness (Reisine, Grady, Goodenow & Fifield, 1989; Reisine & Fifield, 1988).

The failure to live up to role expectations may also create further threats to the self-concept (Charmaz, 1983). Discrepancy between the expected and actual self may

be an important source of stress (Charmaz, 1983; Collings, 1990). The need to maintain a satisfactory self-image, therefore, despite changes in goals and expectations, is an important adaptive task created by illness (Moos, 1982). Anecdotal accounts of coping with chronic illness specify this need to "forge a new identity that in some way encompasses the illness" (Register, 1987, p. 30).

A further task of maintaining a satisfactory self-image involves finding the balance between accepting help and maintaining some sense of competence and mastery, despite the reliance on others for care and support (Moos, 1982). Mastery may be especially important in enhancing psychological well-being among people with illnesses (Taylor, 1983) and disabilities (Turner & Noh, 1988). Threats to the self-concept often result from interpersonal transactions that reflect a new and undesired identity, such as "the mother who feels replaced by the housekeeper" (Charmaz, 1983, p. 186), or the fear of becoming a burden on one's family (Charmaz, 1983; Wiener, 1984). Furthermore, these self-views could affect relationships with significant others, resulting in misunderstandings, strained relations or both (Curbow, Somerfield, Legro & Sonnega, 1990; Dunkel-Schetter & Wortman, 1982).

The need to cope with medical treatment creates further adaptive tasks for people with chronic illness (Moos, 1982), which may in turn affect the self-concept. Studies of breast cancer patients document the effects of surgery and adjuvant treatments (i.e., chemotherapy, radiation) on self-esteem, self-concept and social role impairment (e.g., Penman et al., 1986). The treatment and the illness, itself, may have differential effects on self-esteem, depending on which important aspects of the

individual's self-concept they affect (Burish & Naramore Lyles, 1983; Curbow et al., 1990). Curbow et al. (1990), for example, suggest that radiation therapy for bone marrow transplants, which may interfere with reproductive functions, will differentially affect the self-concept depending on whether having children is important.

In summary, the studies discussed above illustrate that chronic illness presents a number of threats to the self-concept. In essence, chronic illness creates identity disruptions, which may operate on psychological well-being by affecting self-esteem and a sense of competence. Identity-relevant illness disruptions should have a larger impact on psychological well-being than illness stressors that do not affect important identities. When illness disrupts the ability to perform valued role tasks, the self-concept may be especially threatened.

Social support, competence, and self-esteem: The moderating effect of role importance

As discussed earlier, one important resource in assisting individuals cope with illness threats to the self-concept is social support. Yet, the helping literature suggests that accepting help often threatens or undermines self-esteem and feelings of self-efficacy, as the underlying assumption is that the person is incapable of solving his or her own problems (Brickman, Rabinowitz, Karuza, Coates, Cohn, & Kidder, 1982). Help may heighten the sense of incompetence and helplessness if the help giver and recipient do not share similar ideas about who is responsible for solving the problem (Coates, Renzaglia, & Embree, 1983).

Fisher, Nadler and Whitcher-Alagna (1982) proposed that reactions to help can be understood in terms of the recipient's perceived threat to self-esteem. Help may "imply a threatening failure to exhibit competence where one is supposed to be an expert" (p. 49). Thus, help can threaten self-concept as getting help in fulfilling an important role is inconsistent with self-image. Help may also underscore the recipient's inferiority or dependency by emphasizing incompetence and the inability to meet ideals. Help can threaten the recipient's self-esteem as the centrality of self-sufficiency and independence (internalized socialized values) are violated in help-seeking. If help is perceived as self-threatening, recipients exhibit defensive reactions (e.g., negative affect). Thus, Nadler (in press) argues that support may be most beneficial when the need for help is non ego-central; that is, when the threat to self is low. Individuals, however, are less likely to ask for help when the need reflects inadequacy on central dimensions; ego centrality discourages the willingness to seek help. From this it follows that the likelihood of asking for help in fulfilling a social role decreases with the centrality or importance of that role to the self-concept. Thus, the perceived helpfulness of that support decreases with ego centrality.

In the case of chronic illness, this suggests that interpersonal relationships involving help or social support can worsen the effects of identity-relevant illness stressors. Providing social support aimed at helping an individual fulfill an important role can make the inability to fulfill that role more salient (Stryker & Serpe, 1982). Heightening a sense of incompetence in a central role may adversely affect self-esteem and psychological well-being. If a woman values homemaking, the well-

intentioned efforts of a spouse to help with household tasks can serve to undermine self-esteem and the sense of mastery. Furthermore, because of the nature of role expectations, the husband, whose relationship contributes to the woman's role-identity of homemaker, threatens the important homemaker identity by helping her clean house--especially if he becomes too adept at the task, as this contradicts role expectations of who should do what (Oatley & Bolton, 1985). In symbolic interactionist terms, the support also symbolizes incompetence, reflected by the husband's action and ultimately the woman's own view of herself. These reflected appraisals (Heller et al., 1986; Rosenberg, 1979) of the self as incompetent can be psychologically damaging. In contrast, if the woman places less importance on homemaking, support with household tasks will not have these detrimental effects; in fact, the literature argues that social support will benefit psychological well-being.

In a study of Mexican American women, Krause and Markides (1985) found some interesting effects of help from the spouse that are not inconsistent with the proposed model. Among working married women with children, limited help or no child care help from the spouse was <u>not</u> associated with psychological distress. Limited or no help from the spouse with household tasks, however, <u>was</u> associated with psychological distress. The authors suggested that help with child care among Mexican Americans is more closely associated with women's work and child care is a primary source of self-esteem for Mexican American women. Therefore, "performing activities that are central to one's self-identity is not distressing even when these activities are accompanied by added responsibilities such as work" (p. 22).

Sex role traditionality was not considered in analyzing these results, however (and role importance was not measured). Therefore, the hypothesis that social support in fulfilling important social roles leads to psychological distress was not tested. Interestingly, the lack of relationship between help with child care and psychological well-being is consistent with a curvilinear relationship between social support and well-being. That is, spousal help with child care hindered psychological well-being among women with traditional attitudes but benefitted women with nontraditional attitudes, canceling out the significance of the relationship if tested with a linear model.

If social support has the potential to make individuals feel worse, what type of support will not undermine self-esteem and competence? The matching hypothesis (Cohen & Wills, 1985; Cutrona & Russell, 1990) predicts that social support is beneficial if it fits the needs created by the stressful event (also see French, Rodgers & Cobb, 1974, for a similar concept of person-environment fit). A number of different types of support have been identified in the literature (Cobb, 1976; Cohen & McKay, 1984; Cohen & Wills, 1985; Weiss, 1974; Wortman & Conway, 1985). Esteem support refers to efforts to make the individual feel valued and enhance self-esteem. Emotional support serves to make the person feel loved. Tangible or instrumental support involves the provision of material resources or physical assistance. Informational support consists of advice or suggestions about how to solve problems. If a valued social role is lost or threatened, support that validates or confirms remaining roles should be most beneficial. Emotional and esteem support--

aimed at building a sense of self-esteem and competence--should always be helpful. In a study of people who experienced job loss, Pearlin et al. (1981) found that emotional support enhanced psychological well-being largely by helping individuals "resist the adoption of diminished views of themselves" (p. 349). As Wills (1985) notes, "esteem support is probably relevant for a wide variety of stressors, both because ego-threat is a common element in stressful life events and because a large proportion of negative events involve conflict in interpersonal relationships, which implicitly or explicitly involves criticism or devaluation by other persons" (p. 68). In fact, in numerous studies of people coping with different illnesses, such as coronary heart disease (King, Reis, Porter & Norsen, 1993; Waltz, 1986), osteoarthritis (Weinberger, Tierney, Booher & Hiner, 1990), and rheumatoid arthritis (Brown et al., 1989; Fitzpatrick et al., 1988; 1991), emotional/esteem support consistently benefits psychological well-being.

Consistent effects of tangible support, however, are not found. Not only must the type of support match the demands of the illness stressor, as predicted by the matching hypothesis, its amount must also match the importance of the role disrupted by the illness. Too much tangible help in fulfilling important roles, for example, may undermine self-esteem. Social support will <u>not</u> be detrimental to self-esteem, however, when illness threatens unimportant social roles.

<u>Review of negative support studies: Evidence for identity and competence processes</u>

I now review existing studies that found adverse effects of support on well-being, and highlight how social identity and competence processes may be involved.

The studies reviewed below are limited to those of adults facing chronic illness or disability. In some studies, negative support is measured directly by questions assessing undesirable interactions (e.g., criticism). In others, negative support is inferred by the observation that (positive) support had undesirable consequences, i.e., it correlated with psychological distress.

Although no studies tested the present model describing how support transactions may undermine important roles and self-esteem, the findings suggest that social role processes interact with social support, contributing to psychological adjustment. It should be noted, however, that other mechanisms by which support may lead to undesirable effects have been suggested (Revenson, 1990; Shinn, Lehmann & Wong, 1984; Suls, 1982). My intent is to raise an alternative explanation involving social identity and competence processes.

Negative support and identity disconfirmation. Some studies directly examined the effects of negative support on adjustment. For example, in a sample of recently-diagnosed rheumatoid arthritis (RA) patients, Revenson et al. (1991) found that problematic support from friends and family (measured by items such as "gave you information or made suggestions that you found unhelpful or upsetting", "found it hard to understand the way you felt") contributed to increased depression, particularly among patients receiving little positive support. In Manne and Zautra's (1989) study of female RA patients and their husbands, critical remarks made by the husband (e.g., statements that the husband disliked, disapproved of, or resented an illness-related behavior or characteristic of his wife) were related to maladaptive coping (i.e.,

wishful thinking), which in turn predicted poor adjustment. Thus, support had direct effects on coping, and indirect effects on adjustment through coping.

Negative social interactions (e.g., critical remarks, broken promises) were also examined among adults who were disabled or recently bereaved elderly (Finch, Okun, Barrera, Zautra & Reich, 1989). Negative support predicted psychological distress and perceived quality of life, even after controlling for the effects of disability, bereavement and positive support. (In fact, positive support did not predict psychological distress.)

In all of these studies, negative support involves some type of identity disconfirmation. These social transactions, for example, often included critical remarks about the person's character or behavior, thus undermining self-concept and self-esteem. Although not specifically targeting role behaviors, these findings suggest that negative support may affect well-being through identity or self-concept processes.

In addition, support providers and recipients may appraise support attempts differently based on their role obligations. In a study of RA patients and their spouses, Melamed and Brenner (1990) found that partners often disagree about what constitutes a supportive behavior. Participants were asked to rate a list of behaviors as either supportive, unsupportive, or neutral. They found that, although the average couple was married 34 years, there was a high rate of disagreement about a variety of behaviors (e.g., took over my chores, got me to rest, talked to me to get my mind off the pain). Rates of agreement were higher only for a few actions (expressed irritation, expressed anger, ignored me, and got me something to eat). They

suggested that communication between partners about expected support is often not adequate. Alternatively, these findings demonstrate conflicting needs or perceptions between support providers and recipients (as further described below). For the woman with RA who values homemaking, for example, taking over her chores and getting her to rest may symbolically carry a message other than the one her spouse intended: that she is unable to fulfill certain role obligations. In trying to fulfill his role of caregiving husband, the spouse undermined the patient's competence and self-esteem, resulting in conflicting support appraisals.

Disease stage and identity salience. Support needs vary depending on disease progression and course (Revenson, 1990). The same type of support can be perceived as helpful or unhelpful, depending on when it is offered (Jacobson, 1986; Lanza, Cameron & Revenson, in press). In a sample of people with various chronic illnesses, Kutner (1987) found that receipt of tangible assistance was more likely to be reported shortly after disability onset, but not afterwards. Tangible support can be especially beneficial during such periods as individuals accomodate to new illness demands. During all disease stages, patients may appreciate emotional support, and the opportunity to discuss and express emotions. Different disease stages, in turn, make different aspects of the self-concept more or less salient. The structure of the self-concept can itself change from diagnosis, during different disease stages, and relapse, as the view of self as a "cancer patient" changes (Curbow et al., 1990).

Support, therefore, may not be beneficial or perceived as helpful if it does not match the recipient's self-concept. This possibility was suggested in a study by

Revenson, Wollman and Felton (1983). Increased support was related to decreased self-esteem and mastery, and increased negative affect among patients not undergoing chemotherapy or radiation treatment and among those with many physical limitations. In contrast, no significant relationships were found for patients receiving treatment. The authors proposed that for patients in treatment, support was timely as the disease was active and perhaps quite serious. Alternatively, it is possible that the cancer patient role was most salient for patients undergoing treatment. In fact, among this group, acceptance of the patient role was positively correlated with social support, indicating a good match between support and the self-concept. For those not in treatment, however, support may have been incompatible with important "non-patient" or "healthy" identities (as suggested by a non-significant relationship between acceptance of the patient role and social support in this group). In other words, support did not match the identity salience of the non-treatment patients, possibly undermining self-esteem and mastery, and increasing psychological distress (negative affect).

Conflicting roles of support recipients and providers. There may be conflicting needs between support recipients and providers, leading to unhelpful support. Weiss (1977) argues there is a fundamental need to provide nurturance, or to feel needed. Similarly, Ingersoll-Dayton and Antonucci (1988) propose that the caregiver role may afford a sense of usefulness and efficacy. The support recipient, however, also needs to feel competent. Support may backfire, therefore, because of competing role needs. The patient needs to feel competent in important social roles,

whereas the support provider needs to feel he or she is contributing to the well-being of the patient. Cardiac patients often report different support needs than their spouses (Moser, Dracup & Marsden, 1993), and spouses of patients often feel conflicted while juggling the strong sense of responsibility to care for the patient and the patient's need for autonomy (Coyne, Ellard & Smith, 1990). Social support may undermine competence, reflected in a phenomena known as cardiac invalidism.

In a sample of people with spinal cord injuries (Elliott et al., 1991), high levels of support and advice from health professionals was related to increased depression among assertive individuals (who value mastery and independence). Crossover effects occured among nonassertive persons, as high support and advice benefitted psychological well-being. This study demonstrates that for people with disabilities and high needs for self-assertion or mastery, professional help, motivated by the well-intended desire to help, can have detrimental effects on psychological well-being.

Furthermore, serious or prolonged illnesses require continued need for support. This may lead to hostility or resentment among support providers (Coyne, Wortman & Lehman, 1988; Suls, 1982), multiplied by conflicting role needs. O'Brien (1980), for example, reported a decrease in the quality of interactions between dialysis patients and family and friends over time. In Dunkel-Schetter's (1984) study, problematic support and interpersonal relationships were more common among patients with advanced vs. early-stage cancer. Furthermore, support was related to greater positive affect and self-esteem among good prognosis patients, but

not among poor prognosis patients. Support providers may feel frustration in the absence of improvement, and even interpret lack of progress as an intentional effort on the part of the patient to undermine support (Coyne et al., 1988). It may also be difficult to match support to a salient (poor) prognosis.

Amount of support, competence and self-esteem. The amount of support provided may determine whether support undermines competence and self-esteem. Coyne and his colleagues (Coyne et al., 1990; Coyne et al., 1988) argue cogently that family members often become overinvolved in patients' lives. Overinvolvement appears to have negative effects across a variety of illnesses. Coronary heart disease patients with overprotective families show poorer recovery, and overinvolved parents may thwart children's adjustment to asthma (Kaplan & Toshima, 1990). Family members may perpetuate dependent roles, especially if they are worried about the patient's condition (Suls, 1982). Worse yet, family members may make the patient feel completely useless (Charmaz, 1983). In a study of breast cancer patients, Peters-Golden (1982) found that the oversolicitous behavior of others made patients feel incapable of performing ordinary tasks.

Too much instrumental support, rather than esteem support, may perpetuate dependency and lower the sense of competence. Two studies of elderly adults found strong relationships between illness disability, impairment in daily function and increased psychological distress (Arling, 1987; Revicki & Mitchell, 1990), suggesting that illness role disruptions resulted in distress. Arling (1987) also found a relationship between instrumental social support from network members and increased

psychological distress. These findings are congruent with the hypothesis that support undermined competency. Due to the cross-sectional nature of the study, whether high levels of support led to feelings of dependency resulting in distress, or distress resulted in increased support could not be determined. In a second study by Revicki and Mitchell (1990), instrumental support had positive effects on well-being (i.e., increased life satisfaction and decreased psychological distress). Although both samples were predominantly from rural areas, Revicki and Mitchell's (1990) sample had somewhat lower income levels and contained a larger proportion of Black adults than that of Arling's study. In the former, instrumental support may have alleviated the greater effects of poverty and racism rather than undermining self-esteem.

In summary, overinvolved support may lead to poor adjustment by undermining self-esteem and competence. Instead, social support may be most effective at moderate levels (Coyne & DeLongis, 1986). There may be some threshold that determines when support becomes overwhelming. This curvilinearity may be especially appropriate when considering the benefits of instrumental support for chonically ill individuals.

Normative social role expectations. The amount of support provided may also contribute to feelings of inequity in role relationships and decreased self-esteem. Social equity theory holds that participants in inequitable relationships feel distress regardless of whether they over- or underbenefit from inequity (Hatfield & Sprecher, 1983). In a predominantly low-income elderly sample, Wentowski (1981) found strong norms for reciprocity, suggesting it may be an important source of self-worth

and pride among elderly people. Kandel et al. (1985) found that non-reciprocity in family roles (marital and housework) was perceived as stressful, as was inadequacy of the spouse in fulfulling the marital role. Thus, the inability to reciprocate support may also contribute to perceived unhelpful support (Revenson, 1990).

Normative role expectations, however, may determine when reciprocity will lead to psychological distress. Clark (1983) argues that in close relationships "the implicit rule is to be responsive to one another's needs, not to repay one another for specific benefits received" (p. 222). The recipient is entitled to help, so feelings of indebtedness may not be relevant (Greenberg & Westcott, 1983). Similarly, Antonucci (1985) proposes that there are different norms for friends and family. Family members, but not friends, are obligated to help one another. Expectations of support from kin members may be especially strong among Hispanic families (Sánchez-Ayéndez, 1988; Zavala-Martínez, 1987), who tend to ascribe great importance to family relationships (Vaux, 1985) and family support (Sabogál, Marín, Otero-Sabogál, Marín & Pérez-Stable, 1987). In a three-generation study of Mexican Americans, Markides, Boldt and Ray (1986) found that the family was the major source of advice and help; friends were relied on infrequently.

In addition to the norms surrounding the provider-recipient relationship, the importance of the social role that one needs help in fulfilling may also affect the association between reciprocity and distress. Kessler and McLeod (1984) suggest that women are socialized into nurturing roles. Therefore, if a woman perceives caregiving or nurturance as an important component of the wife role, receiving sick

care from her husband that she cannot reciprocate may have detrimental effects on well-being. Adult children, on the other hand, may be expected to care for their elderly mothers, perhaps in exchange for tasks done for their children during their upbringing (Beckman, 1981; Sánchez-Ayéndez, 1988).

Normative roles expectations may also be rooted in cultural beliefs. In Markides et al.'s study (1986), men were responsible for helping with home repairs, women for caring for sick family members. Older generation family members were relied on for help and advice by their children. In a study of elderly Puerto Rican women, Sánchez-Ayéndez (1988) found that women tended to rely most on their daughters. During illness, daughters are expected to provide the most sick care and help with household chores.

Because of normative expectations, therefore, non-reciprocal mother-child (especially daughter) helping relationships are not threatening to self-esteem. Some evidence for this hypothesis is found in several studies of non-Hispanic white older adults. Ingersoll-Dayton and Antonucci (1988) reported that participants who gave more instrumental and emotional support to their children than they received (underbenefitting) experienced more negative affect. In contrast, in exchanges with both spouse and friends, more distress was related to overbenefitting in emotional support (i.e., receiving more than they gave). In addition, respondents who received more instrumental sick care from their spouses than they gave experienced negative affect. Respondents were more comfortable overbenefitting in sick care from children, and underbenefitting from spouse or friends. Rook (1987) reported

somewhat similar findings in her study of elderly widowed women. On average, across different types of support (emotional, confidante and instrumental), reciprocity was related to satisfaction with friends, but not children. Looking at specific types of support, however, Rook found different patterns. Although neither inequitable emotional nor companionship exchanges correlated with satisfaction with children, overbenefitting in instrumental support (sick care and financial help) from children was associated with increased satisfaction and underbenefitting with decreased satisfaction. Two other studies of elderly women (Beckman, 1981; Lee & Ellithorpe, 1982) also suggest that receiving more help from children than women provide tends to enhance psychological well-being.

The varying associations between psychological well-being and different support type-by-provider combinations reported above (e.g., Ingersoll-Dayton & Antonucci, 1988; Rook, 1987) also indicates that role expectations may underlie what types of support are most helpful and from whom. Certain types of support may be helpful from providers who do not undermine the recipient's important social roles. Moreover, support must be consistent with expectations regarding the provider's role. Various studies indicate that the perceived helpfulness of support depends on who is providing the support (e.g., Lanza et al., in press). In a study of cancer patients, Rose (1990) found that patients wanted tangible aid from family members, modeling from friends with cancer, and communication or clarification from health professionals. Patients desired emotional support from both family and friends. Dunkel-Schetter (1984) found that patients perceived information and advice as

helpful from health care professionals, but unhelpful from friends and family. Normative role expectations warrant effective medical advice from health professionals, not friends. Interestingly, tangible assistance from friends and family was not mentioned among the most helpful types of support. These findings clearly demonstrate that the same type of support can be perceived as helpful or inappropriate, depending on who is providing it.

Interestingly, across a variety of illnesses, including RA (Affleck et al., 1988), multiple sclerosis (Lehman & Hemphill, 1990), and cancer (Dakof & Taylor, 1990), emotional support is consistently reported as desirable, and minimization of illness (or disconfirmation of a salient aspect of the self-concept) as unhelpful. Emotional support may always beneficial in stressful situations (Cohen & Wills, 1985; Weiss, 1976). Typically, such support enhances self-esteem, which is critically needed when identity-relevant illness stressors disrupt important roles. Note, however, the different evaluations of other types of support. For example, instrumental support from spouse is not mentioned as helpful, and in some studies (e.g., Ingersoll-Dayton & Antonucci, 1988) it was even related to distress. Wethington and Kessler (1986) suggest that the beneficial effects of support might depend on "a complex interaction among the source of support, the type of support offered, and the event" (p. 83). In a community sample of adults, they found that tangible support from the spouse appeared to enhance psychological well-being only among people with severe physical illnesses. From a symbolic interactionist perspective, instrumental support from the spouse makes the inability to fulfill important normative role expectations more salient

(Stryker & Serpe, 1982). As self-esteem is closely associated with this role, the support recipient may experience distress. Instead, instrumental support from other network members such as friends may be less distressing. Help from friends does not threaten the role as much as help from the spouse; it is more important to receive emotional support from the spouse (also see Clark's [1983] discussion of relative threat from close vs. more distant relationships, p. 220).

Role expectations, conflict in asking for help and problematic support. Support attempts may be strained because recipients may feel uncomfortable asking for help in ego-central domains (Nadler, in press). Such requests could symbolize the inability to meet expected role obligations. Chesler and Barbarin (1984) noted that sometimes parents of children with cancer did not know how to ask for help, especially fathers who are expected to be "the rock" of the family (p. 127). Such discomfort could create ambiguity about when to provide support (Coyne et al., 1988; Dunkel-Schetter & Wortman, 1982). Friends noted that cues from parents about what type of support they needed were helpful in determining whether to provide help, although typically, friends had difficulty discussing the child's cancer. They often avoided the topic because of discomfort or fear of invading the family's privacy, or made inappropriate remarks (such as suggesting having another child to replace the loss). Inappropriate remarks were also reported by Dunkel-Schetter (1984) among a sample of people with cancer.

In summary, these studies suggest that individuals who need support may not know how to ask for it without appearing incompetent. Network members may thus

not provide support, or may make well-intentioned though inappropriate comments in their attempts to be helpful.

Summary and Conclusions

Although not explicitly studied, the majority of studies on the negative effects of social support imply that social role processes may be involved in these negative interpersonal transactions. Social support that disconfirms important social roles or that symbolically represents incompetency in performing valued roles may decrease self-esteem and increase psychological distress. Support that does not match salient social roles, fails to account for the recipient's need to maintain a sense of competence, or conflicts with normative role expectations may adversely affect psychological well-being. Thus, valued social roles that make up the self-concept may be important moderating variables that determine when support attempts may backfire.

The proposed model leads to the following general predictions: social support aimed at helping to an individual fulfill a particular social role will be more beneficial for individuals who do not value that role. If the role is an important part of the person's self-concept, social support may emphasize the inability to fulfill the role and undermine the recipient's sense of competence and self-worth. In other words, role importance moderates the relationship between social support and well-being. For example, a disabled woman who values her role as homemaker is more likely to feel depressed at the sight of her husband mopping the floor than a woman who preferentially values her career role. This does not mean that no tangible support at

all is desirable for women who value homemaking. Rather, for such individuals, the relationship between social support and depression exhibits some threshold for beneficial effects (or is U-shaped). For women who do not value homemaking, the relationship is linear.

In conclusion, the social support literature clearly documents the beneficial effects of support for people coping with chronic illness. It is now time to investigate the psychological and interpersonal processes involved in this relationship. Social role importance may be one important variable deserving future research. The remainder of this paper presents a proposal for such research.

Hypotheses

The proposed research will test the model depicted in Figure 1, including a number of principal hypotheses. The main hypotheses to be tested include the effects of (1) illness intrusion into important roles and (2) social support in fulfilling important roles on psychological well-being. These hypotheses are presented below.

Hypothesis 1. Sex-role orientation and acculturation will relate to role importance (path b in Figure 1). This relationship should be most pronounced for the homemaker and work roles. Specifically, non-traditional sex-role attitudes should be related to decreased homemaker role importance, and increased worker role importance.

Hypothesis 2. Arthritis may cause difficulty in performing role activities. In addition to having global effects on psychological well-being and adjustment, illness also interferes with role activities, termed illness intrusions (path a). Therefore, the

model predicts that: (a) pain, disability, and illness intrusions will correlate with psychological well-being; and (b) chronic illness, operationalized by pain and disability, should be positively associated with illness intrusions into social roles.

Hypothesis 3. Psychological adjustment is most compromised when illness intrudes upon important social roles, from which individuals derive a sense of competence and self-worth. Therefore, (a) role identity importance moderates the relationship between illness intrusion and psychological well-being. Illness intrusion into valued role identities will be associated with decreased psychological well-being, but intrusion into unimportant roles should not have this effect. (b) Further, competence mediates this effect.

Hypothesis 4. Roles that are important or central to identity contribute to self-esteem and feelings of self-worth (Figure 1, path c), which in turn, contribute to psychological well-being (path d). Thus, self-esteem processes mediate the effect of role identity on psychological well-being.

Hypothesis 5. A positive, direct relationship between emotional support and psychological well-being is expected (Figure 1, path e). Emotional support is always beneficial to well-being.

Hypothesis 6. This is the central hypothesis of the study, and has two parts. Social support should be least beneficial when it involves tangible assistance in fulfilling a highly-valued role. In this case, tangible support undermines the recipient's sense of competence and self-esteem (path f, Figure 1), which ultimately affects psychological well-being (path d). Therefore, the model predicts that: (a) role

identity importance moderates the relationship between tangible support and psychological well-being (path g); and (b) it does so by affecting competence and self-esteem; thus, the effect occurs through a mediational process.

Hypothesis 7. For highly valued role identities, the relationship between role-specific tangible social support and psychological well-being is curvilinear, U-shaped in nature. Specifically, moderate levels of support have the most beneficial effects, and both high and low levels have less beneficial effects. For unimportant roles, the relationship is linear, with greater tangible support related to more psychological well-being.

Method

Data collection procedures

Respondents were recruited from the Rheumatic Disease Clinic, a specialty clinic within the Ambulatory Care Center of the Hospital for Special Surgery in New York City, which serves a large Hispanic population. Eligibility criteria were: age of 18 years or older, Hispanic ethnicity (defined as individuals of Puerto Rican, Mexican, Cuban, South or Central American or other Spanish culture or origin; Marín & Marín, 1991); and diagnosis of musculoskeletal or rheumatic disease. Respondents were recruited while waiting for their clinic appointments. The majority of respondents were approached by the investigator about participating in the study; a small number of respondents were referred to the study by their physicians. The study's purpose and procedures were explained using standard informed consent procedures, and all patients who agreed to participate in the study were given a copy

of the consent form to keep.

A total of 127 women were asked to participate in the study. Only nine women (7%) declined participation. Four gave no reason for not participating. The remaining five gave one of the following reasons for not participating: no interest in the project, too ill to be interviewed, residing too far from the hospital, being a "very private person", and lack of time. Of the 118 women who agreed to participate in the study, two patients twice did not show up for their scheduled interviews at the clinic, and no further attempts to reschedule them were made. Two patients who were scheduled for home interviews cancelled their appointments and did not express an interest in rescheduling. Another five home interviews were cancelled for various reasons and were not rescheduled (one patient was too ill on the scheduled appointment date; one had to leave town to care for her daughter's newborn; three others had schedule conflicts). Therefore, a total of 109 women participated in the study. This sample size yields sufficient statistical power (.80) to detect a medium effect size with an alpha level of .05, and 8 independent variables in a regression equation (Cohen, 1992).

Data were collected by a structured face-to-face interview. The principal investigator conducted 106 interviews; the remaining three were conducted by a female research assistant. Respondents were given the option of completing the interview in either Spanish or English, either in their homes or at the hospital (after their clinic appointment or at another convenient time). The majority (84.4%) of the interviews were conducted in Spanish and most (70.6%) took place in respondents'

homes. The average interview lasted 80 minutes. Respondents were paid $25 for their participation.

All questions were read out loud to respondents. In order to facilitate answering questions with standardized response formats, participants were provided with a booklet with printed responses and their associated numeric equivalents. However, completion of the interview required no reading ability, and some respondents opted to answer questions without consulting the response booklet. Responses to open-ended questions were tape-recorded.

Sample characteristics

Table 1 presents the characteristics of the 109 women who participated in the study. Slightly over half (54.1%) of the sample had rheumatoid arthritis (RA). The next most frequently-occurring diagnoses were lupus and osteoporosis (15.6% each). The rest of the sample had a range of rheumatic diseases. The average respondent had been ill for almost 14 years. Five respondents (4.6%) were confined mostly to a wheelchair or bed.

Most respondents (88%) were foreign-born. Half of the sample (51.4%) was Puerto Rican, most of whom were born on the island. Other respondents came from the Dominican Republic, Columbia, and various other countries in Central and South American, and the Caribbean. The average respondent had been residing in the U.S. for 27.9 years, with a range of less than one year to 51 years.

The average respondent was middle-aged ($\underline{M}$ = 50.6); ages ranged from 19 to 86 years. The average respondent had approximately 9 years of education. Most

participants were currently unemployed due to disability (48.6%) or were homemakers (38.5%). Most women in the sample had a household income of less than $10,000 per year (73.4%). Few respondents lived alone (21.1%). Thus, on average, the sample could be described as having a low social-economic status.

The majority of the sample was not married, being either separated, divorced or widowed. Most (87.2%) were mothers, and had at least one child over 20 years of age. Half of the respondents (52.3%) were grandmothers, most of whom had at least one school-aged or younger grandchild.

Measures

Instruments were administered in either Spanish or English. A team in New York City (NYC) developed most of the Spanish versions of the scales used in this study. A double translation technique using two iterations with four independent translators was employed, as recommended by Marín and Marín (1991). The English version was translated into Spanish by Translator A. Translator B then translated the scale back to English. This second English version was translated to Spanish by Translator C, and from Spanish back to English by Translator D. Discrepancies between versions were settled by the investigator, consulting with another team translator.

Spanish versions of the other instruments were developed by the Stanford Arthritis Center for the Spanish Arthritis Self-Management Program Evaluation study (SASMP; Lorig, 1993). The measures were translated for use with various Hispanic subgroups, avoiding region-specific phrases and terminology that may not be common

among other subgroups (see Hendricson et al., 1989, for a discussion of this problem). Translation involved a highly effective back-translation procedure (Marín & Marín, 1991). Discrepancies were settled by a team of eight translators from various Hispanic subgroups, who also employed rigorous checks on the scales' language to insure adequate face validity.

Table 2 lists the measures used to operationalize constructs in the study. The third column shows the research team that translated each scale.

Chronic illness

Chronic illness was operationalized by pain and functional disability. These are two commonly-used indices of disease severity in arthritis research.

Pain was measured by a 6-item instrument used in the Medical Outcome Study to assess frequency and intensity of pain over the past four weeks (Sherbourne, 1992). The scale includes two visual analog scales that require respondents to rate their "average" and "worst" pain over the past 4 weeks. The visual analog consists of an obtuse triangle with various vertical shades. Each shade is anchored with a number from 1 to 10, with the endpoints labeled "none" and "as bad as you can imagine". The other four items assess pain frequency and duration (e.g., "During the past four weeks, how often have you had pain?"; "How long did it usually last?") on a 6-point response scale. The six items are summed, yielding scores that may range from 4 to 43, with high scores indicating more severe pain. The mean score in this study was 34.57 (SD = 6.83), indicating that the average respondent experienced relatively high levels of pain. Cronbach's α for the scale was .79.

Disability was measured by the functional disability subscale of the Health Assessment Questionnaire (HAQ, Fries, Spitz, Kraines, Holman, 1980). The HAQ is a self-report measure that has established reliability and validity among arthritis populations (Liang, Larson, Cullen & Schwartz, 1985), is used extensively in arthritis education programs (Lorig & Holman, 1989; Lorig, Lubeck, Kraines, Seleznick, Holman & 1985), and shows adequate agreement with physician-rated disease status (Goodenow et al., 1990). The measure is composed of 24 questions that assess mobility and ability to perform activities of daily living (e.g., eating, dressing), rated on a 4-point scale (0 = without any difficulty to 3 = unable to do). The mean is calculated to obtain a disability score. In this study, M = 1.85, SD = .61, indicating that the average respondent performed activities with "much difficulty", or a moderately high level of disability. The internal consistency reliability for the scale was .80.

Social roles

Six roles were selected for this study as they are common roles by which individuals tend to define themselves: homemaker, parent, grandparent, spouse, worker, and friend. The importance of each role and the degree to which illness interfered with role performance were measured by a number of instruments. Role identity was measured first, followed by illness intrusion.

Role identity importance. In an open-ended question, respondents were asked to name the most important roles they held. Roles were explained as aspects of one's life or activities that are important, using examples that included being a student/going

to school, or being a homemaker/maintaining a home. Most respondents understood the question in terms of these life domains. In cases where a respondent still had difficulty with the question, additional examples were provided using roles that the respondent held. Respondents were asked to reflect for a moment before naming those roles that are important to their self-concepts. Up to five roles could be named.

Next, the extent to which respondents valued the six roles under study (homemaker, mother, grandmother, wife, worker and friend) were assessed with a quantitative measure. The Identity Subscale of Luhtanen and Crocker's (1992) Collective Self-esteem scale, was used to assess role identity, or the importance of each role to the self-concept. Respondents indicated, on a 7-point response scale, the extent to which they agreed with four statements for each role (e.g., "Overall, being a [homemaker, mother, grandmother, wife, worker, friend] has very much to do with how I feel about myself"). Although two items in the original scale are reverse-keyed, to avoid confusion, all statements were worded such that agreement indicated importance. For each role, a role identity score was obtained by averaging the four items.

Internal consistency reliabilities for the role identity scales were as follows: homemaker, .95; mother, .95; grandmother, .98; wife, .96; worker, .77; friend, .98.

After answering the quantitative importance questions, an open-ended question asked respondents whether their roles are as important to them now as they were prior to illness onset. Although retrospective, answers to these questions revealed whether respondents shifted the importance of their identities in order to accomodate

illness-induced limited role functioning.

Role intrusion. Role intrusion is distinct from experiencing disability and pain. For example, depending on occupation, a person with wrist pain may not report intrusion into the work role. Therefore, both qualitative and quantitative measures of role intrusion were included.

First, in open-ended questions, respondents were asked to discuss how their arthritis affected each of the six roles under study. As the number and nature of respondents' roles varied (e.g., depending on the presence and age of children), these qualitative data provide examples of how illness intrudes into various roles.

Second, respondents were asked to rate the degree of illness intrusion into various roles using a quantitative measure. The items assessing illness intrusion were similar to those used in studies of rheumatoid arthritis (Devins et al., 1992) and end-stage renal disease (Devins et al., 1990). Respondents were asked, "How much has your illness affected or interfered with each of these areas of your life?" Respondents rated the degree of illness intrusion for each relevant role domain (household chores, parenting, grandparenting, marriage, work, friendships) on an 11-point scale (0=not at all to 10=extremely). A global illness intrusion score, averaging across all relevant role domains, was calculated for each respondent.

Predictors of role importance

Sex-role non-traditionalism. Although the Attitudes Towards Women scale has been used frequently among Hispanic samples to assess traditional sex-roles (see review by Vazquez-Nuttall et al., 1987), a more role-oriented scale was desired for

the present study. Therefore, the Index of Sex Role Orientation (ISRO; Dreyer, Woods & James, 1981) was used. The ISRO has shown adequate reliability and the ability to discriminate between feminist and traditional political/community groups (Dreyer et al., 1981). It is comprised of 16 items concerning the division of housework between spouses, and attitudes about women, work, and childrearing responsibilities. Respondents rate their degree of agreement on a 5-point scale ("strongly agree" to "strongly disagree"). Scores are summed in the direction of non-traditionalism, yielding a possible range of 16 to 80. In this study, Cronbach's α = .82, and M = 53.41 (SD = 9.89), indicating the average respondent held sex-role attitudes that were neutral-to-moderately nontraditional.

Acculturation. The extent to which respondents value traditional roles may also depend on their level of acculturation. Acculturation was measured by a scale developed by Marín, Sabogal, Marín, Otero-Sabogal and Pérez-Stable (1987), who created both Spanish and English versions. The measure consists of 4 items that assess language use (e.g., "In which language do you usually think?") on a scale of 1 ("Only Spanish") to 5 ("Only English"). Responses are summed, with high scores indicating greater acculturation. The measure has been used and validated with a variety of Hispanic groups, demonstrates high reliability, and correlates with criteria such as length of residence in the U.S. (Marín et al., 1987; Marín & Marín, 1991). In this study, Cronbach's α = .89; and M = 7.47 (SD = 4.27) indicating a relatively low level of acculturation. Length of residence in the U.S. was related to acculturation (r = .32, $p < .001$) but not to sex-role non-traditionalism (r = -.14,

ns). The correlation between sex-role non-traditionalism and acculturation was .54 ($p < .01$).

Social support

Both emotional and role-specific tangible support were assessed. Emotional support was measured with an illness-specific scale developed by Revenson et al. (1991), which asks respondents to indicate the extent to which they receive various types of support from specific providers. The scale has demonstrated good psychometric properties in two studies of people with rheumatic diseases (Revenson & Schiaffino, 1990; Revenson, 1993a). Eight items assess emotional and esteem support (e.g., "Listens to you"; "Makes you feel you have something positive to contribute to others"). Role-specific housework support was measured with items created for this study. Housework support consisted of 3 items ("Cleans the apartment/house", "Helps with other housework tasks", "Helps cook meals").

In this study, respondents were asked to name the two people who helped them most often (Provider A and B, respectively). Changing the original wording in the instructions, respondents were asked how often the support provider engages in various behaviors "When you are not feeling well because of your illness, or those times that your illness interferes with different aspects of your life". A 7-point response format was used (1=never to 7=always).

Scores for emotional and housework support were obtained by averaging items within each type of support across the two providers. In cases where respondents could not name Provider A or B (i.e., they had no support provider at all or only

one), emotional and housework support items were coded as 1 ("never/none"). Cronbach's α reliabilities were: emotional support, .96; and housework support, .85.

Qualitative data on social support. To complement the quantitative data on social support, open-ended and semi-structured questions investigated role-specific tangible support for homemaking, parenting and work. Probes inquired about reactions to tangible support. All close-ended support measures were administered after the open-ended questions.

Mediators between social support and psychological well-being: Sense of competence

It is proposed that social roles provide individuals with a sense of competence and self-worth, and that support operates on psychological well-being through these processes. Various measures of self-esteem and self-efficacy were used to assess the sense of competence.

Self-esteem was measured by Rosenberg's (1965) 10-item scale, which contains items such as "I feel that I have a number of good qualities", rated on a 5-point scale ("strongly agree" to "strongly disagree"). Scores are summed to yield a possible range of 1 to 50; high scores indicate positive self-esteem. The scale has been used with various age groups (e.g., Ryff, 1989), chronic conditions such as rheumatoid arthritis (e.g., Fitzpatrick et al., 1988; Revenson & Felton, 1989) and cancer (Curbow et al., 1990; Revenson et al., 1983), and Hispanics (e.g., Van Meek, 1992). In this study, the mean was 38.75 (SD = 6.61) and Cronbach's α = .81.

Illness-specific self-esteem was assessed by 6-item scale taken from Felton and Revenson's (1984) study of people with chronic illnesses. Respondents indicate their

extent of agreement with statements about illness-related self-esteem (e.g. "Despite my illness I feel worthy as a human being", "My health makes me feel inadequate", "Frail health makes one less of a person"), on a 5-point response format ("strongly agree" to "strongly disagree"). Responses are summed with high scores representing high illness-specific self-esteem. In this study, $\underline{M}$ = 19.07 ($\underline{SD}$ = 4.95) and Cronbach's α = .75.

Self-efficacy. Competence was also operationalized as general feelings of self-efficacy, or beliefs about performance capabilities. A self-efficacy measure for people with arthritis developed by Lorig, Chastain, Ung, Shoor and Holman (1989) was used. The scale contains three subscales, two of which were used in the present study. The first subscale (6 items) measures the extent to which the respondent believes she is able to control pain and continue daily tasks (e.g., "How certain are you that you can continue most of your daily activities?"). The second subscale (7 items) assesses control over other symptoms such as fatigue (e.g., "How certain are you that you can regulate your activity so as to be active without aggravating your arthritis?"). The response format consists of a 10-point rating scale, with endpoints labelled "very uncertain" and "very certain". Scores are obtained by summing across items within each subscale; high scores reflect high self-efficacy. As the two subscales were highly correlated in this study ($\underline{r}$ = .79), they were combined to form a single self-efficacy score. Scores could range from 13 to 130. In this sample, the mean was 76.38 ($\underline{SD}$ = 29.17) and Cronbach's α = .93.

Correlations between self-efficacy and the two self-esteem measures were: .36

for global self-esteem, and .35 for illness-specific self-esteem (both ps < .0001). The correlation between global and illness-specific self-esteem was .67, p < .01. Although the correlation between the two esteem measures was fairly high, the overall pattern suggests that the three scales should be used separately to measure the construct of competence.

Psychological well-being

Psychological well-being and ill-being are different dimensions and may have different correlates (Diener, 1984; Headey, Holmstrom & Wearing, 1983; Kammann, Farry & Herbison, 1984). As the absence of negative emotions does not adequately represent psychological well-being, various measures were used to assess psychological well-being.

Depressive symptoms were measured with the Center for Epidemiologic Studies Depression scale (CES-D; Radloff, 1977). Respondents indicate how often they experienced 20 symptoms of depression during the previous week, using a 4-point scale (0=rarely to 4=most of the time). Items are summed yielding a possible range of 0 to 60; high scores indicate greater depression. The scale has been used extensively with arthritis samples (e.g., Goodenow et al., 1990; Revenson et al., 1991) and is highly reliable for this population (Blalock, DeVellis, Brown, & Wallston, 1989). Both the English (e.g., Vega et al., 1986) and Spanish versions (e.g., Salgado de Snyder, 1987; Stroup-Benham, Lawrence & Treviño, 1992) have been used with a number of Hispanic samples with good reliability and validity.

Psychological well-being was assessed with the Index of Affect, which was

used in two large-scale surveys of American quality of life (Andrews & Withey, 1976; Campbell, Converse & Rogers, 1976). This 8-item semantic differential scale assesses feelings about life as a whole (boring-interesting, enjoyable-miserable, useless-worthwhile, friendly-lonely, full-empty, discouraging-hopeful, disappointing-rewarding; brings out the best in me-doesn't give me much chance) using a 7-point response format. Items are summed with possible scores ranging from 8 to 56, and high scores indicating positive affect. The scale correlates with other measures of well-being, shows high internal consistency, (Campbell et al., 1976; Kammann et al., 1984; Larsen, Diener, & Emmons, 1985), moderate test-retest reliability over one to two months (Larsen et al., 1985), and is not contaminated substantially by current mood or social desirability (Kammann et al., 1984; Larsen et al., 1985).

The Positive and Negative Affect Scale (PANAS; Watson, Clark & Tellegen, 1988) is a 20-item scale. Respondents rate how often they experienced positive and negative feelings over the past week on a 5-point scale (1=very slightly or not at all to 5=extremely). Ten adjectives comprise the Positive Affect Scale (PAS; e.g., "excited", "inspired"), and ten constitute the Negative Affect Scale (NAS; e.g., "nervous", "irritable"). Items within each scale are summed yielding possible scores of 10 to 50, with higher scores indicating greater positive or negative affect.

A confirmatory factor analysis on all four well-being measures revealed that a two-factor model of psychological well-being best fit the data, $X^2(1, N = 109) = .50$, $p = .49$; Goodness of Fit Index = .98. The first factor could be described as a general positive affect factor, the second as negative affect. Based on this

confirmatory factor analysis, two measures of psychological well-being were created for use in data analyses. Positive Affect is comprised of the summed score of the Index of Affect and PAS items, yielding scores with a possible range of 18 to 106. The mean of the sample was 69.00, SD = 17.01. Negative Affect consists of the sum of the CESD and NAS, yielding scores that could range from 10 to 110. The mean score was 45.32, SD = 20.93. The two factors are correlated -.59 ($p <$ .0001), suggesting that they are related, but tapping somewhat different dimensions of well-being.

Results

This study proposes that people derive satisfaction, self-worth and a sense of purpose through the social roles they hold. The pain and disability caused by arthritis, however, may threaten the ability to fulfill social roles, and social support aimed at fulfilling a particular role may be detrimental to psychological well-being. If the role is an important part of the person's self-concept, social support may emphasize the inability to fulfill the role and undermine the recipient's sense of competence, self-efficacy and self-worth.

Statistical analyses were conducted to test these ideas, as depicted in Figure 1. To reiterate, the following paths will be examined: Arthritis often interferes with the ability to perform highly-valued social roles (**path a**). Cultural background may affect the extent to which particular roles are valued (**b**). Important roles provide people with a sense of competence, self-esteem and worth (**c**), which, in turn, contribute to psychological well-being (**d**). Individuals receive social support to help

with the adaptive demands of arthritis, which contributes to adjustment (e). In general, social support enhances psychological well-being by providing emotional or tangible assistance that contributes to self-esteem, and a sense of competence and self-efficacy that one has the resources to deal with illness stressors (f). However, tangible social support that assists individuals fulfill highly-valued roles may make individuals feel worse. In these situations, social support makes salient the inability to perform important roles, undermining self-esteem, competence and mastery. Social support intended to help individuals feel better may actually make them feel worse. Thus, role importance moderates the effects of social support on psychological well-being (g). This does not imply that having no tangible assistance is the ideal; rather, for valued roles, the relationship between social support and psychological well-being exhibits some threshold for beneficial effects or is curvilinear (U-shaped). If the role is not central to identity, the relationship between tangible assistance and psychological well-being is linear.

Descriptive and open-ended data on role identities and social support are presented first, as identity and social support constitute the two principal variables under study. Results pertaining to tests of the study's hypotheses and model follow.

Descriptive Data

Role Identity

The importance of six roles was studied: homemaker, mother, grandmother, wife, worker and friend. All women in the sample (n=109) held the homemaker and friend roles. Ninety-five women (87.2%) were mothers, 57 (52.3%) were

grandmothers, and 27 (24.8%) were wives. Nine respondents (8.3%) who held the work role were either employed full-time (n=2) or part-time (n=7). Two others were currently seeking work (n=2).

Of the six roles under study, the average number of roles held by respondents was 3.37 (SD = .69). Sixty-three women in the sample (57.8%) held 3 roles, and 35 women (32.1%) held 4 roles. A simple count of the number of roles held by respondents was not related to either positive (r = -.03) or negative affect (r = .11), although these correlations may be affected by low variance in the number of roles held by respondents.

In an open-ended question, respondents were asked to indicate up to five roles that are most important to their self-concepts. Table 3 presents responses to this question. Respondents typically listed two to three role identities. Only 10 women listed four roles, and only two named five roles. Two respondents could not think of any roles that were important to them.

Findings relevant to the six roles under study are listed first in Table 3. The mother identity was commonly named as the first role (27.5%), followed by homemaker (15.6%), and student (13.8%). With regard to the second role named by women, a hobby-related activity (e.g., sewing) was most frequently mentioned (13.8%), followed by work (10.1%) and homemaker (9.2%). It should be noted that, to facilitate answers to this open-ended question, examples of the homemaker and student roles were provided. These examples may have made these roles most salient.

With regard to the six roles of interest to this study, the last column in Table 3 reveals somewhat limited correspondence between holding the grandmother and spouse roles and naming them spontaneously as important. Ten of the 57 grandmothers named that role, and only 7 out of 27 spouses named the wife role as important.

Respondents were encouraged to talk about whatever life domains they considered important. As a result, some women listed role identities that they did not currently possess. These identities sometimes reflected past-selves, or wished-for possible selves (Markus & Nurius, 1986). One-quarter of the sample (26.6% or 29 respondents) listed a "possible self" as one of their important roles. Twenty-five women (22.9%) named one possible self; four women (3.7%) listed two possible selves. A frequently listed possible self was the worker identity, which was named by slightly more than half (55%) of the respondents who listed a possible self.

As listed in the lower section of Table 3, rather than naming roles, some women listed personal attributes or personal identities (Banaji & Prentice, 1994), such as "being active". Some listed other important life domains (e.g., "living in a safe neighborhood") that would not qualify as role identities per se. Nevertheless, such responses were not discouraged. From a qualitative research perspective, these data were interesting in their own right as they reflected important life domains that were salient to some respondents.

The importance of the six roles under study (homemaker, mother, grandmother, wife, worker, friend) was also assessed with a close-ended role identity

scale, which was used in quantitative data analyses. Table 4 presents descriptive statistics for the role identity measures. All six roles received relatively high ratings, indicating that on average, the roles chosen for study were central to womens' identities. Although the friend role received a relatively high rating, many women expressed a general belief that good friends are "few and far between", and stated that they had only one or two good friends. Role identity scores were not related to the order in which roles were mentioned in the open-ended importance question.[1] (See Ethier and Deaux, 1990, for similar findings.)

Social Support

A second critical construct of interest to the study was social support, specifically, emotional and housework support. In an open-ended question, respondents named the two people who helped them most when they are not feeling well.

Table 5 shows the two individuals on whom respondents most often relied for support. Respondents named family members frequently, daughters were named most often. The spouse was a frequent support provider among women with partners. Although there were 27 partnered women in the sample, six did not name their spouse as one of their support providers. Various reasons for not naming the spouse were given. One respondent stated that her husband never provides any type of support at all, so she relied on her daughter. A second replied that she depended more on her mother as her spouse is busy working and she would rather not bother him. A third said that although her husband always helps with housework, she prefered to answer

the support questions with reference to a close friend who provided mostly emotional support. Another woman, who depended on her mother for support, did not mention interactions with her spouse throughout the interview. The reasons of two other women were not clear, both of whom listed daughters as providers.

Social support was also assessed quantitatively by asking respondents to indicate the extent to which each person provides emotional and housework support. Emotional and housework support scores were averaged across the two providers. Respondents reported relatively high levels of emotional support ($\underline{M}$ = 5.72, $\underline{SD}$ = 1.58), and somewhat less housework support ($\underline{M}$ = 3.91, $\underline{SD}$ = 1.92).

Having laid this groundwork for the main constructs of interest to the study, the remaining sections describe results related to the study's hypotheses.

Tests of Study Hypotheses and Proposed Model

The findings for the study's hypotheses are presented in two parts. Part I presents results pertaining to hypotheses that involve the six roles under study (Hypotheses 1 to 3). These hypotheses focus on the relationship between acculturation and role identities, and the effect of illness on roles. Part II contains tests of hypotheses related to the full model in Figure 1, limited to the homemaker role (Hypotheses 4 to 7). These are the principal analyses of the study, as they examine the effects of identity and social support on psychological well-being, and competence mediating processes.

Parts I and II are further divided into two sections. The first section discusses quantitative tests of hypotheses. These results are presented using the following

format: (a) review of each hypothesis, (b) description of data analysis procedures where appropriate, and (c) description of results. The second section of Parts I and II discusses qualitative data that complement observations from the quantitative analyses.

Part I: Tests of hypotheses concerning roles

Hypothesis 1. Sex-role orientation and acculturation will relate to role importance (path b in Figure 1). This relationship should be most pronounced for the homemaker and work roles. Specifically, non-traditional sex-role attitudes should be related to decreased homemaker role importance, and increased worker role importance.

Table 6 shows the correlations of sex-role orientation, acculturation, and years residing in the U.S. with role identities. Sex-role orientation was correlated with three role of the six role identities: homemaker, mother and grandmother. Non-traditional sex-role attitudes were related to decreased importance of these roles. Acculturation was correlated negatively with importance of the mother role. Neither sex-role orientation nor acculturation was correlated with the work role identity, or the wife or friend roles. These findings lend partial support to Hypothesis 1: sex-role orientation and acculturation were related to the value placed on being a homemaker, but not worker.

Hypothesis 2. Arthritis may cause difficulty in performing role activities. In addition to having global effects on psychological well-being and adjustment, illness may also interfere with role activities, termed illness intrusions (path a). Therefore,

the model predicts that: (a) pain, disability, and illness intrusions will correlate with psychological well-being; and (b) chronic illness, operationalized by pain and disability, should be positively associated with illness intrusions into social roles.

Table 7 presents descriptive data concerning illness intrusion ratings. The homemaker and work roles were most severely affected by rheumatic diseases. As seen in Table 8, Hypothesis 2a was partially supported. Pain was correlated with the two adjustment indices, but disability was not. Illness intrusions in the wife, worker and friend roles were correlated with positive affect; and intrusions into all but the mother and grandmother roles were related to negative affect.

Hypothesis 2b was also supported. Pain was positively correlated with illness intrusion into all but the wife and worker roles. The latter correlation was relatively high but did not reach significance due to the small number of workers in the sample. Disability was related to intrusions into all but the wife role.

Hypothesis 3. Psychological adjustment is most compromised when illness intrudes upon important social roles, from which individuals derive a sense of competence and self-worth. Therefore, (a) role identity importance moderates the relationship between illness intrusion and psychological well-being. Illness intrusion into valued role identities will be associated with decreased psychological well-being, but intrusion into unimportant roles should not have this effect. (b) Further, competence mediates this effect.

Hierarchical multiple regression analyses were used to test these hypotheses. Separate regression equations were computed for positive and negative affect as

criterion variables. In both equations, pain and disability were entered as a set in the first step. Illness intrusion and role identity scores (averaged across roles) were entered as a set in the second step. An interaction term composed of the product of the (averaged) illness intrusion and role identity scores was entered on the third step. A significant interaction term would indicate a moderator effect. The three measures of competence (self-esteem, illness self-esteem and self-efficacy) were entered as a set in the final step to examine whether competence mediates the effects of identity and intrusions on psychological well-being. Indirect or mediation effects are detected by step-to-step changes in regression coefficients as new variables enter the equation (Cohen & Cohen, 1983).

To avoid the multicollinearity problems that may arise when two continuous variables form an interaction term, deviation scores were created for the illness intrusion and role identity variables by subtracting the mean score from respondents' raw scores. In this procedure, known as centering, the interaction effect (i.e., the R^2 change and associated significance test) is the same for raw and centered scores. However, the constant, unstandardized regression coefficients, and the main effects of the variables constituting the interaction change (Finney, Mitchell, Cronkite & Moos, 1984).

Table 9 presents the results of the regression analyses. Turning first to positive affect, several predictors had significant effects as they entered the equation. Greater pain was related to lower positive affect (β = -.26). Greater illness intrusion was associated with less positive affect (β = -.20) and stronger role identity with

greater positive affect (β = .36). The interaction term was not significant, indicating that role identity does not moderate the effect of illness intrusion on positive affect. Greater self-esteem (β = .38) and self-efficacy (β = .36) also contributed to positive affect.

Step-to-step changes in the regression coefficients of pain, illness intrusions and identity indicated that these variables had indirect effects on positive affect (Cohen & Cohen, 1983). In Step 2, when the illness intrusion and identity variables were entered, the effect of pain decreased slightly from -.26 to -.21, but remained significant. However, the coefficient for pain dropped to -.11 and became non-significant in Step 4 when the competence measures entered the equation. Similarly, from Step 2 to Step 4, the coefficients for illness intrusion and identity changed from -.20 and .36 to .03 and .15, respectively. These findings indicate that the effects of pain, illness intrusions and identity on positive affect are mediated by competence.

In the parallel equation explaining negative affect, pain, intrusion and identity again had significant effects as they entered the equation. Increased levels of pain (β = .43) and illness intrusion (β = .21) were related to greater negative affect. Higher role identity scores were related to lower negative affect (β = -.19). In addition, greater self-esteem (β = -.31) and self-efficacy (-.34) were assocated with lower negative affect.

The interaction term of illness intrusion-by-role identity was significant, and is illustrated in Figure 2. The regression lines were plotted following procedures recommended by Cohen and Cohen (1983), using one standard deviation above and

below the mean to represent high and low role identity scores, respectively. As Figure 2 shows, those women for whom role identities were less important experienced higher negative affect, regardless of illness intrusion level. For women with highly-valued role identities, however, negative affect increased sharply with greater illness intrusion levels, as hypothesized.

With regard to indirect effects on negative affect, changes from Step 1 to Step 4 in the beta coefficients of pain, illness intrusion, and identity indicate that a sense of competence again mediated the effects of intrusion and identity (Step 4 βs = -.04 and -.01, respectively) and, to a lesser degree, the effect of pain (β = .29). Furthermore, a change from .18 to .06 in the interaction term's regression coefficient suggests that competence mediates the combined effects of role identity and illness intrusion.

These findings support Hypothesis 3, that identity moderates the relationship between illness intrusion and psychological well-being, but only for negative affect. Moreover, competence (operationalized as self-esteem, illness self-esteem and self-efficacy) mediates the effects of illness intrusions and role identity on psychological well-being. Competence also mediates the effects of pain, although the effect of pain on negative affect is also direct.

Summary. Thus far, results indicate that women placed great value on the six roles under study, although the importance of the homemaker, mother, and grandmother roles decreased with non-traditional sex-role attitudes. Women experienced pain and illness intrusions into roles, which were related to psychological adjustment, and increased illness intrusions into valued roles were associated with

greater negative affect. Overall, having valued role identities was related to better psychological well-being. Finally, results suggest that the effects of identity and illness intrusions on psychological well-being operate through competence. Data from the open-ended questions (described next) complement these findings.

Qualitative Findings: Effects of illness on roles and psychological well-being

Several open-ended questions asked about the effects of arthritis on roles. In a retrospective question, respondents were asked if the importance of their roles had changed after becoming ill, in order to explore whether respondents devalued roles they could no longer fulfill. Few women said their roles became less important. In fact, several women said they valued their roles more now. Many said the importance of their roles did not change after becoming ill.

Respondents were also asked how arthritis had affected or intruded into their role performance. Many women adjusted how they performed their roles in order to maintain a sense of identity, competence and self-worth. For example, many women said they still did most of their own housework, but took longer to clean, or stretched their housework tasks over three days instead of trying to do everything in one. As one respondent noted "I dust, and I vacuum, and I sweep. I do dishes if they aren't heavy. Like the pots I can't do, because they are very heavy, so I just leave them there, and [my spouse] does it." Another respondent, who had a home attendant, stated that although the home attendant did most of the cooking, she added the seasoning for her own sofrito (a Spanish seasoning mixture used for various dishes that can be as unique as one's personality).

A combination of role flexibility with acceptance over limited role performance appeared to be extremely beneficial in adjusting to arthritis. As one respondent noted about her homemaking chores, "They are important, everything's important to me, but it's come to a point where I have to limit a lot of things or find a different way of doing it. It's like squeezing the bottle for the detergent--what I do is I get a pump, and I do everything with a pump. I find a way of doing it and making it comfortable." Thus, while accepting limitations, women attempted to accomodate daily role activities around tasks they could accomplish--at times with a creative flare--so as not to feel inútil ("useless"). In doing so, they preserved a sense of identity, self-worth and competence.

The inability to be flexible in role performance and accept limitations was problematic, especially in the absence of other meaningful roles. One extremely depressed woman, who was contemplating suicide, was distressed over having to leave her job as a housekeeper due to her disabilities. She could not accept this loss, and could find nothing meaningful in her life. Although she stated that her depression was rooted in her job loss, her reaction may also have depended on the context of the loss, and the availability of her other roles and their quality. For example, in the case of this participant, the job loss resulted in poor housing. In addition, she was currently living with her ex-husband who was a crack addict, had few family members in the United States, and felt regretful that she did not have good relationships with her sons.

The mother identity appeared to serve a unique protective function. In open-

ended questions, many respondents indicated that not only did their children provide them with social support, but children kept them "going". As one respondent said, *"Me pongo a jugar con ellos...me ayudan mucho, no le gustan verme triste y ellos me hacen reír...Me dan ánimo. Los hijos...dan ánimo para seguir adelante y seguir luchando con la enfermedad."* ("I play with them...they help me a lot, they don't like to see me sad so they make me laugh...They give me ánimo [spirit, courage]. Children provide courage to go on and continue struggling with the illness.") Concerns about their children's future inspired many women to face the disease with courage, and get out of bed in the morning. The protective role of being a mother was epitomized in the case of one respondent, a single mother, who had contemplated suicide but decided not to end her life for fear of leaving her daughter alone.

Another respondent's comments were more typical of how the mother role served a protective function. Women drew upon their inner strengths in order to cope with the illness and fulfill the role, *"Me hago la mente más fuerte, y se que los tengo que vestir, que los tengo que bañar, que los tengo que atender, y lo hago. Es una obligación que tengo, y tengo que responder por ellos"*. ("I make my mind stronger, and I know that I have to dress [my children], that I have to bath them, that I have to take care of them, and I do it. It's an obligation that I have, and I have to honor it for them.") Her later comments also revealed that meeting these maternal role responsibilities in spite of the illness was especially rewarding and beneficial to psychological well-being: *"Me pongo a mirarlos, y cualquier cosita que hagan ellos, cualquier carrita o 'monerito' que hagan, me hace tan contenta y me pone a pensar*

que yo cree esos niños, que vinieron de mí, y me hace sentir tan feliz...me olvido de mis problemas y mi dolor, y me concentro más en ellos." ("I look at them, and whatever little thing they do, the cute little faces they make, the way they play and 'monkey around', and it makes me so happy and gets me thinking that I raised those children, they came from me, and it makes me feel so happy...I forget about my problems and my pain, and I concentrate more on them.")

These latter comments also help illustrate another observation: Women looked at their children as products of their own resilience in adapting to arthritis. It was not uncommon for respondents, upon reflecting on their illness and life circumstances, to take great pride in reporting that despite living with the pain and limitations of arthritis, and other other life stresses (e.g., neighborhood quality), their children were happy, drug-free, and either in school or graduates. During the interview, many women showed photographs of their children, which were proudly displayed throughout their homes. Despite their illness, successful fulfillment of the mother role, gauged by childen's emotional well-being, and how they "turned out", provided many women with a sense of competence, self-esteem, and psychological well-being.

Part II: Test of full model with principal hypotheses

The next set of hypotheses tests the full model illustrated in Figure 1, with regard to the homemaker role. Hypotheses to be tested involve the effects of homemaker identity and social support (emotional and housework support) on psychological well-being, as well as competence mediating processes.

Correlations between the demographic variables of education, income and age with the outcome variables of positive and negative affect indicated that only education was modestly correlated with positive affect ($r = -.19$, $p < .05$). Given the large number of variables required to test the full model, a decision was made not to control for education in order to maximize statistical power[2].

The model was tested with path analysis, using reduced form equations as outlined by Cohen and Cohen (1983). The procedure involves a series of hierarchical regression equations, in which each variable is entered in order of causal priority. As with standard regression procedures, interactions are tested with multiplicative (product) terms. Through the series of equations, both direct and indirect effects can be tested. Mediating effects are tested by examining indirect effects. When a variable first enters the equation, its regression coefficient represents its total effect on the outcome variable. Its regression coefficient at the final step of the equation is its direct effect. A variable's total indirect effect is the difference between its total and direct effects.

The total indirect effect can be investigated further by examining how the regression coefficients change from step to step in the hierarchical analysis. An indirect effect of a variable via a specific mediator is calculated as the difference in the variable's coefficient before and after the mediator enters the equation (Cohen & Cohen, 1983, pp. 360-361).

Path analysis procedure

As illustrated in Figure 1, the path model is recursive, that is, no reciprocal

causation or feedback between variables is hypothesized. Chronic illness (operationalized as pain and disability) and sex-role orientation are treated as exogenous variables; that is, they affect other variables, but their own causes are unexplained. The principal endogenous variable, i.e., the variable to be explained by the model, is psychological well-being (operationalized as positive and negative affect). Competence (operationalized as global and illness-specific self-esteem and self-efficacy) is a mediating construct: it both affects and is affected by other variables. Therefore, path coefficients were also calculated for competence as an endogenous variable.

Separate analyses were conducted for each endogenous variable of interest: positive and negative affect (the two measures of psychological well-being), and global self-esteem, illness self-esteem, and self-efficacy (the measures of competence).

In analyses predicting positive and negative affect, the following series of hierarchical regression equations were performed to test the model. Variables were entered in order of causal priority; therefore, the exogenous variables of pain, disability and sex-role orientation were entered as a set in the first step[3]. Homemaker role identity was entered next in step 2, followed by emotional and housework support as a set in step 3. A homemaker identity x housework support interaction term was entered in step 4 (again, using centered variables to avoid multicollinearity). Finally, in step 5 the three measures of competence (global and illness-specific self-esteem, and self-efficacy) were entered as a set. Note that competence is the critical mediator through which other variables (specifically, identity and social support) are

hypothesized to operate. Thus, the path coefficient (effect) of a given variable entered in a prior step should decrease in this final step, when competence enters the equation. Such a decrease indicates that the variable's effect on positive or negative affect is mediated through competence.

These equations yield path coefficients from competence to positive and negative affect, and represent one side of the mediating paths (the effect of competence on psychological well-being; see Baron & Kenny, 1986). To complete the model, paths from antecedant variables were calculated treating competence as an endogenous construct. These represent the effects of other variables on competence. To estimate these effects, the identical hierarchical analyses described above were repeated except that the outcome measures were the three measures of competence, global self-esteem, illness self-esteem, and self-efficacy, and step 5 was omitted.

Standardized beta coefficients (path coefficients) were used to interpret results. Unstandardized coefficients, although more stable than their standardized counterparts, were not used as positive and negative affect were measured with "arbitrary scales". That is, the scaling and unit changes of these measures are not directly interpretable (Cohen & Cohen, p. 367). Moreover, the effects of different variables can be compared using standardized (but not unstandardized) beta coefficients. The words "effect" and "predict" are used in the statistical sense common to path analytic terminology. It should be stressed that causal directionality cannot be established without longitudinal data.

Table 10 presents the bivariate correlations of all variables used in the path

analyses. Table 11 shows the results and computation of path coefficients in the equations predicting positive affect. Table 12 presents the identical data for negative affect. The hierarchical regression analyses for the measures of competence as an endogenous construct are presented in Table 13. Figures 3 and 4 illustrate and combine the data from these Tables. Figure 3 shows direct paths, and Figure 4 indirect paths, between all variables in the full model. Only significant paths are illustrated to simplify the diagrams.

Effects of Pain. The principal exogenous variable, chronic illness, was conceptualized as pain and disability. Pain had a number of significant effects on competence and psychological well-being. Pain had a significant direct effect on self-efficacy (-.31) and a marginally significant direct effect on illness self-esteem (-.21; equation 4 in Table 10 and Figure 3). In addition, pain had a significant total effect of -.26 on positive affect (Table 14, equation 1). This coefficient remained relatively unchanged as variables were entered into the analyses. At the final step, however, when the mediating competence variables were introduced, the direct effect of pain decreased to -.09 and was non-significant (equation 5). Therefore, the effect of pain on positive affect was largely indirect (-.17, equation 5), operating through competence (Figure 4).

With regard to negative affect (Table 12), pain again had a significant total effect of .43 (equation 1), which remained constant until the final step. When the proposed mediators were entered into the analyses, the direct effect of pain remained significant, although it was reduced somewhat to .23 (equation 5 and Figure 3),

indicating that the effect of pain on negative affect is somewhat indirect (.18, equation 6) operating through competence processes (Figure 4).

Results pertaining to the principal hypotheses in the model, which concern the effects of identity and social support on psychological well-being, are presented next.

Hypothesis 4. Roles that are important or central to identity contribute to self-esteem and feelings of self-worth (Figure 1, path c), which in turn, contribute to psychological well-being (path d). Thus, self-esteem processes mediate the effect of role identity on psychological well-being.

Homemaker identity had a direct effect on two measures of competence: self-efficacy (.19) and self-esteem (.25) (equation 4 in Table 13 and Figure 3). Homemaker identity had an indirect effect on positive affect (see Table 11, equation 5). The significant total effect (.26; equation 2) remained constant as new variables entered the analyses. At the final step, however, the direct effect of homemaker identity was .10 and non-significant (equation 5). Its indirect effect was .17, indicating that the effect of homemaker identity on positive affect is largely indirect, via competence (Figure 4).

Turning to negative affect (Table 12), although the total effect of homemaker identity was non-significant (.02, equation 1), a suppressor effect occurred. At the final step, the direct effect of identity on negative affect increased to .21 and was significant (equation 5, Figure 3). Therefore, the indirect effect of identity was -.17, indicating that identity decreases negative affect through competence (Figure 4).

In sum, these data support the hypotheses that important identities contribute to

psychological well-being, and that this occurs largely by affecting competence processes.

Hypothesis 5. A positive, direct relationship between emotional support and psychological well-being is expected (Figure 1, path e). Emotional support should have a main effect on psychological well-being.

Emotional support had a marginally-significant direct effect on illness self-esteem (.20; see Table 13 and Figure 3). In addition, emotional support had a significant total effect of .25 on positive affect, as shown in equation 3 of Table 11. At the final step (equation 5), its path coefficient was reduced by one-half, yielding a marginally significant direct effect of .13 (Figure 3) and an indirect effect of .12 (Figure 4). Thus, the effects of emotional support on positive affect appeared to be partly direct, and partly indirect, the latter operating through competence processes.

The effects of emotional support on negative affect, however, were not significant (Table 12, equations 3 and 5). Thus, results suggest that the effect of emotional support on psychological well-being is limited to positive affect, and occurs partly by affecting competence processes. Hypothesis 5, therefore, was not well supported.

Hypothesis 6. This is the central hypothesis of the study, and has two parts. Social support should be least beneficial when it involves tangible assistance in fulfilling a highly-valued role. In this case, tangible support undermines the recipient's sense of competence and self-esteem (path f, Figure 1), which ultimately affects psychological well-being (path d). Therefore, the model predicts that: (a) role

identity importance moderates the relationship between tangible support and psychological well-being (path g); and (b) it does so by affecting competence and self-esteem; thus, the effect occurs through a mediational process.

Hypothesis 6a, which predicts a moderation effect, will be supported by a significant regression coefficient for the homemaker identity-by-housework support interaction. In the analysis predicting positive affect, this interaction term was significant at $p < .10$ (Equation 4 in Table 11). A number of statisticians suggest that an observed $p < .10$ value can be used to indicate interaction effects in field (vs. experimental) research, and that such interactions be examined for content (Aiken & West, 1991; McClellan & Judd, 1993).

Figure 5 illustrates this interaction effect. Among women for whom the homemaker identity was less important, greater housework support was related to decreased positive affect. The reverse occured for those respondents who highly valued the homemaker identity: increased support was associated with greater positive affect. These findings contradict the direction of effects expected by Hypothesis 6a.

With regard to the mediation effect predicted in Hypothesis 6b, subtracting the homemaker identity-by-housework support interaction's total effect of .15 (Table 11, equation 4) from its direct effect of .14 (equation 5) yielded an indirect effect of .01 (equation 5). This indicates that the interaction effect of homemaker identity with housework support on positive affect is direct, i.e., not mediated through competence processes (Figure 3). Thus, Hypothesis 6b was not supported.

In the parallel analyses predicting negative affect, neither direct nor indirect effects were found for the interaction of homemaker identity-by-housework support (Table 12, Equation 5). Housework support's direct effect of -.16 on negative affect (equation 5 and Figure 3), suggests that greater housework support is associated with less negative affect, regardless of homemaker identity importance.

In summary, the results do not provide strong support for Hypothesis 6a, that identity moderates the relationship between housework support and psychological well-being. A moderation effect was found only for positive affect, but the interaction was not in the predicted direction. No support was found for the Hypothesis 6b, that competence processes mediate this effect.

The analyses revealed only a marginally significant ($p < .10$) interaction of homemaker identity-by-housework support, but the obtained value is acceptable for interpreting interaction effects in field research (Aiken & West, 1991; McClellan & Judd, 1993). Furthermore, there were strong theoretical grounds for pursuing the interaction effect. Hypothesis 7 further specifies the nature of the moderating effect of homemaker role identity on the relationship between housework support and psychological well-being.

Hypothesis 7. For highly valued role identities, the relationship between role-specific tangible social support and psychological well-being is curvilinear, U-shaped in nature. Specifically, moderate levels of support have the most beneficial effects, and both high and low levels have less beneficial effects. For unimportant roles, the relationship is linear, with greater tangible support related to more psychological

well-being.

The curvilinear moderation hypothesis was tested using hierarchical regression equations with squared variables (Baron & Kenny, 1986; Cohen & Cohen, 1983). Specifically, the homemaker identity score was squared for each respondent, and two homemaker identity-by-housework support interaction terms were created, one using the squared identity variable. A curvilinear moderation hypothesis is supported by a significant effect of the interaction term composed of the squared variable. Once again, separate analyses were conducted for positive and negative affect. Given the increased number of predictor variables needed to test for curvilinear moderation effects, only pain was used in the first step of hierarchical analyses in the interest of maintaining statistical power.

Variables were entered into regression equations in order of theoretical prominence. Unsquared variables were entered prior to squared variables to avoid "variance stealing" (Cohen & Cohen, 1983; pp. 226, 335). Pain was entered in the first step. Homemaker identity was entered next, followed by the squared homemaker identity variable. Housework support was entered next. The interaction terms were entered last, with the identity x housework support term followed by its squared counterpart.

Table 14 presents the results of the regression analyses testing curvilinear effects. Pain had a significant effect on both positive and negative affect, and was the only significant predictor of the latter.

Homemaker identity had a linear relationship with positive affect (β = .25).

The interaction of homemaker identity x housework support was marginally significant ($p < .10$). Results did not support the curvilinear moderation hypothesis for positive affect.

Thus, the data suggest a linear moderating effect of identity on the relationship between housework support and positive affect, as depicted in Figure 5. Hypothesis 7 was not supported.

Summary. Results testing hypotheses 4 to 7 provided various clues about the relationships between identity, social support and psychological well-being. Competence processes had an important mediating role in these relationships. Results suggest that the homemaker identity may enhance positive affect and lower negative affect by contributing to feelings of self-efficacy and self-esteem.

With regard to social support, different types of support had different effects on the two indices of psychological well-being. Emotional support contributed to positive, but not negative affect. Emotional support had both a direct effect on positive affect and an indirect effect through competence processes. Housework support had a direct effect on negative but not positive affect, such that more support was related to lower negative affect.

The hypothesis that identity moderates the relationship between housework support and psychological well-being received little support. Analyses revealed a moderation effect only for positive affect. Contrary to predictions, however, housework support was related to lower positive affect among participants who placed less importance on the homemaker identity; and a beneficial effect of housework

support on positive affect was observed among high-importance respondents. Analyses indicated that this moderating effect did not occur through competence processes. Furthermore, contrary to expectations, the moderating effect of identity was linear, rather than U-shaped.

Data from open-ended questions shed further light on some of the contradictory findings.

Qualitative Findings: Interplay of identity, social support and the sense of competence

Respondents were asked to describe how others help them with their household chores. They were also asked how they felt about the help they received. These qualitative data revealed an intriguing interplay between identity, social support, and feelings of competence and self-esteem.

In responses regarding reactions to receiving support, many women reported ambivalent feelings associated with housework support. Often, ambivalence resulted from respondents' belief that housework responsibilities should be fulfilled by them, not their spouses. Yet, they were incapable of carrying out homemaker role tasks and needed help from their spouses. As one respondent said about receiving help from her husband, *"Por una parte me siento bien por la ayuda, pero por otra parte me siento mal porque soy yo la que tiene que hacerlo, y no puedo hacerlo."* ("Part of me feels good about the help, but the other part feels bad because I am the one who should be doing it [the housework], but I cannot.")

Despite feeling satisfied with the support they received, women stated that

receiving help with household tasks made them feel useless. As one respondent said about receiving help from her husband, *"Me hace sentir mal, porque antes yo era muy activa...no me gusta [que me ayude]. Ono se siente mal porque ono ve que antes podía hacer todo y ahora ono tiene que esperar que alguien le ayude...y a veces me pongo a llorar."* ("It makes me feel bad, because before I was very active...I don't like it [that he helps]. One feels bad because one sees that before, one could do everything, and now one has to wait for someone to help...and sometimes it makes me cry.") The homemaker identity, with its concomitant "active self", conflicted with receiving help with household chores, and produced mixed feelings about housework support.

One strategy to guard the homemaker identity while still accepting help with housework involved minimizing or down-playing the help that is received. One respondent reported that her husband sometimes feels she is ungrateful because she complains constantly about the way he cleans the bathtub. Although that particular task was impossible for her to perform, she felt she could do a better job.

Some women who depended completely on housework support from home attendants were able to avoid feeling useless and maintain some aspect of the homemaker identity by planning the household tasks for the day, or assisting in limited activities, such as chopping vegetables, whenever possible. It is not that women failed to acknowledge their need for support. Indeed, incompetent home attendants who did not want to clean or did not do it well were a primary source of stress and concern. Respondents wanted to fulfill some aspect of the homemaker role

identity, even if in a limited capacity.

Many respondents indicated a need to remain active, and to feel that they could maintain their households and do for themselves. Thus, the homemaker identity provided meaningful role activities. Many participants who could not perform heavy housework activities such as vacuuming revelled in the things they could do. One respondent's comments were typical, "Cosas ligeras sí puedo hacerlas...me place hacer todo eso porque no puedo vivir sentada". ("I can do light chores...doing them pleases me because I cannot live sitting down.)

The drive to remain active was a primary source of motivation for many women. Not surprisingly, it was mentioned as an important personal identity by several women (see Table 3). As one respondent stated:

> I'd rather do things on my own. I mean, it's true, it's really true. They [home attendents] come in your house and they do everything for you and you are lying down. The next thing you know you are all stiff. You know, you have to try and be independent, to do things on your own or else you're never going to get nowhere that way. You understand? You're not going to get up and do this or do that, you are always going to be stiff and in a lot of pain. When you get up and move your body and your elbows and everything, there is less pain. But you have to get up and do things for yourself. You just can't be laying in that bed all the time--that's very depressing laying in that bed. If you don't want to do anything, you just get up and do a little housework and if you feel tired, lie right back down for about a half hour, get back up and start doing something different. I can't deal with not doing anything... I have to do things.

Discussion

This study investigated the effects of social role identity and social support on the psychological well-being of Hispanic women with arthritis. Competence processes were suggested as critical mediators of these effects. The study's hypotheses and

results are outlined in Table 15. Briefly, all six roles under study (homemaker, mother, grandmother, wife, worker and friend) were rated as highly important identities, although sex-role nontraditionalism was associated with less importance of the homemaker, mother, and grandmother roles. Respondents reported high levels of illness intrusion into roles, especially homemaking. Both identity and illness intrusion predicted psychological well-being. A moderation effect of identity on the relationship between illness intrusion and negative affect was found, such that negative affect increased as a function of intrusions into valued identities.

With regard to social support, daughters were named frequently as support providers. Emotional support had both direct and indirect effects on positive affect. Little evidence was found for the central hypothesis of the study, that homemaker role identity moderates the relationship between housework social support and psychological well-being.

Competence mediated the relationship between psychological well-being and pain, role intrusions, identity, and emotional support. One must conclude from these findings that a sense of competence is essential to subjective well-being among people with arthritis. As other researchers have noted, "There is clearly a need to examine the linkages between perceived competence and specific coping behaviors...to determine the activities that competent-feeling people engage in...to maintain their satisfaction with life in the face of adversity" (Smith et al., 1991, p. 1238). The findings in the present study suggest that competence requires much more research attention than it has been given historically in psychosocial arthritis research.

The critical role of competence in psychological well-being

People with chronic disabling illnesses, such as arthritis, have to cope with a great deal of pain, physical limitations, and illness intrusions into valued roles. These may contribute to the high rates of depression and distress that are observed commonly (Anderson et al., 1985). Emotional support may lessen the effects of these illness stressors on psychological well-being. Having meaningful role identities and activities, despite the illness, may also serve protective functions. In this study, all these effects occurred, in whole or in part, through one mechanism: a sense of competence. Competence mediated the effects of both biological and psychosocial variables and was related to greater positive affect and less negative affect.

White (1987) maintained that the sense of competence is integral to well-being. Similarly, other researchers have argued that feelings of self-efficacy or mastery are critical determinants of psychological well-being for people with illnesses (Taylor, 1983) and disabilities (Turner & Noh, 1988). Moos (1982) proposed that one important adaptive task of chronic illness involves maintaining a sense of competence despite the reliance on others for care and support.

Although a few psychosocial arthritis researchers have examined the role of competence on psychological well-being and found beneficial effects (O'Leary et al., 1988; Smith et al., 1991), more emphasis has been placed on other psychological mechanisms, such as coping (see review by Manne & Zautra, 1992) and social support (see review by Revenson, 1993b). Competence processes, however, may be involved in all these effects. These psychosocial resources may affect subjective well-

being by increasing a sense of competence. Effective coping and social support may contribute to the feeling that one has the resources to master the demands of the environment. These constitute one's history of successful (or unsuccessful) experiences, upon which confidence in one's adaptability and flexibility in dealing with the environment are built. This confidence, what White (1987) termed competence, is an essential part of well-being.

In this study, the effects of competence on well-being were greater than those of any other variable under study. The sense of competence may be a relatively stable foundation, to which other coping resources contribute. It has, in fact, shown stability over time among people with arthritis (Smith et al., 1991). At the same time, the sense of competence is malleable as it symbolically represents one's continuous interactions with the environment. As such, stresses in the environment (e.g., illness intrusions) may "chip away" at this foundation. In these cases, coping, social support, and alternative role activities may play important functions in restoring what is lost, supplying more "concrete", or providing alternative, creative ways of patching the damage.

As described here, the sense of competence is both stable and malleable. How can this contradiction be reconciled? Competence may be a multi-faceted, dynamic construct. In this study, three measures were thought to represent a sense of competence: self-esteem, illness self-esteem, and self-efficacy. It should be noted, however, that only self-esteem and self-efficacy had effects on psychological adjustment, suggesting that only these two components are critical. A statistical note

should be made at this point. As mediators involve internal, psychological processes, they are likely to be measured with error. This error results in an underestimate of the mediator on the dependent variable (Baron & Kenny, 1986). The reliability of the illness-specific self-esteem scale (.75) was somewhat lower than that of global self-esteem (.81) and self-efficacy (.93). Although the three scales were used to measure a latent construct, "competence" (a common approach to the unreliability problem), and entered as a set in path analyses, it may be that illness-specific self-esteem did function more actively as a mediator, but its effects were masked. Interestingly, if one accepts the proposition that some aspects of competence are more malleable than others (e.g., those which fluctuate with illness stressors), unreliable measurement would be expected.

But what parts of competence are more malleable? It may be those that are subjected to more environmental instability. Unpredictable environmental stressors and needs for social resources may contribute differently to competence processes. Rheumatic diseases (especially rheumatoid arthritis and systemic lupus erythematosus), for example, have a variable course. The illness results in occasional bouts of severe pain and extreme physical discomfort, termed illness flares. In fact, half of the respondents in the sample (48.5%) stated they had experienced a flare over the past week. As a result, support needs may change depending on illness course (Revenson, 1990). These unstable aspects of the environment may contribute to more malleable aspects of the sense of competence (i.e., illness-specific self-esteem). Results showed that pain, illness intrusion, and emotional support were all related to

illness self-esteem, providing some evidence that illness-specific self-esteem may be affected by fluctuating stressors and resources in the environment.

The effects of emotional support in this study may illustrate this process. The effects of emotional support on positive affect were partly indirect, operating through competence processes. Path analyses suggested that emotional support contributes to positive affect through a specific facet of competence: illness-specific self-esteem. Although the cross-sectional design of this study prevented testing the dynamic nature of these relationships, data suggested that emotional support operates on well-being by affecting the less-stable aspects of esteem, i.e., illness-specific self-esteem. Emotional support appeared to increase positive affect by benefiting illness self-esteem, which shared variance with global-self-esteem.

Other psychosocial arthritis research has documented isolated effects in the support-competence-adjustment process, such as the benefit of emotional support to competence (Fitzpatrick et al., 1988) and well-being (Brown et al., 1989; Fitzpatrick et al., 1988; 1991; Weinberger et al., 1990), and the contribution of competence to psychological well-being (O'Leary et al., 1988). One study examined mediational processes (i.e., support-competence-psychological adjustment) over time, with encouraging, although not definitive results (Smith et al., 1991). The mechanisms by which social support contributes to psychological well-being are neither known nor well-researched. This study validates the proposal that emotional support operates by enhancing the recipient's self-esteem and perceptions of value and self-worth (Cohen, 1988).

The findings in the present study clearly indicate that competence processes take a much more prominent role in the lives of people with arthritis than researchers have recognized. If there is one lesson to be learned from this study, it is that the sense of competence may underlay general feelings of subjective well-being among people with arthritis, and further, that other psychosocial resources that affect adjustment operate through competence.

Identity and competence

The proposed model, as well as other theoretical perspectives, suggests that important identities contribute to self-esteem (McCall & Simmons, 1966; Rosenberg, 1979; Thoits, 1991a). Few empirical studies, however, have supported this effect. "Identity-disruption" theories (Oatley & Bolton, 1985; Pearlin, 1983; Thoits, 1991a) further suggest that the effects of important roles on self-esteem and psychological well-being will be most apparent when illness intrudes upon important identities. That is, intrusions should be most psychologically devastating when they interfere with "identity-relevant" roles (Thoits, 1991a). Other theorists (e.g., Pearlin, 1983; Pearlin et al., 1981) further propose that specific threats to the self, a decreased sense of mastery and self-esteem, mediate the relationship between identity disruptions and psychological well-being.

The finding that important identities were related to better self-esteem and feelings of self-efficacy, which in turn, affected psychological well-being, lends support to the notion that important roles operate on subjective well-being by enhancing self-esteem. These results, therefore, add to a relatively scarce body of

literature. Results further confirmed the hypothesis that identity moderates the relationship between illness intrusion and psychological well-being, although only for negative affect. Illness intrusions into valued role identities were accompanied by increased negative affect; for unimportant roles, negative affect did not vary across illness intrusion levels.

Both the separate (main) and combined (interaction) effects of identity and illness intrusions on psychological well-being operated through competence and self-esteem processes. These results complement prior findings that satisfaction with the performance of valued role tasks (Blalock et al., 1988) and a sense of competence (Smith et al., 1991) mediate the relationship between illness stressors and psychological adjustment. The findings in this study are, therefore, consistent with identity disruption models and suggest that illness stressors that threaten identity influence psychological well-being by affecting competence.

Effect of arthritis on roles: Illness intrusion and implications for the self

Global measures of pain and disability (which are commonly used in arthritis research) may not accurately portray how illness affects specific roles and life domains. Pain and disability were positively correlated with illness intrusion into various roles, and illness intrusions were related to psychological adjustment. It should be noted that, except for the homemaker and work roles, correlations among pain, disability and illness intrusions tended to be somewhat moderate. Furthermore, regression analyses revealed that illness intrusion (averaged across roles) predicted positive and negative affect even after controlling for pain and disability. Similar

findings have been reported by other researchers (Devins et al., 1992). This suggests that measures of illness intrusions into roles are conceptually distinct from pain and disability. One may experience considerable hip pain, for example, and report little or no illness intrusion into a job that requires manual dexterity or cognitive tasks.

Given the actual and future potential for illness intrusions into valued roles, it was also not surprising that many women in the study engaged in "identity guarding". Many women attempted to preserve a sense of identity, self-worth and competence, by performing any role task, even if minimal. With housework, for example, they accomodated activities around chores they could perform. They took time to perform more physically-demanding tasks, rather than trying to accomplish them all at once. Wiener (1984) also observed this phenomenon, which she called "pacing", in her qualitative study of people (predominantly women) with RA. She concluded that as "activities are what lead one to view oneself as normal", pacing is the means by which people with arthritis maintain a balance between the normal and "abnormal" selves (p. 94).

In this study, many participants equated homemaking with being active, and went to great lengths to perform household chores, thereby maintaining the homemaker identity and avoiding feeling useless and incompetent. The fear of becoming useless (inútil), or a burden on one's family, are commonly reported in other qualitative studies of people with chronic illnesses (e.g., Charmaz, 1983). These findings are also consistent with previous observations that a sense of competence is one of the most rewarding aspects of the homemaker role (Kibria,

Barnett, Baruch, Marshall & Pleck, 1990), and Wiener's (1984) report that keeping up with household chores helps maintain the self-image. Interestingly, the need to remain active by performing household chores appeared to prompt many women in this study to luchar ("struggle") with the pain and role intrusions of arthritis, thereby enhancing women's feelings of self-efficacy, competence, and subjective well-being. This is congruent with White's (1987) assertion that people need to feel competent in roles that are important to them. Little research has explored how such motivating forces (e.g., the desire to remain active and feel competent) contribute to adjustment among people with arthritis.

The severe effect of arthritis on the work role was apparent by the number of women in this sample who were unemployed due to disability. Unemployment rates are especially high among people with musculoskeletal diseases (Yelin, 1992; Yelin & Katz, 1991), and work disability may be compounded by the physical requirements of the job (Yelin, Henke & Epstein, 1986). The majority of women in this sample had been employed as semi-skilled or unskilled manual workers. Many were factory workers, housekeepers or home attendants, all of which require manual dexterity and a high degree of physical labor. The high unemployment rate in this sample is, therefore, not surprising.

Although the sample contained only a few employed women, these participants highly valued the work role. These findings are striking, given that much prior research on Hispanic women's roles has focused on traditional social identities (e.g., being a mother). Research indicates that non-Hispanic people with rheumatoid

arthritis perceive that employment increases their self-esteem and makes them feel better (Gaston-Johansson, Gustafsson, Felldin & Sanne, 1990). Both current and former workers in this study expressed similar feelings. Many of the women on work disability had positive feelings about their prior work, and talked at length during the interview about their former jobs. Few expressed contentment about the prospect of never working again. It is notable that concerns over the loss of work were typical of some of the most distressed women in the sample, who appeared to place a high degree of importance on this lost identity. Interestingly, the correlation between work role intrusion and psychological adjustment was quite high, despite the small number of workers in the sample. Researchers have called for a more expanded view of how non-traditional roles, such as worker, affect psychological well-being among Hispanic women (Amaro et al., 1987). The present study contributes towards that effort.

Although losing a valued worker identity is psychologically devastating in its own right, as Deaux (1993; 1994) has noted, it is also important to consider what functions the identity served. Concomitant with work disability is a decreased income and a potentially lower standard of living. As one depressed respondent noted, "...I don't see anything positive about my illness, because I used to work, I'm not working anymore, so the income is not the same. I'm restricted completely in what I do. I don't see anything positive in my illness at all." A better standard of living is only one benefit of work. Work also provides the opportunity to socialize with co-workers, decreasing the risk of social isolation. Meaningful work also contributes to a sense of purpose and social good--what Erikson (1963) termed "generativity". For

example, in describing her job in a New York City social service agency, this function of the work role emerged: "I always worked at [name of agency], you know. You get to help other people, I was always helping other people, OK, and now, it's like, I need the help. But a job really makes you feel better about yourself, in every aspect."

Interestingly, in an open-ended question asking respondents to name roles that were important to them, a relatively substantial percentage of women in the sample (26.6%) listed a role they did not currently hold, i.e., "a possible self". Markus and Nurius (1986) argue that such possible selves are important aspects of the self-concept. Possible selves represent enduring "goals, aspirations, motives, fears, and threats" (p. 954) and may encompass past or future selves. Qualitative studies of people coping with rheumatoid arthritis (Bury, 1982; Williams, 1984), and other disabling conditions (Becker, 1993; Yoshida, 1993), as well as anecdotal accounts (Register, 1987), all indicate that the self-concept has to be restructured in some way to account for the past "healthy" self and present self "with illness". This helps assure a continuous sense of self. Yoshida (1993) suggests that the process resembles a pendulum in which nondisabled and disabled selves swing back and forth, taking more or less prominence in the self-concept. It is therefore, not surprising that one-quarter of the women in the present study named a possible self that most often involved a past self (i.e., worker). However, the structure of identity among people undergoing stresses that threaten identity has not been well-researched, with few exceptions (e.g., Ethier & Deaux, 1990, 1994).

The effect of culture on role identities and social support transactions

As Landrine (1992) has noted, in Anglo cultures, persons are independent entities, separate and prior to community and family. In contrast, in Latino and other minority ethnic group cultures (e.g., African-American and Asian-American), family and community are primary over individuals. "Social-role selves do not have rights (to privacy, autonomy, and self-determination), but duties and obligations to perform their role well for the larger units...Consequently, the failure to perform one's role as wife, mother, father, husband, daughter, or son is a failure to be a person at all: Role failure or violation is the loss of the self." (p. 408; original italics removed). Thus, ethnic background may affect the value placed on role identities.

Hispanic women may attach particular importance to the traditional roles of homemaker and mother, as Hispanic cultures strongly adhere to traditional role orientations (Canino et al., 1987; Vazquez-Nuttall et al., 1987). In this study, the importance of the homemaker, mother, and grandmother roles decreased with non-traditional sex-role attitudes.

The mother role was particularly important. This is consistent with the findings of Sánchez-Ayéndez (1988), whose ethnographic study revealed that participants' activities revolved largely around the family and household. Furthermore, the role of mother appears to serve a unique culturally-protective function for Hispanic women coping with arthritis. Many respondents indicated that their children kept them "going". Concerns about their children's needs and well-being prompted many women to face the stress of arthritis with courage. Women

also judged their own ability to cope with arthritis in terms of their children. This sense of accomplishment in terms of offspring has been noted in other studies of Hispanic women (Sánchez-Ayéndez, 1988).

Whether the role of mother contributes to resilience among women with other illnesses remains an empirical question. Anecdotal accounts of women with AIDS, for example, suggest that finding appropriate guardians for their children is a primary concern. One wonders if concerns about their children's future and the desire to fulfill the mother role for as long as possible may enhance resilience and quality of life among women with AIDS and other terminal illnesses.

Perhaps this investment in fulfilling the mother role and child-rearing contributes, in part, to expectations for support in the future. Many respondents in the sample named their daughters as principal support providers. Other studies (e.g., Sánchez-Ayéndez, 1988) also report frequent dependence on daughters for support. In Hispanic and other cultures with traditional role orientations, norms dictate that children, especially daughters, care for their sick (and/or elderly) mothers. As one middle-aged respondent noted about getting help with housework chores from her teenage daughter, "Well, this is the way I feel as a parent, she has to do it, because she has to learn, and I'm her mother, and she wants her mother to look and feel better, so she has to do it. That's it."

These normative role expectations about <u>who</u> should provide support may explain results in this study that contradicted hypothesized effects. It was predicted that among women who valued the homemaker role, housework support would

decrease feelings of competence, thereby affecting adversely psychological well-being. Contrary to predictions, housework support was related to decreased positive affect among women for whom the homemaker identity was less important. The reverse occured for those who highly valued the homemaker identity: increased support was associated with greater positive affect. As most support providers were daughters (not spouses) these findings are consistent with cultural norms about who should help with housework. Cultural role expectations may determine what types of support are helpful and from whom. Various studies report that the perceived helpfulness of support depends on the provider (e.g., Dunkel-Schetter, 1984; Lanza et al., in press; Rose, 1990), and more specifically, that support benefits self-esteem when it is received from a desired provider (Hoffman, Levy-Shiff & Ushpiz, 1993). These observations, combined with the unexpected findings of this study, suggest that norms define role-appropriate helping relationships, which are not threatening to self-esteem and may in fact, enhance it. In essence, daughters provide role-appropriate housework support.

Normative role expectations raise another issue regarding social support transactions: People are not merely passive recipients of social support. Instead, they actively seek it, selectively chosing support providers (Barbee et al., 1993; Eckenrode & Wethington, 1990; Weiss, 1974). Studies of women undergoing childbirth suggest that women with a strong sense of mastery receive social support when they need it most (Hobfoll, Shoham & Ritter, 1991) and those with low self-esteem may be most vulnerable to the threatening aspects of social support (Hobfoll,

Nadler & Leiberman, 1986). In a similar manner, participants in this study may have actively sought help with housework from role-appropriate providers who did not pose strong threats to their identities and self-esteem, i.e., daughters. As some researchers have concluded, the effect of social support on self-esteem "involves something more than the passive reflection of social worth as embodied in the support of significant others...individuals may have an active role in selecting the social influences impinging upon the self." (Hoffman et al., 1993, p. 29).

Utility of the conceptual model for non-Hispanics

The present study contributes to large gap in psychosocial arthritis research on Hispanics. Many findings (e.g., the benefits of emotional support) replicated those of non-Hispanic samples, suggesting that similar psychosocial pathways operate among both groups.

The model proposed in this study should be applicable to non-Hispanic individuals. What will differ among various ethnic groups, however, is the importance placed on specific roles, determined in part by cultural norms. Hispanic women may place great importance on the homemaker and mother roles. As a result, the motivation to realize particular role obligations, and reactions to social support aimed at helping role fulfillment, may also differ. And, although the importance of particular roles may vary between ethnic groups, it should be noted that there is also variation within Hispanic groups, for example, between those with more vs. less traditional sex-role orientations.

What should not differ between Hispanic and non-Hispanic groups is the

nature of the paths proposed in this study's conceptual model. For example, the process by which important roles contribute to self-esteem should not vary by ethnicity, nor should the linkages between desired social support, competence and psychological well-being. The proposed identity, social support, and competence processes are the same, regardless of ethnic background. Thus, the model is applicable to other non-Hispanic groups.

Limitations of the study

The cross-sectional nature of the study did not allow for causal statements to be made. Moreover, illness-induced changes in identity could not be explored. An exploratory, retrospective question was used to inquire about change in role importance over time, that is, whether the importance of respondents' current roles changed after becoming ill. As the average respondent in the sample had been ill for almost 14 years, this rudimentary question does not assess actual change over time, but measures perceived change from a retrospective view. Moreover, the question focused on current roles, excluding perceived change in the importance of roles that respondents no longer had (e.g., the work role among those who were currently unemployed). Therefore, the study provides little empirical insight into possible changes in identity among Hispanic women with arthritis.

The term "Hispanic" in this study was used as a general category to describe respondents of Spanish origin, but roughly one-half of the sample was Puerto Rican. There are sociodemographic differences among Hispanic groups in the United States that could relate to critical variables in this study. These include differences in age,

education, income, marital status, and family constellation (Amaro, 1992). There are also within-group differences in these demographic variables as a function of immigrant status (i.e., U.S.-born vs. foreign-born), which relate to social network characteristics (Golding & Baezconde-Garbanati, 1990). Hispanic groups have different socioeconomic and political reasons for immigrating to the United States. As a result, not all Hispanics have equal mobility to their homelands or access to family social support networks in times of crisis or during severe illness flares. This study's use of the term "Hispanic" should not be interpreted as a failure to recognize that Hispanics are a heterogeneous group. Separate path analyses could not be conducted for the different sub-groups in this sample, as this would limit severely the sample size and statistical power.

The small number of married women in the sample prevented an in-depth exploration of whether the provider of social support (e.g., spouse vs. daugther) differentially affects psychological well-being, as suggested earlier. Moreover, the marital status distribution of the sample (31.2% divorced, and 23.9% separated) was not representative of national statistics. In 1988, 54.8% of Hispanic women aged 18 or older were married, 8.5% were divorced, 7.5% were separated, 21.8% were single (never married), and 6.2% were widowed, although these percentages vary by Hispanic subgroup (Taeuber, 1991). Health status affects marital status in a number of ways (Burman & Margolin, 1992). The effects of arthritis on marital relationships (if any) are not well-researched, but studies suggest that arthritis does not cause divorce (Revenson, 1993b). Therefore, it is difficult to speculate as to why so few

respondents were partnered.

Marital status, furthermore, affects income. In 1989, nearly half (47.5%) of Hispanic female-headed households in the United States were below the poverty level (Schmittroth, 1991; see also Stroup-Benham et al., 1992). In this regard, the sample was representative of national statistics. However, the low-income status results in a confound between social economic status (SES) and Hispanic ethnicity. This is a common problem in research on ethnic minorities (Gibson, 1989; Jackson, 1989), from which the present study was not immune. The SES confound stems from the high rates of poverty among ethnic minorities in the U.S. (Belle, 1990). Poverty affects psychological well-being (Belle, 1990), results in various stressors, such as poor quality of life, contributes to morbidity and mortality (Adler et al., 1994), and relates to social network characteristics. Some of these include effects on marital continuity and family functioning, and reluctance in asking for and receiving help due to an overburdened social network (Belle, 1983). Poverty may also affect the ability to fulfill role obligations, contributing to feelings of failure as a mother, provider, or spouse (Belle, 1990). It is difficult to estimate to the extent to which the stresses of poverty affected marital status and the findings on social support, social identity (and other variables) in the present study.

It should be noted that the model tested in the present study did not attempt to account for the variance in psychological well-being associated with low-SES-related or other stressors faced by Hispanic women (see Amaro & Russo, 1987; Salgado de Snyder, 1987; Zavala-Martínez, 1987). As a check for such stressors, however, the

number of respondents who reported feeling distressed by a recent stressful event was tallied. Only 12 respondents (11% of the sample) reported they were currently experiencing distress due to a recent or ongoing stressful event (e.g., recent death or illness of a family member, mugging, financial difficulties, family member's drug-related problem).

The SES-ethnicity confound also raises issues of generalizability to other Hispanic (and non-Hispanic) samples of people at different SES levels. The stress of arthritis may be relatively minor compared to the larger social problems that people in poverty encounter on a daily basis.

Research in action: Applying findings to intervention programs

The findings on competence in the present study raise important issues concerning interventions for people with arthritis. One important goal in such interventions should be to develop programs aimed at helping individuals achieve a sense of competence.

The question remains, however, as to what promotes a sense of competence and how to promote it. Realistically, if the joints in one's fingers have suffered arthritis-induced deformities, certain activities, such as chopping vegetables, may be impossible. However, the open-ended responses in this study suggest that a combination of acceptance and flexibility may be critically important in maintaining a sense of competence and "active" self-concept. Despite deformities, one can still search through cookbooks for new recipes, plan meals, and perhaps assist in very limited cooking activities (e.g., add spices to one's sauce). Furthermore, hand

deformities do not prevent one from engaging in other important activities that require less manual dexterity (e.g., doing laundry, going to the park with one's children). Thus, interventions should emphasize perceived competence, that is, beliefs about or "confidence in being able to deal with the environment", especially those aspects of the environment that have the greatest personal significance (White, 1987, p. 103-104).

Findings from this study indicate that the recipe for a sense of competence may involve: (1) accepting the things one absolutely cannot do, (2) flexibility in findings ways to stay active and manage things one may be able to do, and (3) focusing on those important activities that one can do. These coping techniques could be integrated into intervention programs for people with arthritis. Such programs often include various components such as education about the illness, and training in cognitive-behavioral coping strategies (see review by Lanza & Revenson, 1993). Some have shown benefical effects on self-efficacy and psychological well-being (e.g., O'Leary et al., 1988).

Education programs may provide an important venue for imparting "acceptance, flexibility and focus" strategies that promote a sense of competence, as they are often conducted by or include group leaders with arthritis. It seems important to assure that program participants be allowed to share creative ways of managing physical limitations (e.g., as one respondent noted, using a pump rather than squeezing detergent out of a bottle). "Competence-building" may also occur in less-formal settings. For example, during routine medical and health visits,

physicians and physical therapists could provide helpful hints that may build participants' sense of competence in dealing with the pain and limitations of arthritis.

Findings in this study further suggest that intervention programs may want to target significant others, that is, support providers (see also Lanza & Revenson, 1993). Emotional support may help increase positive affect directly, or indirectly through competence processes. Moreover, tangible support (e.g., help with housework) may also play a role in psychological well-being. Thus, it appears important to educate support providers about potential ways of promoting (and not hindering) their loved-one's adjustment.

Directions for future research

Findings from this study suggest a number of issues that require further research. In addition to the central role of competence in psychological well-being, as discussed extensively earlier, findings have implications for theory on role identities, meaningful role activity and the structure of psychological well-being, and highlight the need to develop models of resilience among women facing adversity.

Role identity and activity. The findings on identity and illness intrusion bear upon issues regarding the effects of the number and quality of roles on psychological well-being. Some theorists (e.g., Oatley & Bolton, 1985) propose that role loss increases the risk of depression if alternative roles are not available as sources of self-worth. Studies of multiple roles report better well-being among individuals holding several roles (e.g., Kandel et al., 1985; Moen et al., 1992; Thoits, 1983, 1986; Waldron & Jacobs, 1989). The quality of roles (e.g., job stress), however,

differentially affects well-being (e.g., Barnett & Marshall, 1993; Gore & Mangione, 1983; Hibbard & Pope, 1993; Kandel et al., 1985). Such effects are rarely studied among Hispanics or women who have a chronic illness. In this study, a simple count of the number of roles held by women (of the six selected for study) was not correlated with either positive or negative affect. Instead, having important roles (i.e., identity scores averaged across the six roles) benefited psychological well-being. In addition, role quality (conceptualized as illness intrusion averaged across roles) predicted psychological well-being, although the effects of identity (i.e., beta weights) on adjustment were somewhat stronger. These findings contribute to a limited number of studies assessing the benefits of multiple role membership among Hispanics and women with chronic illnesses.

The present study, however, selected only six of a multitude of social roles that women may hold. The open-ended data revealed that women in this sample also defined themselves in terms of various kinship roles (e.g., daughter), roles related to personal activities (e.g., hobbyist), and other social roles (e.g., volunteer, church member). The beneficial effects of these diverse roles on health and well-being have not been well-studied. However, one 30-year longitudinal study (Moen et al., 1992) revealed that roles such as club member and volunteer may have especially beneficial health effects. The authors concluded that "'Successful aging' can be depicted as living both healthy and active, involved lives" (p. 1633). When one one's health is compromised by the pain and disability of arthritis, having diverse roles may be especially advantageous. In this study, the importance of feeling useful and

competent, and having an "active self" identity emerged in open-ended questions, both when respondents were asked to list their important roles and when describing their reactions to receiving help with housework. Such findings are consistent with research in the gerontological literature that suggests that meaningful role activities are important determinants of psychological well-being as role involvement declines with age (e.g., Heller et al., 1991; Lawton, 1978; Stones & Kozma, 1986).

Psychological well-being vs. ill-being. The literature on subjective well-being has argued that psychological well-being and ill-being are different dimensions, and therefore, have different correlates (e.g., Diener, 1984; Headey et al., 1983; Kammann et al., 1984). This was substantiated in the present study, which found that negative and positive affect (although correlated) had different predictors. For example, path analyses revealed different effects of emotional support and housework support on positive and negative affect.

Such findings confirm that positive and negative affect are different dimensions of psychological adjustment. Moreover, they illustrate the importance of assessing both psychological ill-being and well-being. Many respondents in the sample expressed ambivalent feelings about accepting help with housework. This may explain why a moderating effect of homemaker identity on the relationship between housework support and positive, but not negative, affect was found. Had a measure of psychological well-being been excluded in this study's design, this differential effect would have gone unnoticed.

Unfortunately, health psychology has historically neglected psychological well-

being. It is critical that researchers begin to examine this facet of adjustment. Such investigations would not only advance the field of health psychology, they would make significant contributions to the study of affect and subjective well-being.

It is appropriate, given this comment, to end the discussion with reflections about the need for research on the positive aspects of illness. To a large extent, the current study conceptualized arthritis as a chronic illness as a stressor that has negative effects on the quality of life and psychological well-being. Much psychosocial research on arthritis and other illnesses makes this assumption.

In an exploratory open-ended question, women were asked if they had any positive experiences as a result of their illness, or if they learned any "life lesson". Almost all respondents were able to name a positive consequence of their illness. For example, some women said their illness helped them be more patient, and to take everything one day at a time. They learned to appreciate the little things in life. Most importantly, they gained a deep appreciation of their lives and families. Women also said they felt more compassionate towards others' suffering, and felt they had grown as people. Becoming more compassionate and considerate of others also emerged as a positive outcome of disability in an ethnographic study of people with spinal cord injuries (Yoshida, 1993). With a few notable exceptions, the positive consequences of illness, such as personal growth processes, are rarely studied. Yet, theoretical perspectives suggest that finding meaning and construing personal growth from the illness experience are important adaptive tasks (Taylor, 1983). Certainly, research on other life stresses that involve loss (e.g., bereavement) recognizes the

importance of these mechanisms (e.g., McIntosh, Silver & Wortman, 1993). More research is needed on how perceiving a "positive side" of illness relates to adjustment to rheumatic and other chronic diseases. With this focus, we can begin to develop models of resilience (O'Leary & Ickovics, 1994) in the face of arthritis and other chronic illnesses, thereby advancing the knowledge gained by the almost exclusive dependence on stress-and-coping models. As Zavala-Martínez (1987) notes, the Spanish phrase "en la lucha" ("in the struggle") reflects Hispanic women's daily experiences. Perhaps it also captures most accurately the motto for future research directions, that is, understanding how women thrive despite "la lucha".

Footnotes

[1] Values from 1 to 5 were assigned to the open-ended responses to reflect the order in which the role was mentioned (missing values were assigned if the role was not mentioned). The correlation between identity and the order of mention for each role was: homemaker, -.05 (n=35); mother, -.09 (n=41); wife, .00 (n=7); worker, -.18 (n=6); friend, -.44 (n=8). A correlation could not be computed for the grandmother identity as all respondents who named it in the open-ended question (n=10) had a grandmother identity score of 7 (i.e., there was zero variance in the identity measure among these respondents).

[2] Analyses predicting positive affect as the outcome variable were also conducted with education as a covariate. Effects sizes were of similar magnitude to those observed in analyses that did not control for education. Probability levels were also similar, except that the interaction of identity x housework support became nonsignificant. However, the interaction effect was of a similar magnitude to that observed in analyses that did not covary education (i.e., .13 instead of .15; see Table 11 equation 4).

[3] Illness intrusion into the homemaker role was not included as a variable in these analyses. Although it was related to negative affect (r = .21), the high correlations between intrusion into homemaking and pain (r = .55) and disability (r = .69, see Table 8) suggested that the homemaker illness intrusion item was redundant with measures of pain and disability. Indeed, many of the items in the disability scale tapped ability to perform homemaker-related tasks (e.g., do housework chores, run errands and shop, open jars, turn faucets). In addition, acculturation, which was conceptualized as a predictor of homemaker role identity, was also excluded from the path analyses. Acculturation had a nonsignificant correlation with homemaker role identity (r = -.17), positive affect (-.13), and negative affect (.09).

Table 1

Sample characteristics (total N=109)

	N	%
Diagnosis[a]		
Rheumatoid Arthritis	59	54.1
Lupus	17	15.6
Osteoarthritis	17	15.6
Scleroderma	2	1.8
Arteritis	2	1.8
Osteoporosis	1	0.9
Fibromyalgia	1	0.9
More than one type	10	9.2
Years of disease duration (M, SD)	13.9	10.6
Place of Birth		
Puerto Rico	45	41.9
United States[b]	13	11.9
Dominican Republic	13	11.9
Cuba	7	6.4
Central America:		
Guatemala	3	2.8
El Salvador	2	1.8
South America:		
Columbia	14	12.8
Ecuador	7	6.4
Peru	4	3.7
Uraguay	1	0.9
Years residing in U.S. (M, SD)	27.9	10.8
Age (M, SD)	50.6	14.1
Years of education (M, SD)	8.9	4.0

[a]Diagnosis data were self-reported.
[b]Family Country of Origin for U.S.-Born Respondents: Puerto Rico (n=11); Dominican Republic (n=1); Ecuador (n=1).
[c]Years in U.S. for all respondents.

Table 1 (continued)

	N	%
Employment status		
disabled	53	48.6
homemaker	42	38.5
working part-time	7	6.4
working full-time	2	1.8
currently unemployed (i.e., seeking work)	2	1.8
Household income		
less than $10,000/year	80	73.4
$10,000-$19,999	17	15.6
$20,000/year or more	11	10.1
Marital Status		
married	21	19.3
live with partner	6	5.5
divorced	34	31.2
separated	26	23.9
widowed	13	11.9
single (never married)	9	8.3
Have at least one child	95	87.2
Number of children (M, SD)	2.4	1.8
Have at least one child aged:		
0-5 years	5	4.6
6-12 years	12	11.0
13-19 years	25	22.9
20 or more	77	70.6
Number of grandchildren (M, SD)	3.7	5.9
Have at least one grandchild	57	52.3
Have at least one grandchild aged:		
0-5 years	40	36.7
6-12 years	33	30.3
13-19 years	22	20.2
20 or more	15	13.8

Table 2

Summary of constructs, measures and translation team producing Spanish version of scale

Construct	Measure	Translation team[a]
Chronic Illness		
Pain	Medical Outcome Studies Pain Scale	SASMP
Functional Disability	Health Assessment Questionnaire	SASMP
Social Roles		
Role Identity Importance	Identity Subscale of Collective self-esteem scale	NYC
Role Intrusion	created for this study	NYC
Predictors of Role Importance		
Sex-Role Non-Traditionalism	Index of Sex-Role Orientation	NYC
Acculturation	Marín et al. (1987) short form	Scale's Developers
Social Support		
Emotional Support	Emotional Support Subscale of Revenson et al. scale	NYC
Housework Support	created for this study	NYC
Mediators between Social Support and Psychological Well-being		
Self-esteem	Rosenberg (1965)	NYC
Illness Self-esteem	Adapted from Felton & Revenson (1984)	NYC
Self-efficacy	Self-efficacy Scale	SASMP
Psychological Well-Being		
Positive Affect	Positive Affect Scale	NYC
	Index of Affect	NYC
Negative Affect	Negative Affect Scale	NYC
	Center for Epidemiologic Studies Depression Scale	SASMP

[a]SASMP = Spanish Arthritis Self-Management Program evaluation study team (Lorig, 1993)
NYC = New York City team

Table 3

Ranking of important role identities named in open-ended question

	Order of response[a]					
	First	Second	Third	Fourth	Fifth	Total
Role						
Homemaker	16 (15.6)	9 (9.2)	9 (8.3)	1 (.9)	--	35
Mother	30 (27.5)	7 (6.4)	4 (3.7)	--	--	41
Grandmother	4 (3.7)	4 (3.7)	2 (1.8)	--	--	10
Wife	1 (.9)	5 (4.6)	1 (.9)	--	--	7
Worker	7 (6.4)	11 (10.1)	3 (2.8)	1 (.9)	--	22
Friend	2 (1.8)	2 (1.8)	2 (1.8)	1 (.9)	1 (.9)	8
Student	15 (13.8)	1 (.9)	--	--	--	16
Family[b]	3 (2.8)	3 (2.8)	1 (.9)	--	--	7
Other kinship role (e.g., daugther)	1 (.9)	5 (4.6)	5 (4.6)	2 (1.8)	--	13
Hobbyist	8 (7.3)	15 (13.8)	4 (3.7)	1 (.9)	1 (.9)	29
Church member	7 (6.4)	7 (6.4)	1 (.9)	2 (1.8)	--	17
Volunteer	1 (.9)	4 (3.7)	2 (1.8)	1 (.9)	--	8
Other						
Active/independent	6 (4.6)	4 (3.7)	2 (1.8)	1 (.9)	--	13
Housing/Neighborhood	4 (3.7)	--	--	--	--	4
Health	1 (.9)	1 (.9)	1 (.9)	--	--	3
Total	107 (98.2)	80 (73.4)	38(34.9)	10 (9.2)	2 (1.8)	

Note. Respondents could name up to five important roles.

[a]Number and percentage (in parentheses) of respondents naming role. Percentages are based on total sample (n=109).

[b]Includes global responses about the importance of family, without reference to particular roles (e.g., "My family is very important") or family-related activities (e.g., "Being with my family").

Table 4

Mean role identity ratings[a] and intercorrelations among roles

			Intercorrelations[b]				
Role	N[c]	Mean (SD)	1	2	3	4	5
1. Homemaker	109	5.95 (1.40)					
2. Mother	95	6.83 (.45)	.52*** (96)				
3. Grandmother	57	6.71 (.79)	.02 (57)	.42*** (57)			
4. Wife	27	6.66 (.85)	.40* (25)	.91*** (24)	.81** (10)		
5. Worker	9	6.19 (.65)	.80** (9)	.74 (6)	.50 (3)	--[d] (3)	
6. Friend	109	5.92 (1.54)	.06 (108)	.13 (95)	-.01 (57)	.44* (24)	.31 (9)

[a]Four-item scale; total scores range from 1 to 7.

[b]Ns for intercorrelations appear below each coefficient.

[c]Number of participants who held each role and provided identity ratings.

[d]Correlation could not be computed due to zero variance.

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 5

Support providers named by respondents

	Provider A		Provider B	
	(n)	(%)	(n)	(%)
Family members				
Spouse	21	21.1	0	0.0
Daughter	32	29.4	27	24.8
Mother	11	10.1	5	4.6
Son	5	4.6	15	13.8
Sister	2	1.8	12	11.0
Brother	1	.9	0	0.0
Other female kin	4	3.7	13	11.9
Other				
Home Attendant	12	11.0	5	4.6
Female friend	13	11.9	5	4.6
Neighbor	2	1.8	2	1.8
Boyfriend[a]	2	1.8	0	0.0
Professional (e.g., Pastor)	2	1.8	4	3.7
No one[b]	2	1.8	12	11.0

[a]Live-in significant others (total n=3) were coded as spouse.

[b]Two respondents did not have any support provider; ten only had one support provider (i.e., Provider A but not B). In cases where respondents said "no one", emotional and housework support items were coded as "none/never" to minimize missing data.

Table 6

Correlations among sex-role orientation non-traditionalism, acculturation, years in U.S., and role identity

	Sex-role orientation[a]	Acculturation	Years in U.S.
Role Identity			
Homemaker	-.28**	-.17	.02
Mother	-.33***	-.50***	-.12
Grandmother	-.28**	-.05	.05
Wife	-.23	-.16	.03
Worker	-.03	-.41	-.63
Friend	.10	.10	-.10

[a]High scores reflect a non-traditional sex-role orientation.

* $p < .05$; ** $p < .01$; *** $p < .001$

Table 7

Mean illness intrusion ratings[a] and intercorrelations among roles

			Intercorrelations[b]				
Role	N[c]	Mean (SD)	1	2	3	4	5
1. Homemaker	109	7.21 (2.66)					
2. Mother	95	3.40 (4.02)	.42*** (94)				
3. Grandmother	57	3.30 (4.07)	.40** (57)	.76*** (57)			
4. Wife	27	4.48 (3.72)	.16 (25)	.34 (23)	-.02 (9)		
5. Worker	10	5.50 (2.95)	.76* (10)	-.13 (7)	.57 (4)	.98 (3)	
6. Friend	109	3.43 (3.95)	.27** (106)	.52*** (93)	.52*** (56)	.25 (25)	.21 (10)
Across roles	4.62 (2.82)						

[a]Single-item measure; likert-type responses range from 0 to 10, with 10 = high intrusion.

[b]Ns for intercorrelations appear below each coefficient.

[c]Number of participants who held each role and provided intrusion ratings.

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 8

Correlations among pain, disability, illness intrusion into roles and positive and negative affect

	Pain	Disability	Positive Affect	Negative Affect
Disability	.54**			
Positive Affect	-.23*	-.09		
Negative Affect	.41***	.18	-.59***	
Intrusion into role				
Homemaker	.55***	.69***	-.15	.21*
Mother	.22*	.30**	-.11	.15
Grandmother	.28*	.33*	-.05	.24
Wife	.30	.17	-.47*	.40*
Worker	.53	.64*	-.86**	.74**
Friend	.20*	.25**	-.22*	.38***
Average across roles	.36***	.43***	-.23*	.30**

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 9

Hierarchical multiple regression of positive and negative affect on role identity, illness intrusion and their interaction

	Positive Affect			Negative Affect		
	ΔR^2	F	Beta	ΔR^2	F	Beta
Step 1	.05	3.03*		.17	10.46***	
Pain			-.26*			.43***
Disability			.05			-.06
Step 2	.16	10.26***		.07	4.80**	
Pain			-.21*			.39***
Disability			.07			-.10
Intrusion			-.20*			.21*
Identity			.36***			-.19*
Step 3	.01	.76		.03	3.92*	
Pain			-.19			.36***
Disability			.07			-.09
Intrusion			-.19			.18
Identity			.36***			-.21*
Identity x intrusion			-.08			.18*
Step 4	.30	19.74***		.26	18.33***	
Pain			-.11			.29**
Disability			.09			-.12
Intrusion			.03			-.04
Identity			.15*			-.01
Identity x intrusion			.04			.06
Self-esteem			.38***			-.31**
Illness self-esteem			.09			-.13
Self-efficacy			.36***			-.34***
Total equation	R^2 = .51, F = 13.00***			R^2 = .27, F= 13.83***		

Note. Beta coefficients of new variables entered at each step (which correspond to the change in R^2) appear in boldface.

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 10

Intercorrelations among variables used to test the full model for the homemaker role

	1	2	3	4	5	6	7	8	9	10
1. Pain										
2. Disability	.54***									
3. Sex-role orientation	-.15	-.24*								
4. Homemaker identity	.06	.17	-.28**							
5. Emotional support	.02	.03	-.06	.07						
6. Housework support	-.08	.19*	-.00	.08	.34***					
Proposed mediators:										
7. Self-esteem	-.16	-.16	.08	.19*	.18	-.01				
8. Illness self-esteem	-.29**	-.29**	.10	-.01	.14	-.10	.67***			
9. Self-efficacy	-.33***	-.21*	-.05	.18	.08	.02	.36***	.35***		
Psychological well-being:										
10. Positive affect	-.23*	-.09	.00	.24*	.26**	.12	.59***	.45***	.55***	
11. Negative affect	.40***	.18	-.07	.04	-.16	-.17	-.55***	-.50***	-.58***	-.59***

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 11

Reduced form equations testing the full model as a predictor of positive affect

	ΔR^2	F	Beta at step	Description and Computation of Effect
Equation 1	.06	2.04		
Pain			-.26*	total effect of Pain
Disability			.04	total effect of Disability
Sex-Role Orientation			-.03	total effect of Sex-Role Orientation
Equation 2	.06	7.45**		
Pain			-.24*	indirect effect via Identity = (-.26) - (-.24) = -.02
Disability			.01	indirect effect via Identity = .04 - .01 = .03
Sex-Role Orientation			.04	indirect effect via Identity = (-.04) - .04 = -.07
Homemaker identity			.26**	total effect of identity
Equation 3	.06	3.92*		
Pain			-.25*	indirect effect via Support = (-.24) - (-.25) = .01
Disability			.01	indirect effect via Support = .01 - .01 = 0
Sex-Role Orientation			.05	indirect effect via Support = .04 - .05 = -.01
Homemaker identity			.25**	indirect effect via Support = .26 - .25 = .01
Emotional Support			.25**	total effect of emotional support
Housework Support			-.01	total effect of housework support
Equation 4	.02	2.68+		
Pain			-.26*	indirect effect via interaction = (-.25) - (-.26) = .01
Disability			.04	indirect effect via interaction = .01 - .04 = -.03
Sex-Role Orientation			.07	indirect effect via interaction = .05 - .07 = -.02
Homemaker identity			.27**	indirect effect via interaction = .25 - .27 = -.02
Emotional Support			.25**	indirect effect via interaction = .25 - .25 = 0
Housework Support			-.02	indirect effect via interaction = (-.01) - (-.02) = .01
Iden. x hswk. support			.15+	total effect of interaction

Table 11 (continued)

	ΔR^2	F	Beta at step	Description and Computation of Effect
Equation 5	.33	23.09***		
Pain			-.09	= direct effect of Pain indirect via proposed mediators = (-.26) - (-.09) = -.17
Disability			.11	= direct effect of Disability indirect via proposed mediators = .04 - .11 = -.07
Sex-Role Orientation			.04	= direct effect of Sex-Role Orientation indirect via proposed mediators = .07 - .04 = .03
Homemaker identity			.10	= direct effect of Identity indirect via proposed mediators = .27 - .10 = .17
Emotional Support			.13+	= direct effect of Emotional Support indirect via proposed mediators = .25 - .13 = .12
Housework Support			.03	= direct effect of Housework Support indirect via proposed mediators = (-.09) - (-.16) = .07
Iden. x hwsk. support			.14+	= direct effect of Identity x Housework Supp. Interaction indirect via proposed mediators = .15 - .14 = .01
Self-esteem			.37**	direct effect = total effect
Illness self-esteem			.05	direct effect = total effect
Self-efficacy			.37***	direct effect = total effect
Total Equation	$R^2 = .53$, $F = 11.18$***			

Note. Social support variables were averaged across the two providers. At each step, indirect effects were calculated by subtracting the beta coefficient of a particular variable from its beta coefficient at the previous step.

+p < .10 * p < .05 ** p < .01 *** p < .001

Table 12

Reduced form equations testing the full model as a predictor of negative affect

	ΔR^2	F	Beta at step	Description and Computation of Effect
Equation 1	.17	6.98***		
Pain			.43*	total effect of Pain
Disability			-.06	total effect of Disability
Sex-Role Orientation			-.02	total effect of Sex-Role Orientation
Equation 2	.00	.07		
Pain			.44***	indirect via Identity = .43 - .44 = -.01
Disability			-.06	indirect via Identity = (-.06) - (-.06) = 0
Sex-Role Orientation			-.01	indirect via Identity = (-.02) - (-.01) = -.01
Homemaker identity			.02	total effect of identity
Equation 3	.03	2.19		
Pain			.41***	indirect via Support = .44 - .41 = .03
Disability			-.03	indirect via Support = (-.06) - (-.03) = -.03
Sex-Role Orientation			-.01	indirect via Support = (-.01) - (-.01) = 0
Homemaker identity			.04	indirect via Support = .02 - .04 = -.02
Emotional Support			-.13	total effect of emotional support
Housework Support			-.09	total effect of housework support
Equation 4	.00	.00		
Pain			.41***	indirect via interaction = .41 - .41 = 0
Disability			-.03	indirect via interaction = (-.03) - (-.03) = 0
Sex-Role Orientation			-.01	indirect via interaction = (-.01) - (-.01) = 0
Homemaker identity			.04	indirect via interaction = .04 - .04 = 0
Emotional Support			-.13	indirect via interaction = (-.13) - (-.13) = 0
Housework Support			-.09	indirect via interaction = (-.09) - (-.09) = 0
Iden. x hswk. support			.00	total effect of interaction

Table 12 (continued)

	ΔR^2	F	Beta at step	Description and Computation of Effect
Equation 5	.38	29.58***		
Pain			.23**	= direct effect of Pain indirect via proposed mediators = .41 - .23 = .18
Disability			-.11	= direct effect of Disability indirect via proposed mediators = (-.03) - (-11) = .08
Sex-Role Orientation			.01	= direct effect of Sex-Role Orientation indirect via proposed mediators = (-.01) - .01 = -.02
Homemaker identity			.21**	= direct effect of Identity indirect via proposed mediators = .04 - .21 = -.17
Emotional Support			-.01	= direct effect of Emotional Support indirect via proposed mediators = (-.13) - (-.01) = -.12
Housework Support			-.16*	= direct effect of Housework Support indirect via proposed mediators = (-.09) - (-.16) = .07
Iden. x hwsk. support			.02	= direct effect of Identity x Housework Supp. Interaction indirect via proposed mediators = .00 - .02 = -.02
Self-esteem			-.36***	= direct effect = total effect
Illness S-E			-.11	= direct effect = total effect
Self-efficacy			-.39***	= direct effect = total effect

Total Equation $R^2 = .58$, $F = 13.58$***

Note. Social support variables were averaged across the two providers. At each step, indirect effects were calculated by subtracting the beta coefficient of a particular variable from its beta coefficient at the previous step.

* $p < .05$ ** $p < .01$ *** $p < .001$

Table 13
Hierarchical multiple regression analyses treating self-efficacy, self-esteem, and illness self-esteem as endogenous variables in the full model

	Self-efficacy			Self-esteem			Illness-Self-esteem		
	ΔR^2	F	Beta at step	ΔR^2	F	Beta at step	ΔR^2	F	Beta at step
Equation 1	.13	5.01**		.03	1.25		.11	4.16**	
Pain			-.31**			-.10			-.17
Disability			-.07			-.10			-.19+
Sex-Role Orientation			-.12			.04			.03
Equation 2	.04	4.44*		.06	6.35**		.00	.23	
Pain			-.30**			-.09			-.17
Disability			-.10			-.13			-.20
Sex-Role Orientation			-.07			.10			.04
Homemaker identity			.20*			.25**			.05
Equation 3	.01	.38		.04	2.25		.04	2.53+	
Pain			-.31**			-.11			-.21+
Disability			-.09			-.10			-.15
Sex-Role Orientation			-.06			.11			.06
Homemaker identity			.20*			.24**			.04
Emotional support			.08			.21*			.20*
Housework support			-.04			-.09			-.16
Equation 4	.00	.31		.00	.58		.01	1.32	
Pain			-.31**			-.12			-.21+
Disability			-.10			-.09			-.13
Sex-role orientation			-.07			.12			.07
Homemaker identity			.19*			.25**			.06
Emotional support			.09			.21*			.20*
Housework support			-.03			-.09			-.20
Iden. x hswk. support			-.05			.07			.11
Total Equation	R^2 = .17, F = 2.95**			R^2 = .13, F = 2.22*			R^2 = .16, F = 2.77**		

+p < .10 * p < .05 ** p < .01 *** p < .001

Table 14

Hierarchical multiple regression analyses testing curvilinear moderation effect of role identity on psychological well-being

	Positive Affect			Negative Affect		
	ΔR^2	F	Beta	ΔR^2	F	Beta
Step 1 Pain	.05	5.98*	-.23*	.16	20.98***	.40***
Step 2 Homemaker identity	.06	7.65**	.25**	.00	.05	.02
Step 3 Homemaker identity^2	.00	.22	-.07	.01	1.35	.17
Step 4 Housework Support	.06	3.96*	.08	.02	2.92+	-.15+
Step 5 Iden. x hwsk. supp.	.03	3.48+	.18+	.00	.12	-.03
Step 6 Iden.^{2} x hwsk supp.	.01	.84	.16	.01	1.47	.21
Total equation	R^2 = .16, F = 3.25***			R^2 = .21, F = 4.51***		

Note. The beta coefficients shown are values at the step in which they were entered.

+ $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Table 15

Summary of Hypotheses and Findings

Description of Hypothesis	Findings
Hypothesis 1. Sex-role orientation and acculturation will relate to role importance (path b in Figure 1). This relationship should be most pronounced for the homemaker and work roles. Specifically, non-traditional sex-role attitudes should be related to decreased homemaker role importance, and increased worker role importance.	Partially supported. Non-traditional sex-role orientation was related to decreased importance of the homemaker, mother and grandmother roles. Acculturation was negatively related to importance of the mother role.
Hypothesis 2. Arthritis may cause difficulty in performing role activities. In addition to having global effects on psychological well-being and adjustment, illness also interferes with role activities, termed illness intrusions (path a). Therefore, the model predicts that: (a) pain, disability, and illness intrusions will correlate with psychological well-being; and (b) chronic illness, operationalized by pain and disability, should be positively associated with illness intrusions into social roles.	2a partially supported. Pain, but not disability was related to positive and negative affect. Intrusions into the wife, worker and friend roles were correlated with positive affect; intrusions into all but the mother and grandmother roles were related to negative affect. 2b supported. Pain correlated with intrusion into all but the wife and worker roles.
Hypothesis 3. Psychological adjustment is most compromised when illness intrudes upon important social roles, from which individuals derive a sense of competence and self-worth. Therefore, (a) role identity importance moderates the relationship between illness intrusion and psychological well-being. Illness intrusion into valued role identities will be associated with decreased psychological well-being, but intrusion into unimportant roles should not have this effect. (b) Further, competence mediates this effect.	3a partially supported. Identity moderated the relationship between illness intrusion and negative, but not positive, affect. 3b supported. Competence mediated this effect.
Hypothesis 4. Roles that are important or central to identity contribute to self-esteem and feelings of self-worth (Figure 1, path c), which in turn, contribute to psychological well-being (path d). Thus, self-esteem processes mediate the effect of role identity on psychological well-being.	Supported. Homemaker identity contributed to psychological well-being, largely operating through competence.

Table 15 (continued)

Summary of Hypotheses and Findings

Description of hypothesis	Findings
Hypothesis 5. A positive, direct relationship between emotional support and psychological well-being is expected (Figure 1, path e). Emotional support will have a main effect on psychological well-being.	Not well supported. The effect of emotional support on psychological well-being was marginally significant, and was limited to positive affect. Emotional support affected positive affect partly through competence processes.
Hypothesis 6. This is the central hypothesis of the study, and has two parts. Social support should be least beneficial when it involves tangible assistance in fulfilling a highly-valued role. In this case, tangible support undermines the recipient's sense of competence and self-esteem (path f, Figure 1), which ultimately affects psychological well-being (path d). Therefore, the model predicts that: (a) role identity importance moderates the relationship between tangible support and psychological well-being (path g); and (b) it does so by affecting competence and self-esteem; thus, the effect occurs through a mediational process.	6a not well supported. A moderation effect was found only for positive affect, but the interaction was not in the predicted direction. No support was found for the Hypothesis 6b, that competence processes mediate this effect.
Hypothesis 7. For highly valued role identities, the relationship between role-specific tangible social support and psychological well-being is curvilinear, U-shaped in nature. Specifically, moderate levels of support have the most beneficial effects, and both high and low levels have less beneficial effects. For unimportant roles, the relationship is linear, with greater tangible support related to more psychological well-being.	Not supported. The moderating effect of identity was linear, rather than U-shaped.

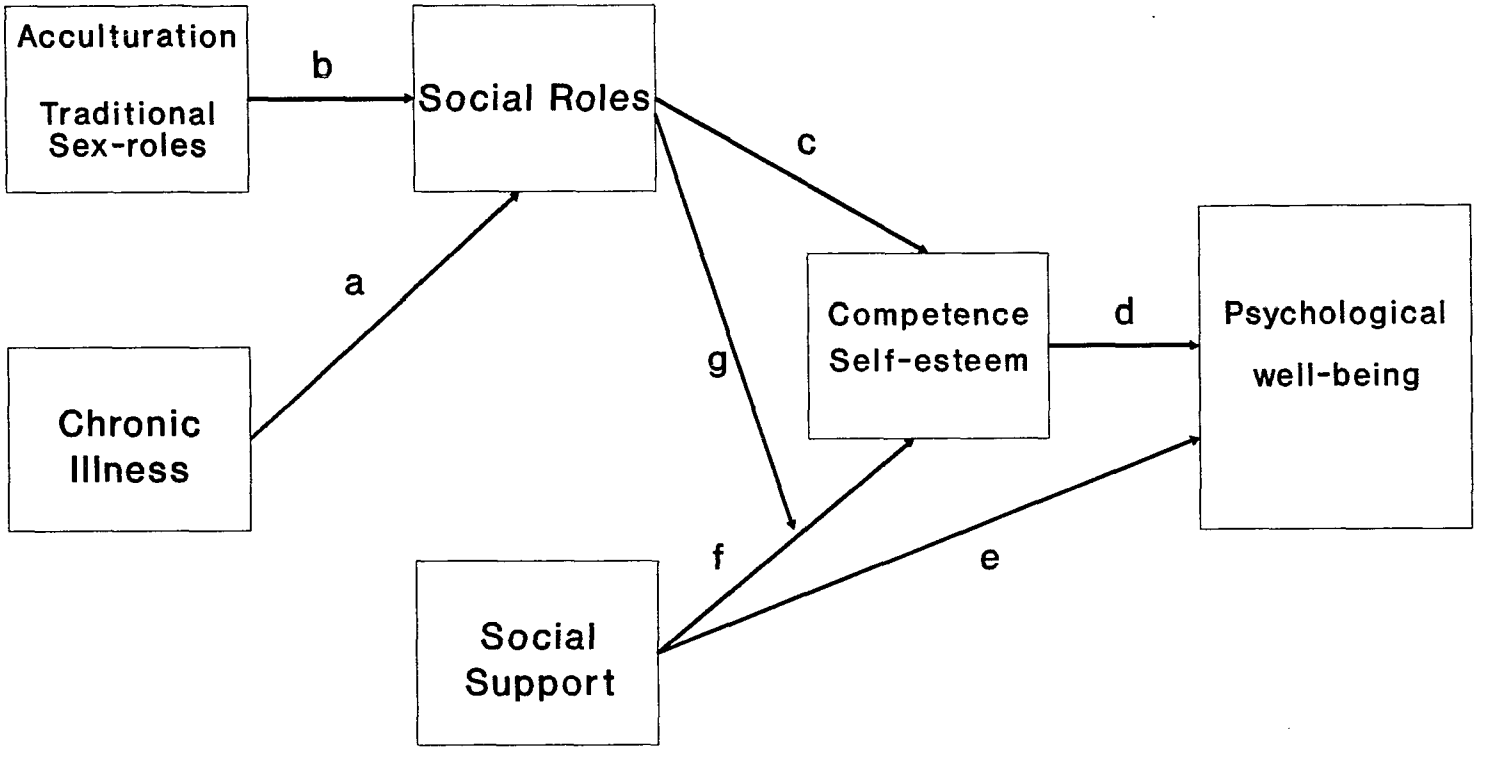
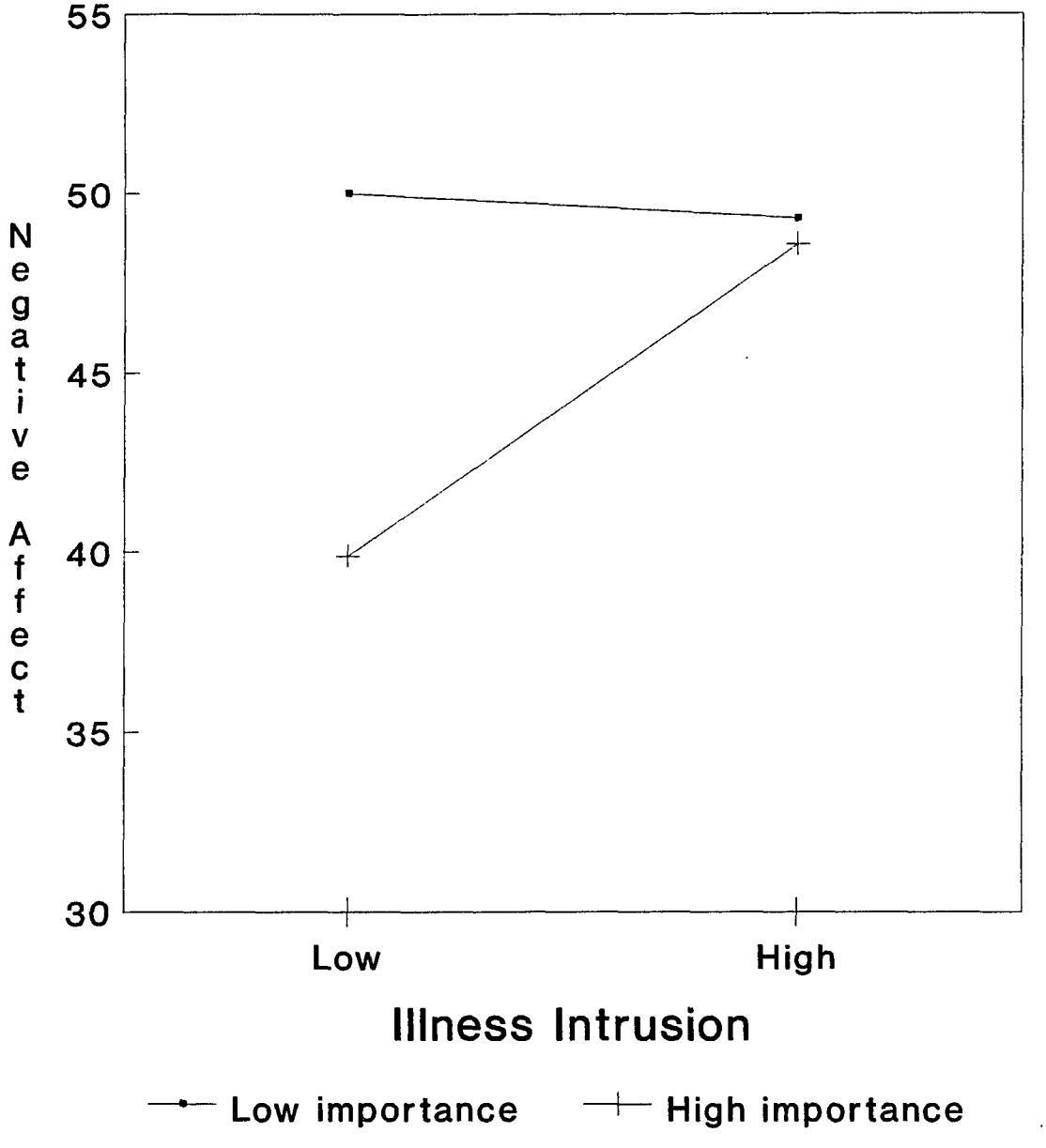


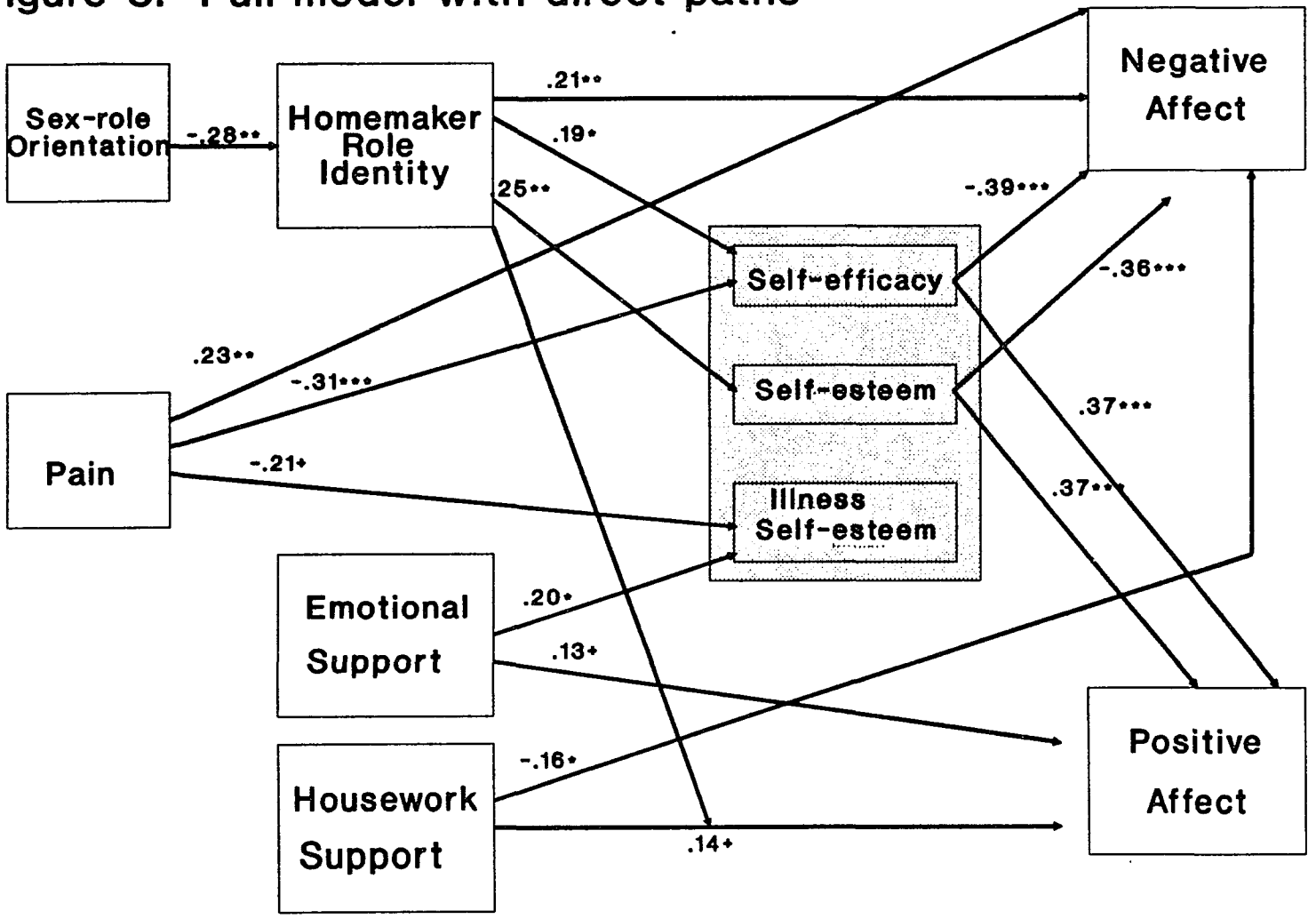
Figure 1. Conceptual Model: How social support may contribute to psychological well-being

Figure 2.
Illness intrusion x identity importance



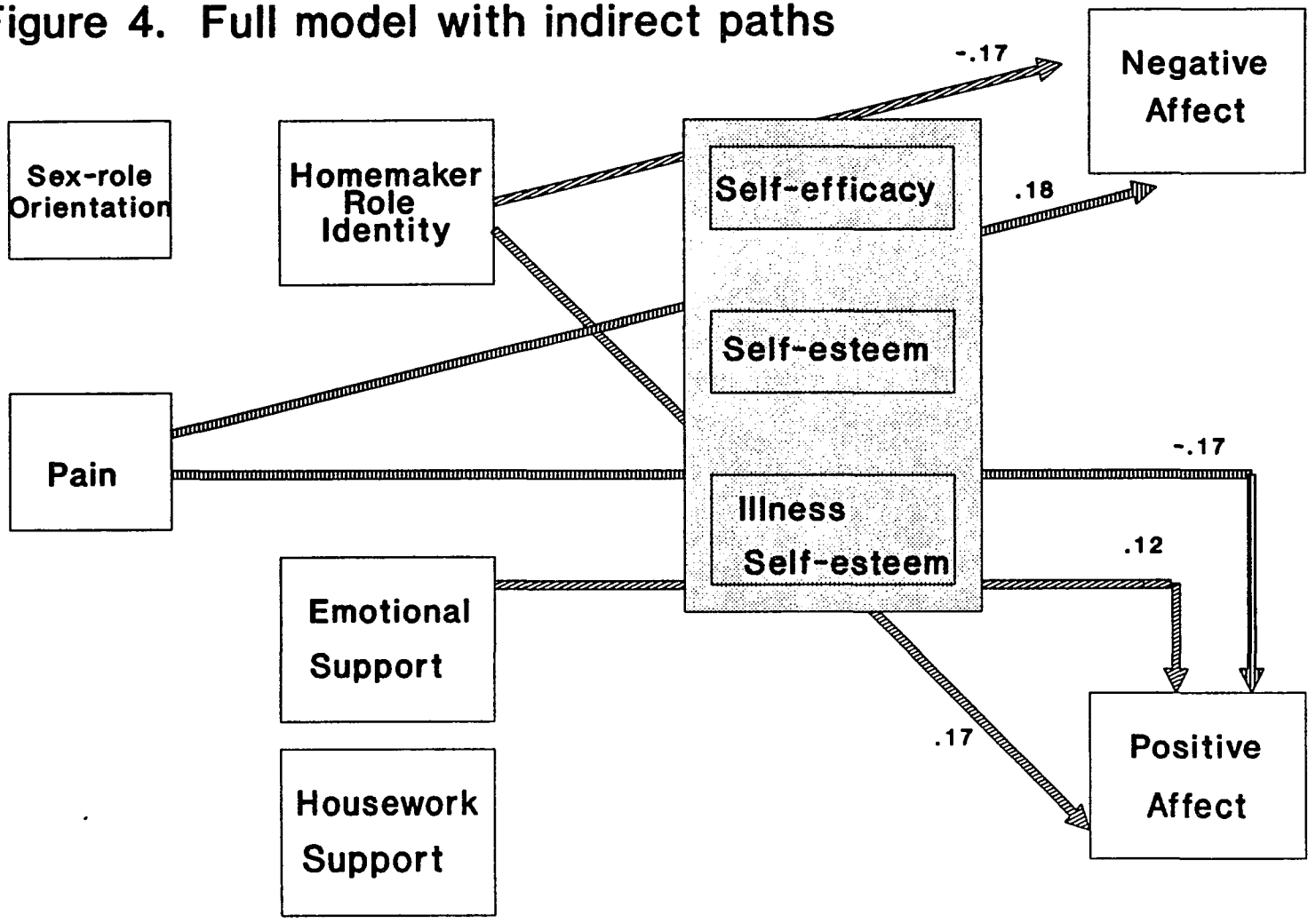
controlling for Pain and Disability

Figure 3. Full model with direct paths



Only significant paths are shown

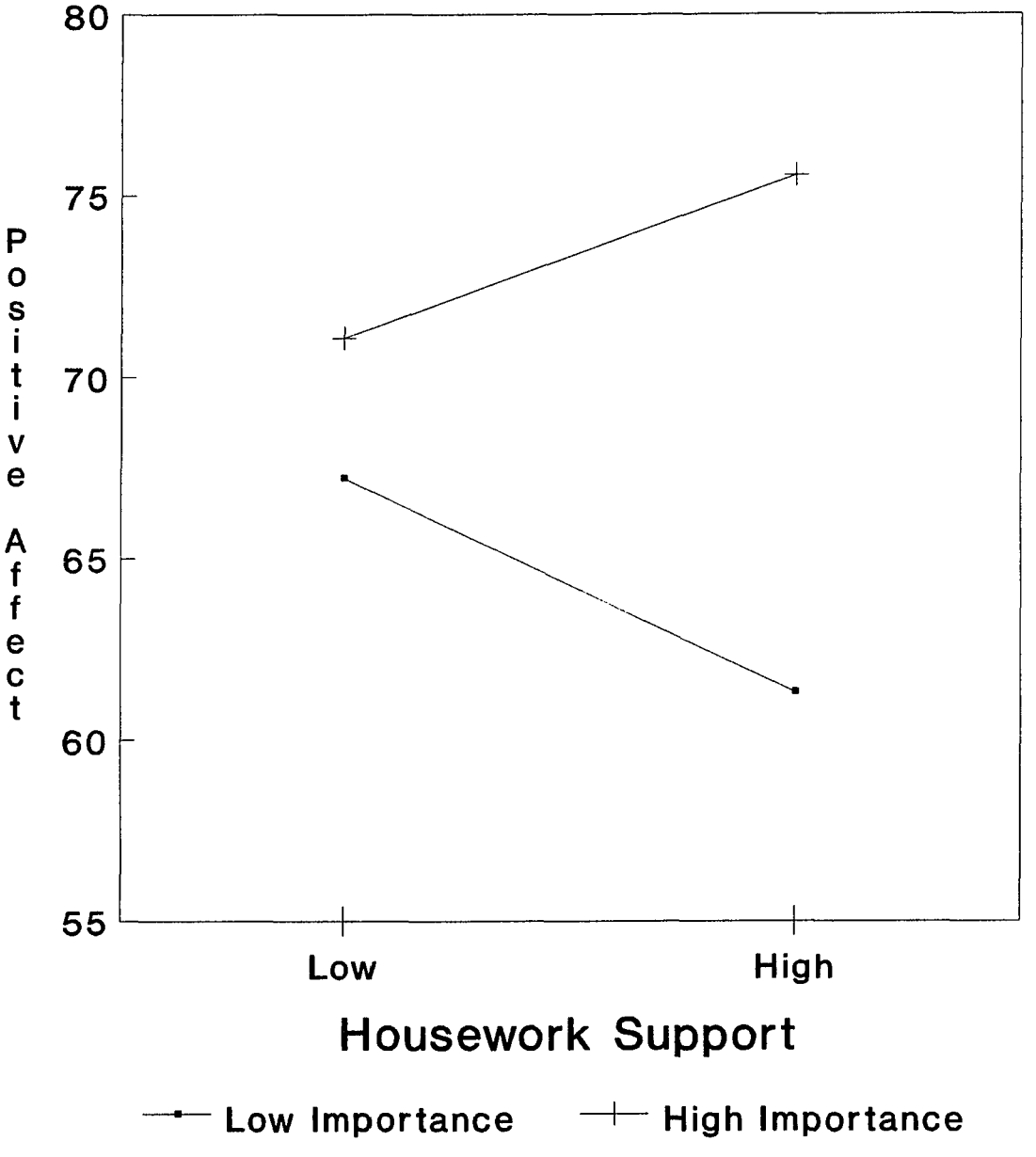
Figure 4. Full model with indirect paths



Only significant paths are shown

Figure 5

*H*omemaker identity x housework support



References

Adler, N.E., Boyce, T., Chesney, M.A., Cohen, S., Folkman, S., Kahn, R.L., & Syme, S.L. (1994). Socioeconomic status and health. American Psychologist, 49, 15-24.

Affleck, G., Pfeiffer, C., Tennen, H., & Fifield, J. (1988). Social support and psychosocial adjustment to rheumatoid arthritis. Arthritis Care and Research, 1, 71-77.

Aiken, L.S., & West, S.G. (1991). Multiple regression: Testing and interpreting interactions. Newbury Park, CA: Sage.

Amaro, H. (1992). Epidemiology of ethnic minority health: Hispanic Americans. Paper presented at the National Conference on Behavioral and Socio-cultural Perspectives on Ethnicity and Health, September, Washington, DC.

Amaro, H., & Russo, N.F. (1987). Hispanic women and mental health: An overview of contemporary issues in research and practice. Psychology of Women Quarterly, 11, 393-407.

Amaro, H., & Russo, N.F., & Johnson, J. (1987). Family and work predictors of psychological well-being among Hispanic women professionals. Psychology of Women Quarterly, 11, 505-521.

Anderson, K.O., Bradley, L.A., Young, L.D., McDaniel, L.K., & Wise, C.M. (1985). Rheumatoid arthritis: Review of psychological factors related to etiology, effects, and treatment. Psychological Bulletin, 98, 358-387.

Andrews, F., & Withey, R.S. (1976). Social Indicators of Well-being. NY: Plenum Press.

Antonucci, T.C. (1985). Social support: Theoretical advances, recent findings and pressing issues. In I.G. Sarason and B.R. Sarason (Eds.), Social support: Theory, research and applications, Dordrecht, The Netherlands: Martinus Nijhoff.

Arling, G. (1987). Strain, social support, and distress in old age. Journal of Gerontology, 42, 107-113.

Banaji, M.R., & Prentice, D.A. (1994). The self in social contexts. Annual Review of Psychology, 45, 297-332.

Barbee, A.P., Cunningham, M.R., Winstead, B.A., Derlega, V.J., Gulley, M.R.,

Yankeelov, P.A., Druen, P.B. (1993). Effects of gender role expectations on the social support process. Journal of Social Issues, 49, 175-190.

Barnett, R.C., & Marshall, N.L. (1993). Men, family-role quality, job-role quality and physical health. Health Psychology, 12, 48-55.

Barnett, R.C., & Marshall, N.L., Raudenbush, & Brennan, R.T. (1993). Gender and the relationship between job experiences and psychological distress: A study of dual-earner couples. Juornal of Personality and Social Psychology, 64, 794-806.

Baron, R.M., & Kenny, D.A. (1986). The moderator-mediator distinction in Social Psychological research: Conceptual, strategic, and statistical considerations. Journal of Personality and Social Psychology, 51, 1173-1182.

Becker, G. (1993). Continuity after a stroke: Implications of life-course disruption in old age. The Gerontologist, 33, 148-158.

Belle, D. (1983). The impact of poverty on social networks and social support. Women and Health, 9, 89-103.

Belle, D. (1990). Poverty and women's mental health. American Psychologist, 45, 385-389.

Beckman, L.J. (1981). Effects of social interaction and children's relative inputs on older women's psychological well-being. Journal of Personality and Social Psychology, 41, 1075-1086.

Berkman, L.F. (1985). The relationship of social networks and social support to morbidity and mortality. In S. Cohen & S.L. Syme (Eds.), Social support and health (pp. 241-262). NY: Academic Press.

Bill-Harvey, D., Rippey, R.M., Abeles, M., & Pfeiffer, C.A. (1989). Methods used by urban, low-income minorities to care for their arthritis. Arthritis Care and Research, 2, 60-64.

Blalock, S.J., DeVellis, B.M., DeVellis, R.F., & Sauter, S.V.H. (1988). Self-evaluation processes and adjustment to rheumatoid arthritis. Arthritis and Rheumatism, 31, 1245-1251.

Blalock, S.J., DeVellis, B.M., DeVellis, R.F., Giorgino, K.B., Sauter, S.V.H., Jordan, J.M., Keefe, F.J., & Mutran, E.J. (1992). Psychological well-being among people with recently diagnosed rheumatoid arthritis. Arthritis and Rheumatism, 35, 1267-1272.

Brickman, P., Rabinowitz, V.C., Karuza, J., Coates, D., Cohn, M., & Kidder, L. (1982). Models of helping and coping. American Psychologist, 37, 368-384.

Brown, G.K., Wallston, K.A., & Nicassio, P.M. (1989). Social support and depression in rheumatoid arthritis: A one-year prospective study. Journal of Applied Social Psychology, 19, 1164-1181.

Brown, J.D., & McGill, K.L. (1989). The cost of good fortune: When positive life events produce negative health consequences. Journal of Personality and Social Psychology, 57, 1103-1110.

Burish, T.G., & Naramore Lyles, J. (1983). Coping with the adverse effects of cancer treatments. In T.G. Burish & L.A. Bradley (Eds.), Coping with chronic disease: Research and applications. New York: Academic Press.

Burman, B., & Margolin, G. (1992). Analysis of the association between marital relationships and health problems: An interactional perspective. Psychological Bulletin, 112, 39-63.

Bury, M. (1982). Chronic illness as biographical disruption. Sociology of Health and Illness, 4, 167-182.

Campbell, A., Converse, P.E. & Rogers, W.L. (1976). The Quality of American Life. NY: Russel Sage.

Canino, G.J., Rubio-Stipec, M., Shrout, P., Bravo, M., Stolberg, R., & Bird, H.R. (1987). Sex differences and depression in Puerto Rico. Psychology of Women Quarterly, 11, 443-459.

Charmaz, K. (1983). Loss of self: A fundamental form of suffering in the chronically ill. Sociology of Health and Illness, 5, 168-195.

Chesler, M.A., & Barbarin, O.A. (1984). Difficulties of providing help in a crises: Relationships between parents of children with cancer and their friends. Journal of Social Issues, 40, 113-134.

Clark, M.S. (1983). Some implications of close social bonds for help-seeking. In B.M. DePaulo, A. Nadler, & J.D. Fisher (Eds.), New directions in helping: Vol 2. Help-seeking (pp. 205-233). San Diego, CA: Academic Press.

Coates, D., Renzaglia, G.J., & Embree, M.C. (1983). When helping backfires: Help and helplessness. In J.D. Fisher, A. Nadler, & B.M. DePaulo (Eds.), New directions in helping: Vol 1. Recipient reactions to aid (pp. 251-279). San Diego, CA: Academic Press.

Cobb, S. (1976). Social support as a moderator of life stress. Psychosomatic Medicine, 38, 300-314.

Cohen, J. (1992). A power primer. Psychological Bulletin, 112, 155-159.

Cohen, J., & Cohen, P. (1983). Applied multiple regression and correlation analysis for the behavioral sciences (Second edition). Hillsdale, NJ: Lawrence Erlbaum.

Cohen, S. (1988). Psychosocial models of the role of social support in the etiology of physical disease. Health Psychology, 7, 269-297.

Cohen, S., & Wills, T.A. (1985). Stress, social support, and the buffering hypothesis. Psychological Bulletin, 98, 310-357.

Cohen, S., & McKay, G. (1984). Social support, stress and the buffering hypothesis: A theoretical analysis. In A. Baum, J.E. Singer, & S.E. Taylor (Eds.), Handbook of Psychology and Health (vol 4). Hillsdale, NJ: Erlbaum.

Collings, J.A. (1990). Epilepsy and well-being. Social Science and Medicine, 31, 165-170.

Coulton, C.J., Milligan, S., Chow, J. & Haug, M. (1990). Ethnicity, self-care, and use of medical care among elderly with joint symptoms. Arthritis Care and Research, 3, 19-28.

Coyne, J.C., & DeLongis, A. (1986). Going beyond social support: The role of social relationships in adaptation. Journal of Consulting and Clinical Psychology, 54, 545-460.

Coyne, J.C., Ellard, J.H., & Smith, D.A.F. (1990). Social support, interdependence, and the dilemmas of helping. In I.G. Sarason & B.R. Sarason (Eds.), Social support: An interactional view (pp. 129-149). New York: Wiley.

Coyne, J.C., Wortman, C.B., & Lehman, D.R. (1988). The other side of support: emotional overinvolvement, and miscarried helping. In B.H. Gottlieb (Ed.) Marshalling social support: Formats, processes and effects (pp. 305-330). Newbury Park, CA: Sage

Curbow, B., Somerfield, M., Legro, M., & Sonnega, J. (1990). Self-concept and cancer in adults: Theoretical and methodological issues. Social Science & Medicine, 31, 115-128.

Cutrona, C.E., & Russel, D.W. (1990). Type of social support and specific stress:

Toward a theory of optimal matching. In I.G. Sarason & B.R. Sarason (Eds.), Social support: An interactional view (pp. 319-366). New York: Wiley.

Dakof, G.A., & Taylor, S.E. (1990). Victim's perceptions of social support: What is helpful from whom? Journal of Personality and Social Psychology, 58, 80-89.

De La Rosa, M. (1988). Natural support systems of Puerto Ricans: A key dimension for well-being. Health and Social Work, 13, 181-190.

Deaux, K. (1993). Reconstructing social identity. Personality and Social Psychology Bulletin, 19, 4-12.

Deaux, K. (1994). Enacting social identity: Maintaining stability and dealing with change. Unpublished manuscript, The Graduate School, City University of New York, New York, NY.

Deiner, E. (1984). Subjective well-being. Psychological Bulletin, 95, 542-575.

Devins, G.M., Edworthy, S.M., Guthrie, N.G., & Martin, L. (1992) Illness intrusiveness in rheumatoid arthritis: Differential impact on depressive symptoms over the adult lifespan. Journal of Rheumatology, 19, 709-715.

Devins, G.M., Mandin, H., Hons, R.B., Burgess, E.D., Klassen, J., Taub, K., Schoor, S., Letourneau, P.K., & Buckle, S. (1990). Illness intrusiveness and quality of life in end-stage renal disease: Comparison and stability across treatment modalities. Health Psychology, 9, 117-142.

Dreyer, N.A., Woods, N.F., & James, S.A. (1981). ISRO: A scale to measure sex-role orientation. Sex Roles, 7, 173-182.

Dunkel-Schetter, C. (1984). Social support and cancer: Findings based on patient interviews and their implications. Journal of Social Issues, 40, 77-98.

Dunkel-Schetter, C., & Wortman, C.B. (1982). The interpersonal dynamics of cancer. In H.S. Friedman & M.R. DiMatteo (Eds.), Interpersonal Issues in Health Care (pp. 69-100). NY: Academic Press.

Eckenrode, J., & Wethingon, E. (1990). The process and outcome of mobilizing social support. In S. Duck & R.C. Silver (Eds.), Personal relationships and social support (pp. 83-103). Newbury Park, CA: Sage.

Elliott, T.R., Herrick, S.M., Patti, A.M., Witty, T.E., Godshall, F.J., & Spruell, M. (1991). Assertiveness, social support and psychological adjustment

following spinal cord injury. Behavior Research and Therapy, 29, 485-493.

Ensminger, M.E., & Celentano, D.D. (1990). Gender differences in the effect of unemployment on psychological distress. Social Science and Medicine, 30, 469-477.

Erikson, E.H. (1963). Childhood and Society. NY: Norton.

Ethier, K. & Deaux, K. (1990). Hispanics in ivy: Assessing identity and perceived threat. Sex Roles, 22(7/8), 427-440.

Ethier, K. & Deaux, K. (1994). Negotiating social identity in a changing context: Maintaining identification and responding to threat. Journal of Personality and Social Psychology, 67, 243-251.

Felton, B.J., & Revenson, T.A. (1984). Coping with chronic illness: A study of illness controllability and the influence of coping strategies on psychological adjustment. Journal of Consulting and Clinical Psychology, 52, 343-353.

Finch, J.F., Okun, M.A., Barrera, M., Jr., Zautra, A.J., & Reich, J.W. (1989). Positive and negative social ties among older adults: Measurement models and the prediction of psychological distress and well-being. American Journal of Community Psychology, 17, 585-605.

Finney, J.W., Mitchell, R.E., Cronkite, R.C., & Moos, R.H. (1984). Methodological issues in estimating main and interactive effects: Examples from coping/social support and stress field. Journal of Health and Social Behavior, 25, 85-98.

Fiore, J., Becker, J., & Coppel, D.B. (1983). Social network interactions: A buffer or a stress. American Journal of Community Psychology, 11, 423-439.

Fisher, J.D., Nadler, A., & Whitcher-Alagna, S. (1982). Recipient reactions to aid. Psychological Bulletin, 91, 27-54.

Fitzpatrick, R., Newman, S., Lamb, R., & Shipley, M. (1988). Social relationships and psychological well-being in rheumatoid arthritis. Social Science and Medicine, 27, 399-403.

Fitzpatrick, R., Newman, S., Archer, R., & Shipley, M. (1991). Social support, disability and depression: A longitudinal study of rheumatoid arthritis. Social Science and Medicine, 33, 605-611.

Frankenhaeuser, M., Lundberg, U., & Chesney, M. (1991). Editors, Women, work and Health. New York: Plenum.

French, J.R.P., Jr., Rodgers, W. & Cobb, S. (1974). Adjustment as person-environment fit. In G.V. Coelho, D.A. Hamburg, & J.E. Adams (Eds.), Coping and adaptation (pp. 316-444). New York: Basic Books.

Fries, J.F., Spitz, P., Kraines, R.G., Holman, H. (1980). Measurement of patient outcome in arthritis. Arthritis and Rheumatism, 23, 137-145.

Gaston-Johansson, F., Gustafsson, M., Felldin, R., & Sanne, H. (1990). A comparative study of feelings, attitudes and behaviors of patients with fibromyalgia and rheumatoid arthritis. Social Science and Medicine, 31, 941-947.

Gibson, R.C. (1989). Minority aging research: Opportunity and challenge. Journal of Gerontology, 44, S1-S2.

Golding, J.M., & Burnam, M.A. (1990). Stress and social support as predictors of depressive symptoms in Mexican Americans and non-Hispanic whites. Journal of Social and Clinical Psychology, 9, 268-286.

Golding, J.M., & Baezconde-Garbanati, L.A. (1990). Ethnicity, culture and social resources. American Journal of Community Psychology, 18, 465-486.

Goodenow, C., Reisine, S.T., Grady, K.E. (1990). Quality of social support and associated social and psychological functioning in women with rheumatoid arthritis. Health Psychology, 9, 266-284.

Gore, S., & Mangione, T.W. (1983). Social roles, sex roles, and psychological distress: Additive and interactive models of sex differences. Journal of Health and Social Behavior, 24, 300-312.

Greenberg, M.S., & Westcott, D.R. (1983). Indebtedness as a mediator of reactions to aid. In J.D. Fisher, A. Nadler, & B.M. DePaulo (Eds.), New directions in helping: Vol 1. Recipient reactions to aid (pp. 85-112). San Diego, CA: Academic Press.

Hatfield, E. & Sprecher, S. (1983). Equity theory and recipient reactions to aid. In J.D. Fisher, A. Nadler, & B.M. DePaulo (Eds.), New directions in helping: Vol 1. Recipient reactions to aid (pp. 113-141). San Diego, CA: Academic Press.

Headey, B., Holmstrom, E., & Wearing, A. (1983). Well-being and ill-being: Different dimensions? Social Indicators Research, 14, 115-139.

Heller, K., Swindle, R.W., & Dusenbury, L. (1986). Component social support

processes: Comments and integration. Journal of Consulting and Clinical Psychology, 54, 466-470.

Heller, K., Thompson, M.G., Vlachos-Weber, I., Steffen, A.M., & Trueba, P.E. (1991). Support interventions for older adults: confidante relationships, perceived family support, and meaningful role activity. American Journal of Community Psychology, 19, 139-146.

Hendricson, W.D., Russell, I.J., Prihoda, T.J., Jacobson, J.M., Rogan, A., Bishop, G.D., & Castillo, R. (1989). Development and initial validation of a dual-language English-Spanish format for the Arthritis Impact Measurement Scales. Arthritis and Rheumatism, 32 1153-1159.

Hibbard, J.H., & Pope, C.R. (1993). The quality of social roles as predictors of morbidity and mortality. Social Science and Medicine, 36, 217-225.

Hobfoll, S.E., Nadler, A., & Leiberman, J. (1986). Satisfaction with social suppor during crisis: Intimacy and self-esteem as critical determinants. Journal of Personality and Social Psychology, 51, 296-304.

Hobfoll, S.E., Shoham, S.B., & Ritter, C. (1991). Women's satisfaction with social support and their receipt of aid. Journal of Personality and Social Psychology, 61, 332-341.

Hoffman, M.A., Levy-Shiff, R., & Ushpiz, V. (1993). Moderating effects of adolescent social orientation on the relation between social support and self-esteem. Journal of Youth and Adolescence, 22, 23-31.

Hoge, D.R., & McCarthy, J.D. (1984). Influence of individual and group identity salience in the global self-esteem of youth. Journal of Personality and Social Psychology, 47, 403-414.

House, J.S., Landis, K.R., & Umberson, D. (1988). Social relationships and health. Science, 241, 540-545.

Hubbell, L.J. (1993). Values under siege in Mexico: Strategies for sheltering traditional values from change. Journal of Anthropological Research, 49, 1-16.

Ingersoll-Dayton, B. & Antonucci, T.C. (1988). Reciprocal and nonreciprocal social support: Contrasting sides of intimate relationships. Journal of Gerontology, 43, S65-73.

Jackson, J.S. (1989). Race, ethnicity and psychological theory and research. Journal

of Gerontology, 44, P1-P2.

Jacobson, D.E. (1986). Types and timing of social support. Journal of Health and Social Behavior, 27, 250-264.

James, W. (1963). The principles of psychology. New York: Holt, Rinehart & Winston. (Original work published in 1890).

Johnson, E.H., Angel, R., Bagley, S., Dilworth-Anderson, P., Evans, J.D., Hobfoll, S.E., Jasnoski, M., Lanza, A.F., Liu, W.T., Neighbors, H., Wallson, K., & West, C.A.C. (in press). Report from Task Group V: Adaptive health behaviors. Health Psychology, Special Issue: Proceedings from the National Conference on Behavioral and Socio-cultural perspectives on ethnicity and health, September, 1992, Washington, D.C.

Kammann, R., Farry, M., & Herbison, P. (1984). The analysis and measurement of happiness as a sense of well-being. Social Indicators Research, 15, 91-115.

Kandel, D.B., Davies, M., & Raveis, V.H., (1985). The stressfulness of daily social roles for women: Marital, occupational and household roles. Journal of Health and Social Behavior, 26, 64-78.

Kaplan, R.M., & Toshima, M.T. (1990). The functional effects of social relationships on chronic illnesses and disability. In I.G. Sarason & B.R. Sarason (Eds.), Social support: An interactional view (pp. 427-453). New York: Wiley.

Katz, P.P., & Yelin, E.H. (1994). Life activities of persons with rheumatoid arthritis with and without depressive symptoms. Arthritis Care and Research, 7, 69-77.

Kessler, R.C., & McLeod, J.D. (1984). Sex differences in vulnerability to undesirable life events. American Sociological Review, 49, 620-631.

Kibria, N., Barnett, R.C., Baruch, G.K., Marshall, N.L., & Pleck, J.H. (1990). Homemaking-role quality and the psychological well-being and distress of employed women. Sex Roles, 22, 5/6, 327-345.

King, K.B., Reis, H.T., Porter, L.A. & Norsen, L.H. (1993). Social support and long-term recovery from coronary artery surgery: Effects on patients and spouses. Health Psychology, 12, 56-63.

Krause, N., & Markides, K.S. (1985). Employment and psychological well-being in Mexican American women. Journal of Health and Social Behavior, 26, 15-26.

Kutner, N.G. (1987). Social ties, social support, and perceived health status among chronically disabled people. Social Science and Medicine, 25, 29-34.

Landrine, H. (1992). Clinical implications of cultural differences: The referential versus the indexical self. Clinical Psychology Review, 12, 401-415.

Lanza, A.F., Cameron, A.E., & Revenson, T.A. (in press). Perceptions of helpful and unhelpful support among married people with rheumatic diseases. Psychology and Health: An international journal.

Lanza, A.F., & Revenson, T.A. (1993). Social support interventions for rheumatoid arthritis patients: The cart before the horse? Health Education Quarterly, 20, 97-117.

Larson, R.J., Diener, E., Emmons, R.A. (1985). An evaluation of subjective well-being measures. Social Indicators Research, 17, 1-17.

Lawton, M.P. (1978). What is the good life for the aging? Kesten Lecture presented at the University of Southern California, Ethel Percy Gerontology Center, October.

Lee, G.R. & Ellithorpe, E. (1982). Intergenerational exchange and subjective well-being among the elderly. Journal of Marriage and the Family, 44, 217-223.

Lehman, D.R., & Hemphill, K.J. (1990). Recipients' perceptions of support attempts and attributions for support attempts that fail. Journal of Social and Personal Relationships, 7, 563-574.

Liang, M.H., Larson, M.G., Cullen, K.E., Schwartz, J.A. (1985). Comparative measurement efficiency and sensitivity of five health status instruments for arthritis research. Arthritis and Rheumatism, 28, 542-547.

Link, B.G., Palamara Mesagno, F., Lubner, M.E., Dohrenwend, B.P. (1990). Problems in measuring role strains and social functioning in relation to psychological symptoms. Journal of Health and Social Behavior, 31, 354-369.

Lorig, K.R. (1993). Spanish Arthritis Self-Management Program Evaluation Study, Stanford University Arthritis Center, Palo Alto, CA, research in progress.

Lorig, K.R., Cox, T., Cuevas, Y., Kraines, R.G., & Britton, M.C. (1984). Converging and diverging beliefs about arthritis: Caucasian patients, spanish speaking patients, and physicians. The Journal of Rheumatology, 11, 76-79.

Lorig, K.R., & Holman, H.R. (1989). Long-term outcomes of an arthritis self-

management study: Effects of reinforcement efforts. Social Science and Medicine, 29, 221-224.

Lorig, K.R., Lubeck, D., Kraines, R.G., Seleznick, M., Holman, H.R. (1985). Outcomes of self-help education for patients with arthritis. Arthritis and Rheumatism, 28, 680-685.

Lorig, K., Chastain, R., Ung, E., Shoor, S., & Holman, H. (1989). Development and evaluation of a scale to measure the perceived self-efficacy in people with arthritis. Arthritis and Rheumatism, 32, 37-44.

Luhtanen, R. & Crocker, J. (1992). A collective self-esteem scale: Self-evaluation of one's social identity. Personality and Social Psychology Bulletin, 18, 302-318.

Manne, S.L., & Zautra, A.J. (1989). Spouse criticism and support: Their association with coping and psychological adjustment among women with rheumatoid arthritis. Journal of Personality and Social Psychology, 56, 608-617.

Manne, S.L., & Zautra, A.J. (1992). Coping with arthritis: Current status and critique. Arthritis and Rheumatism, 35, 1273-1280.

Marín, G., & Marín, B.V. (1991). Research with Hispanics. Newbury Park, CA: Sage.

Marín, G., Sabogal, F., Marín, B.V., Otero-Sabogal, R., & Pérez-Stable, E.J. (1987). Development of a short acculturation scale for Hispanics. Hispanic Journal of Behavioral Sciences, 9, 183-205.

Markides, K.S., Boldt, J.S., & Ray, L.A. (1986). Sources of helping and intergenerational solidarity: A three-generation study of Mexican Americans. Journal of Gerontology, 41, 506-511.

Markus, H., & Nurius, P. (1986). Possible selves. American Psychologist, 41, 954-969.

Marsh, H.W. (1986). Global self-esteem: Its relation to specific facets of self-concept and their importance. Journal of Personality and Social Psychology, 51, 1224-1236.

McCall, G.J., & Simmons, J.L. (1966). Identities and Interactions. New York: The Free Press.

McClelland, G.H., & Judd, C.M. (1993). Statistical difficulties of detecting

interactions and moderation effects. Pschological Bulletin, 114, 376-390.

McCrae, R.R., & Costa, P.T. (1988). Age, personality, and the spontaneous self-concept. Journal of Gerontology, 43, S177-185.

McIntosh, D.N., Silver, R.C., & Wortman, C.B. (1993). Religion's role in adjustment to a negative life event: Coping with the loss of a child. Journal of Personality and Social Psychology, 65, 812-821.

Mead, G.H. (1934). Mind, self, and society. Chicago: University of Chicago Press.

Melamed, B.G., & Brenner, G.F. (1990). Social Support and chronic medical stress: An interaction-based approach. Journal of Social and Clinical Psychology, 9, 104-117.

Moen, P., Dempster-McClain, D., & Williams, R. (1992). Successful aging: A life-course perspective on women's multiple roles and health. American Journal of Sociology, 97, 1612-1638.

Moos, R.H. (1982). Coping with acute health crises. In T. Millon, C. Green & R. Meagher (Eds.), Handbook of clinical health psychology. New York: Plenum Press.

Moser, D.K., Dracup, K.A., & Marsden, C. (1993). Needs of recovering cardiac patients and their spouses: Compared views. International Journal of Nursing Studies, 30, 105-114.

Nadler, A. (in press). Help seeking behavior: Psychological costs and instrumental benefits. In M.S. Clark (Ed.), Review of Personality and Social Psychology (vol 12).

Oatley, K., & Bolton, W. (1985). A social-cognitive theory of depression in reaction to life events. Psychological Review, 92, 372-388.

O'Brien, M.E. (1980). Effective social environment and hemodialysis adaptation: A panel analysis. Journal of Health and Social Behavior, 21, 360-370.

O'Leary, A., Shoor, S., Lorig, K., Holman, H.R. (1988). A cognitive-behavioral treatment for rheumatoid arthritis. Health Psychology, 7, 527-544.

O'Leary, V.E., & Ickovics, J.R. (1994). Resilience as thriving: A heuristic model and its application to women. Indiana State University and Yale University manuscript, under review.

Padilla, G.V., Hurwicz, M.L., Berkanovic, E., Anderle, D. (1993). Quality of life and rheumatoid arthritis. Arthritis Care and Research, 6, S19.

Pearlin, L.I. (1983). Role strains and personal stress. In J.G. Kaplan (Ed.), Psychosocial stress: Trends in theory and research. (pp. 3-32). New York: Academic Press.

Pearlin, L.I. (1989). The sociological study of stress. Journal of Health and Social Behavior, 30, 241-256.

Pearlin, L.I., Lieberman, M.A., Menaghan, E.G., & Mullan, J.T. (1981). The stress process. Journal of Health and Social Behavior, 22, 337-356.

Pelham, B.W., & Swann, W.B., Jr. (1989). From self-conceptions to self-worth: On the sources and structure of global self-esteem. Journal of Personality and Social Psychology, 57, 672-680.

Pelham, B.W., & Swann, W.B., Jr. (1991). Identity, investment and illness: Some unhealthy consequences of social misperception. Unpublished manuscript.

Penman, D.T., Bloom, J.R., Fotopoulos, S., Cook, M.R., Holland, J.C., Gates, C., Flamer, D., Murawski, B., Ross, R., Brandt, U., Muenz, R.L., & Pee, D. (1987). The impact of mastectomy on self-concept and social function: A combined cross-sectional and longitudinal study with comparison groups. Women & Health, 11, 101-130.

Peters-Golden (1982). Breast cancer: varied perceptions of social support in the illness experience. Social Science and Medicine, 16, 483-491.

Radloff, L.S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. Applied Psychological Measurement, 3, 385-401.

Register, C. (1987). Living with Chronic Illness. New York: The Free Press.

Reisine, S.T., & Fifield, J. (1988). Defining disability for women and the problem of unpaid work. Psychology of Women Quarterly, 12, 401-415.

Reisine, S.T., Goodenow, C., & Grady, K.E. (1987). The impact of rheumatoid arthritis on the homemaker. Social Science and Medicine, 25, 89-95.

Reisine, S.T., Grady, K.E., Goodenow, C., & Fifield, J. (1989). Work disability among women with rheumatoid arthritis: The relative importance of disease, social, work, and family factors. Arthritis and Rheumatism, 32, 538-543.

Revenson, T.A. (1993a). Patient and marital adaptation to rheumatic disease. Unpublished data. The Graduate School, City University of New York.

Revenson, T.A. (1993b). The role of social support with rheumatic disease. In S.P. Newman and M. Shipley (Eds.), Baillière's Clinical Rheumatology: International Practice and Research (vol. 7, pp. 377-396). London: Baillière Tindall.

Revenson, T.A. (1990). Social support and chronic illness: Patient and provider perspectives. In H. Giles, N. Coupland & J. Wiemann (Eds.), Health, Communication and the Elderly (pp. 92-113). Manchester, England: University of Manchester Press.

Revenson, T.A., & Felton, B.J. (1989). Disability and coping as predictors of psychological adjustment to rheumatoid arthritis. Journal of Consulting and Clinical Psychology, 57, 344-348.

Revenson, T.A., Schiaffino, K.M. (1990). Development of a contextual social support measure for use with arthritis populations. Paper presented at the National Scientific Meeting of the Arthritis Health Professions Association.

Revenson, T.A., Schiaffino, K.M., Majerovitz, S.D., & Gibofsky, A. (1991). Social support as a double-edged sword: The relation of positive and problematic support to depression among rheumatoid arthritis patients. Social Science and Medicine, 33, 807-813.

Revenson, T.A., Wollman, C.A., & Felton, B.J. (1983). Social supports as stress buffers for adult cancer patients. Psychosomatic Medicine, 45, 321-331.

Revicki, D.A., & Mitchell, J.P. (1990). Strain, social support, and mental health in rural elderly individuals. Journal of Gerontology, 45, S267-274.

Robbins, L., Allegrante, J.P., & Paget, S.A. (1993). Adapting the systemic lupus erythematosus self-help (SLESH) course for Latino SLE patients. Arthritis Care and Research, 6, 97-103.

Roberto, K.A. (1988). Stress and adaptation patterns of older osteoporotic women. Women & Health, 14, 105-119.

Rook, K.S. (1984). The negative side of social interaction: Impact on psychological well-being. Journal of Personality and Social Psychology, 46, 1097-1108.

Rook, K.S. (1987). Reciprocity of social exchange and social satisfaction among older women. Journal of Personality and Social Psychology, 52, 145-154.

Rose, J.H. (1990). Social support and cancer: Adult patients' desire for support from family, friends, and health professionals. American Journal of Community Psychology, 18, 439-464.

Rosenberg, M. (1965). Society and the adolescent self-image. Princeton, NJ: Princeton University Press.

Rosenberg, M. (1979). Conceiving the Self. NY: Basic Books.

Ross, C.E., Mirowsky, J., & Ulbrich, P. (1983). Distress and the traditional female role: A comparison of Mexicans and Anglos. American Journal of Sociology, 89, 670-682.

Ryff, C.D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. Journal of Personality and Social Psychology, 57, 1069-1081.

Sabogál, F., Marín, G., Otero-Sabogál, R., Marín, B.V., & Pérez-Stable, E.J. (1987). Hispanic familism and acculturation: What changes and what doesn't? Hispanic Journal of Behavioral Sciences, 9, 397-412.

Salgado de Snyder, V.N. (1987). Factors associated with acculturative stress and depressive symptomatology among married Mexican immigrant women. Psychology of Women Quarterly, 11, 475-488.

Sánchez-Ayéndez, M. (1988). Puerto Rican elderly women: The cultural dimension of social support networks. Women and Health, 14, 239-252.

Schiaffino, K.M. & Revenson, T.A. (1992). The role of perceived self-efficacy, perceived control, and causal attributions in adaption to rheumatoid arthritis: Distinguishing mediator from moderator effects. Personality and Social Psychology Bulletin, 18, 709-718.

Schmittroth, L. (1991). Statistical record of women worldwide. Detroit: Gale Research Inc.

Sherbourne, C.D. (1992). Pain Measures. In A.L. Steward & J.E. Ware (Eds.), Measuring functioning and well-being: The medical outcomes study approach. Durham, NC: Duke University Press.

Smith, C.A., Dobbins, C.J., & Wallston, K.A. (1991). The mediational role of perceived competence in psychological adjustment to rheumatoid arthritis. Journal of Applied Social Psychology, 21, 1218-1247.

Snyder, D.K. (1979). Multidimensional assessment of marital satisfaction. Journal of Marriage and the Family, 41, 813-823.

Simon, B.L. (1988). Never-married old women and disability: A majority experience. In M. Fine & A. Asch (Eds.), Women with Disabilities (pp. 215-225). Philadelphia: Temple Univ. Press.

Shinn, M., Lehmann, S., & Wong, N. (1984). Social interaction and social support. Journal of Social Issues, 40, 55-76.

Smith, C.A., Dobbins, C.J., & Wallston, K.A. (1991). The mediational role of perceived competence in psychological adjustment to rheumatoid arthritis. Journal of Applied Social Psychology, 21, 1218-1247.

Stones, M.J., & Kozma, A. (1986). Happiness and activities as propensities. Journal of Gerontology, 41, 85-90.

Stroup-Benham, C.A., Lawrence, R.H., Treviño, F.M. (1992). CES-D factor structure among Mexican American and Puerto Rican women from single- and couple-headed households. Hispanic Journal of Behavioral Sciences, 14, 310-326.

Stryker, S. & Serpe, R.T. (1982). Commitment, identity salience, and role behavior. In W. Ickes and E.S. Knowles (Eds.) Personality, Roles, and social behavior. NY: Springer-Verlag.

Suls, J. (1982). Social support, interpersonal relations, and health: Benefits and liabilities. In G.S. Sanders & J. Suls (Eds.), Social Psychology of Health and Illness (pp. 255-277). Hillsdale, NJ: Erlbaum.

Taeuber, C. (1991). Statistical handbook on women in America. Phoenix: Oryx Press.

Taylor, S.E. (1983). Adjustment to threatening events. American Psychologist, 38, 1161-1173.

Taylor, S.E. (1990). Psychosocial aspects of chronic illness. In P.T. Costa, Jr. & G.R. VandenBos (Eds.) Psychological aspects of serious illness (pp. 3-60). Washington, DC: American Psychological Association.

Thoits, P.A. (1983). Multiple identities and psychological well-being: A reformulation and test of the social isolation hypothesis. American Sociological Review, 48, 174-87.

Thoits, P.A. (1986). Multiple identities: Examining gender and marital status differences in distress. American Sociological Review, 51, 259-272.

Thoits, P.A. (1987). Gender and marital status differences in control and distress: Common stress versus unique stress explanations. Journal of Health and Social Behavior, 28, 7-22.

Thoits, P.A. (1991a). On merging identity theory and stress research. Social Psychology Quarterly, 54, 101-112.

Thoits, P.A. (1991b). Identity structures and psychological well-being: Gender and marital status comparisons. Unpublished manuscript, Vanderbilt University.

Turner, R.J., & Noh, S. (1988). Physical disability and depression: A longitudinal analysis. Journal of Health and Social Behavior, 29, 23-37.

Van Meek, L.G. (1992). Stress, support, self-concepts and depression among women of Mexican descent. Paper presented at the 100th Annual Convention of the American Psychological Association, Washington, D.C.

Vaux, A. (1985). Variations in social support associated with gender, ethnicity, and age. Journal of Social Issues, 41, 89-110.

Vazquez-Nuttall, E.V., Romero-Garcia, I., & De Leon, B. (1987). Sex roles and perceptions of femininity and masculinity of Hispanic women: A review of the literature. Psychology of Women Quarterly, 11, 409-425.

Vega, W.A., Kolody, B., Valle, J.R. (1986). The relationship of marital status, confidant support, and depression among Mexican immigrant women. Journal of Marriage and the Family, 48, 597-605.

Waldron, I., & Jacobs, J.A. (1989). Effects of multiple roles on women's health--evidence from a national longitudinal study. Women & Health, 15, 3-19.

Wallston, B.S., Alagna, S.W., DeVellis, B.M., & DeVellis, R.F. (1983). Social support and physical health. Health Psychology, 2, 367-391.

Waltz, M. (1986). Marital context and post-infarction quality of life: Is it social support or something more? Social Science and Medicine, 22, 791-805.

Watson, D., Clark, L.A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS Scales. Journal of Personality and Social Psychology, 54, 1063-1070.

Weinberger, M., Tierney, W.M., Booher, P., & Hiner, S.L. (1990). Social support, stress and functional status in patients with osteoarthritis. Social Science and Medicine, 30, 503-508.

Weiss, R.S. (1974). The provisions of social relationships. In Z. Rubin (Eds.), Doing unto others (pp. 17-26). Englewood Cliffs, NJ: Preintice-Hall.

Weiss, R.S. (1976). Transition states and other stressful situations: Their nature and programs for their management. In G. Caplan and M. Killilea (Eds.) Support Systems and Mutual Help: Multi-disciplinary Explorations. New York: Grune and Stratton.

Wentowski, G.J. (1981). Reciprocity and coping strategies of older people: Cultural dimensions of network building. The Gerontologist, 21, 600-609.

Wethington, E., & Kessler, R.C. (1986). Perceived support, received support, and adjustment to stressful life events. Journal of Health and Social Behavior, 27, 78-89.

White, R.W. (1987). Seeking the shape of personality: A memoir. Marlborough, NH: Homestead Press.

Wiener, C.L. (1984). The burden of rheumatoid arthritis. In A.L. Strauss, J. Corbin, S. Fagerhaugh, B.G. Glaser, D. Maines, B. Suczek & C.L. Wiener (Eds.), Chronic illness and the quality of life (pp. 88-98). St Louis, Missouri: C.V. Mosby Co.

Williams, G. (1984). The genesis of chronic illness: Narrative reconstruction. Sociology of Health and Illness, 6, 175-200.

Wills, T.A. (1985). Supportive functions of interpersonal relationships. In S. Cohen & S.L. Syme (Eds.), Social support and health (pp. 61-82). NY: Academic.

Wortman, C.B, & Conway T. L. (1985). The role of social support in adaptation and recovery from physical illness. In S. Cohen & S.L. Syme (Eds.), Social support and health (pp. 281-302). NY: Academic Press.

Ybarra, L. (1982). When wives work: The impact on the Chicano family. Journal of Marriage and the Family, 44, 169-178.

Yelin, E.H. (1992). Arthritis: The cumulative impact of a common chronic condition. Arthritis and Rheumatism, 35, 489-497.

Yelin, E.H., Henke, C.J., & Epstein, W.V. (1986). Work disability among persons

with musculoskeletal conditions. Arthritis and rheumatism, 29, 1322-1333.

Yelin, E.H., & Katz, P.P. (1991). Labor force participation among persons with musculoskeletal conditions, 1970-1987. Arthritis and rheumatism, 34, 1361-1370.

Yoshida, K.K. (1993). Reshaping of self: A pendular reconstruction of self and identity among adults with traumatic spinal cord injury. Sociology of Health and Illness, 15, 217-245.

Zavala-Martínez, I. (1987). En la Lucha: The economic and socioemotional struggles of Puerto Rican Women. Women and Therapy, 6, 3-24.