ACCULTURATION AND ETHNIC IDENTITY AS THEY RELATE TO

THE PSYCHOLOGICAL WELL-BEING OF ADULT AND ELDERLY

MEXICAN AMERICANS

A Dissertation

by

SAORI RIVERA

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

May 2007

Major Subject: Counseling Psychology

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Approved by:

Chair of Committee,	Michael Duffy
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ABSTRACT

Acculturation and Ethnic Identity as They Relate to the Psychological Well-being

of Adult and Elderly Mexican Americans. (May 2007)

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In attempting to help the Mexican American adult and elderly population, the relationship between psychological well-being and cultural factors was investigated in this dissertation study. Primarily, the dynamics of acculturation and ethnic identity were considered as measures of cultural adjustment; while, physical, intellectual, emotional, social, and spiritual dimensions were used to measure well-being and mental health in adult and elderly cohorts. In regard to these relationships, the following research questions were addressed: 1) How does psychological well-being in older Mexican Americans relate to acculturation and ethnic identity? 2) Do these three variables interact differently among adult and elderly cohorts? 3) What is the relationship between the variables for this particular sample of Mexican Americans when considering moderating variables of spirituality and religiosity?

In addressing the first two questions, multiple regression analyses were used to understand the distribution of the variance in the dependent variable, psychological well-being. Although both variables were contributing to the regression weight, neither of the two, acculturation or ethnic identity, were significant predictors of psychological well-being

in this sample. In the last question, confirmatory and exploratory structural equation model (SEM) analyses were employed to determine how each of the variables were loading and relating to one another. Only a few of the items selected for these analyses, (i.e., none of the mediating variables, select acculturation items, and select scales on the measure for psychological well-being) were used and found to be significant in the complete model and diagram. Using newly clustered item parcels, the mediating variables of spirituality and religiosity were again analyzed in the (SEM) analysis. While the variable religiosity was dropped from the model diagram, the newly generated spirituality variable was found to be empirically and conceptually significant in the model diagram.

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CHAPTER I

INTRODUCTION

Researchers project that in the near future the Latino population will comprise a vast percentage of the general population, becoming the largest racial/ethnic minority group in the United States (Abraído-Lanza, Armbrister, Flórez, & Aguirre, 2006; Diaz & Tellez-Giron, 2005; Magilvy et al., 2000; Miranda & White, 1993). Among the different Latino ethnic groups represented (Diaz & Tellez-Giron, 2005; Gallagher-Thompson et al., 1997), researchers further predict that there will be a greater increase of persons who are of Mexican descent and who are over the age of 65 (Harris, 1998; Lacayo, 1991; Rogler, Cortes, & Malgady, 1991; Schneider, 2004). Census reports from 1970 and 1980 have shown that the older Latino population has grown by 75%, while more recent reports have projected a 500% increase between 1995 and 2030 in the Mexican American elderly population (Angel & Hogan, 1992; Lacayo, 1991; Magilvy et al., 2000). Because Latino ethnic groups vary depending on their national origin, factors leading to emigration, language colloquialisms, historical experiences, and geographical residence in the United States it is important to recognize that each ethnic groups experience is unique (Abraído-Lanza et al., 2006; Bastida, 1987; Diaz & Tellez-Giron, 2005; Gelfand, 1979; Rogler et al., 1991).

For the most part, studies on the U.S. Latino population have been relatively

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 scarce. Studies that have focused on the differences within this population have typically distinguished individuals as being Mexican, Cuban, Puerto Rican, Central American, or South American based on their nationality, descent, and cultural backgrounds (Comas-Diaz, 1989; Harris, 1998; Rogler et al., 1991). These studies have generally found differences among the ethnic groups with respect to socioeconomic status and other demographic characteristics (Gurak & Rogler, 1980; Miranda & White, 1993). Yet, this same research has observed some similarities within the groups (Whitfield & Baker-Thomas, 1999) and have indicated that the term "Latino" refers to a heterogeneous group of individuals who have identified being of a Spanish speaking country and who vary on their national origin (Comas-Diaz, 1989).

In psychology, research that has examined minority groups have typically focused on comparative studies; studies comparing minority against majority groups and minority groups against each other (Ayalon & Areán, 2004; Ferraro & Farmer, 1996; Lacayo, 1991; Mahoney, Cloutterbuck, Neary, & Lin, 2005; Pourat, Lubben, Yu, & Wallace, 2000; Shadden & Warnick, 1994). Usually these studies have been conducted as afterthoughts and have attempted to control for experiences that could account for or interfere with differences within the groups sampled (Berry, 2003; Pourat et al., 2000). Because studies looking at developmental and mental health factors, within minority groups and more specifically among the different Latino groups, are lacking (Miranda, Frevert, & Kern, 1998), it is the hope of this study to focus attention on the relationship between mental health and cultural adjustment among Mexican American adults and individuals of "la tercera edad".

Specifically, it is the hope of this study to investigate how mental health or psychological well-being is affected by one's cultural adjustment as measured by an individual's level of ethnic identity and acculturation. Although differences are expected to be found between these two cultural variables further exploration regarding the relationship of these variables with that of the mediating variables spirituality and religiosity are expected to give a more complete understanding of how cultural adjustment impacts one's psychological well-being. Still, it is the goal of this investigation to determine if the relationships between the variables can be generalized to the Mexican American population or if the relationships are age and cohort specific.

CHAPTER II

REVIEW OF THE LITERATURE

Acculturation

Much disagreement exists about how to conceptualize and measure acculturation (Berry, 2003). In the past, acculturation was viewed as the process of voluntary or involuntary adaptation by an ethnic or racial group to a host culture (Dana, 1996; Rogler et al., 1991). Prior to the 1950's researchers believed in the "melting-pot" theory, this postulated that all racial and ethnic groups would disappear as they merged into the "American" mainstream society (Gelfand, 1979). Yet, recent studies on acculturation are more inclined to focus on both minority and majority groups and the resulting changes in the original pattern of either or both of these groups when these different cultures come into first hand contact with each other (Gallagher-Thompson et al., 1997; Miranda et al., 1998; Miranda & White, 1993; Moyerman & Forman, 1992; Quintana, 1995; Valentine & Mosley, 2000). Generally speaking, acculturation may refer to a group phenomenon or to an individual phenomenon (Dana, 1996). Groups or persons who are not considered to be acculturated tend to adhere to the practices of their native cultures while those considered to be acculturated are viewed as abandoning (disengaging in) the practices of their native cultures in exchange for those of the host culture (Guinn, 1998; Rogler et al., 1991).

Conceptually, acculturation for ethnic and racial minorities evolved from being viewed as bimodal to that found on a continuum (Gallagher-Thompson et al., 1997), and from being viewed as unidimensional to multidimensional (Berry, 2003; Dana, 1996). Rather than identifying an individual as not being or as being acculturated the acculturation

continuum allowed for different stages of acculturation to be introduced and for individuals

with varying degrees of acculturation to be placed throughout the continuum rather than on

one extreme or the other. Prototypical stages identified throughout the acculturation

continuum for ethnic and racial minorities were: separation or maintenance of traditionality,

assimilation, integration or biculturality, and marginalization or peripheral status in both

cultures (Berry, 1970, 1997; Gamst et al., 2002; Miranda et al., 1998; Quintana, 1995;

Valentine & Mosley, 2000). Here, separation is perceived as ethnic minority individuals

holding on to the values of their original culture while avoiding interacting with others of

the mainstream culture. Meanwhile assimilation is found on the other end of the continuum

and is defined as individuals who do not wish to maintain their cultural identities and who

seek interactions with those of mainstream society. Integration represents those persons

who have an interest in maintaining their original cultures throughout their daily

interactions and at the same time seek to participate in the larger social culture. And,

marginalization strategies identify those individuals who are not interested in maintaining

their ethnic cultures or who are not interested in developing relationships with the larger

social network (Berry, 2003). Groups and individuals found at the integration stage appear

to be in the ideal stage because they are perceived as being equipped with the capacity of

living in both cultural worlds and as having feelings of self-acceptance and empathy toward

others (Miranda et al., 1998). As further implied by their multidimensionality, these stages

are not static and instead vary depending upon variables such as social context (external

influences) and individual differences (internal influences) (Noels, Pon, & Clement, 1996;

Valentine & Mosley, 2000).

Whereas the unidimensional view assumed that involvement in the majority host culture entailed disengagement from the individual's ethnic culture (Laroche, Kim, Hui, & Tomiuk, 1998; Suinn, 1998), the multidimensional approach recognized that the two cultures were not mutually exclusive and that acculturative involvement in each culture were independent and could be measured separately (Berry, 1997; Cuellar, Arnold, & Maldonado, 1995; Dana, 1996; Rogler et al., 1991). Specifically, the multidimensional view involves the simultaneous acquiring, retaining, or relinquishing of the characteristics of both the original and host cultures and identifies that acculturation occurs unevenly therefore reflecting intraethnic and intracultural diversity (Anderson et al., 1993; Berry, 2003; De la Cruz, Padilla, & Agustin, 2000; Pachter & Weller, 1993; Sodowsky & Plake, 1992). More specifically the multidimensional strategy involves the recognition of one's tolerance for ambiguity, self-efficacy, self-identification, preferences, attitudes, and values as related to culture and ethnicity (Felix-Ortiz, Newcomb, & Myers, 1994; Miranda & White, 1993).

Behavioral aspects of acculturation were initially studied due to their ease in measuring and their reliable results (Cuellar, Nyberg, Maldonado, & Roberts, 1997). For example, age at time of immigration, length of time in the host culture, amount of education from the host culture, employment, and measures of language acquisition were more often used to determine an individual's level of acculturation (Bentancourt & Lopez, 1993; Ibañez, Kuperminc, Jurkovic & Perilla, 2004; Meyler, Stimpson, & Peek, 2006; Miranda et al., 1998; Negy & Woods, 1992; Phinney, 2003; Schultz, 1991). Generational status was another commonly used marker of acculturation due to the belief that consistent changes

occurred among generations within racial and ethnic groups (Abe-Kim, Okazaki, & Goto, 2001; Cuellar et al., 1997; Phinney, 2003).

As research in this field progressed it was noted that behavioral measures of acculturation were not sufficient in understanding the changes that occurred during the lifetimes of immigrants and their descendents as they adopted to new situations and learned (or attempted to learn) to balance the demands and expectations of their old and new cultures (Abe-Kim et al., 2001; Phinney, 2003). Rather, researchers began to understand that internal factors, (e.g., intent of migration, social networks, and religious beliefs) (Miranda et al., 1998) were associated with the acculturation process and that these psychological factors affected persons differently (Diaz & Tellez-Giron, 2005; Miranda et al., 1998). As exclaimed by Berry (2003) in reference to acculturation, "not every individual enters into, participates in, or changes in the same way," and "changes within the two cultures can be easy or substantial and range from being easily accomplished to being a source of major cultural disruption."

What researchers began to evidence was that acculturation was related to psychological stress and that differing levels of acculturation impacted individuals mental and physical health (Abraído-Lanza, Chao, & Flórez, 2005; Tran, Fitzpatrick, Berg, & Wright, 1996). For example, acculturative stress or problems resulting from intercultural contact were found to be related to increased physiological levels of stress (Berry, 2003; Berry & Kim, 1988). Studies have found that highly acculturated Mexican Americans have a higher prevalence of hypertension and physically unhealthy behaviors, (i.e., smoking and alcohol consumption) (Abraído-Lanza et al., 2005; Espino & Maldonado, 1990).

Furthermore, risks of developing psychological problems (i.e., depression and anxiety) were further found to be positively correlated with individuals' level of acculturation (Abraído-Lanza et al., 2006; De la Cruz et al., 2000; Edwards, 2006; Kaplan & Marks, 1990; Van der Wurffa et al., 2004; Yeung & Schwartz, 1986; Zheng & Berry, 1991). Yet, other studies found that highly acculturated persons had more positive home and peer relationships; whereas those who were not as acculturated suffered from more stressful relationships (Guinn, 1998; Jolicoeur, 2002).

Scholarship on the relationship between acculturation and mental health has been uneven across the racial/ethnic groups (Organista, Organista, & Kurasaki, 2003). During the last thirty years research looking at the acculturation and mental health relationship has more heavily focused on Latinos than on any other racial/ethnic minority in the United States. Although increased attention has been encountered by this group a lack of methodological uniformity, indexes of mental health, and differences between Latino groups sampled has disallowed comparisons and have made questionable the results previously found (Neff & Hope, 1991; Organista et al., 2003).

Still, the overall pattern with acculturation research has determined that most minority individuals have better mental and physical health when they are able to integrate and balance their native and host cultures (Chase-Goodman & Silverstein, 2005). More specifically, the few studies that do compare acculturation and mental health across different age groups have found different relationships between the groups (Abraído-Lanza et al., 2006; Gallagher-Thompson et al., 1997; Kaplan & Marks, 1990). For instance, Kaplan and Marks (1990) found a positive correlation between acculturation and depression

in their younger sample of Mexican Americans; whereas they found a negative relationship between these two variables for older Mexican American individuals.

Ethnic Identity

Because acculturation is a broad construct that encompasses a wide range of behaviors, attitudes, and values the subjective portion of this concept is frequently studied independently (Phinney, Horenczyk, Liebkind, & Vedder, 2001). Researchers have typically defined the focus on subjective feelings about one's ethnicity as ethnic identity (Phinney, 2003) and although the meaning of ethnicity itself has remained unclear (Gelfand, 1979; Phinney, 2003), they have narrowed their view of ethnic identity to include one's self-identification, ethnic values, behaviors, and practices, feelings of affirmation, attitudes, and belonging, and their level of ethnic identity achievement (Cuellar et al.,1997; Gamst et al., 2002; Phinney, 1990, 1992; Verkuyten, 1995).

More specifically these researchers have viewed self-identification as an individual's self-label or as the words used by persons to identify themselves ethnically. Similarly, ethnic behaviors and practices have measured a person's involvement in social activities with members of one's group and participation in cultural traditions. Feelings of affirmation and belonging has generally included an individual's sense of pride in their ethnic group, their level of happiness with their group membership, their feelings of attachment and belonging to their group, and their feelings toward their backgrounds. And, an individual's level of ethnic identity achievement has measured a person's level of ethnic identity development or the extent to which a person has evaluated, consciously examined, and resolved issues surrounding their ethnicity (Phinney, 1992, 2003). Each component of

ethnic identity is conceptualized as a continuous variable, each ranging from strong

identification and participation to weak identification and participation (Phinney, 1990).

The components of ethnic identity have made it difficult to draw conclusions about its exact

consistency. Furthermore, the overlap between acculturation and ethnic identity has further

made it difficult to attempt to make empirical distinctions between these two constructs

(Nguyen, Messe, & Stollak; 1999; Phinney, 2003).

Although ethnic self-identification is the most straightforward aspect of ethnic

identity, carrying with it implications for attitudes and behaviors about one's ethnic

group(s), it does not encompass the full range of the psychological meaning of ethnic

identity and it should not be conceptually confused with one's sense of belonging and

identification with a particular ethnic group (Larkey, Hecht, & Martin, 1993; Phinney,

2003).   Furthermore, it should be recalled that the use of particular labels varies on an

individual basis and may or may not reflect one's sense of belonging and attitudes toward

their ethnic groups (Phinney, 1992).

Similar to acculturation, ethnic identity is presently believed to consist of two or

more cultural dimensions of group identity that vary independently in strength. Previous

conceptualizations of ethnic identity were linear or unidimensional and suggested that

individual's had or had not achieved ethnic identification or that they were in the process of

giving up their culture of origin while becoming involved in mainstream society (Phinney,

1990, 2003; Phinney et al., 2001). These two dimensions of ethnic identity involve an

ethnic person's strength of identification with their ethnic group and their strength of

identification with the larger society (Phinney, 2003). Therefore a person may have a

strong and secure sense of ethnic identity while also having a weak and undeveloped sense of their new identity as a result showing that both ethnic and mainstream relationships are independent from each other (Phinney, 1990; Phinney et al., 2001). This newer conceptualization of ethnic identity allows for the identification of a progression of several cultural identities and includes similar stages to those of acculturation (Phinney et al., 2001). For example, the initial stage, coined the unexamined stage, is characterized by the lack of awareness or understanding of one's ethnicity. Meanwhile, as a person explores their ethnicity and its significance and as they learn more about their group and themselves as members of that group they engage in a period of exploration which hopefully leads to an achieved ethnic identity. Achieved ethnic identity is characterized by a commitment to one's ethnicity and is based on a clear understanding of its implications and a secure sense of one's group membership. If the individual does not participate in the exploratory phase or during the exploratory period they do not gain a clear sense of their group or group membership they are hypothesized to develop identity diffusion. In identity diffusion person's are perceived as reflecting an unsuccessful resolution to ethnic identity issues (i.e., their sense of belonging, their attitudes, and their values) (Phinney, 2003; Ponterotto, Casas, Suzuki, & Alexander, 2001). Because this new conceptualization hypothesizes that ethnic identity can remain strong without interfering with participation in the host culture (Cuellar et al., 1997) researchers have termed having strong ethnic and new identities as having integrated or bicultural identity (Phinney et al., 2001). A bicultural identity is not conceptualized as a midpoint between ethnic and new identity, but instead is the result of identifying with more than one culture. Evidence has suggested that a bicultural identity is

the most adaptive identity stage for most immigrants (Phinney et al., 2001), bringing about friendship and self-satisfaction (Diwan, Jonnaagadda, & Balaswamy, 2004), and that the development of bicultural identity is an important task for persons who are dealing with two or more cultures (LaFromboise, Coleman, & Gerton, 1993).

Developmentally speaking, ethnic identity is a component of adult identity formation. It is a complex psychological process that affects the development of an individual's self-concept (Phinney, 2003) and it becomes significant during adolescence or when an immigrant comes to a new society (Cuellar et al., 1997; Nguyen et al., 1999; Phinney, 1990; French, Seidman, Allen, & Aber, 2006). Ethnic identity and adult identity formation include perceptions, cognitions, affects, and knowledge about how persons view themselves (Cuellar et al., 1997). Ethnic identity is not static, but is instead viewed as fluid and dynamic across the lifespan, evolving along various dimensions; some of which are common across all ethnic groups while others are unique to particular ethnic groups (Phinney, 1990, 2003). For example, self-identification, language, social networks, religious affiliation, and positive attitudes vary in importance for different ethnic groups (Phinney, 1992). Also, the meaning of ethnic identity achievement and exploration is different for different individuals within the same ethnic group due to different familial and personal experiences. Because the ethnic identity process is fluid it does not necessarily terminate, but instead continues in cycles affected by one's ongoing life experiences and perceptions (Parham, 1989).

Central to enhancing ethnic identity development across groups is the vitality of the ethnic community and kin networks; which consists of opportunities to engage in ethnic

people, customs, festivals, dances, food, norms, and values. As part of identity development, ethnic identity involves resolving conflicting values and beliefs and includes a link between an individual's past, present, and future (Cuellar et al., 1997; Guglani, Coleman, & Sonuga-Barke, 2000; Guinn, 1998; Phinney, 2003; Verkuyten, 1995). Furthermore, experiences of discrimination and prejudice make the concept of ethnicity significant for ethnic group members and enhance member's ethnic identity development as means of dealing with threats against one's sense of self (Liebkind & Jasinskaja-Lahti, 2000; Phinney, 2003).

Studies on ethnic identity have largely focused on comparing different ethnic groups and determining if differences in self-acceptance and self-esteem exist between the groups (Umaña-Taylor, 2004). For the most part these studies have been conducted on European and African American children and have shown conflicting and inconsistent results for any ethnic group (Phinney, 1990; Umaña-Taylor, Diversi, & Fine, 2002). For example, when examining group identification and association as it relates to self-esteem and ethnic identity, studies on children have shown greater group esteem and identity of Mexican American children in comparison to European and African American children (Levine & Ruiz, 1978; Rice, Ruiz, & Padilla, 1974). Still, other studies reviewing these variables have found decreased results for Mexican American children when viewed alongside European and African American children (Iadicola, 1981; Teplin, 1976; Weiland & Coughlin, 1979). Along these same lines research on Chinese American children has demonstrated both strong and weak ethnic identity when compared to other ethnic groups (Fox & Jordan, 1973). Furthermore, other research investigating self-acceptance and esteem have found no

differences between African, European, and Mexican American children; while others have demonstrated differences between these three ethnic groups (Franco, 1983; Grossman, Wirt, & Davids, 1985; Knight, Kagan, Nelson, & Gumbiner, 1978; Larned & Muller, 1979).

Because ethnic identity is a complex construct that varies between ethnic groups as well as within individual members of ethnic groups (Phinney, 1990) researchers have generally developed measures that are specific for ethnic groups (Phinney, 1990). Although constraining measures to specific ethnic groups has assisted the understanding of ethnic identity among groups this constraint has further limited comparisons among groups and has made previous findings ungeneralizable (Phinney, 1990, 1992).

Meanwhile other ethnic identity studies have looked at and have attempted to measure the most important elements of ethnic identity (Giles, Taylor, & Bourhis, 1977; Giles, Taylor, Lambert, & Albert, 1976; Leclezio, Louw-Potgieter, & Souchon, 1986). Still, because specific elements of ethnic identity are not salient to all ethnic groups, inconclusive results were obtained. For instance studies indicating that generational status and language acquisition of the host culture are salient measures of ethnic identity (Faithi, 1972; Phinney, 1990) have not been found to be consistent among the different ethnic groups. Although language and generational status (i.e., ethnic identity increases with the acquisition of the host cultures language and decreases with the increase in generational status) have been determined to be salient in Mexican American ethnic identity (Phinney 1990), the exclusive use of these measures to determine ethnic identity do not allow for the

more subjective understanding of ethnic identity (Phinney & Flores, 2002) and further complicate the reliability/generalizability of the results.

More recent studies have used comparable if not the same ethnic identity measures when studying differences between groups. These studies have typically measured group differences for self-concept, self-esteem, and psychological adjustment, but have further begun to look at individual ethnic identity differences within the ethnic groups (Phinney, 1990). For instance, Grossman, Wirt, & Davids (1985) found in their study that one's sense of ethnic pride mediated between one's sense of belonging and self-esteem irregardless of one's ethnic group. Furthermore, in his 1993 study, Verkuyten found that self-esteem was not related to ethnic identity and that no difference existed in measures of self-esteem between ethnic majority and minority youth living in or near the Netherlands. Studies that have found a positive relationship between self-esteem/psychological adjustments and achieved ethnic identity (Parham & Helms, 1985a, 1985b) have been countered by those that have found no relationship between these variables (Houston, 1984; Rosenthal & Cichello, 1986; White & Burke, 1987). Still, other ethnic identity studies have proposed and demonstrated the development of integrated identities (i.e., bicultural or multicultural identities) to be the most adaptive and most conducive to psychological adjustment and well-being (Berry, 1997; Berry, Kim, Minde, & Mok, 1987; Phinney et al., 2001).

Acculturation and Ethnic Identity

Due to the complexity and overlap in conceptualizing acculturation and ethnic identity the relationship between these two variables are not well understood (Cuellar et al., 1997). For example, current reviews of existing acculturation and ethnic identity measures

demonstrate that similar items are included in each measure, (e.g., self-identification) which confounds both variables (Phinney, 2003). Although change to and from the host and native cultures are central to understanding both these concepts (Phinney, 2003), both variables involve separate and different processes (Cuellar et al., 1997). Specifically, because both constructs are multidimensional (Phinney, 1990) it is important to differentiate which components of acculturation and ethnic identity are being measured and studied (Phinney, 2003). Understanding the similarities and differences between these constructs will therefore assist mental health professionals in recognizing differences among minority group members (Helms, 1990) while providing them with a useful assessment tool to help them gain a more thorough understanding of their clients (Harris, 1998).

At present, conflicting findings have been found between the acculturation and ethnic identity relationship (Cuellar et al., 1997; Lieber, Chin, Nihira, & Mink, 2001; Phinney, 1990). Studies investigating this relationship have found both positive and negative relationships between these two variables; indicating that at times one's degree of acculturation is either positively or negatively related to one's sense of ethnic identity (Cuellar et al., 1997; Harris, 1998). Similarly, differences in ethnic identity levels have been found to vary significantly based on a persons degree of acculturation (Cuellar et al., 1997) and have further been thought to be influenced by outside factors including educational level, gender, age, length of stay in the host culture, experience with racism/discrimination, and ethnic group (Lee, 1996).

Along this same line, the relationship between acculturation and ethnic identity among Latinos is not well understood (Gamst et al., 2002). When solely looking at behavioral components of acculturation and ethnic identity among Mexican Americans the sense of belonging and ethnic identity achievement (components of ethnic identity) appear to diminish with increased levels of acculturation (Cuellar et al., 1997). Yet, these measures of acculturation and ethnic identity become even more complicated when studied alongside measures of mental health. As found in Gamst et al.'s (2002) study, a positive relationship tends to exist for mental health and acculturation, which then leads one to wonder if ethnic identity and mental health are related, what their relationship is, how are ethnic identity and acculturation related, and if acculturation and ethnic identity impact mental health differently.

Religiosity and Spirituality

Religiosity and spirituality are complex variables whose essential meanings are unlikely to be easily described, but are understood as involving cognitive, behavioral, physiological, interpersonal, and emotional dimensions (Hill & Pargament, 2003; Miller & Thoresen, 2003). Commonly religion and spirituality are perceived as being overarching frameworks that provide persons with direction and motivation and assist individuals in making sense of their worlds (Hill et al., 2000; McIntosh, 1995; Pargament, 1997). For the most part religion has been conceptualized as an institutional construct that is often viewed as being part of a social institution(s) and is defined by boundaries (Hill & Pargament, 2003; Miller & Thoresen, 2003). Religions are typically concerned with a fixed system of beliefs, commitments, and practices (Hill & Pargament, 2003; Miller & Thoresen, 2003)

e.g., empathy and helping others (Wuthnow & Hodgkinson, 1990), that result from unique

historical, political, cultural, and social meanings (Levin, Taylor, & Chatters, 1994).

Similarly, spirituality is also abstractly defined and is viewed as being a broader concept

than religion (Pargament, 1999). Spiritually is believed to subsume religiosity and is used to

identify the personal, subjective, unsystematic, and emotional side of religious experiences

(Thoresen, 1998). Although certain features of spirituality tend to be observable (e.g.,

empathy and spiritual practices), other elements of spirituality are not (Bargh & Chartrand,

1999; Kirsh & Lynn, 1999; Miller & Thoresen, 2003), and as stated by Miller and Thoresen

(2003) are "…regarded as not commonly perceptible by the physical senses that are used to

understand the material world".

Because private and public forms of religiousness and spirituality are possible,

disagreements on the conceptualization of religion and spirituality continue to exist (Miller

& Thoresen, 2003). As stated by Hill & Pargament (2003) "To the devout, religion and

spirituality are not a set of beliefs and practices divorced from everyday life, to be applied

only at special times and on special occasions. Instead, religion and spirituality are ways of

life to be sought, experienced, fostered, and sustained consistently". Whereas religion is

viewed as being rooted in spirituality the degree that this occurs varies from person to

person. For some individuals religion and spirituality may overlap substantially; yet for

others there may be little overlap (Miller & Thoresen, 2003). As cited by Allport and Ross

(1967) a distinction found among individuals is that of extrinsic versus that of intrinsic

religiousness and spirituality. These researchers refer to extrinsic orientation as self-serving

to achieve comfort and protection; while intrinsic orientation as involvement and assistance

to other's (Allport & Ross, 1967; Guyot & Nelson, 2003). Another religiosity/spirituality

category cited by Guyot and Nelson (2003) is the quest orientation. This orientation

questions one's spiritual beliefs rather than simply accepting ideas for extrinsic or intrinsic

purposes. Furthermore, it involves an open ended and responsive dialogue to existential

questions brought about the contradictions of life (Batson, Schoenrade, & Ventis, 1993).

Still, the distinction between religiosity and spirituality from other constructs is their

dedication to the sacred; which includes objects and events that are set apart from the

ordinary and are deserving of veneration (Hill & Pargament, 2003; Pargament, 1999).

To date, health research has studied religiosity and spirituality separately; with

religiosity studies being much more common due to the greater ease in conceptualizing and

measuring this construct (Miller & Thoresen, 2003). Yet, recent research has hinted at the

importance in studying spirituality more so than religiosity as it relates to psychological

adjustment, psychological well-being, and health. Current research in this area has

conceptualized spiritual well-being as being two faceted, having religious and existential

components (Guinn & Vincent, 2002). The religious facet is in reference to one's sense of

well-being in relation to God, while the existential component refers to a sense of life

purpose and satisfaction (Guinn & Vincent, 2002; Paloutzian & Ellison, 1982). Although

spiritual well-being appears to be synonymous to spiritual health and maturity it should be

recalled that spiritual health and maturity are expressions of spiritual well-being (Ellison,

1983). Furthermore, spiritual well-being should not be conceptualized as a dichotomous

variable, but as a continuous variable that shifts according to one's experiences and

understandings (Ellison, 1983). As cited by Paloutzian and Ellison (1982), the Spiritual

Well- Being Scale represents a valuable spirituality outcome measure that assesses both religious and existential components of spiritual well-being.

Overall, measurement of religious and spiritual constructs in research has been poor. Research in this field usually have underestimated the complexity of these variables and have often included simplistic religious/spiritual measures as afterthoughts to other research; often only including a single question to determine level of spiritual well-being (Hill & Pargament, 2003; Miller & Thoresen, 2003). Studies involving religiosity/spirituality variables have almost exclusively focused on these variables as predictors of physical health rather than as outcome measures or as predictors of spiritual well-being (Hill & Pargament, 2003).

Although most studies in this area have been deficient, religiosity and spirituality have still been determined to be better predictors of well-being than once believed (George & McNamara, 1984; Hill & Pargament, 2003; Siegel & Schrimshaw, 2002). As cited by researchers, evidence, although in varying degrees, has usually found a robust positive relationship between religiousness/spirituality and health (Diwan et al., 2004; Hill & Pargament, 2003; Meraviglia, 2004; Miller & Thoresen, 2003; Siegel & Schrimshaw, 2002; Thoresen, Oman, & Harris, 2005) and between spirituality and one's sense of well-being (Born, Greiner, Sylvia, Butler, & Ahluwalia, 2004). For example, religious and spiritual variables have been determined to be negatively correlated to substance use disorders (Gartner, Larson, & Allen, 1991; Gorsuch, 1995; Miller, 1998), physical disorders (Koenig, McCullough, & Larson, 2001; Levin, 1994), suicidality (O'Donnell, O'Donnell, Wardlaw, & Stueve, 2004), and mental disorders (George, Larson, Koenig, & McCullough, 2000;

Larson & Milano, 1997). Examples of physical and mental disorders include heart disease, cancer, hypertension, and depression (Hill & Pargament, 2003).

Moreover, religiosity and spirituality have both been reported to be more strongly related to quality of life and life satisfaction than marital status, number of intimate relationships, age, education, health, and income (Hawaday & Roof, 1978). Individuals who report a closer and stronger relationship with God, including having a positive evaluation of God's acceptance, experience more mental health benefits than those who have a negative evaluation or those who do not have strong spiritual beliefs (Born et al., 2004; Dezutter, Soenens, & Hutsebaut, 2004; Ellison, 1983; Hill & Pargament, 2003). For instance, researchers in this field have found that religious/spiritual individuals have fewer bouts of depression and suicidality, higher self-esteem, and greater relational maturity (Hall & Edwards, 1996, 2002; Maton, 1989). Furthermore, research has hypothesized spirituality to be an important component in individual's ability to cope, especially when involved in serious and chronic illnesses and stressors (Abraído-Lanza, Vásquez, & Echeverría, 2004; Brady, Peterma, Fitchet, Mo, & Cella, 1999; Dalmida, 2006; Ehman, Ott, Short, Ciampa, & Hansen-Flaschen, 1999; Ellison, 1991; Koenig, Pargament, & Nielsen, 1998; Roberts, Brown, Elkins, & Larson, 1997; Smith, Pargament, Brant, & Oliver, 2000). Although uncertain how religion and spirituality directly affect one's health and well-being it has been hypothesized that these constructs provide persons with greater coping methods (i.e., meditation, religious appraisals, direction, and stability, as well as companionship) to aid and buffer the effects of life stressors, including death (Born et al., 2004; Cohen & Wills, 1985; Hill & Pargament, 2003; Kirby, Coleman, & Daley, 2004). Still, it is noteworthy to

mention that some research in this area have indicated the existence of a relationship between existential religiosity and increased anxiety, distress, panic disorders, and feelings of inadequacy for some individual's (Exline, Yali, & Sanderson, 2000; Hays, Meador, Branch, & George, 2001; Pargament, Koenig, & Perez, 2000; Pargament, Smith, Koenig, & Perez, 1998). While life satisfaction and one's sense of well-being are complex constructs to conceptualize, researchers are attempting to learn more about the relationship that religion and spirituality have on health, quality of life, and well-being (George & McNamara, 1984; Hill & Pargament, 2003).

When accounting for religiosity and gender in the U.S., women have generally demonstrated increased levels of religious involvement than men (Ghorpade, Lackritz, & Singh, 2006; Levin et al., 1994). Furthermore, religiosity studies have shown statistically significant differences among the different racial groups and between ethnic minority and majority individuals (Chae, Kelly, Brown & Bolden, 2004; George & McNamara, 1984; Levin et al., 1994). Chae, Kelly, Brown and Bolden's (2004) study demonstrated that ethnic minority individuals were likely to be more religious and spiritual than the majority culture. Their study further reflected that spiritual belief and ethnic heritage were deeply connected for many ethnic minority groups and thus used to protect them from stressors. Other studies have also found differences in meaning and consequences of religious involvement for ethnic minority groups (i.e., African American individual's, due to increased stress caused by inequality, have increasingly used religion for social support networks in comparison to European Americans) (George & McNamara, 1984; Levin et al., 1994). Yet, when only studying the older population, persons of all racial and ethnic

groups are viewed as having more religious affiliations and being more positively adjusted when they are more involved in religious activities (Wuthnow, 1979). Here again a division is created when older African Americans are compared to older European and Mexican Americans. In these particular studies African Americans have reported being more religiously involved than older European Americans (Levin et al., 1994) and likewise along with older Mexican Americans have been viewed to use religion and spirituality as a prominent coping mechanism (Gallego, 1988). Still, it is important to note that most of the research being done on religiosity and spirituality have emerged from the United States and therefore may not be representative of other populations (Miller & Thoresen, 2003).

Psychological Well-Being

As defined by some authors, psychological well-being is the integration of the physical, intellectual, emotional, social, and spiritual dimensions of human functioning (Bensley, 1991; Ellison, 1983; Magilvy et al., 2000). Typically, due to ease in understanding, this concept has been regarded as satisfaction, happiness, and morale (Breytspraak, 1984); and has been measured by means of an individuals' ability to cope with life stresses and strains (Johnson et al., 1988) or by an individuals' self-appraisal of balance and harmony in their lives (Magilvy et al., 2000). Although this concept is understood to vacillate throughout one's lifetime due to external and internal pressures it still remains broad and unclear and psychological well-being measures remain incomplete (Cuellar, Bastida & Braccio, 2004; Henley & Davis, 1967).

Past studies in this field have shown that increased levels of affluence and materialism have not been correlated to positive psychological well-being (Myers, 2000).

Still, further studies in this area have indicated that physical health problems are related to

decreased satisfaction and therefore decreased measures of well-being (Aneshensel,

Frerichs, & Huba, 1984; Hall, 1983). While other studies have shown that increased stress

and small social support networks are related to ineffective coping and decreased

psychological well-being (Dean & Ensel, 1982; Dean, Kolody, Wood, & Ensel, 1989).

Instead, social network size and level of emotional ties have been found to be

positively correlated to psychological well-being due to their ability to create a buffering

effect from life stressors (Dean & Ensel, 1982; Husaini & Moore, 1991). Furthermore, self-

esteem, mattering, and psychological health as measures of psychological well-being have

also found religiousness and spirituality to be positively correlated (Clark & Dodge, 1999;

Ellison, 1983; Frazier, Mintz, & Mobley, 2005; Levin, 1994; Fry, 2001; Miller & Thoresen,

2003; Rajagopal, Mackenzie, Bailey, & Lavizzo-Mourey, 2002; Rayle & Myers, 2004).

For example, in his 2001 study, Fry found that the existential factors of religiosity and more

specifically spirituality were major contributors to the psychological well-being of older

adults following the loss of their spouse.

When further comparing psychological well-being among racial/cultural groups it is

important to note which aspects of well-being are being affected so as to assist this

population in increasing their level of psychological well-being (Organista et al., 2003). As

evidenced by Campbell, Converse, and Rodgers (1976), when comparing African and

European American individuals and controlling for their level of income, African

Americans, in general, appeared to be less satisfied with their lives than European

Americans.   More specifically African and European American men did not differ

significantly on general measure of life satisfaction, but African American women were found to be less satisfied than African American men and European American men and women.

Among all the studies completed on psychological well-being it is still important to consider which aspects of culture impact well-being. For instance, previous studies on European Americans have found that decreased social support networks have been associated with negative psychological well-being. Yet, it is still unclear if persons who participate in traditional Latino familism show an increase in level of psychological well-being (Chase-Goodman & Silverstein, 2005; Organista et al., 2003). Studies comparing cultural groups' level of well-being tend not to emphasize each groups migratory experiences and experiences with acculturation and how these experiences affect each groups' satisfaction and ability to cope (Cuellar & Roberts, 1997; Mainous, 1989). Furthermore, in regard to Latino immigrants, religiosity, sense of fatalism (the idea that illness results from a natural occurrence beyond that of human forces (Clark, 1970), ties with the ethnic communities, deference to authority, and emphasis on personal respect; all of which have been considered to be positive strengths of Latino immigrants have not been studied as well (Quintana, 1995).

Because psychological processes involved in acculturation and ethnic identity have been linked to indicators of mental health, they have on occasion been used to measure psychological distress (Williams & Berry, 1991). Still, these studies have typically emphasized psychological distress through physical characteristics (e.g., increased drinking rates, anxiety, and deviant behavior) (Abraído-Lanza et al., 2005; Miranda & White, 1993)

rather than studying other aspects of well-being. Other studies that have looked at well-being (as measured by mental disorders and distress) and acculturation have found a positive association between the two variables especially in regard to alcohol abuse and dependence, substance abuse and dependence, and phobias (Guinn, 1998; Organista et al., 2003; Rogler et al., 1991). Still, studies that have looked at acculturation and ethnic identity and well-being as measured by self-esteem have found no relationship (Verkutyen, 1995).

Psychological well-being and acculturation/ethnic identity studies have found contradictory findings; therefore emphasizing the heterogeneity of minority groups and the conceptual ambiguity in defining and measuring well-being (Gallagher-Thompson et al., 1997). Overall, studies emphasizing these variables have found positive, negative, and curvilinear relationships between psychological distress, mental health, well-being and acculturation and ethnic identity (Gallagher- Thompson et al., 1997; Miranda et al., 1998). Hypotheses about these relationships commonly indicate that persons who have recently migrated to their host culture have left their traditional supportive networks and have not had sufficient time to reconstruct these networks. Other hypothesis include a decrease in culturally supportive interpersonal networks with those who are more acculturated; while other views include increased psychological well-being for those persons who are able to combine acculturation and retention of traditional cultural elements (Rogler et al., 1991).

Nevertheless, studies looking at acculturation/ethnic identity and psychological well-being seldom include and measure mediating variables (e.g., gender differences, immigration experience, social mobility, stage of life cycle, spirituality and the historical

period covering the life span) that may impact any of these variables (Chae et al., 2004; Organista et al., 2003; Rogler et al., 1991). Most importantly, studies looking at the previously mentioned variables have not determined if changes observed are age related or if they are designated to particular cohorts (Breystspraak, 1984). Also, due to the difficulty of measuring all the subcomponents of psychological well-being, studies have further been unable to indicate if increases in just one area of well-being leads to overall increased or decreased psychological well-being.

Given that acculturation, ethnic identity, and psychological well-being are likely to be mediated by a variety of variables, their relationship appears to be complex and remains misunderstood. Because a single dimension of well-being does not exist in isolation from physical, intellectual, emotional, social, and spiritual dimensions of well being, studying how ethnic identity and acculturation impact psychological well-being, although a more thorough view, is made more difficult. Furthermore, research that has emphasized a more global view of well-being has not emphasized differences between and among minority groups. More specifically, studies that have looked at acculturation and ethnic identity among minority persons and how these variables impact these individual's psychological well-being, have been lacking among the elderly. Therefore, the aim of this study is to further investigate acculturation and psychological well-being as it relates to the different dimensions of psychological well-being among elderly Mexican American individuals.

CHAPTER III

METHOD

This is a cross sectional study conducted on Mexican American seniors and adults. The measures were administered in English and Spanish during a one to two hour period and where possible, to increase reliability, took place in social contexts. Participants were divided into 4 cohorts, each cohort being comprised of a span of one or more decades, at the time of data analysis.

Participants

This study included a sample of 223 Mexican American individuals, seniors and adults, from the lower Southwest region of Texas. Participants were recruited from churches, schools, hospitals, residential living dwellings, organized and assisted living communities, congregate housing, and nursing homes by means of organized social activities or individual involvement. All individuals pertaining to any of the above mentioned settings, who were of Mexican descent, were given the opportunity to participate in this research project. Several of the participants were encouraged to partake in this study by their agency employees and/or administrators while others were individually asked to participate or were informed of the project by word of mouth recruitment.

All participants were free of gross cognitive impairments and were able to freely respond to the questionnaires. Participants elected to fill out questionnaires in either English or Spanish. For ease and better comprehension of questions, participants who were in group settings were read the questions and answer choices aloud in both English and Spanish. Those who filled out the questionnaires individually were further provided with

verbal assistance, while those who elected to fill out the questionnaires on their own or during their own free time were given the opportunity to ask the researchers questions regarding question and answer selections. No items were omitted from those participants who filled out the questionnaires in group format or with individual attention. Of those who elected to fill out the questionnaires on their own, eleven packets were discarded due to an overabundance of missed items (i.e., items on the backs of pages were not seen and filled out). The remaining 211 participants were then divided into 4 cohorts by their ages. The average age of the participants represented in this study was 59.5 with a standard deviation of 13.5, the youngest participant being 40 years old and the oldest being 98 years of age. The first, second, third, and fourth cohorts had age ranges of 70-98 (mean of 78.2, standard deviation of 6.4), 60-69 (mean of 64.6, standard deviation of 3.1), 50-59 (mean of 54.2, standard deviation of 2.7), and 40-49 (mean of 44.3, standard deviation of 3.0), respectively (See Table 1).

The majority of participants were first generation (23.2 %), married (64.9 %), females (63.5 %) of Catholic faith (76.8 %). Other participants included were widowed (15.6 %), single (9.0%), divorced (5.2 %), or separated (1.9 %) and of the Methodist (1.4 %), Jehovah Witness (2.8 %), Church of Christ of Latter Day Saints (1.0 %), "Christian" (5.7 %), Baptist (1.9 %), Pentecostal (.9 %), or Seventh Day Adventist (.5 %) faiths. One percent of the participants in this sample reported being of "no" religious persuasion. (See Table 2 - 4).

Instruments

Questionnaires were provided to participants in packets of English only or Spanish only forms. Instruments that were already available in both languages were used with few or no adjustments to the questions, (i.e., certain word choices were changed in the Spanish language form for easier comprehension for this particular Latino sample). Instruments that were not available in Spanish were translated by means of direct and back translations involving two bilingual individuals for direct translations and two bilingual individuals for back translations. All translated materials were further scrutinized by two monolingual Spanish speakers to ensure comprehension. The participants were further given a brief demographic questionnaire, either in English or Spanish, to fill out (See Appendix C and/or D). The demographic questionnaire asked for the participant's age, gender, generational status and/or age at immigration, marital status, and their religious affiliation.

This study employed the Brief Acculturation Rating Scale for Mexican Americans-II (Brief ARSMA-II) (Cuellar et al., 2004), the Multigroup Ethnic Identity Measure (MEIM) (Phinney, 1992), the Life Satisfaction Scale (LSS) (Conte & Salamon, 1982), and the Spiritual Well-Being Scale (SWBS) (Ellison, 1983). The Brief ARSMA-II assesses an individuals' independent level of acculturation toward American and Latino cultures (Cuellar et al., 2004). The Brief ARSMA-II is a 12-item likert type scale (six items measuring the host and native cultures independently), which measures acculturation along three primary factors: language, ethnic interaction, and ethnic identity (Cuellar et al., 1995). This scale is an orthogonal and multidimensional scale, which independently measures the Anglo or American Orientation Subscale (AOS) and the Mexican or Latino Orientation

Subscale (MOS). The AOS has six items and has coefficient alphas of .79 for Latino

adolescents, .86 for Mexican American young adults, and .87 for Mexican

American/national adults and seniors. Similarly, the MOS has six items and has coefficient

alphas of .91 for Latinos adolescents, .88 for Mexican American young adults, and .92 for

Mexican American/national adults and seniors (Cuellar, 2004). The Brief ARSMA-II is

able to generate linear and multidimensional/orthogonal categories (i.e., this scale can

determine if a person is high or low in acculturation or if they have a traditional, bicultural,

assimilated, or marginalized style of acculturation) (Cuellar et al., 1995).

The Brief ARSMA-II has been used with several ethnic and minority groups, (e.g.,

African Americans, various Asian American ethnic groups, all Latino groups, and

Armenians) (Cuellar, 2004). This paper-pencil measure (Cuellar et al., 2004) is available in

English and Spanish and has been adapted for many uses and populations (Cuellar, 2004).

When compared to the ARSMA-II Long Version, this scale has a concurrent validity of .89

(Cuellar et al., 2004). Construct validity measures for this measure were not provided.

The MEIM is a 14-item paper-pencil likert type measure, which assesses that part

of an individuals' self-concept that is derived from his or her knowledge of membership in

a social group; along with the value and emotional significance attached to that

membership. The three subscales of the MEIM are ethnic behaviors and practices,

affirmation and belonging, and ethnic identity achievement; with each subscale having a

range from two to seven items (Phinney, 1992). Subscale scores on this measure are simply

summed together, while total scale scores are derived by summing across the items and

obtaining the mean. The MEIM has a reliability coefficient of .81 for high school

participants and .90 for college participants. The five item affirmation and belonging

subscale were found to have reliability measures of .75 and .86 for high school and college

samples, respectively. Similarly, the seven item ethnic identity achievement subscale had

reliabilities of .69 and .80, respectively. And, no reliability coefficients were given for the

two item ethnic behaviors and practices subscale (Phinney, 1992).

The LSS is a 40- item paper-pencil likert type measure, which assesses adults'

quality of life and life satisfaction (Conte & Salamon, 1982). This scale has 8 subscales

(pleasure in daily activities, meaningfulness of life, goodness of fit between desired and

achieved goals, mood tone, self-concept, financial security, perceived health, and social

contact), with each subscale containing five questions. All five items that are related to each

subscale are added together to determine the individuals' score for that particular subscale.

Subscale scores are then totaled to determine the individuals' score for the LSS. The LSS

has a reliability measure of .93, (coefficient alpha) and each of its subscales had a reliability

measure of approximately .95, when corrected for using the Spearman Brown correction

(Conte & Salamon, 1982).

The Spiritual Well-Being Scale (SWBS) is a 20-item paper-pencil likert type

measure, which assesses an individuals' religious and existential well-being (Ellison, 1983).

Half of the items on this scale (i.e., ten items) measure religious well-being (RWB) and the

other half measures existential well-being or spirituality or (SWB). Items that relate to

RWB, those that contain a reference about God, are added together to achieve the RWB

score, while the remaining items are added together to obtain the SWB score. Scores for

the two subscales are calculated together to provide the overall measure for the SWBS.

Test-retest reliability coefficients for the Spiritual Well-Being Scale were .93 overall

(SWBS), .96 for RWB, and .86 for SWB. Coefficient alphas for this measure were .89 for

SWBS, .87 for RWB and .78 for SWB (Ellison, 1983).

Independent Variables

The researcher used information gained from the Brief ARSMA-II and MEIM to

measure acculturation and ethnic identity. Based on answers provided on each measure the

researcher was able to compile scores on independent scales and on the overall measures to

assist in computing the two independent variables. In regard to the Brief ARSMA-II, the

independent scales studied were the AOS ($M = 2.75$, SD = .1.25) and MOS ($M = 4.21$, SD

= .87) (Cuellar et al., 2004). Similarly, the MEIM was broken down into the Affirmation

and Belonging ($M = 18.05$, SD = 2.91), Ethnic Identity Achievement ($M = 21.18$, SD =

3.55), and Ethnic Behaviors ($M = 6.41$, SD = 1.74) scales (Phinney, 1992).

Mediating Variables

Mediating variables were measured to assist with more thoroughly conceptualizing

the impact the independent variables, acculturation and ethnic identity, have on

psychological well-being. Because the literature has shown the importance the elderly and

the Latino populations place on spirituality and religiosity (Chae et al., 2004; Wuthnow,

1979) both these variables were valuable in considering the make up of the elderly and

adult Mexican Americans psychological well-being. As such, spirituality and religiosity for

this sample were measured through the SWBS instrument and were collected by the

investigator and two trained research assistants. Because this measure is comprised of two

non-overlapping scales, spirituality ($M = 51.54$, SD = 7.40) and religiosity ($M = 53.38$, SD

= 7.47), both scale results were used as independent measures in this study (Ellison, 1983). To assist in this investigation, both scaled scores were further divided into their ten individual items and for further analysis were also evaluated independently of each other (Ellison, 1983).

Dependent Variable

The investigator and the two trained bilingual research assistants administered the LSS to calculate psychological well-being. Although data from this measure is able to calculate eight independently scored scales (Salamon, 2003), only five of the measured scales were used for this study. To assist in determining psychological well-being the five scales of Meaning (*M* = 20.27, SD = 2.88), Goals (*M* = 17.58, SD = 2.53), Mood (*M* = 20.11, SD = 2.86), Health (*M* = 16.17, SD = 4.23), and Social Contacts (*M* = 20.35, SD = 3.13) were used to assess the physical, intellectual, emotional, and social dimensions of this construct. Scores from these measures were used independently and were further combined to create a total score (*M* = 94.48, SD = 11.15) for investigatory reasons.

Procedure

The participants were each asked, in a group or individual format, to fill out the Brief ARSMA-II, MEIM, LSS, SWBS, and a brief demographic questionnaire. Prior to the onset of the study the participants were informed the reason for, (e.g., "in fulfillment of the researchers doctoral degree" and "an ethnic cultural study to assist in the understanding of Mexican American mental health") and the goals of the study. Individuals were reminded that participation was voluntary and that withdrawal from the study could occur at any time during the study without penalty. Volunteers were informed that their participation would

remain confidential and they were instructed to ask questions throughout the course of the study.

At the onset of the study, participants were asked to sign a release form indicating that they were informed of their voluntary participation, that they had reviewed and understood confidentiality, and of the limits to confidentiality (See Appendix A and B). Each participant was given a list of phone numbers to contact should difficulties concerning the study arise, or if they desired to receive a summary of the study, upon its completion. Due to the structure of the study and the general questions that were asked almost all individuals approached, in group or individual format, participated in the study. A sample study consisting of 10 randomly selected individuals was further administered prior to the start of the general study. The purpose for the sample study was to make certain that participants in the general study would not run into any unforeseen problems. No large scale problems were detected.

Participants were given packets with all the enclosed instruments in either English or Spanish depending on their stated preference. The order of the above mentioned instruments were counterbalanced to assist in controlling for confounding variables. Prior to the administration of the study, the majority of the instruments were translated to Spanish (the Brief ARSMA-II was already translated) to assist in minimizing language barriers/difficulties. At the time of the study measures were verbally administered in the group and individual format by the researcher or by either of two thoroughly trained bilingual research assistants, to assist volunteers with reading difficulties.

CHAPTER IV

RESULTS

Reliability Estimates

Internal reliability estimates were performed for each of the independent scales:

Brief ARSMA-II's AOS and MOS scales, MEIM's Affirmation and Belonging, Ethnic

Identity Achievement, and Ethnic Behaviors scales, SWBS's Spirituality and Religiosity

scales, and LSS's Meaning, Goals, Mood, Health, and Social Contacts scales. With respect

to averaged scores, all reliability coefficients were appropriate with the exception of the

MEIM's Ethnic Identity Achievement (α =.525) and the LSS's Goals (α =.534). The

highest coefficient alpha was found in the Brief ARSMA-II AOS and MOS scales, (α =.911

and .880, respectively). (See Table 5).

Distribution of the Data

Detailed descriptive statistics were performed for the Brief ARSMA-II, MEIM, and

the LSS scales. Descriptive statistics were further performed on each individual item in

both the SWB and RWB measures. Emphasis was placed on each of the scales distributions

to determine if these were "normal" and could readily be used in performing statistical

computations (Hinkle, Wiersma, & Jurs, 1998). Beyond consideration of the minimum and

maximum scores and the range, the researcher stressed each scales skewness, kurtosis, and

whether if the means, medians, and modes were similar. With respect to these scales and

individual items, all the abovementioned estimates were appropriate with the exception of

several of the individual mediating variable items, (i.e., 5 out of 10 of the spirituality scales

and 7 out of 10 of the religiosity scale) whose distributions were negatively skewed. To

correct for this non-normal sample distribution, z-scores were computed for each of the

individual SWB and RWB items prior to running the statistical analyses (Hinkle et al.,

1998).

Research Questions

Research Question Set One: A) How does psychological well-being in older

Mexican Americans relate to acculturation and ethnic identity? B) Do these three

variables interact differently among the four identified cohorts?

A) The investigator's first interest was in finding the predictability of the dependent

variable, psychological well-being, given the independent variables acculturation and ethnic

identity within this particular sample of adult and elderly Mexican American individuals.

As such, a bivariate Pearson correlation was performed on the two independent variables

relating them to one another and with psychological well-being using SPSS version 14.

Results of this analysis demonstrated statistically significant findings defined at the two

tailed $p = .05$ level for acculturation ($r = .163$), $p = .01$ level for ethnic identity ($r = .281$),

and $p = .05$ level between the two independent variables ($r = -.172$). (See Table 6).

Given that both the independent variables were found to be related to psychological

well-being a multiple regression analysis using the aforementioned dependent variables was

employed. Table 7 summarizes the analysis results. The multiple regression analysis with

the two dependent variables produced effect sizes of $R^2 = .125$, $F (2, 208) = 14.84$, $p <$

.01. As can be seen in Table 7, acculturation and ethnic identity both had significant

positive regression weights and structure coefficients for the entire sample and accounted

for 12.5% of the variance in the predictor variable, psychological well-being; with ethnic

identity accounting for a larger portion of the variance.

B) After determining that a small portion of psychological well-being's variance

was accounted for by the variances of acculturation and ethnic identity for the entire

sample, cohort groups were similarly analyzed. Because bivariate correlational analyses

had already been analyzed on both independent variables and on the dependent variable,

additional bivariate correlational analyses were not completed per cohort.

Table 8 summarizes the analyses for the four cohort groups. No statistical

significance was found for cohort 1, age group 70-98, R^2 = .024, F (2, 47) = -.018, p > .05).

Instead, the null hypothesis, $H_0 = R_{pop} = 0$, was not rejected and thus acculturation and

ethnic identity measures for this particular sample were not related to and/or accounting for

any of the variance in psychological well-being for this group.

The multiple regression analysis for the second cohort, individuals ages 60 through

69, produced an effect size of R^2 = .131, F (2, 45) = 3.39, p < .05. As evidenced in Table 8,

ethnic identity had a significant positive regression weight whereas acculturation did not.

Ethnic identity accounted for the majority of the 13.1% of the variance found in this

groups' psychological well-being.

As already mentioned, the multiple regression analysis for the third and fourth

cohorts, individuals ages 50 through 59 and 40 through 49, respectively, produced

statistically significant results. The effect size R^2 for the third cohort's analysis equaled

.187, F (2, 48) = 5.53, p < .01, where acculturation and ethnic identity both had significant

positive regression weights. Likewise, the effect size R^2 value for the fourth cohort was

.184, F (2, 59) = 6.67, p < .05 with significant positive regression weights found for both predictor variables in this particular sample. As found in the second cohort, the regression weight for ethnic identity in the fourth cohort was accounting for a larger portion of the 18.4% variance in psychological well-being than acculturation. Although this trend was not the case for the third cohort, the regression weights for both acculturation and ethnic identity were roughly the same and thus equally accounted for psychological well-beings 18.7% variance.

Research Question Set Two: What is the relationship between the variables for this particular sample of Mexican Americans when using a more complete model, (i.e., mediating variables of spirituality and religiosity)?

The second research question explored the relationship between the variables acculturation and ethnic identity and the variable psychological well-being, amongst the mediating variables of spirituality and religiosity. As such, a Structural Equation Model (SEM) analysis depicting these relationships was created and tested using SPSS version 14 and AMOS version 5 (Byrne, 2001). Maximum likelihood was the estimation method.

In this particular model to be tested there were 5 latent variables and 30 measured variables. Acculturation and ethnic identity as they relate to the mediating variables of spirituality and religiosity were the first order loading, while the second order loading included the relationship between spirituality and religiosity with that of psychological well-being. Acculturation had two measured variables, (AOS and MOS), for which it would load; ethnic identity had three measured variables, (Affirmation, Ethnic Identity Achievement, and Ethnic Behaviors); spirituality and religiosity had 10 measured variables

each (the ten items that made up the individual scales); and psychological well-being had

five measured variables (meaning, goals, mood, health, and social contacts). For each

latent factor the variance of a measured variable was fixed to one to determine the scale for

the latent variable. The selection of fixed variables was determined by each observed

variables reliability estimate in that the scale or item with the higher reliability estimate was

selected to be fixed. (See Figure 1).

Prior to analyzing this model, the data was double checked for normality, as had

already been done. Because this assumption was met regarding all the scales used for this

SEM analysis, model identification was then addressed. As reported by Research

Consulting (2001) and Kline (2005), SEM programs require for there to exist a properly

identified model in each analysis so that there is at minimum one unique solution for each

parameter being estimated in the model. Models that are just-identified are those in which

there is only one solution for each parameter estimate. Meanwhile SEM's for which there

are an endless number of parameter estimate values are known as underidentified, while

those that have more than one possible, but one best solution for each parameter estimate

are coined overidentified. It is preferred for SEM analyses to be overidentified (Research

Consulting, 2001; Kline, 2005). The models presented in this study were overidentified.

Because all underlying SEM assumptions were met, the original model was tested

for confirmation regarding fit. Relations between the three hypothesized first order factors

were estimated as well as relations between the three hypothesized second order factors.

The adequacy of fit was determined by the three indices calculated by AMOS and

recommended by Byrne (2006): the comparative fit index (CFI), the root mean-square error

of approximation (RMSEA), the standardized root mean residual (SRMR), and the chi-square index (χ^2). To determine good fit the CFI was recommended to be larger than .95, the RMSEA to be less than .06, the SRMR to be low, and the χ^2 index to also be low (Byrne, 2006). The fit statistics for this model were poor (CFI = .753, RMSEA = .087, SRMR = .103, χ^2 = (398, N = 211) = 1026.1, p = .10) and thus required modification. Based on the estimated regression weights for the latent factors those relationships with large p values were removed from the model and re-evaluated for good fit. Similarly, observed variables that were not highly loading to their underlying constructs were further removed from the model. As a result both mediating variables were removed from the model and the observed variable, health, was removed as a measured variable. To this end, the fit statistics for this model improved (CFI = .963, RMSEA = .071, SRMR = .064, χ^2 = (24, N = 211) = 51.1, p = . 05), but was still insufficient based on the abovementioned standards of good fit. As follow-up to the removal of both mediating variables, spirituality and religiosity, from the model a secondary regression analysis was run using the mediating variables as the dependent variables. In this secondary analysis the effect size R^2 was found to equal .237, F (2, 208) = 32.3, p < .01, where existential well-being or spirituality had a statistically significant positive regression weight and religious well-being had a non-statistically significant negative regression weight. As a result, for this particular sample of elderly and adult Mexican Americans existential well-being alone was accounting for 23.7 %, or all of the variance found in the group's dependent variable, psychological well-being. (See table 9).

Despite the fact that existential well-being appeared to be a better predictor variable than religious well-being, this variable was still not appropriately loading in the confirmatory model and therefore continued to be excluded from the model. Upon further inspection of this variable and also that of religious well-being a box-plot graph was generated to explain why both hypothesized variables were hindering rather than helping the model. As demonstrated in Figure 2 both these variables, when their individual items were compared to one another, had small variability and thus were not explaining differences found within this sample of adult and elderly Mexican Americans.

To further evaluate the goodness of fit in this model, the researcher thus decided to separate out and test the individual items used for both the AOS and MOS scales under the latent variable acculturation. As a result all items from both these scales were used and were tested within the model. (See Figure 3). Results for this model were poor (CFI = .793, RMSEA = .126, SRMR = .100, $\chi^2 = (149, N = 211) = 673.5, p = .01$) and required for the researcher to modify the model. Upon inspection of the abovementioned model it was clear that the individual items comprising the AOS scale were canceling out those from the MOS scale, (i.e., regression weights for the AOS scale items were positive while those of the MOS scale items were negative), and not loading appropriately to the underlying acculturation construct.

To continue evaluating the model, the MOS scale items and the AOS scale items were separated and considered individually. Results using the six MOS scale items were (CFI = .896, RMSEA = .102, SRMR = .065, $\chi^2 = (62, N = 211) = 206.3, p = .01$) insufficient based on the goodness of fit criteria. Meanwhile, results using the six AOS

scale items were (CFI = .934, RMSEA = .086, SRMR = .074, χ^2 = (62, N = 211) = 163.7, p = .01) lower than those required by goodness of fit requirements, but higher than those thus far found. Consequently, factor loadings for both these models were evaluated to determine if certain items did not load strongly on the hypothesized latent factor of acculturation, and whether the deletion of such items would enhance the fit of the model to the data. Because two of the items on the MOS scale and one of the items on the AOS scale had low loadings, the researcher thus decided to delete these items from their individual models, (items 3 and 6 from the MOS scale and item 12 from the AOS scale). The scores for the model using the MOS scale items (CFI = .952, RMSEA = .072, SRMR = .061, χ^2 = (41, N = 211) = 87.7, p = .01) were still considered insufficient while those for the model using the AOS scale items (CFI = .969, RMSEA = .062, SRMR = .062, χ^2 = (51, N = 211) = 94.4, p = .01) were adequate and considered to be a good fitting model to the data. (See Figures 4 and 5).

Figure 5 displays the scales/items and the model from this analysis. Because all these items loaded significantly on their respective latent factors they are internally consistent with the model and exist empirically. Still, not all the hypothesized latent factors were used, spirituality and religiosity, and as a result the initial model was modified to create a model in which all fit statistics were acceptable.

Despite the abovementioned findings and given the possibility that the mediating variables were contributing to the relationship between the independent and dependent variables as would be expected from the literature, further investigation regarding the mediating variables was sought. As was the case in this analysis, the mediating variables spirituality and religiosity were combined and the individual items were parceled into four

distinct groups by means of conceptual analysis. Items from the SWBS measure were grouped by their themes, which were broken down into affect (items 4, 6, 8, and 10), relationship (items 3, 5, 7, 15, and 19), beliefs (items 2, 12, 14, 16, 18, and 20), and active participation (items 1, 9, 11, 13, and 17). The four parceled groups were then used as the observed variables for the newly formed latent variable, faith.

Using the new mediating variable, the hypothesized model was reanalyzed to determine goodness of fit. (See Figure 6). As had been the case before, the results for this model were poor (CFI = .853, RMSEA = .106, SRMR = .094, χ^2 = (73, N = 211) = 253.5, p = .01) and required modification. Given that psychological well-beings health subscale had not been removed from the analysis and had again been determined to not be an appropriate observed variable for this sample, due to its low regression weight, the researcher again removed the subscale from the model. Although the goodness of fit indices improved (CFI = .884, RMSEA = .103, SRMR = .079, χ^2 = (61, N = 211) = 197.5, p = .01) they were still considered to be low.

To ensure that the hypothesized relationships between the independent, mediating, and dependent variables were inaccurate for this sample, the researcher again tested the hypothesized model, using item parceled mediating variables. As initially proposed, spirituality and religiosity scales were again separated and were conceptually analyzed to form three distinct subscales for each variable. Items from the SWB scale were grouped by themes. These themes consisted of life direction (items 2, 6, 10, and 14), satisfaction (items 4, 8, 12, and 16), and faith (items 18 and 20). Items from the RWB scales were similarly grouped by themes and consisted of fulfillment (items 1, 9, and 17), beliefs (items 3, 5, and

11), and contentment (items 7, 13, 15, and 19). (See Figure 7). Although the goodness of

fit indices for this analysis was inappropriate based on the recommended standards of good

fit (CFI = .900, RMSEA = .083, SRMR = .087, χ^2 = (97, N = 211) = 238.1, p = .01), the fit

indices vastly improved after the researcher adjusted the model based on item and scale

loading. Specifically speaking, the mediating variable of religiosity and psychological

well-beings health scale were removed from the model (CFI = .961, RMSEA = .063,

SRMR = .065, χ^2 = (50, N = 211) = 91.1, p = .01). The resulting model was then

reevaluated based on the goodness of fit indices and was found to be within the

recommended ranges for good fitting models. (See Figure 8). Because all the observed

variables loaded significantly on their respective latent factors they were internally

consistent with the model and existed empirically.

CHAPTER V

SUMMARY AND CONCLUSIONS

The purpose of the current study was to investigate the relationships between acculturation, ethnic identity, spirituality, religiosity, and psychological well-being. More specifically, acculturation and ethnic identity for different groups of adult and elderly Mexican American individuals were explored as criterion variables for the predictor variable of psychological-well being. To this end, spirituality and religiosity were further explored as mediating variables to help explain the variability found in this sample ($N =$ 211) and in the different groups, the four individual cohorts.

To make the discussion of this study more comprehensible this chapter is divided into two sections. The first section reviews the research questions and the findings as they relate to the relevant research literature. The second section discusses the limitations and strengths of the present study and considers future directions for cultural studies among similar samples of individuals.

Research Questions

Research Question Set One: A) How does psychological well-being in older Mexican Americans relate to acculturation and ethnic identity? B) Do these three variables interact differently among the four identified cohorts?

A) The investigator was interested in gaining insight into possible predictors of psychological well-being regarding this particular sample of adult and elderly Mexican Americans. Because most cultural studies have used acculturation and ethnic identity measures separately (Chae et al., 2004; Cuellar et al., 1997; Verykuyten, 1995), it was the

intent of this researcher to combine both these measures to determine if one measure was more appropriate for this group of individuals. Furthermore, this researcher wanted to determine the relationship between both these independent variables for this group of persons sampled being the case that there is some overlap, presumably but not necessarily negative overlap, between these two variables (Cuellar et al., 1997; Harris, 1998; Nguyen et al., 1999). As was the case, both the selected variables were found to be negatively related ($r = -.172$) and accounted for the variance of the predictor variable, psychological well-being; with ethnic identity contributing more to the regression equation than acculturation. It was alarming to see that when combined, both these indicators accounted for 12.5 % of psychological well-beings variance given that previous studies have found each of these variables to individually contribute more significantly to this predictor (Chae et al., 2004; Gamst et al., 2002). Nevertheless, given the difference in the age group sampled versus the age groups sampled in other studies, (i.e., adolescents and young adults) (Abe-Kim et al., 2001; Cuellar et al., 1997; Cuellar & Roberts, 1997; Iadicola, 1981; Levine & Ruiz, 1978), some differences were expected to be found. Because it is thought that developmental identity issues including cultural identity, are often resolved by the time one reaches older age, as demonstrated in Erik Erikson's psychosocial stages of development (Erikson, 1963); elderly individuals' psychological well-being is believed to be little influenced by their cultural identity. As such, it is presumed that the resolution of developmental identity issues in the elderly decreased the ability of the independent variables, acculturation and ethnic identity, to account for this samples level of psychological well-being.

B) Given that the two predictor variables accounted for some of the variance in psychological well-being the investigator looked at differences within these variables when the sample was divided into 4 cohorts of different aged persons. As seen in Table 8 the regression analyses were significant in three of the four cohorts and demonstrated that the predictor variable, ethnic identity, explained a larger portion of the variance than acculturation (therefore explaining this same finding for the larger sample that is comprised of these smaller groups). This difference was most noticeable in the analysis regarding the second cohort, where acculturation was not significantly contributing to the regression equation and ethnic identity accounted for the majority of the 13.1 % variance that was being predicted. Based on these findings it would appear that ethnic identity, which measures more of the subjective aspects of cultural identity (Phinney, 2003), better explains and predicts the criterion variable in this cultural study. Nevertheless, inspection of the first cohort, those aged 70 or more, further demonstrated that neither the variance for ethnic identity or acculturation were significantly accounting for the variance of psychological well-being and as a result were not suited to predict psychological well-being in this sub-group. Although unsubstantiated, this finding may again be reflective of the limited variability in this sub-group's sense of psychological well-being, given that adult and elderly individuals are more likely than younger persons to have resolved their developmental and cultural issues (Erikson, 1963). As a result of these findings, the generalizability of these analyses are very much limited to this particular sample seeing as the effect size of these findings, for each analyses, were poor. In view of the fact that these two independent variables did not account for more of the dependent variable it would not

be farfetched to speculate that the wrong criterion variables or measure of psychological

well-being was used for this particular multicultural sample. Given that psychological well-

being was operationally defined as the physical, intellectual, emotional, social, and spiritual

aspects of one's being it is not unreasonable to ask if other means of measuring

psychological well-being or other realms of psychological well-being were more

appropriate and important for this adult and elderly sample of Mexican Americans than

those considered in this study.

R*esearch Question Set Two: What is the relationship between the variables for this*

particular sample of Mexican Americans when using a more complete model, (i.e.,

mediating variables of spirituality and religiosity)?

Regarding question set two, it was the intent of this investigator to examine a more

thorough model, as per the literature, in understanding the adult and elderly Mexican

Americans sense of psychological well-being. Because it has been demonstrated that

religion and spirituality are both important aspects of this cultural group it was presumed

that including these two variables in the model would assist in explaining the variance

found in psychological well-being (Gallego, 1988; Levin et al., 1994; Miller & Thoresen,

2003). Despite this fact it was clear during the confirmatory stage of the SEM analysis that

this model, at least for this particular sample at this particular time, was not empirically

improved (but was weakened) by including both of these mediating variables. Rather, the

stated model (see Figure 1) was not supported by the data and as a result was not included

in the final model diagram. (See Figure 5).

Due to how the measured variables were loading to their underlying constructs,
other adjustments were made to the model to obtain good fit (Byrne, 2006). Specifically,
psychological well-being's measure for health and acculturation's measure for the Mexican
or minority oriented scale (MOS) were removed from the model to obtain good fit, as well
as other individual items belonging to acculturation's Anglo or majority group oriented
scale (AOS). Review of the deleted items from acculturation's MOS and AOS scales (i.e.,
"I enjoy speaking Spanish", "I enjoy Spanish language TV", and "My friends are of Anglo
origin", respectively), suggested that low loadings and decreased variability on their
respective scales may have resulted from participants limited opportunities to interact with
others from the host culture and their limited access to English language television
programs, as was the case found for this particular geographic region. Meanwhile, low
loadings on psychological well-beings health subscale was likely caused by this sample's
decreased need for outside physical assistance due to the increased involvement,
cooperation, and reliance they shared with their nuclear and extended families (Santiago-
Rivera, Arredondo, & Gallardo-Cooper, 2002). (See Figure 5).

Further review of the empirical model demonstrated, as was expected, a small
negative relationship between the two independent variables, acculturation and ethnic
identity (Cuellar et al., 1997; Harris, 1998). Even though it is not always necessary for these
variables to diverge it was believed that the relationship between these two variables would
be negative in light of what was being measured, one's level of assimilation to the majority
culture and one's views regarding their ethnic minority culture. Similarly, the relationships
between the independent variables with psychological well-being were not altogether

unexpected, considering that the regression analyses had also demonstrated that ethnic identity was a better and more statistically significant criterion of well-being.

Still, it was interesting to find that the physical aspects of ethnic identity were loading higher on the latent construct of ethnic identity unlike the items relating to the physical aspects of acculturation as evidenced by the regression weights on AOS items 4 and 5 (standardized β weight of .62 and .76, respectively), which asked for participants to score their level of English interactions and involvement. Similarly, it was interesting to note that one's level of ethnic identity achievement (an individuals' self-concept that is derived from his or her knowledge of membership to an ethnic group) loaded lowest for the underlying construct of ethnic identity.

Given that the elderly tend to reminisce and reflect on their lives, their accomplishments, achievements, and disappointments (Coleman, 1974; Lin et al., 2003) it was not unexpected to find that the scale measuring psychological meaning was highest to load on the underlying construct of psychological well-being. Recalling that approximately half the sample for this particular study was under the age of 60, however, makes this finding even more significant. Rather than primarily focusing on parenting and sharing their knowledge with others, as would be expected to be found according to Erikson's seventh psychosocial stage of development for those who are between the ages of 40-65, this group as a whole was more likely to spend more time than what was considered typical by Erikson in finding meaning and comprehension in their lives (Erikson, 1963). Still, as demonstrated in the results of this study, this particular sample of Mexican American adults and elderly individuals also had a tendency to not regard their physical health as important

as that of their significance and to regard their goals, mood, and social interactions as relatively equal.

Although the hypothesized model was not empirically supported, the model using the conceptually parceled mediating variable, spirituality, was supported by the data. (See Figure 8). As demonstrated before, ethnic identification loaded lowest on the underlying construct of ethnic identity, while the measured variables of psychological meaning and health loaded highest to lowest (respectively), on the underlying construct of psychological well-being. Likewise, the two measured variables for the underlying construct of acculturation demonstrated roughly similar loadings that differed in their directionality.

Unlike the hypothesized model, however, the independent variables in the item parceled model were positively related. (See Figure 8). Despite the fact that this relationship was weak, the directionality of the relationship demonstrated how the independent variables were not opposed to one another, but instead how they worked in tandem to assist in the formation of one's cultural identity. As shown before, the new model further demonstrated the usefulness of the variable ethnic identity (the subjective feelings regarding one's ethnicity) as a predictor of psychological well-being, whereas the independent variable acculturation (behavioral regard and interaction toward one's ethnicity) was not as strong of a predictor.

When viewed as a whole, the model revealed that the newly parceled mediating variable spirituality improved the relationships among the predictor and independent variables. Specifically speaking, the model illustrated how the cultural variables impacted spirituality, which then impacted the participant's sense of psychological well-being. Given

that cultural variables in the Mexican American elderly population are interwoven with that

of religion and spirituality (Santiago-Rivera et al., 2002), it was important to include both

these constructs as mediating variables in this analysis. (See Figure 7). To this end, both

constructs were measured and utilized in the final analysis to best determine which aspects

of these constructs were influencing an adult or elderly person's level of psychological

well-being. With regard to religiosity, items measured were later removed due to their

statistically insignificant empirical findings. Meanwhile, parceled items measuring the

latent construct of spirituality were statistically significant and demonstrated underlying

dimensions to more appropriately measure spirituality with this population. As illustrated

in Figure 8, items from the original spirituality scale (SWB) were divided into three

categories based on their regard for the future (life direction), current life satisfaction

(satisfaction), and conviction (faith).

Upon review of the existing literature, the newly parceled spirituality categories

used for this study were deemed more appropriate for this particular group of Latinos than

those that are currently in use (Santiago-Rivera et al., 2002). Still, further empirical

investigation of these categories is necessary to determine their true ability to validly and

reliably measure spirituality among this group.

Limitations

Both the limitations and strengths need to be examined and understood when

explaining the results of this study. With respect to generalizability, the sample studied

only included persons from one geographic region therefore representing a small fraction of

elderly and adult Mexican Americans. Although attempts were made to increase the

sample size and generalizability, by recruiting from several sites and locations, the overall sample was relatively small especially when the individual cohort sizes were taken into consideration.

Another limitation to this study was that of selection bias. Despite the fact that participant self- selection in studies is unavoidable and creates difficulties in regard to decreased psychometric values, it was the attempt of this researcher to reduce selection bias by way of inviting all potential participants to a social event, a group format data collection. Once there, individuals were asked to consider participating in this study and although some at first hesitated the vast majority readily consented and convinced most of their hesitant friends to participate as well. Still, being as it is that participant self- selection in studies produces less than generalizable results, it is uncertain if those who did participate in this particular study were different from those from the general Mexican American population and if so in which ways.

Similarly, as several of these measures were based on the participant's self-opinions and reflections the scores were likely to be affected by those individuals who wanted to appear more or less socially desirable. Even though attempts were made to increase objectivity by means of verbal assurances, this might not have been sufficient given that increased and decreased social desirability is strong in some individuals and because participant subjectivity is not always consciously known. Furthermore, the use of self-report measures, which are also affected by a participant's level of self-awareness, was another limitation of this study.

Despite the fact that this study attempted to look at persons beyond those typically investigated (i.e., college aged students), this study was not a longitudinal analysis and as such did not follow participants for an extended period of time, tracking their progress in regard to their psychological well-being. Irrespective of the use of cohorts, information regarding changes in the fluid nature of the variables was not accessible. As such, rather than give information outlining the changing affects that cultural variables have on this population, results may instead be reflective of historical events that impacted each of these groups differently.

Noteworthy as a limitation of this study was the use of standardized measures, (i.e., LSS, SWB scale, and RWB scale), on this particular sample of adult and elderly Mexican American individuals. Despite the fact that these measures had been translated to Spanish the measures were not standardized on monolingual or bilingual Spanish speaking persons and therefore may not have been appropriate for use by this group of individuals. Specifically, these measures may not have been adequate (i.e., able to gain enough information to determine sufficient variability within the sample) for these constructs with regard to this population and/or they may not have been measuring what the constructs were intended to study.   As such, the measures selected for this study may not have been the most appropriate for this population and as a result limited the generalizability of the results to this specific group of persons. Nevertheless, the results did demonstrate the importance of test selection among non-majority cultural groups and did suggest areas for future research.

Strengths

Although several limitations were found regarding the analyses of this data, several strengths exist in the present study to allow it to make a unique contribution to the empirical literature. Of greatest importance is the study's application of cultural variables to a population that is typically understudied (i.e., the elderly), either due to the difficulty in collecting data or a lack of desirability to do so with this population. Because research regarding the elderly and more specifically the Latino elderly is lacking, it was the intent of the investigator to shed light on this group of people and determine associations between their level of ethnic identity, acculturation, spirituality, religiosity, and psychological well-being. The desire to investigate one particular group of persons and attempt to generalize findings based on this group rather than lumping together heterogeneous groups of Spanish speaking persons or descendents of Spanish speaking persons was another strength of this study. While the willingness to compare and contrast different cohorts of adult and elderly Mexican Americans to better understand the variables being studied was still another strength that was unique to this study.

Despite the difficulties encountered throughout this investigation the use of properly translated measures, regardless of their analysis output, was yet another strength in this study. Rather than literally translating the measures from English to Spanish, the investigator sought outside assistance in translating the measures to ensure comprehension, fluency, and grammatical accuracy.

Yet, another strength of this study was in its findings. As a result of the use of standardized instruments with this sample of adult and elderly Mexican Americans, several

problems regarding the measurement of the mediating variable arose. Consequently, it was made clear to this researcher that new measurement variables would be needed to appropriately measure the construct of spirituality. As such, a new measure for the construct of spirituality was generated for this sample by means of parceling items. Nevertheless, it was made apparent that appropriate measures for spirituality, religiosity, and perhaps psychological well-being were still lacking for this particular sample of Mexican Americans.

Conclusion

In summary, this study sought to determine the relationships between acculturation, ethnic identity, spirituality, religiosity, and psychological well-being. Given that model analyses have previously been conducted on Mexican American adolescents and young adults it was the hope of this investigator to extend this research to this ethnic group's adult and elderly population and expand on the cultural research. To this end, data regarding the abovementioned variables was collected and analyzed.

Although several limitations were found regarding the empirical analyses of this data the investigator was able to generate a more thorough understanding of the impact cultural variables have on psychological well-being regarding this particular sample of adult and elderly Mexican Americans. Specifically, the investigator was able to demonstrate how the cultural variables of acculturation and ethnic identity were less inclined to be related to psychological well-being as the ages of the participants increased and how these cultural variables were likely to become more stable within an individual with the progression of age.

Review of all the SEM analyses further revealed different procedures for measuring and empirically validating the relationships of the latent constructs of acculturation, ethnic identity, spirituality, religiosity, and psychological well-being. Although care was taken to appropriately translate the measures, statistically insignificant results revealed possible underlying difficulties regarding the measures with this particular sample of adult and elderly Mexican Americans. In particular, doubts associated with the underlying constructs and their significance with this population arose and caused the investigator to question the use of these measures on this sample. Given that the instrument used to measure the mediating variables appeared geared toward a more conservative European American population, the investigator, while attempting to illustrate a more appropriate fitting model regarding the measured constructs was able to examine the underlying themes of this measure and generate a more empirically suitable measure, with new item parcels, for this sample of adult and elderly Mexican Americans.

Using the results obtained in the SEM portion of this study, the investigator was then able to determine which variables, among those measured, was most and least relevant in understanding spirituality and psychological well-being in this sample. Most noticeable was the high value participants placed on psychological meaning and low value they placed on their level of physical health as indicators of their psychological well-being. Equally noticeable were the remaining three psychological well-being measured variables, (i.e., goals, mood, and social interaction), that demonstrated roughly similar weight values. (See Figure 8).

As can be concluded, despite this samples regard for their life goals, mood, and social interactions, their necessity to find understanding and value in their lives is primary. To this end, it is recommended that mental health practitioners encourage those clients with similar backgrounds to those studied to find true significance and value in their lives and if necessary to assist them in resolving concerns that hinder their doing so. Similarly, it is recommended for practitioners to increase their use of reminiscence therapy with this population so as to assist these individuals in resolving any unfinished concerns brought on through their life experiences while reflecting back on those experiences. Because social interactions were regarded as relatively important, despite it not being what this group most valued, preference would be for therapeutic assistance to occur in a group setting.

Other observations regarding the results of the last SEM analysis illustrated a relatively equal regard, among the participants, for the three item parcel measured variables of spirituality, (i.e., life direction, satisfaction, and faith). Although attempts were made to conceptually understand these restructured variables, pointing to Mexican Americans strong regard for higher spiritual powers and fatalistic views, empirical studies were lacking to support the findings in the current study. As a result, future analyses regarding the mediating variables and psychological well-being among this population were deemed lacking and necessary. Because few measures have been standardized in Spanish or created for individuals from a primarily Latino cultural background it is the hope of this study to draw attention to this need and encourage future work in this area.

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APPENDIX A

PARTICIPANT INFORMED CONSENT FORM

Acculturation and Ethnic Identity as it Relates to Psychological Well-Being in
Adult and Elderly Mexican Americans

I, (please print your name) _____, have been asked to participate in a research study concerning cultural adjustment, as well as physical health, spirituality, religiosity, and well-being. I understand that I am one of 200 people that have been identified as possible participants of this study by my housing administrator and/or church director. I further understand that the purpose of this study is to examine how acculturation and ethnic identity in adult and senior Mexican Americans are related to overall psychological well-being. Furthermore, I have been informed that this study is being conducted through Texas A&M University as part of a dissertation and will be conducted during 2004-2005.

I am aware that my participation in this study will involve completing a demographic questionnaire as well as four measures which will be completed in one two-hour session. I understand that although risks from participating in this study are minimal, that reflecting on and answering some of the questions could increase my stress or anxiety. I further understand that the benefits of participating in this study involve reflecting on my individual and cultural development and identifying my strengths and areas of potential growth. Furthermore, I realize that I will not be paid to participate in this study.

I have been informed that my responses to the measures will be kept in strict confidence by the researcher. I realize that no identifiers linking me to this study will be included in any sort of report that might be published and I further understand that research records will be stored securely and only Saori Rivera, the researcher, will have access to the records.

I understand that my decision whether or not to participate will not affect my current or future relations with Texas A&M University. I have been offered an answer to any questions concerning the procedures. I have been informed that I am free to withdraw my consent and to discontinue participation in the study at any time without penalty. And, that I may refuse to answer, without penalty, any questions that make me feel uncomfortable. If I experience psychological distress as a result of having participated in this study, I can contact the TAMU Counseling and Assessment Clinic (979-595-1770) or Dr. Michael Duffy (979-845-1831) for counseling referrals.

I understand that this research study has been reviewed and approved by the Institutional Review Board-Human Subjects in Research, Texas A&M University. For research- related problems or questions regarding subjects' rights, I can contact the Institutional Review Board through Ms. Angelia Raines, Director of Research Compliance, Office of Vice President for Research at (979) 458-4067 (araines@vprmail.tamu.edu).

I have been given a copy of this consent form. I have read and understand the explanation provided to me. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study.

_____   _____
Signature of Participant   Date

_____   _____
Signature of Experimenter   Date

If you have any questions regarding this study please contact one of the persons listed below:

Saori Rivera, graduate student	Michael Duffy, professor
Department of Educational Psychology	Department of Educational Psychology
Texas A&M University	Texas A&M University
College Station, TX 77843-4225	College Station, TX 77843-4225
Phone: (979) 845-1831	Phone: (979) 845-1831
Email: saori@tamu.edu	Email: m-duffy@tamu.edu

APPENDIX B

FORMA DE CONSENTIMIENTO PARA LA INFORMACIÓN DEL PARTICIPANTE

Aculturación e Identidad étnica y su Relación con la Salud Psicológica en México-Americanos
Adultos y Ancianos de la Tercer Edad

Yo, (escriba su nombre) _____, he sido invitado a participar en un estudio concerniente a la adaptación cultural, y también con la salud física, la espiritualidad, la religiosidad, y la felicidad. Entiendo que soy una de las 200 personas que han sido identificadas por el administrador de mi complejo habitacional y/o el Director de mi Iglesia como posibles participante para este estudio. También sé que el propósito de este estudio es investigar como la aculturación y la identidad étnica en México-Americanos adultos y de la tercera edad, se relaciona con su salud psicológica. Además, he sido informado que esta investigación es organizada por la Universidad de Texas A&M, como parte de u examen psicológico y disertación que será efectuada durante los año 2004-2005.

Estoy consiente de que mi participación en este estudio incluye el llenar un cuestionario demográfico y otros cuatro encuestas, lo que requerirá de una reunión de dos horas. Comprendo que aunque los riesgos de participar en este estudio son mínimos, tanto al reflexionar como al contestar algunas de las preguntas podría incrementar mi tensión y/o ansiedad. También entiendo que los beneficios de participar en este estudio incluye el reflexionar sobre mi desarrollo individual y cultural, e identificar mis fortalezas y áreas de crecimiento potencial. Yo entiendo perfectamente que no recibiré ningún pago por participar en este estudio.

Por otra parte se me ha informado que mis respuestas a todas estas preguntas serán guardadas en total confidencialidad por la investigadora. Entiendo que ninguna identificación que pudiese vincularme a este estudio será incluido en cualquier tipo de reporte que pudiese ser publicado. Entiendo que todos los registros de esta investigación serán almacenados bajo llave, y solamente Saori Rivera, la investigadora, tendrá acceso a estos registros.

Entiendo que mi decisión de participar o no en este estudio NO afectará mi relación presente o futura con la Universidad de Texas A&M. También se me ha ofrecido contestar cualquier pregunta concerniente a este procedimiento y se me ha informado que tengo el derecho de retirar mi consentimiento, y de negarme a participar en este estudio en cualquier momento, sin que por ello exista alguna pena o castigo. Además podré negarme a contestar sin ningún castigo cualquier pregunta que me haga sentir incómodo. Si experimentara alguna tensión psicológica como resultado de haber participado en este estudio, podré contactar la Clínica de Consejería y Evaluación de TAMU (Universidad de Texas A&M; Tel. 979-595-1770) o al Dr. Michael Duffy (Tel. 979-845-1831) para que se me refiera a algún consejero.

Por otra parte, entiendo que esta investigación ha sido revisada y aprobada por la Junta de revisión Institucional – Investigación en Sujetos Humanos, Universidad de Texas A&M. Para problemas relacionados con esta investigación o preguntas relativas a los derechos de los participantes, yo podré contactar a la junta de Revisión Institucional a través de la Sra. Angelia Raines, Directora de Cumplimiento de Protocolos de Investigación de la Oficina del Vicepresidente de Investigaciones (Tel. 979-458-4068; araines@vprmail.tamu.edu).

Se me ha proporcionado una copia completa de este consentimiento. La he leído y entiendo las explicaciones que se me han dado. Todas mis preguntas al respecto han sido contestadas a mi satisfacción, y yo, voluntariamente estoy de ha cuerdo en participar en este estudio.

_____   _____
Firma del Participante   Fecha

_____   _____
Firma del Investigador   Fecha
Si Ud. tiene alguna pregunta sobre este estudio, por favor contacte alguna de las personas enlistadas a continuación:

Saori Rivera, Estudiante Graduado	Michael Duffy, Profesor
Departamento de Psicología educacional	Departamento de Psicología educacional
Universidad de Texas A&M	Universidad de Texas A&M
College Station, TX 77843-4225	College Station, TX 77843-4225
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Correo Electrónico: saori@tamu.edu	Correo Electrónico: m-duffy@tamu.edu

APPENDIX C

DEMOGRAPHIC QUESTIONNAIRE

Age:

Gender:

Age when immigrated:

Generational status:

Marital status:

Religious affiliation:

APPENDIX D

CUESTIONARIO DEMOGRÁFICO

Edad:

Género:

Edad al emigrar:

Número de generaciones en los E.E. U.U.:

Estado civil:

Afiliación Religiosa:

APPENDIX E

TABLES AND FIGURES

Table 1
Age/Cohort Frequencies

Cohort	# of Participants	Age Range	Mean	Standard Deviation
1	50	70+	78.2	6.39
2	48	60 – 69	64.6	3.07
3	51	50 – 59	54.2	2.65
4	62	40 – 49	44.3	3.04
All (1 – 4)	211	40 – 98	59.5	13.47

Table 2
Marital Status

Status	Frequency	Percent
Married	137	64.9
Widowed	33	15.6
Single	19	9.0
Divorced	11	5.2
Separated	4	1.9
Missing	7	3.3
Total	211	100

Table 3
Generational Status

Generation	Frequency	Percent
First	49	23.2
Second	37	17.5
Third	21	10.0
Fourth	8	3.8
N/A	3	1.5
Missing	93	42.5
Total	211	100

Table 4
Religious Affiliation

Affiliation	Frequency	Percent
Catholic	162	76.8
Methodist	3	1.4
Jehovah Witness	6	2.8
Christian	12	5.7
Baptist	4	1.9
Pentecostal	2	.9
Seventh Day Adventist	1	.5
Mormon	2	.9
None	2	.9
Missing	17	8.1
Total	211	100

Table 5
Reliability Estimates

Variables	Coefficient Alpha (α)
Acculturation	
MOS	.880
AOS	.911
Ethnic Identity	
Affirmation	.857
Ethnic Identity Achievement	.525
Ethnic Behavior	.655
Religious Well-being	
RWB	.777
Spiritual Well-being	
SWB	.779
Life Satisfaction Scale	
Meaning	.752
Goals	.534
Mood	.733
Health	.812
Self-concept	.774

Table 6
Correlations

Variables	Acculturation	Ethnic Identity	Psychological Well-being
Acculturation	1.0	-.172	.163*
Ethnic Identity	-.172	1.0	.281**
Psychological Well-being	.163*	.281**	1.0

** Correlation is significant at the 0.01 level (2-tailed).
 * Correlation is significant at the 0.05 level (2-tailed).

Table 7

Regression Analysis: Cultural Variables and Psychological Well-being

R	R^2	F	Significance	Predictors	r_s	B	Beta	t	Significance
.353	.125	14.84	.01	Acculturation	.462	.71	.095	.648	.520
				Ethnic Identity	.796	7.09	.318	4.84	.001

Note. Sample: All participants (N = 211).

Table 8

Regression Analyses: Cultural Variables and Psychological Well-being in the 4 Cohorts

Cohort Significance	R	R^2	F	Significance	Predictors	r_s	Beta	B	t	
1	.154	.024	.570	.569	Acculturation	.455	0.71	.095	.648	.520
					Ethnic Identity	.792	3.15	.139	.950	.347
2	.362	.131	3.391	.042	Acculturation	.348	1.05	.143	1.026	.311
					Ethnic Identity	.920	8.72	.340	2.441	.019
3	.433	.187	5.533	.007	Acculturation	.660	2.18	.331	2.523	.015
					Ethnic Identity	.651	8.91	.328	2.495	.016
4	.429	.184	6.668	.002	Acculturation	.570	1.69	.244	2.075	.042
					Ethnic Identity	.823	6.93	.354	0.354	.004

Note. Sample: Cohort 1 (n = 50).
Cohort 2 (n = 48).
Cohort 3 (n = 51).
Cohort 4 (n = 62).

Table 9

Regression Analysis: Spiritual Variables and Psychological Well-being

R	R^2	F	Significance	Predictors	r_s	B	Beta	t	Significance
.487	.237	32.303	.01	Acculturation	.992	.79	.524	7.119	.001
				Ethnic Identity	.464	-.11	-.072	-.072	.332

Note. Sample: All participants (N = 211).

Figure 1. Hypothesized structural equation model examining the first and second order loadings. For each latent variable, the factor loading was set to 1 for identification purposes. Comparative fit index = .753, root mean-square error of approximation = .087, standardized root mean residual = .103, $\chi^2 = (398, N = 211) = 1026.1$, p = .10. MOS = Mexican or minority oriented scale, AOS = Anglo or majority oriented scale, SWB = spiritual well-being, RWB = religious well being.

Box Plot of Mediating Variables
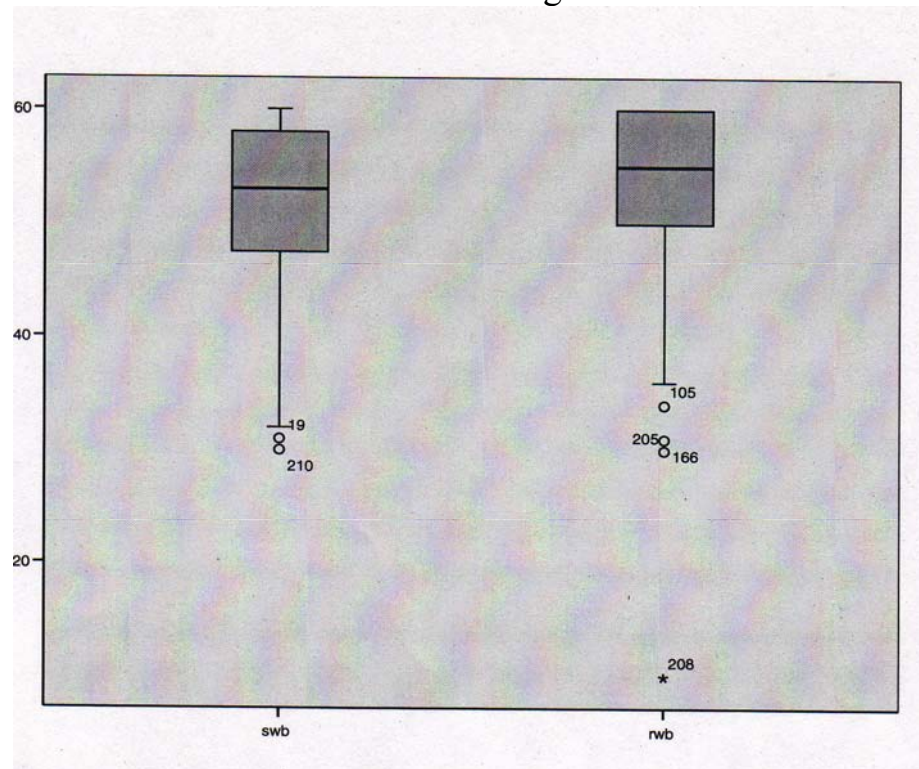
Figure 2. Box plots examining the variability of the mediating variables spirituality (SWB) and religiosity (RWB).
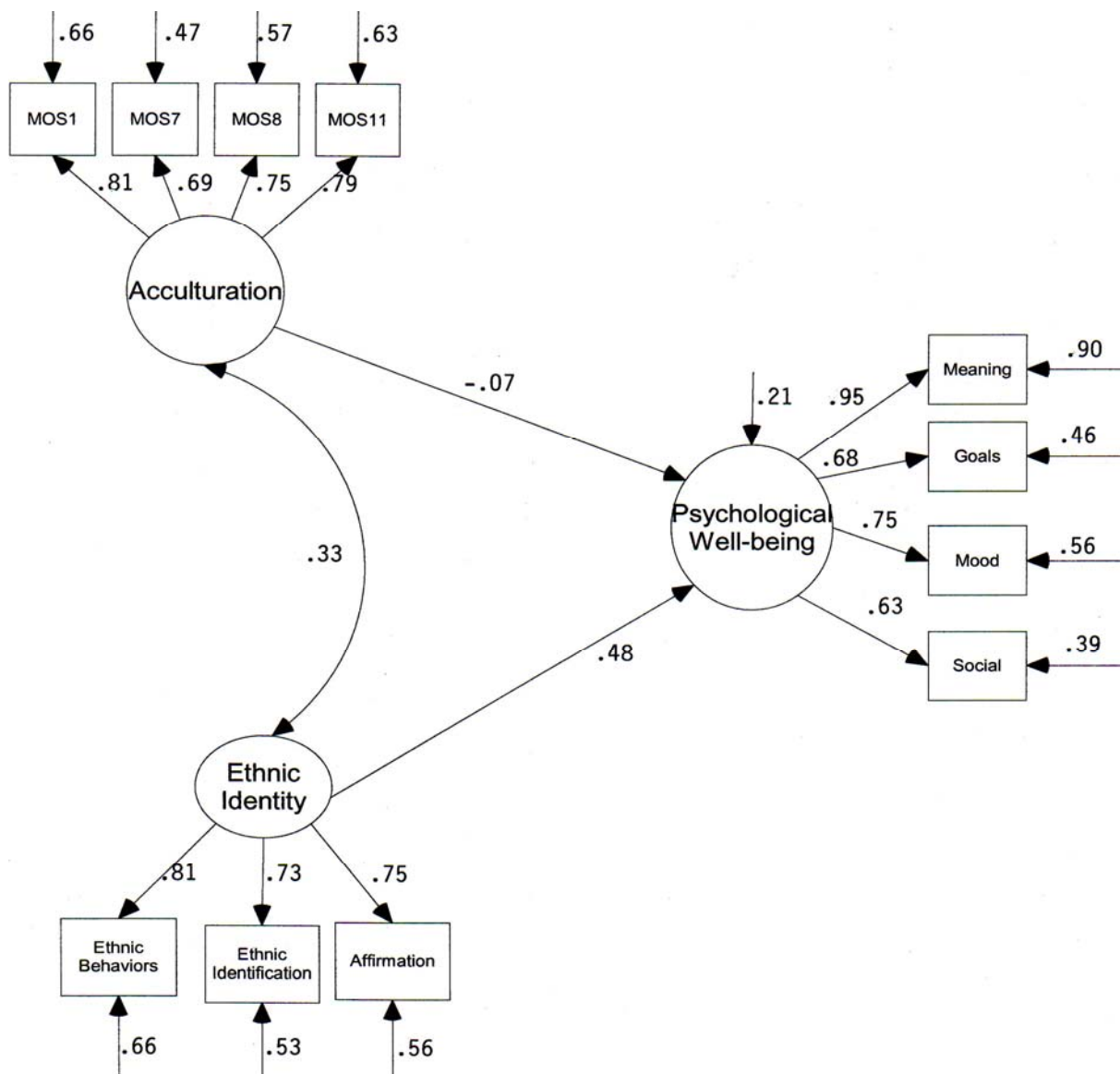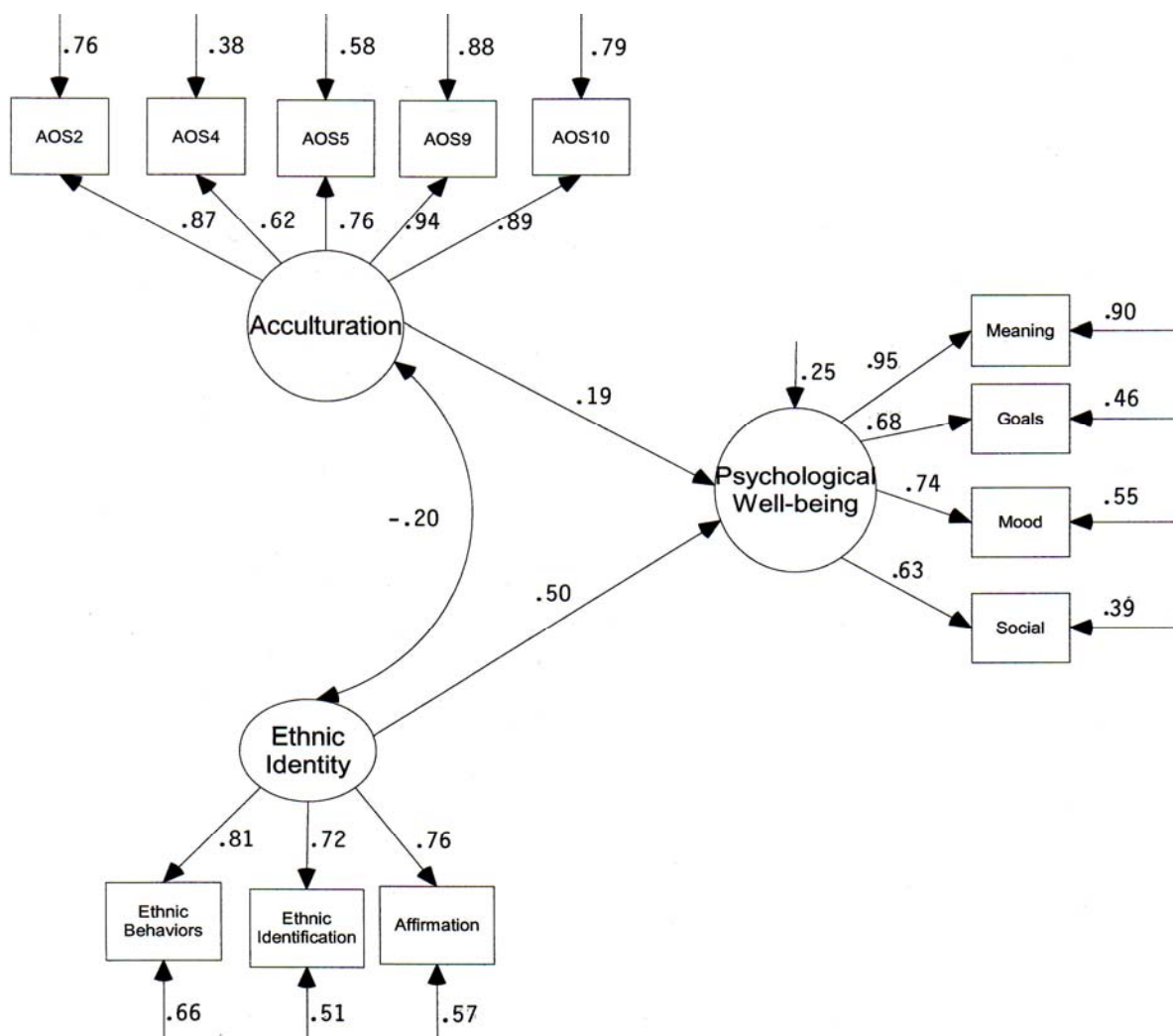
SEM- AOS and MOS Individual Items
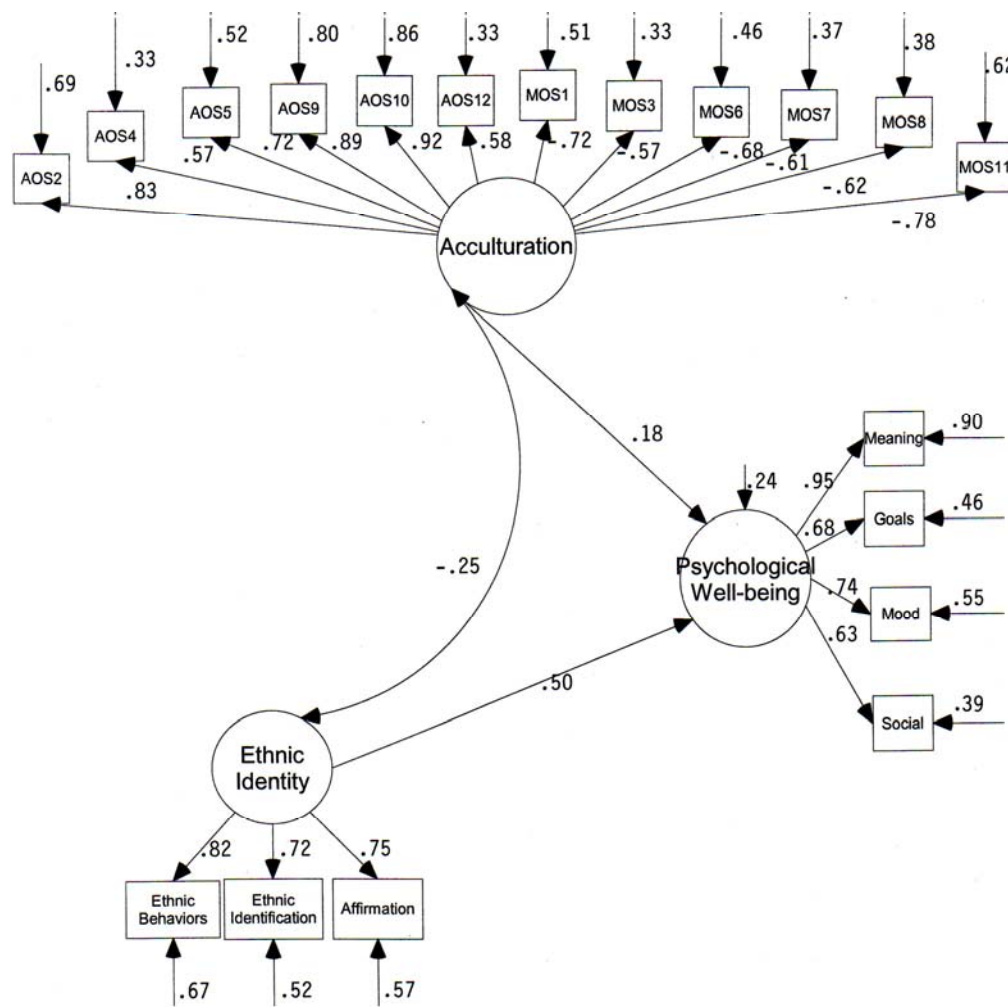
Figure 3. Structural model examining the individual items of the latent variable acculturation. Comparative fit index = .793, root mean-square error of approximation = .126, standardized root mean residual = .100, $\chi^2 = (149, N = 211) = 673.5$, p =.01. MOS = Mexican or minority oriented scale, AOS = Anglo or majority oriented scale.

SEM- MOS Individual Items

Figure 4. Structural model examining the individual items of the observed variable MOS. Comparative fit index = .952, root mean-square error of approximation = .072, standardized root mean residual = .061, $\chi^2 = (41, N = 211) = 87.7$, p = .01. MOS = Mexican or minority oriented scale.

SEM- AOS Individual Items

Figure 5. Structural model examining the individual items of the observed variable AOS. Comparative fit index = .934, root mean-square error of approximation = .086, standardized root mean residual = .074, $\chi^2 = (62, N = 211) = 163.7$, p = .01. AOS = Anglo or majority oriented scale.

SEM- Hypothesized Conceptual Model
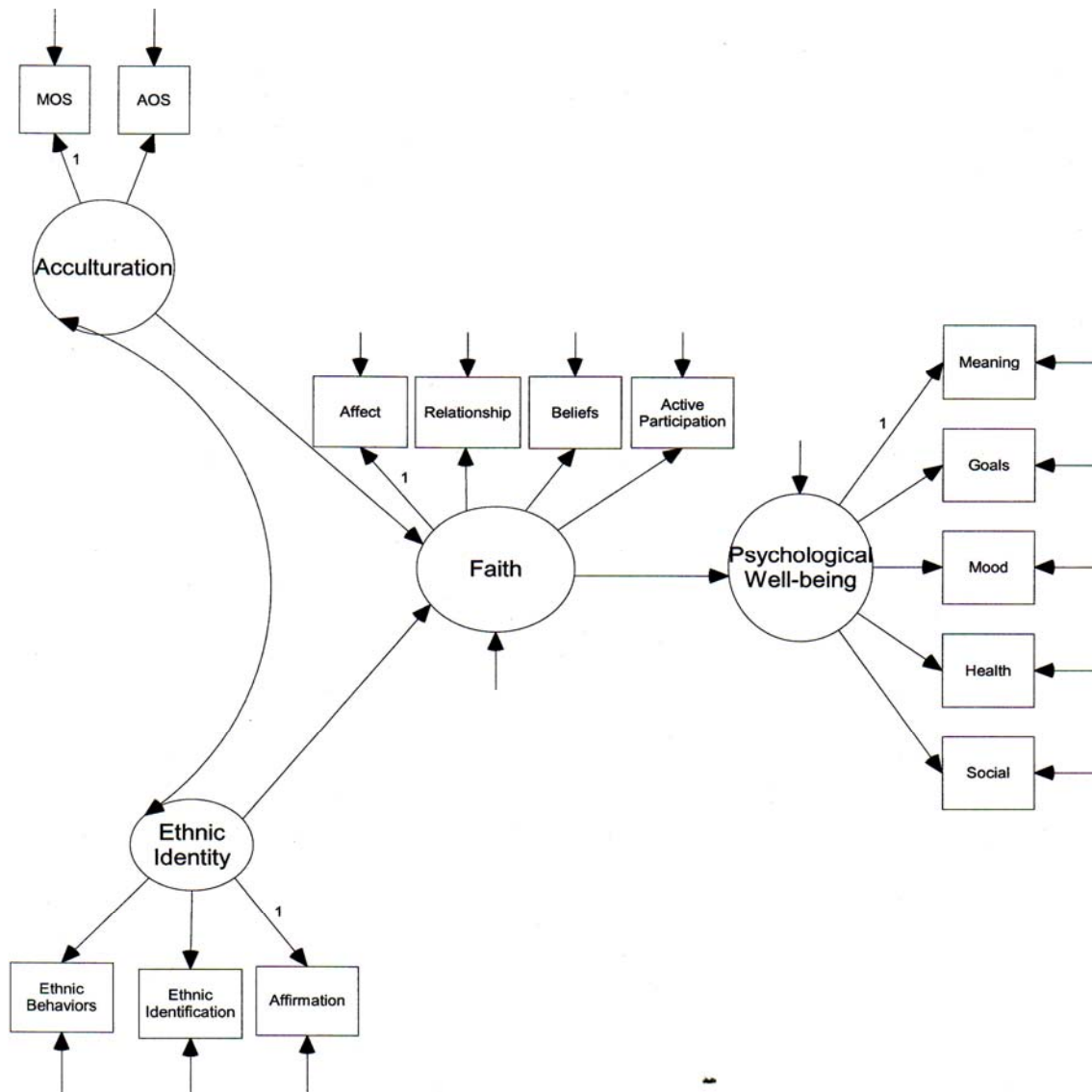
Figure 6. Hypothesized structural model examining the conceptually formed item parceled latent variable, faith. For each latent variable, the identified factor loading was set to 1 for identification purposes. Comparative fit index = .853, root mean-square error of approximation = .106, standardized root mean residual = .094, $\chi^2 = (73, N = 211) = 253.5$, $p = .01$. MOS = Mexican or minority oriented scale, AOS = Anglo or majority oriented scale.

SEM-Conceptualized Spirituality and Religiosity Variables
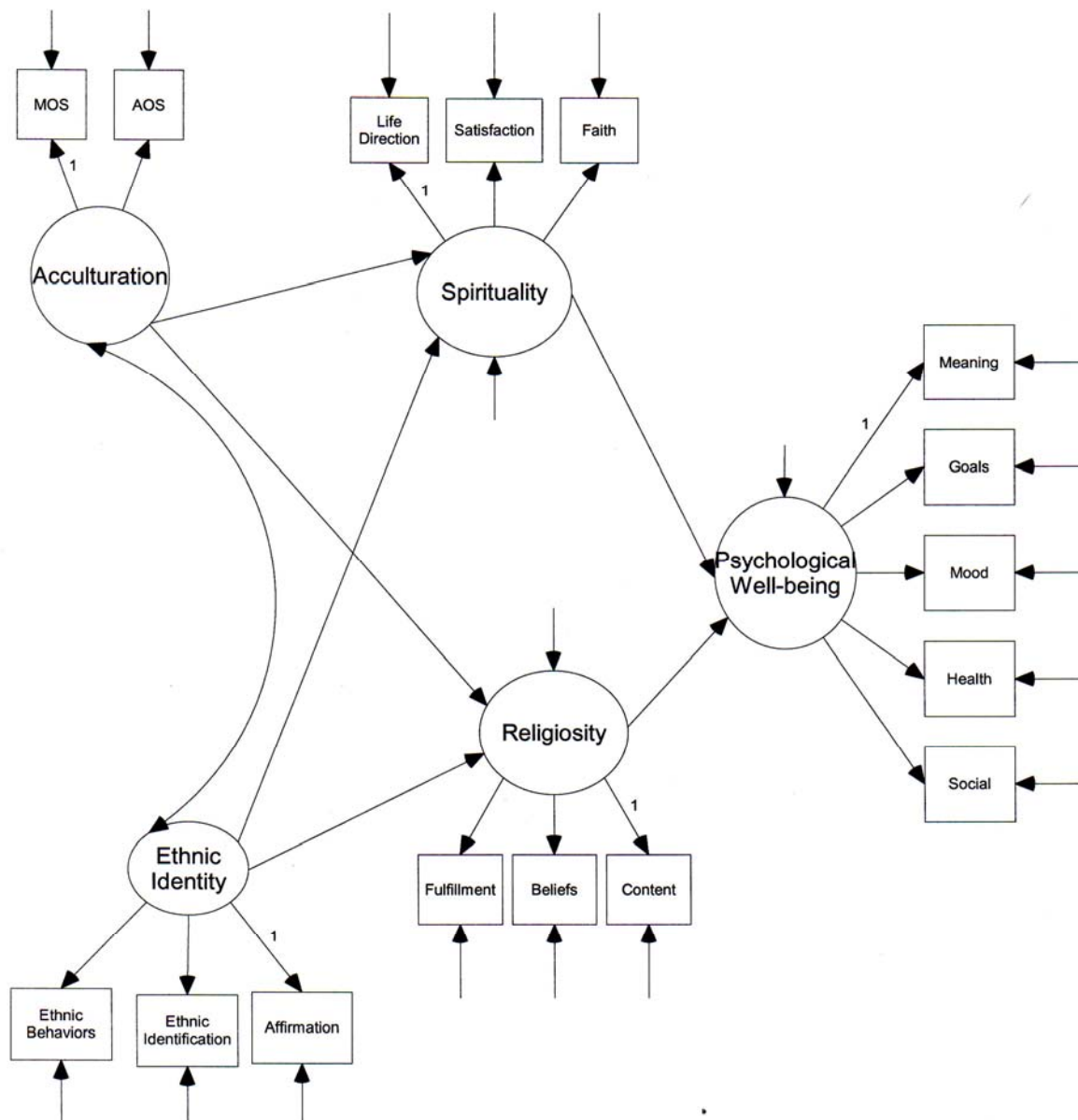
Figure 7. Structural model examining the conceptually formed item parceled latent variables, spirituality and religiosity. For each latent variable, the identified factor loading was set to 1 for identification purposes. Comparative fit index = .900, root mean-square error of approximation = .083, standardized root mean residual = .087, $\chi^2 = (97, N = 211) = 238.1$, $p = .01$. MOS = Mexican or minority oriented scale, AOS = Anglo or majority oriented scale.
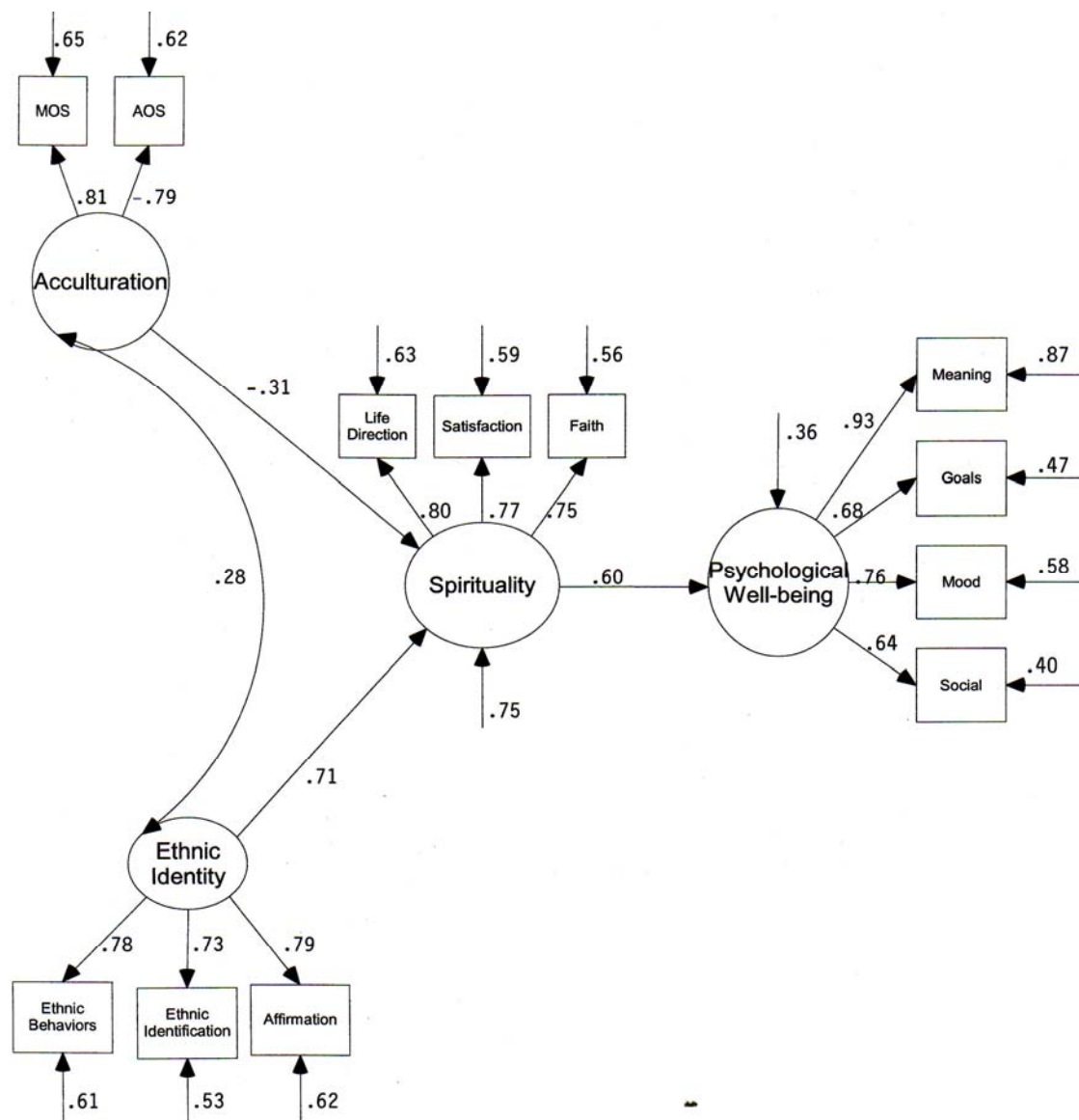
SEM-Conceptualized Spirituality Variables

Figure 8. Structural model examining the conceptually formed item parceled latent variable, spirituality. Comparative fit index = .961, root mean-square error of approximation = .063, standardized root mean residual = .065, $\chi^2 = (50, N = 211) = 91.1$, p = .01. MOS = Mexican or minority oriented scale, AOS = Anglo or majority oriented scale.

VITA

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