

RELATIONSHIPS BETWEEN SPIRITUAL  
TRANSCENDENCE AND EMOTIONAL INTELLIGENCE  
AMONG OLDER CATHOLIC NUNS

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ABSTRACT

Religious life is a call to transcendence. This study examined the relationship between spiritual transcendence and emotional intelligence (EQ) in a sample ( $N = 377$ ) of older Catholic nuns. The sample was divided into two age groups for comparison: Later adulthood group (age 65-75) and Elder group ( $> 75$  yrs old). A hierarchical multiple regression analysis showed that spiritual transcendence contributed a significant 1.7% to the explained variance in EQ over and above the demographic variables, personality factors, and other selected survey variables. No significant difference was found between the age groups in Spiritual Transcendence scores. This study offers a unique contribution to the growing field of research on the role of transcendence in the lives of older religious professionals.

Transcendence is a theme that weaves its way through the literature of philosophy, psychology, and theology, suggesting its importance for all on the human journey. For vowed Catholic nuns, transcendence is the essence of their call to religious life (John Paul II, 1996). They are to be the icons of transfiguration and thus committed to a life of transcendence and transformation. They are called to be a visible sign of transcendental values of the Kingdom of God in a lifestyle of prayer and service in their daily activities (McDonough, 1998). Retirement from active service in the Church offers older Catholic nuns an opportunity to focus specifically on developing a more intimate relationship with God. Pope John Paul II (1996) proposed this time of life for elderly nuns as a time for transcendence as "advanced age offers to elderly consecrated persons the chance to be transformed by the Paschal experience" (p. 126).

Over the last decade, interest in the relationship between religion and spirituality with its effect on psychosocial outcomes has increased. The proliferation of published books and research articles on the topic points toward more than just adventitious results. While not all research results support a positive relationship between religious variables and well-being, a number of the research studies do provide

evidence supporting the efficacy of religion's role in health (Koenig, 1990, 1995, 1997; Malony, 1995; Paloutzian, 1996). Specifically, religious research with samples of older adult participants has demonstrated positive relationships between spiritual/religious variables and health (Koenig, 1994, 1997; Koenig, Kvale, & Ferrel, 1988; Reed, 1986a, 1986b, 1987, 1989, 1991a, 1991b, 1991c). Based on this research, a number of queries and hypotheses about the role of spiritual transcendence in the lives of aging Catholic sisters came to mind.

Life span developmental theorists propose that transcendence is a resource for the older adult. In cultures older than our own, there are writings that speak of transcendence and transformation as tasks of old age. Chinen (1989) identified seven universal developmental tasks. They are: (a) deal with the reality of physical diminishment and multiple losses of later life, (b) self-confrontation and self-reformation, (c) turn from "youthful preoccupation with things ... to an empathic understanding of human nature" (p. 146), (d) let go of the ego's aspirations, self-transcendence, (e) emancipated innocence, reclaim childlike spontaneity, (f) find the meaning and purpose of one's life, and (g) enlightenment, to share one's wisdom with the next generation. These tasks found in the elder tales of older cultures illustrate the spiritual journey of the older adult. A crisis (e.g., retirement from active church service) initializes the need for an older nun to examine her life and let go of the old identity (e.g., teacher, nurse), to transcend. Transcendence is not the ultimate goal on this journey inward. Transcendence is the fulcrum towards transformation, which is an "analogy to the transfiguration of Christ" (Chinen, 1989, p. 145).

Researchers Reed (1986a, 1989, 1991a, 1991b, 1991c, 1996) and Tornstam (1994, 1997) conceptualized transcendence as a source of meaning making in later years. J. Erikson (Erikson & Erikson, 1997) added a ninth stage to the Eriksonian stages of psychosocial development, *transcendence*, and saw this last stage as an opportunity for "regaining lost skills including play, activity, joy, song, and above all a major leap above and beyond the fear of death" (p. 127).

Transcendence, the act of going beyond, offers a spiritual paradigm rooted in various forms of connectedness (self, others, and higher being) (Reed, 1992). Chinen (1989), Erikson and Erikson (1997), Frankl (1984), Reed (1986a, 1986b, 1991c), and Tornstam's (1994, 1997) writings all seem to support Van Kaam's (1983) under-

standing of transcendence as "being raised beyond the form a person has given to life so far" (p. 333).

#### SPIRITUALITY AND WELL-BEING IN THE ELDERLY

As mentioned, a number of psychology studies exist on the relationship of religion to various well-being measures in the elderly. Nursing researcher Reed (1986, 1987, 1989, 1991a, 1991b, 1992) examined the relationship between spirituality and well-being in the elder years. Pastoral caregivers (Cooley, 1989; Hall, 1985) of the elderly also have contributed research suggesting that spirituality plays a role in the well-being of the elderly. Bianchi (1982), Johnson (1998), and Schachter-Shalomi and Miller (1995) observed the importance of spirituality in the aging, proposing that the aged have a spirituality that is intrinsic to their life stage.


Stories of transcendence can be found throughout both the Old and New Testaments of the Judeo-Christian religions. The spiritual classics of St. Teresa of Avila (1976) and St. John of the Cross (1991) in their writings on the progressing way of perfection with its purgative, illuminative, and unitive stages identified similar tasks to those found in the elder tales (Chinen, 1989). In this process, one dies to the old self, or transcends, integrating all of the old into the new self. Nature provides a metaphor for this process of transformation that occurs when the caterpillar enters the cocoon and emerges as a butterfly. Schneiders (1986), a theologian, contextualized spirituality as transformative, defining it as "the experience of consciously striving to integrate one's life in terms not of isolation and self-absorption, but of self-transcendence toward the ultimate value one perceives" (p. 266). Another theologian, Haughton (1967), defined transformation as the complete change of one's existence from alienation and distancing from God or higher being to fully participating in the life of this transcendent being. Haughton (1967), Kuuire (1993), and Van Kaam (1983) theorize that a crisis initiates the call for transcendence. In the case of the elderly, this crisis is the relative imminence of death.


Spiritual transcendence becomes the growing ability of the soul, the inner core of one's being, to take the ordinary events of one's life and gradually respond differently, rising above the tangled web of life's experiences and discovering the way to see a pattern for

wholeness and connectedness to the wider human community. Spirituality refers to the relationship with self, others, and higher being or God (Reed 1987, 1992). Transcendence is a process that reflects the individual's "capacity to extend the self beyond common boundaries of the immediate context and achieve new perspectives and experiences" (Reed, 1987, p. 335). Through self-transcendence, one is transformed. For Catholic nuns, the objective is to be transformed in Christ (John Paul II, 1996).

The spiritually transcendent elder has made the journey from the head to the heart; this elder is familiar with the dark journey into the self, life and ultimately death. He/she no longer sees self as separate from but rather as part of a larger whole and is recognized by inner peace and wisdom (Schachter-Shalomi & Miller, 1995). The spiritually transcendent elder has a strong sense of self, a deep sense of the meaning of life, and great compassion for the suffering of others (Reed 1987, 1991c, 1992, 1996; Schachter-Shalomi & Miller, 1995).

#### EMOTIONAL INTELLIGENCE

Emotional intelligence is a construct encompassing the contribution of the emotions of the heart to a fuller life. Pizarro and Salovey (2002) hypothesize that religious systems are often "inherently 'emotionally intelligent'" and that these systems provide ways for believers to "increase their ability to engage in emotional regulation" (p. 221). Emotional intelligence provides a glimpse into one's ability to age successfully. It enables an individual to make good choices and provides a person with self-esteem, empathy, adaptability, self-control, and optimism. Thus, one has skills to respond to life experiences more effectively (Goleman, 1995). 

Emotional intelligence (EQ) was chosen as the criterion variable because the authors believe that religious orders that lack higher levels of EQ risk dying, for lower levels of EQ stifle spontaneity and devalue diversity in the membership, and thus they will not attract new life. An emotionally intelligent religious order advocates openness and assertiveness while valuing flexibility and promoting empathy, independence, and social responsibility in its members. Catholic religious orders will need higher levels of emotional intelligence to meet the current and future challenges of the issues facing them. 

The authors were curious as to how much variance in EQ spiritual transcendence would predict and hoped the study would be a contribution to the utilization of spiritual constructs in research and clinical practice

While Salovey and Mayer (1990) are credited with coining the term "emotional intelligence," the term "emotional quotient" as a measurement of emotional intelligence is attributed to Bar-On (1997) who defined emotional intelligence as "an array of non-cognitive abilities, capabilities, and skills that influence one's ability to succeed in coping with environmental demands and pressures" (p. 14).



#### PURPOSE OF THE STUDY

The authors proposed the study results would provide support for the role of spiritual transcendence in emotional regulation in the later lives of Catholic sisters and thus be beneficial to the leadership of Catholic orders in planning on-going formation programs. Elder nuns are the visible witnesses for the next generation of vowed consecrated women. They demonstrate the way to link the idealistic zeal of younger sisters with the transcendent and practical aspects of religious life. Additionally, clinical implications of the results may provide direction to caregivers for Catholic sisters who are struggling with end of life issues.

Two hypotheses were explored in this study. Reed's (1986a, 1986b, 1991c) research with the elderly found transcendence to be a developmental resource for older adults and Koenig (1995) found that religiosity was associated with age. Piedmont (1999) proposed that transcendence was a sixth factor of personality and more evident as one aged. Thus, the first hypothesis compared the two age groups. Hypothesis I: The mean transcendence score of sisters older than 75 years of age is significantly higher than the mean score of sisters between the ages of 65 to 75 years of age.

Given that religious life is a call to transcendence, a second hypothesis examined the unique contribution of spiritual transcendence to emotional intelligence. Hypothesis II: Global Spiritual Transcendence scores contribute significantly more to the prediction of emotional intelligence than the contribution of personality factors and other selected demographic and survey variables.

## METHODOLOGY


### *Participants*

Participants were randomly selected from four Roman Catholic religious orders in the northeast whose leadership supported the intent of the study. The religious orders provided a list of members' names, sisters who were at least 65 years of age and had been screened by caregivers for cognitive ability. Each order has a rich history of long service in various ministries within the Catholic Church and includes women from a diversity of ethnic backgrounds. Of the 515 survey packets mailed, 377 completed and valid surveys were used in the study providing a response rate of 73.2%. Twenty-five survey packets were returned with notes indicating they were not physically able to participate. Five packets arrived too late to be included. Three packets were returned with a missing instrument. One was returned due to the sister's death.

Because developmental tasks for individuals between the ages of 65 to 75 are different from those who are considered very old, the sample was divided into two age groups for comparisons (Newman & Newman, 1995): the *Later Adulthood* group (age 65-75 years of age,  $n = 225$ ) and the *Elder* group ( $> 75$  years of age,  $n = 152$ ). In the general population, later adulthood is focused on role transitions often brought on by spousal deaths, children marrying, and retirement (Newman & Newman, 1995). For nuns in later adulthood, role transitions may be triggered by other kinds of losses: the diminishing numbers of the order's members, the closing of long held institutions, sibling and friends' deaths, as well as retirement (Billard, 2003). It is a time of grieving the losses. During this time adults reweave their story, move towards self-acceptance, and define new goals for the future (Newman & Newman, 1995). They are about discovering the gifts of their journey. Members of the *Elder* group are focused on the challenge of coping with the physical diminishment that accompany aging and finding new meaning and purpose in daily living as they prepare for death (Newman & Newman, 1995). The elder's task is to determine one's personal legacy, become the "Keeper of the Meaning" (Vaillant, 2002), and pass on one's wisdom to the next generation. Elder nuns have the same tasks as the adults in the general population (Billard, 2003).


### *Instruments*

#### *Bar-On Emotional Quotient Inventory*

The Bar-On Emotional Quotient Inventory (EQ-i), authored by Reuven Bar-On (1997), was used to determine an overall level of emotional intelligence. The EQ-i is a 133-item self-report inventory that employs a five-point Likert-type scale ranging from 1 (*Not true of me*) to 5 (*True of me*). This instrument is based on over 17 years of comprehensive research strategies by Bar-On and was normed on over 20,000 individuals around the world, including 3,831 from North America. The instrument has four validity indices: positive and negative impression scores, inconsistency index and omission rate. It provides scores for total emotional quotient (EQ) as well as fifteen subscales under the major five factors of emotional skills, which are interpersonal skills, intrapersonal skills, adaptability, stress management, and general mood (Bar-On, 1997). 

EQ-i answer sheets were sent to the test publisher, Multi-Health Systems, for electronic scoring. The total EQ score is determined by summing all of the 117 subscale items with the positive and negative validity indicators excluded. This score provides general information on the participants' overall level of emotional functioning, or emotional intelligence, as well as providing a "snap-shot" of the participants' emotional well-being (Bar-On, 1997, p. 44). Bar-On (1997) reports that "approximately two-thirds of respondents are expected to receive a total EQ score between 85 and 115" (p. 44).

The Bar-On EQ-i has been used in a wide range of settings to examine an individual's emotional and social strengths and weaknesses. It has been applied in the business world to assist in the successful recruiting, hiring, and promoting of emotionally intelligent employees. It has also been used in clinical, educational, medical, forensic, and research settings to predict treatment success. The EQ-i results provide information on three levels: (a) an overview of how sample participants are doing as a whole, (b) how they are doing in five general areas, and (c) it assesses participants' performance in fifteen specific scales (Bar-On, 1997).

The EQ-i manuals as well as a published article by Dawda and Hart (2000) reported good internal consistency. Factor structure is summarized in the Technical Manual (Bar-On, 1997) and provides support for the instrument's conceptual structure. Validity studies found the instrument to have adequate convergent and discriminant 

validity. The EQ-i correlates positively with measures of emotional health and negatively with measures of psychopathology. Alpha coefficient of total EQ, score for the normative sample ( $N = 3,831$ ) was .97. For this study sample, the alpha coefficient was .95.

#### *Reed's Spiritual Perspective Scale (SPS)*

The Spiritual Perspective Scale (SPS) (Reed, 1986b) is a 10-item scale that measures indicators of a relationship with a being "greater than the self without devaluing the individual" (Reed, 1991c, p. 74). These indicators are experiences of prayer, meditation, forgiveness, and belief in a transcendent being. The scale is administered in a self-report questionnaire. Responses are on a six-point scale ranging from either *not at all* to *about once a day* or from *strongly disagree* to *strongly agree*.

The scale displayed both criterion and discriminant validity (Reed, 1986b, 1987). Internal reliability coefficient for the normative sample was .92 (Reed 1986b); in this study sample, the alpha coefficient level was .79.

#### *Reed's Self-Transcendence Scale (STS)*

Reed's (1987) Self-Transcendence Scale is a 15-item inventory that is administered in self-report inventory format. The scale was developed on an elderly population, including some terminally ill, and was used to measure the temporal, interpersonal, and intrapersonal dimensions that are characteristic of older adults' ability to transcend boundaries of the self and make meaning of life. The scale's scoring format has a four point Likert-type response scale ranging from *not at all* to *very much*. Statements were prefaced with, "At this time in my life, I see myself as . . ." Sample items included statements such as "accepting myself as I grow older," "finding meaning to my past experiences," and "accepting death as part of life."

Construct validity was evaluated and found satisfactory in a wider study of the elderly (Reed, 1991b). The STS has had good internal consistency in samples of older adults; values ranged from .80 (Reed, 1989) to .93 and .95 (Reed, 1987). In this study sample, the alpha coefficient level was .74.

#### *Spiritual Transcendence Global Score*

Spiritual transcendence was measured by combining the scores of Reed's (1986b) Spiritual Perspective Scale (SPS) and Reed's (1987)



Self-Transcendence Scale (STS). The SPS measures the influence of spiritual matters on one's life. The STS addresses the role of connectedness and meaning making in the participants' lives. To obtain a broader measurement of spiritual transcendence based on the definition provided earlier (see p. 43), the two scales were combined rather than measure each scale's contribution separately. These participants have lived a life commitment seeking relationships with God, self, and others. Cronbach alpha coefficient was .83 in the study sample for the Global Spiritual Transcendence score.

#### *NEO-Five Factor Inventory (NEO-FFI)*

The NEO-FFI (Costa & McCrae, 1992) is a short 60-item measure based on the five-factor personality model. The five factors are Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness. Reliability coefficients for the subscales in the normative sample ( $N = 1,539$ ) ranged from a low of .68 for Agreeableness to a high of .86 for Neuroticism (Costa & McCrae, 1992). In this sample, the reliability coefficients ranged from a low of .69 in Agreeableness to a high of .83 in Neuroticism. Alpha coefficients for the remaining scales in the study sample were .75 for Extraversion, .72 for Openness, and .80 for Conscientiousness. The instrument has been well researched and was used in this study to determine the incremental contribution of spiritual transcendence to emotional intelligence over and above the personality factors in the five-factor personality model.

#### *Survey questionnaire*

We developed a questionnaire that had 24 questions addressing demographics and other factors of interest found to have a relationship with spirituality and mental health in older adults (Koenig, 1994, 1995; Levin & Tobin, 1995; Magee, 1984, 1991; McCandless & Conner, 1997; Mercier, Shelley & Powers, 1996; Sherman, 1991; Van Kaam, 1983). Along with the literature review, the first author had a round table discussion with counselors and spiritual directors who had experience working with older sisters in order to mine observations and knowledge of transcendent behaviors. Selected survey questions and demographic characteristics were included in the final analysis along with the personality factors and spiritual transcendence, the primary variable of interest.

Demographics used in the final analysis included age, ethnic background (Caucasian/Other), education (graduate degree-advance level professional training/less than graduate degree), ministry status (active Church service/non-active Church service), and health status (good-excellent/poor-fair health).

Survey questions of interest were the following: *Life enhancing*—Do you participate in cultural and social activities with others? (Yes/no); *Spirit promoting*—(a) Have you had spiritual direction in the last 10 yrs? (Yes/no) and (b) Have you had professional counseling for personal issues or concerns? (Yes/no). If they reported "yes," they were asked if they had met on a regular basis. Regular was defined as at least once a month for a one-year period. *Stress factor*—Do you ever find yourself feeling uncomfortable when you think of a particular time or incident in your life? (Yes/no).

Table 1. *Demographic Characteristics of the Study Sample*

Variable	Sample <i>N</i> = 377	Age Groups		Sig.
		Later adulthood <i>n</i> = 225	Elders <i>n</i> = 152	
Age	<i>M</i> = 74.6 <i>SD</i> = 6.95	<i>M</i> = 69.7 <i>SD</i> = 3.03	<i>M</i> = 81.9 <i>SD</i> = 4.22	<i>t</i> (375) = -32.55***
Yrs in Religious Life	<i>M</i> = 55.3 <i>SD</i> = 7.06	<i>M</i> = 50.8 <i>SD</i> = 3.81	<i>M</i> = 62.1 <i>SD</i> = 5.08	<i>t</i> (375) = -24.68***
<i>Ethnicity</i>				
Caucasian	348 (92.3%)	209 (60%)	139 (39.9%)	$\chi^2$ (1) = .27
Non-Caucasian	29 (7.7%)	16 (7.1%)	13 (8.5%)	
<i>Education</i>				
Graduate degree	257 (68.2%)	160 (71.1%)	97 (63.8%)	$\chi^2$ (1) = 2.23
Other	120 (31.8%)	65 (28.9%)	55 (36.2%)	
<i>Ministry Status</i>				
Active	298 (79.0%)	213 (94.7%)	85 (55.9%)	$\chi^2$ (1) = 82.22***
Not Active	79 (21.0%)	12 (5.3%)	67 (44.1%)	
<i>Health Status</i>				
Good/ Excellent	268 (80.4%)	181 (80.4%)	87 (57.2%)	$\chi^2$ (1) = 23.77***
Poor/Fair	109 (28.9%)	44 (19.6%)	65 (42.8%)	

\*\*\* *p* < .001.

## RESULTS

### *Sample Demographics*

A significance level of .05 was used for all statistical tests. Table 1 summarizes the demographic characteristics. The age range of sample participants ( $N = 377$ ) was 65 to 96, with the average age being 74.6. Participants averaged 55.3 years in religious life. Significant differences were found between the age groups in age and number of years in religious life. Significant differences were found between the age groups in ministry status and health status. No significant difference was found between the age groups in the ethnic make up of the sample or in education.

### *NEO-Five Factor Inventory*

The sample participants scored significantly higher than the normative group of adult women (Costa and McCrae, 1992) in two domains: Agreeableness,  $t(875) = -11.02, p < .001$  and Conscientiousness,  $t(875) = -7.37, p < .001$ , and they were significantly lower in Neuroticism,  $t(875) = 8.94, p < .001$ . There were no significant differences in the mean scores on the Openness,  $t(875) = 1.46, p > .05$  and Extraversion  $t(875) = -1.87, p > .05$  scales between the sample and normative group of adult women.

Those in the *Later Adulthood* group scored significantly higher than the *Elder* group on the Extraversion,  $t(375) = 2.40, p < .05$  and Openness,  $t(375) = 3.84, p < .001$  domains. There were no significant differences in mean scores of the age groups on the three domains of Neuroticism,  $t(375) = -.810, p = .42$ , Agreeableness,  $t(375) = .74, p = .46$  and Conscientiousness,  $t(375) = .107, p = .92$ .

### *Bar-On EQ-i*

The EQ-i validity scales showed 14 participants with an elevated inconsistency index score ( $> 12$ ), 14 with an elevated positive impression score ( $> 130$ ), and two with an elevated negative impression score ( $> 130$ ). For all participants, the positive impression scores showed a significantly positive correlation with the total EQ score. The negative impression and inconsistency scores showed a significantly negative correlation with the total EQ score. A visual screening of these participants' responses did not show a repetitive pattern of

responding. Considering the age of these participants and the reason for testing, malingering was not considered to be a factor. All cases were kept in the study for further analysis.

#### *Total Emotional Quotient (EQ) Score*

The standardized mean EQ score of the study sample was 99.69 ( $SD = 12.80$ ), indicating that overall the sample group was about average and had an adequate level of emotional functioning.

#### *Global Spiritual Transcendence Scores*

Results did not support the first hypothesis, that the mean score of the elder group is significantly higher than the mean score of the later adulthood group. No significant difference was found in the mean Global Spiritual Transcendence scores of the age groups,  $t(1, 375) = .55, p = .584$ .

### MULTIVARIATE ANALYSIS

Piedmont (1998, 1999) advocates the utilization of incremental validity testing to assess the unique contribution of spiritual constructs to an outcome variable by separating the spiritual variable from the personality variables of the Five Factor Model. A hierarchical regression analysis was used to determine the incremental contribution of spiritual transcendence over and above selected demographic and survey variables as well as the five personality factors measured by the NEO-FFI (Costa & McCrae, 1992). The purpose of this model is to measure the empirical weight (Piedmont, 1998, 1999) of spiritual transcendence as calculated by Reed's (1986b, 1987) combined scales in the prediction of emotional intelligence in the lives of this sample of older Catholic sisters.

One regression model (Table 2) was developed to test the second hypothesis that the Global Spiritual Transcendence scores contribute significantly more to the prediction of emotional intelligence than the contribution of personality factors and other selected demographic and survey variables. With total EQ as the criterion variable, the predictor variables were ordered into the model regression equation in five steps:

Table 2. *Hierarchical Regression Analysis Summary of Predictor Variables with Emotional Quotient*

Step	Predictor variables	$R^2$	$\Delta R^2$	$\Delta F$
1	Demographic variables	0.09	0.086	6.98***
2	EQ-i validity indices	0.32	0.234	42.11***
3	NEO-FFI Personality factors	0.69	0.373	88.19***
4	Selected Survey variables: Stress, Life-enhancing, Spirit-Promoting	0.71	0.018	5.64***
5	Spiritual Transcendence	0.73	0.017	22.57***

\*\*\*  $p < .001$ .

*Step 1.* Demographic variables of age, ethnic background, education, ministry status, and health status were entered as a block: age was entered in continuous form; ethnicity was dummy coded so that Caucasian was group 1 and Other was the reference group; education was dummy coded so that group 1 was graduate degree/advanced professional training and less than a graduate degree was the reference group; ministry status was dummy coded so that the active group was coded as 1 and the non-active group was the reference group; and health status was dummy coded so that those in the good/excellent health group were coded as 1 and those in poor/fair health were the reference group.

*Step 2.* Validity indices of the Bar-On Emotional Quotient Inventory (EQ-i), positive impression, negative impression, and inconsistency index, were entered as a block in continuous form.

*Step 3.* Five personality factors, conscientiousness, extraversion, openness, agreeableness, and neuroticism, were entered as a block in continuous form.

*Step 4.* Three selected survey variables were entered as a block. Selected stress variable, reported feeling uncomfortable when thinking of a particular incident or time in life, was dummy coded with "yes" coded as 1 and "no" as the reference group and entered. Selected life-enhancing variable, social/cultural activities, was dummy coded so that the group that reported "no" was the reference group and entered. Spirit-promoting support variables, regular spiritual direction and regular counseling, were dummy coded with "yes" coded as 1 and "no" as the reference group in each variable and entered.

*Step 5.* Spiritual Transcendence was entered in continuous form.

Entering the previous variables in separate steps allowed the researchers to control for the effects when examining the contributions of subsequent variables.

## MULTIVARIATE RESULTS

The plot of the regression standardized residuals showed a normal distribution. Casewise diagnostics produced only two outliers. Given the size of the sample, the two cases were left in the study.

The demographic variables entered at step one contributed significantly and added 8.6% to the explained variance,  $\Delta F(5, 371) = 6.98, p < .001$ . The EQ-i validity indices entered at step two added another significant 23.4% to the explained variance,  $\Delta F(3, 368) =$

Table 3. *Summary of Variables' Final Model Coefficients in Hierarchical Regression with EQ*

Predictor variables	<i>B</i>	<i>SE B</i>	<i>B</i>
<i>Demographics</i>			
age	-.14	0.07	-.08*
education	1.29	0.82	.05
ethnicity	-1.54	1.35	-.03
health status	-9.20E-02	0.03	-.03
ministry status	-2.36	1.11	-.08*
<i>EQi Validity Indices</i>			
inconsistency index	-.23	0.12	-.06
negative impression	-.25	0.04	-.20***
positive impression	-2.68E-02	0.03	-.03
<i>NEO-FFI Scales</i>			
neuroticism	-.57	0.065	-.32***
openness	.24	0.07	.11**
extraversion	.34	0.08	.16***
conscientiousness	.48	0.08	.20***
agreeableness	.26	0.10	.10**
<i>Selected Survey Variables</i>			
Stress: uncomfortable time in life	-2.23	0.76	-.09**
Life enhancing: social/cultural activities	2.15	2.02	.03
Spirit Promoting: regular counseling	-1.83	1.02	.06
Spirit Promoting: reg. spiritual direction	1.79	0.85	.06*
<i>Spiritual transcendence</i>	7.12	1.50	.16***

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

42.11,  $p < .001$ . The five personality factors of the NEO-FFI entered at step three significantly added another 37.3% to the explained variance,  $\Delta F(5, 363) = 88.19, p < .001$ . At step four, the stress, life enhancing, and spirit promoting variables were entered as a block and significantly added 1.8% to the explained variance,  $\Delta F(4, 359) = 5.64, p < .001$ . At step five, spiritual transcendence was entered and significantly increased the explained variance by 1.7%,  $\Delta F(1, 358) = 22.57, p < .001$ , for a total explained variance of 72.8%.

Table 3 provides a look at the final model coefficients with eleven predictor variables maintaining a significant relationship with EQ. Of the demographic variables, only age and ministry status maintained significance in the final model of the regression analysis,  $p < .05$ . The three EQ-i validity factors were entered at step two as a statistical control. In the final model, only the tendency to portray a negative self-impression remained significant,  $p < .001$ . The five personality factors were entered at step three. Each of the five factors maintained its significant correlation with EQ in the final model. Openness, Agreeableness, Extraversion, and Conscientiousness were all positively associated with EQ,  $p < .001$ ;  $p < .01$ ;  $p < .001$ ; and  $p < .001$  respectively, while Neuroticism was negatively associated with EQ,  $p < .001$ . The stressor variable, "feels uncomfortable when thinking of a particular time or incident in one's life," had a significant negative association with EQ in the final model,  $p < .01$ . Of the spirit-promoting variables, only regular spiritual direction maintained a positive significant association with EQ in the final model,  $p < .05$ .

Global Spiritual Transcendence Score, entered last in the hierarchical regression model, significantly predicted an additional 1.7% over and above the selected demographic and survey variables as well as the personality factors thus providing support for hypothesis II,  $p < .001$ .

## DISCUSSION AND CONCLUSIONS

This study explored transcendence theories as they related to aging (Reed, 1986a, 1986b; Tornstam 1994, 1997) by examining spiritual transcendence levels in a sample of older adult Catholic sisters in a univariate analysis and in a multivariate model. Hypothesis I of the study proposed that the *Elder* group of sample participants had a significantly higher mean score than the *Later Adulthood* group in

global spiritual transcendence scores. The results did not support this hypothesis. The mean scores of the two age groups were not significantly different. The historical context of religious life in which these sisters developed is a factor to be considered when attempting to understand the lack of significant difference between the age groups' global spiritual transcendence scores. Most participants have been members of their religious orders for at least 50 years. Lifestyle changes brought on by Vatican Council II did not permeate religious life until the mid 1960s or later. The similarities of these sisters' formation prior to Vatican II may have been a contributing factor.

Research on the aging population has found certain demographics such as age, ethnicity, education, retirement, and health status to be predictors of psychological well-being (Levin and Tobin, 1995). The results of the final regression model, with all selected variables entered, showed age and ministry status to have a significant association with emotional intelligence. The results of the regression model suggested that, when all other factors were held constant, age and ministry status could be having an effect on each other, such that remaining active in ministry past age 75 had a negative association with the participants' EQ. These results supported Tornstam's (1997) belief that the elderly have a need for and a desire for more positive solitude. While retirement by relatively healthy members is often frowned upon in religious orders of women (Ciarrocchi and Wicks, 2000), these results suggested the need to re-examine the motivations of elderly nuns who continue to work beyond age 75.

While personality factors contributed a significant amount of the explained variance of emotional intelligence, a number of survey variables were also significantly related to EQ. In a question designed to capture the on-going effect of stressful life events and the possible unresolved feelings around it, participants were asked, "Do you ever find yourself feeling uncomfortable when you think of a particular time or incident in your life?" This stressor variable maintained a significant negative association with EQ in the final model. Magee (1991) observed that "shame-driven older adults" (p. 21) have difficulty transcending their past regrets, lacking the ability to find the gifts in their past experiences. Haughton (1967), Van Kaam (1983), and Kuuire (1993) proposed that a crisis initializes the transcendent process. One wonders if shame or guilt underlies the uncomfortable feeling. Deep faith and a strong prayer life were often



mentioned in response to the last question of the survey questionnaire, "What do you think contributed to your personal and spiritual growth?", thus raising the possibility that some older sisters with guilt feelings may not use their spirituality to transcend past experiences.

The effect of the spirit promoting variables (regular spiritual direction, regular counseling) was examined next. Individuals sometimes turn to professionals in psychology and spirituality for healing when they are in pain. Historically, professionals in each of these disciplines have chosen different approaches to help individuals in the healing process. Psychotherapists address the individual's interpersonal and intrapersonal relationships while spiritual directors focus on the individual's transpersonal relationship with a higher being. In this study, participants were asked if they had received a spirit promoting support service (yes/no) of either spiritual direction or counseling on a regular basis for at least one year. Only one spirit promoting support variable, regular spiritual direction, provided a significant contribution to the explained variance of EQ. Regular counseling had a negative association with emotional intelligence while regular spiritual direction had a significant positive association. Counseling had a significant negative correlation with EQ when entered at step four but lost its significance when Spiritual transcendence was entered at step five. One can only speculate why counseling had a negative association with emotional intelligence in this sample.

While only two participants reported the value of counseling in their development, on-going spiritual direction was often reported as having played an important role in the personal and spiritual development of the participants. With two-fifths of the sample reporting they have utilized spiritual direction over the years, one can conjecture that spiritual direction was an acceptable way to approach healing and thus was accessed voluntarily. Without the added resistance due to the stigma attached to counseling, we speculate that spiritual direction participants were able to use this support service for personal growth. Although spiritual direction's focus is the relationship of the client with God, one needs to have a certain self-awareness to grow in the relationship; thus there would be a need to address certain interpersonal and intrapersonal issues that could affect that relationship.

The small yet significant association of spiritual transcendence with emotional intelligence after accounting for all other factors in the

model provided support for the view that the final third of life is a period of active personal growth partly fueled by spiritual transcendence in the face of approaching death.

#### LIMITATIONS

Several limitations of the study need to be addressed. The most obvious limitation is that the study was restricted to older Catholic sisters. Therefore, the results may not generalize to the wider population.

Efforts were made through random sampling to obtain a wide range of older Catholic sisters as study participants. Although a wide age range of participants (65-96 years of age) responded and the response rate was fairly high, the lack of response by some potential participants may have had an effect on the results. Although congregational leadership screened for cognitive impairments, 25 of the returned packets were from potential participants who were older and "did not feel physically able to complete the survey." We speculate others may have not been physically able to complete the four instruments.

Another shortcoming to be considered in this study is the self-report nature of all the instruments. An observer rating may have provided information on the participants that was not potentially tainted by the response bias often typical in self-report results.

The survey design of the study is another inherent shortcoming. Without longitudinal data and a comparison group of lay women, it is difficult to determine if the relationship found between the survey variables, spiritual transcendence, and personality factors with EQ is the result of age or of the built-in formation of religious life.

#### IMPLICATIONS

The results of the study suggest that religious orders respond to the needs of their elderly sisters and help them use "advanced age to be transformed by the Paschal Experience" (John Paul II, 1996, p. 126) by developing comprehensive psycho-spiritual models of aging for their members. Study results were shared with the leadership teams and interested older sisters of the congregations involved in the study. A leadership team member asked the lead author, "Given the results of your study, what can we do to help our older sisters

transcend?" As a result of that question, a spiritual program of aging was developed and has been shared with religious orders both nationally and internationally (Billard, 2003, 2005).

Religious communities that develop spiritual models of aging for their members are making an investment in their future. Encouraging sisters to attend to the developmental tasks of aging will not only bring peace and healing to individuals, but the results will also affect younger sisters, social contacts, and the wider community and possibly attract new members. Religious life that does not affect transcendence is not worth living. Religious life that does affect transcendence in its members will affect transformation not only in its members but also in others. Hopefully, the study compels religious orders to harness the wisdom of the elder sisters and give them a "place of honor" (Best, 2001, p. 30) and an active voice in planning so that retirement centers and assisted living residences become centers of "sage-ing" (Schachter-Shalomi & Miller, 1995).

#### REFERENCES

- Bar-On, R. (1997). *Bar-on Emotional Quotient Inventory: Technical manual*. North Tonawanda, NY: Multi-Health Systems, Inc.
- Best, R. J. (2001). The spiritual role of the elder in the twenty-first century. In D. Moberg (Ed.), *Aging and spirituality: Spiritual dimensions of aging theory, research practice, and policy* (pp. 21-31). Binghamton, NY: Haworth Press.
- Bianchi, E. (1982). *Aging as a spiritual journey*. New York: The Crossroads Publishing Company.
- Billard, A. (2003, July). *The transcendent elder*. Paper presented at the annual Elder Religious and Diocesan Priest Workshop, Dallas, PA.
- . (2005). *Transformative aging: A spiritual model of aging for older adults*. [Brochure]
- Chinen, A.B. (1986). Elder tales revisited: Forms of transcendence in later life. *The Journal of Transpersonal Psychology*, 18(2), 171-192.
- . (1989). *In the ever after: Fairy tales and the second half of life*. Wilmette, IL: Chiron Publications.
- Ciarrocchi, J. W., & Wicks, R. J. (2000). *Psychotherapy with priests, protestant clergy and Catholic religious: A practical guide*. Madison, CT: Psychosocial Press.
- Cooley, R. (1989). Learning from our elders: Clinical pastoral education in a geriatric environment. *The Journal of Pastoral Care*, 43(3), 260-267.
- Costa, P. & McCrae, R. (1992). *Revised NEO Personality Inventory (NEO-PI-R) and NEO Five Factor Inventory (NEO-FFI) professional manual*. Odessa, FL: Psychological Assessment Resources, Inc.
- Dawda, D., & Hart, S. (2000). Assessing emotional intelligence: Reliability- and validity of the Bar-On Emotional Quotient (EQ-i) in university students. *Personality and Individual Differences*, 28(4), 797-812.
- Erikson, E., & Erikson, J. (1997). *The Life Cycle completed—Extended version with new chapters on the ninth stage of development by Joan Erikson*. New York: W. W. Norton & Company.
- Frankl, V. E. (1984). *Alan's search for meaning* (3rd ed.). New York: Touchstone.

- Goleman, D. (1995). *Emotional intelligence*. New York: Bantam Books.
- Hall, E. G. (1985). Spirituality during aging. *Pastoral Psychology*, 34(2), 112-117.
- Haughton, R. (1967). *The transformation of man*. New York: Paulist Press.
- John Paul II (1996). *Vita Consecrata*. Washington, DC: United States Catholic Conference.
- John of the Cross. (1991). *The collected works of Saint John of the Cross* (Rev. ed., K. Kavanaugh, OCD & O. Rodriguez, OCD, Trans.). Washington, DC: Institute of Carmelite Studies.
- Johnson, R. P. (1998). *The 12 keys to spiritual vitality: Powerful lessons on living agelessly*. Liguori, MO: Liguori Publications.
- Koenig, H. (1990). Research on religion and mental health in later life: A review and commentary. *Journal of Geriatric Psychiatry*, 23, 23-53.
- . (1994). *Aging and God: Spiritual pathways to mental health in midlife and later years*. Binghamton, NY: The Haworth Pastoral Press.
- . (1995). *Research on religion and aging: An annotated bibliography*. Westport, CT: Greenwood Press.
- . (1997). *Is religion good for your health? The effects of religion on physical and mental health*. Binghamton, NY: The Haworth Pastoral Press.
- Koenig, H. G., Kvale, J. N., & Ferrel, C. (1988). Religion and well-being in later life. *The Gerontologist*, 28, 18-28.
- Kuure, A. A. (1993). The event of physical weakening: A transcendence crisis as an invitation to foster formative anticipation. *Studies in Formative Spirituality*, 14(3), 367-380.
- Levin, J. S. & Tobin, S. S. (1995). Religion and psychological well-being. In M. A. Kimble, S. H. McFadden, J. W. Ellor, & J. J. Seeber (Eds.), *Aging, spirituality and religion* (pp. 30-43). Minneapolis, MN: Fortress Press.
- Magee, J. J. (1984). A model for the congregational assessment of the life-satisfaction of retired sisters. *Review for Religious*, 43(6), 923-927.
- . (1991). Using metaphors in life review groups to empower shame-driven older adults. *Activities, Adaptation, & Aging*, 16(2), 19-30.
- Malony, H. N. (1995). *The psychology of religion for ministry*. Mahwah, NJ: Paulist Press.
- Mayer, J. D., & Salovey, P. (1995). Emotional intelligence and the construction of regulation of feelings. *Applied and Preventive Psychology*, 4, 197-208.
- McCandless, N. J., & Conner, F. P. (1997). Older women and grief: a new direction for research. *Journal of Women and Aging*, 9(3), 85-92.
- McDonough, E., OP. (Speaker). (1998). *Vita Consecrata: A call to transcendence* (Cassette Recording, tape 1, side 1). Canfield, OH: Alba House Cassettes.
- McFadden, S. H. (1995). Religion and well-being in aging persons in an aging society. *Journal of Social Issues*, 5(2), 161-175.
- Mercier, J. M., Shelley, M. C., II, & Powers, E. A. (1996). Religious commitment and social relationships: Their relative contributions to self-esteem of Catholic sisters in later life. *Journal of Women and Aging*, 8(3/4), 91-111.
- Newman, B. M. & Newman, P. R. (1995). *Development through life: A psychosocial approach* (6th ed.). Pacific Grove, CA: Brooks/Cole Publishing Co.
- Paloutzian, R. F. (1996). *Invitation to the psychology of religion* (2nd ed.). Needham Heights, MA: Allyn & Bacon.
- Piedmont, R. (1998). *The Revised NEO Personality Inventory: Clinical and research applications*. New York: Plenum Press.
- . (1999). Does spirituality represent the sixth factor of personality? Spiritual transcendence and the five factor model. *Journal of Personality*, 67(6), 985-1013.
- Pizarro, D., & Salovey, P. (2002). Religious systems as "emotionally intelligent" organizations. *Psychological Inquiry: An International Journal of Peer Commentary and Review*, 13(3), 220-225.

- Reed, P. (1986a). Developmental resources and depression in the elderly: A longitudinal study. *Nursing Research*, 35, 368-374.
- (1986b). Religiousness among terminally ill and healthy adults. *Research in Nursing and Health*, 9, 35-42.
- (1987). Spirituality and well-being in terminally ill hospitalized adults. *Research in Nursing and Health*, 10, 335-344.
- (1989). Mental health of older adults. *Western Journal of Nursing Research*, 11(2), 143-163.
- (1991a). Spirituality and mental health in older adults: Extant knowledge for nursing. *Family Community Health*, 14(2), 14-25.
- (1991b). Self-transcendence and mental health in oldest-old adults. *Nursing Research*, 40, 5-11.
- (1991c). Toward a theory of self-transcendence: Deductive reformulation using developmental theories. *Advances in Nursing Science*, 13(4), 64-77.
- (1992). An emerging paradigm for the investigation of spirituality in nursing. *Research in Nursing and Health*, 15, 349-357.
- (1996). Transcendence: Formulating nursing perspectives. *Nursing Science Quarterly*, 9:1, Spring, 2-4.
- Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, cognition, and personality*, 9, 185-211.
- Schachter-Shalomi, Z., & Miller, R. S. (1995). *From age-ing to sage-ing: A profound new vision of growing older*. New York: Warner Books.
- Schneiders, S. M. (1986). Theology and spirituality. Strangers, rivals, or partners? *Horizons*, 13, 253-274.
- Sherman, E. (1991). *Reminiscence and the self in old age*. New York: Springer Publishing Co.
- Teresa of Avila (1976). *The Collected Works of St. Teresa of Avila, Vol. 1*. (K. Kavanaugh, OCD & O. Rodriguez, OCD, Trans.). Washington, DC: Institute of Carmelite Studies.
- Tornstam, L. (1994). Gerotranscendence: A theoretical and empirical exploration. In L. E. Thomas & S. A. Eisenhandler (Eds.), *Aging and the religious dimension* (ch. 13). Westport, CT: Auburn House.
- (1997). Gerotranscendence. *Journal of Aging Studies*, 11(2), 145-156.
- Vaillant, G. (2002). *Aging well. Surprising guideposts to a happier life*. Harvard Study of Adult Development. New York: Little, Brown & Company.
- Van Kaam, A. (1983). *Foundations for personality study*. Denville, NJ: Dimension Books.