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# Life Satisfaction among People with Progressive Disabilities

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This study investigated the life satisfaction among 218 individuals with progressive disabilities, who were recruited through the Muscular Dystrophy Association and the National Multiple Sclerosis Society. Participants completed questionnaires containing several scales measuring predictor and outcome variables. Regression analyses were performed to analyze the quantitative data. The results indicated that 49% of the variance in life satisfaction among individuals with neuromuscular and neurological diseases was explained in the regression model. The best predictors of life satisfaction were the level of acceptance of disability, hope, spiritual well-being; age, sex, marital status, and employment status. This study suggests the importance of understanding the role of psychological and spiritual constructs in life satisfaction among people with progressive disabilities.

Life satisfaction is a construct widely used in psychosocial, medical, and theological studies to evaluate an individual's perceived well-being. A substantial amount of research has been conducted to measure quality of life among people with disabilities from external (e.g., income, education, and health) and internal (subjective well-being) perspectives (e.g., Boschen, 1996; 1998; Crewe, 1997, 2000). Other researchers have also used hope theory to examine peoples' inner strength and their outlook on life (Chang & DeSimone, 2001). However, none of these studies involved people with progressive disabilities.

A good understanding of the rehabilitation client's psychological reactions to chronic illness and disability is the key to the efficient delivery of rehabilitation services and successful rehabilitation outcomes. The conceptual and practical difficulties involved in assessing life satisfaction among people with progressive disabilities (e.g., neuromuscular and neurological diseases) have contributed to the lack of adequate research in this area. The unpredictability of inevitable physical and cognitive changes over the life course of the disability makes it even more difficult to interpret the individuals' changing status in terms of quality of life.

Two common progressive disabilities, namely muscular dystrophy (MD) and multiple sclerosis (MS), are characterized by a gradual deterioration in an unpredictable course over a lifetime. MS is a chronic, progressive neurological disorder affecting the central nervous system and causing cognitive deterioration, impaired mobility, blurred vision, incontinence, paralysis, fatigue, and loss of memory (Livneh & Antonak, 1997). The estimated

number of Americans with MS is between 250,000 and 350,000 (Devins & Shnek, 2000), and the affected population worldwide could be as high as 2.5 million (National Multiple Sclerosis Society, 2007). The majority of people with MS are females of European descent with a usual onset of the disability between the ages of 20 and 40.

MD is the taxonomy for a group of over 40 individual neuromuscular diseases. It is estimated that about 200,000 Americans have been diagnosed with MD, a condition typified by continuing degeneration and atrophy of the muscle cells and fibers (Siegel, 1999). Functional limitations associated with MD include difficulties in cognitive, social, physical/vocational, and emotional functioning. Five common types of MD are Becker MD (BMD), Duchenne MD (DMD), Limb-Girdle MD (LGMD), Facioscapulohumeral MD (FSHD), and Myotonic MD (MMD) (Chen, 2001; Livneh & Antonak, 1997). Muscle weakness usually begins in the lower extremities and gradually moves to the upper body for people with BMD and LGMD. The most prominent difference between MMD and other types of MD is that the distal instead of the proximal muscles are the first to be affected by the disease (Jamero & Dundore, 1982). The average onset of the disability ranges from as early as age two in DMD to as late as age 30 in FSHD.

## *Theoretical Framework and Background*

The following sections provide background for the key concepts and theories that are relevant to this study.

## *Life Satisfaction*

According to informed desire theory, life satisfaction is contingent upon satisfying the goals that informed people would desire to pursue (Griffin, 1986). In other words, one ranks preferences among a set of goals. Variables that have been linked to higher life satisfaction for persons with disabilities include age (Mehner, Krauss, Nadler, & Boyd, 1990), employment status

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(Viemero & Krause, 1998), income (Boschen, 1996), marital status (Mehnert et al.), and age at the onset of the disability (Mehnert et al.). However, whether the type of disability influences the coping strategies of choice remain debatable. In a study intended to detect different coping patterns in dealing with illness-related problems, Ahlström and Wenneberg (2002) found that, compared to people without disabilities, individuals with MD and post poliomyelitis syndrome are less likely to use a problem-focused strategy, such as accepting responsibility, and are more likely to use an avoidance strategy to distance themselves from challenges. Ahlström and Sjoden (1996) indicated that the prevalence of low quality of life in people with MD could be partially explained by their tendency to utilize emotion-focused coping when facing stressful problems, a speculation validated by McCabe and De Judicibus (2005).

#### *Acceptance of Disability*

Disability acceptance is an ongoing process which people with disabilities are engaged in throughout their lives. Acceptance of disability has been linked to the individual's perception of disability, and is further shaped by personal beliefs, family support (Alston, McCowan, & Turner, 1994), perceived social attitudes (Li & Moore, 1998), cultural values (Chen, Jo, & Donnell, 2004), and religious orientation and spirituality (Alston et al., 1994). Facing stigma and discrimination, people with less visible disabilities are under tremendous social pressure to "pass" as individuals without disabilities. People with disabilities whose recoveries do not proceed in accordance with the clinically hypothesized stages are often labeled as pathological or deviant (Vash & Crewe, 2004). Olkin (1999) criticizes the adjustment theories espoused by psychologists and rehabilitation professionals for failing to evaluate the progress within the sociocultural milieu of their clients with disabilities.

Martz, Livneh, and Turpin (2000) surveyed individuals with disabilities to determine whether differences in disability acceptance existed between individuals with internal and external loci of control. They found better adjustment to disabilities among those with an internal locus of control than among those with an external locus of control. Hahn (1988) is another opponent of the prevalent belief that acceptance of disability is achieved solely through an internal process. He argues that while the internal locus of control might play an important role in motivating an individual to overcome the challenges accompanied by a disability, rehabilitation professionals sometimes fail to see how a combination of functional limitations and social attitudes could stall the reconfiguration process of a new self-concept.

#### *Religious Coping and Spiritual Well-Being*

In recent years researchers have used religion and spirituality to better understand mental and physical health in the rehabilitation population (Powell, Shahabi, & Thoresen, 2003). Ellison (1983) suggests that spiritual well-being has both a religious component and a psychosocial component. In other words, there is a sense of comfort in connecting with God as well as an experiential understanding of life purpose and life satisfaction. In a study of 120 college students, personal spirituality was correlated positively to satisfaction with life (Fabricatore, Handal, & Fenzel,

2000). Therefore, finding a sense of life's meaning can enable one to alleviate the shame often firmly internalized by people with disabilities.

Pargament (1997) provides several theoretical approaches to explicating the role of faith in relation to coping behavior. The process of coping with a negative life event normally begins by mobilizing an orientation system to appraise a circumstance-specific meaning. This orientation system, comprising religious beliefs and practices, serves as a useful resource for people in distress to counter stressful situations. A person with an acute spinal cord injury may at the onset ask what the unanticipated accident means to himself or herself. Whether the incident is interpreted as a threat or an opportunity for personal growth depends on the individual's existential schema. In the next step of the coping process, the individual prays to God to be restored to his or her premorbid health. Pargament posits that people deploy problem-focused coping when an adverse situation is deemed to be changeable, and emotion-focused coping when it is not modifiable. A sense of the situation's significance and a composite of values, beliefs, and feelings determine which coping mechanism is to activate. A person with a disability may have difficulty explaining why one is *selected* to become the victim of tragedy while another is not. The coping function of religion may allow some people who are facing a difficult situation not only to make sense of it but also to regulate emotion in order to facilitate successful coping and adjustment.

No consensus on whether God is merciful or cruel will ever be reached among the Jewish survivors of the Auschwitz concentration camps or the victims of the Indian Ocean tsunamis. Nevertheless, spirituality as a coping method is frequently employed by people with disabilities and chronic illness to help them look toward a brighter future. Catastrophizing events can either draw people closer to religion or cause them to move away from it. In a study of religious coping by 213 cancer patients, although the researchers failed to correlate physical functioning to religious involvement, they pointed out that those who questioned their God and faith appeared to be more psychologically distressed (Sherman, Simonton, Latif, Spohn, & Tricot, 2005). In an attempt to test the hypothesis that strong religious and spiritual beliefs are positively correlated with perceptions of subjective well-being, Daaleman and VandeCreek (2000) conducted a study of the dying experience in terminally ill patients. Their findings support the notion that patients who are apt at constructing an existential meaning for life usually have a proclivity to incorporate the concept of a loving God in their schema.

#### *Hope*

The role of hopeful thinking is a cognitive construct frequently used by researchers to examine ways of coping with health-related medical conditions, for example burn injuries (Barnum, Snyder, Rapoff, Mani, & Thompson, 1998), spinal cord injuries (Elliott, Witty, Herrick, & Hoffman, 1991), cancer (Irving, Snyder, & Crowson, 1998), and visual impairment (Jackson, Taylor, Palmatier, Elliot, & Elliot, 1998). The central element of hope is the positive expectancy of reaching goals that are deemed achievable to the individuals (Snyder, Lehman,

Kluck, & Monsson, 2006). In other words, hopeful thinking requires the perceived ability to envision feasible ways to accomplish predetermined objectives, and is sustained by will power.

The question of whether optimism in the disability population might lead to the development of faulty expectancies for full restoration to the premorbid state has drawn interest from researchers. De Ridder, Fournier, and Bensing (2004) investigated whether 105 optimistic people with chronic illness overestimated their health status by minimizing health problems in symptom reports. The results suggested that a biased perception of the participants' own health status did not exist, and that the positive views actually encouraged consistent self-care behaviors.

#### *Employment Status*

It is well documented that the income levels of individuals with disabilities in both the United States and overseas are below those of the general population (Australian Bureau of Statistics, 2007; Singapore Department of Statistics, 2006; Thai National Statistical Office, 2006; U. S. Census Bureau, 2007). In proportion to the severity of the disability, there are unfavorable impacts on the employment outcomes of people with disabilities (Hill, Tiersky, Scavalla, Laviertes, & Natelson, 1999). In a longitudinal study of individuals with chronic fatigue syndrome, Tiersky and her colleagues (2001) found that 68% of the patients still remained unemployed due to functional disability four years after the initial diagnosis.

The emotional impact of unemployment is a significant psychological stressor in people with disabilities. The connection between unemployment and psychological distress has been evidenced by several studies (Fifield, Reinsine, & Grady, 1991; McCabe & De Judicibus, 2005). People with disabilities who are involuntarily unemployed are especially prone to exhibit depressive symptoms. Worries about loss of income affect an individual's self-concept as well as his or her place in the world. In addition to dealing with the disability, economic pressures subject persons with disabilities to an increased risk of mental anguish. In fact, financial strain has been shown to account for about 30% of the impact of unemployment on depression in people with physical disabilities (Turner & Turner, 2004). Another similar research study corroborated the effects of economic disadvantage on psychological well-being and quality of life among people with MS (McCabe & De Judicibus). Furthermore, the hidden bias in the hiring process of people with disabilities further makes entry into the labor market even more challenging, even for the most optimistic job seekers (Loo, 2001).

#### *Purpose of the Study*

The purpose of the present study was to explore the extent that demographic and background variables, psychological variables, and spiritual well-being predict life satisfaction in people with progressive disabilities. The research question addressed in this study was: Which demographic and background characteristics (i.e., age, sex, marital status, educational attainment, type of disability, employment status, and duration of knowledge of disability) and psychological variables (i.e., subjective well-being,

hope, and acceptance of disability) are predictive of life satisfaction among people with progressive disabilities?

## Methodology

#### *Participants*

For the scope of the present study, prospective participants included individuals with neuromuscular (muscular dystrophy or amyotrophic lateral sclerosis) and neurological (multiple sclerosis) disabilities who were at least 18 years of age. Of the 228 participants who took part in the present study, 175 (76.8%) chose the online option to submit their responses. The remainder used paper-and-pencil packets and 53 of the 64 prospective participants who telephoned to request the packets returned them (a response rate of 82.8%). Calculation of the online participants' response rate was not possible because the website provider did not keep track of the number of hits it received. Moreover, the "consent to participate" page was programmed to deter unsuitable prospective participants. Visitors to the website would exit automatically from the online survey if they did not click the "yes" button on the consent form. Ten participants were removed from the data file due to missing data, leaving a final sample size of 218.

#### *Instruments*

*Spiritual Well-Being Scale* (SWBS: Paloutzian & Ellison, 1991). The SWBS is a self-report instrument designed to assess the subjective quality of life. It is comprised of two 10-item subscales, the Religious Well-Being (RWB) and the Existential Well-Being (EWB) scales, to gauge the construct of spiritual well-being. Each item uses a 6-point Likert-type scale ranging from 6 = *strongly agree* to 1 = *strongly disagree* to indicate the extent of agreement. Stronger agreement represents a higher level of well-being. The RWB (odd numbered items) and the EWB (even numbered items) subscale scores measure well-being expressed in relation to God and to the notion of life satisfaction and life purpose respectively. Negatively worded items are reverse scored. The total possible score for the SWBS ranges from 20 to 120. A high score indicates high spiritual well-being. The Cronbach's alpha for the SWBS in the present study was .93.

*Acceptance of Disability Scale-Revised* (ADS-R: Groomes & Linkowski, 2007). The ADS-R is a 32-item self-reporting measure of adjustment to disability among people with disabilities. Each statement is rated on a 4-point Likert-type scale ranging from 1 = *strongly disagree* to 4 = *strongly agree*. Possible scores on the ADS-R range from 32 to 128. A low score reflects a low level of acceptance of the disability. The ADS-R was adapted and modified from the original 50-item Acceptance of Disability (AD) Scale, constructed by Linkowski (1971). The Cronbach's alpha for the ADS-R in the present study was .93.

*Satisfaction With Life Scale* (SWLS: Diener, Emmons, Larsen, & Griffin, 1985). The SWLS is a 5-item self-reporting positive emotion scale that requires participants to indicate how intensely they are experiencing global life satisfaction. Each item of the instrument is measured on a 7-point Likert-type scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. Adding up all the items derives the total score, which ranges from a low satisfaction of 5 to a high satisfaction of 35. The SWLS is in the pub-

lic domain and not copyrighted. The Cronbach's alpha for the SWLS in the present study was .85.

*Hope Scale (HS):* Snyder et al., 1991). The HS is a 12-item self-referent multidimensional cognitive appraisal designed to reflect the relative level of hope pertaining to goal-related activities. Among the 12 items on the questionnaire, four items assess pathways, four items gauge agency, and four items serve as a distracter to make the intent of the survey less apparent. The distracter items are not used for scoring. The individual completing the instrument rates each response on a 4-point Likert-type scale ranging from 1 = *definitely false* to 4 = *definitely true*. Adding the eight items, with a possible range from 8 to 32, derives the total score. Higher scores on the HS correspond with greater hope. The Cronbach's alpha for the HS in the present study was .83.

#### Procedure

To recruit prospective research participants, the researchers submitted a short feature article indicating the importance and benefits of participation in the proposed study to the newsletters and magazines of the National Multiple Sclerosis Society (NMSS) and the Muscular Dystrophy Association (MDA). An advertisement was also placed in the aforementioned organizations' printed and electronic media.

Once approval was obtained to contact their members, pre-research invitation cards were mailed to individuals on mailing lists provided by the collaborators. Invitation cards returned by the postal service as undeliverable were eliminated from the mailing list. This step was deemed necessary so that the actual surveys could be launched two weeks later. The contents of the survey packet included an explanatory letter, the measurement instruments, a demographic questionnaire, a consent form, and a pre-paid self-addressed envelope. Brief instructions were printed on top of the first page of every instrument to guide participants through the surveys. All survey packets were coded so that information generated from the questionnaires could not be traced to individual participants. To ensure participants' anonymity and confidentiality, names and other pieces of identifying information were not collected.

An electronic alternative to the traditional paper format was also available to people with visual impairments and to those who had access to the Internet. SurveyMonkey.com, an external commercial online survey provider, was used to collect the data. Prospective participants would find the URL link for the surveys in either the advertisement or the introductory letter. A follow-up reminder/thank you card was sent to each participant during the eighth week as a final attempt to improve the response rate. Participants were also encouraged to refer the study to other people with similar disabilities. The amount of time for overall data collection was estimated to be approximately four months. As an added incentive, the first 100 participants received a five dollar check.

#### Data Analysis

Both descriptive and inferential statistical techniques were employed. Initially, descriptive statistics were provided for all

study variables. These included means and standard deviations for all continuous variables (i.e., age, duration of knowledge of disability, acceptance of disability, and life satisfaction), and frequencies and percentages for all categorical variables (i.e., sex, marital status, educational attainment, race, type of disability, and employment status). All inferential analyses were two-tailed using an alpha level of .05. A multiple regression analysis was conducted to examine the research question of the study. The eight demographic and background variables, as well as hope, spiritual well-being, and acceptance of disability were entered as predictor variables. Type of disability was coded as 0 = neuromuscular and 1 = disability, while sex was coded as 0 = male and 1 = female. For the nominal variables with more than two categories (i.e., marital status, level of education, and employment status), a set of dichotomies was constructed and entered as predictors. For marital status, the married respondents were selected as the reference category, and dummy variables were created for never married individuals and, given the relatively low frequency of divorced and widowed individuals, they were combined into one group as the second dichotomy. For level of education, the group with less than a high school education was selected as the reference category, and dummy variables were created for the other levels of education. For employment status, the unemployed group was selected as the reference category and dummy variables were created for each other employment status group.

## Results

Table 1 shows descriptive statistics for the categorical variables. Of the 218 participants, there were 73 males (33.5%) and 145 females (66.5%). Slightly over half of the participants were married (50.9%), with 32.1% never having been married, and the remainder were either divorced (14.7%) or widowed (2.3%). The most common level of educational attainment was a bachelor's degree (35.3%), followed by high school (30.7%), a graduate degree (18.8%), an associate degree (14.2%), and less than high school (0.9%). Over two-thirds of the sample had neuromuscular diseases (67.9%) compared to 32.1% with neurological diseases. The most common employment group was retired persons (23.9%), followed by employed full-time (20.6%), unemployed (18.8%), student (11.5%), homemaker (9.6%), self-employed (8.3%), and employed part-time (7.3%). Descriptive statistics for the continuous variables are shown in Table 2. The age of the participants ranged from 18 to 84 with a mean of 46.43 ( $SD = 13.22$ ). Years since diagnosis had a range from .50 year to 59 years ( $M = 18.30$ ,  $SD = 14.19$ ). The reliability coefficients (Cronbach's  $\alpha$ ) for the four composite scales ranged from .83 to .93.

The results of the regression analysis are shown in Table 3. Overall, the regression model was statistically significant,  $F(18, 199) = 10.64$ ,  $p < .0005$ ,  $R^2 = .49$ , Adjusted  $R^2 = .44$ . The best predictor of life satisfaction (judged by the standardized regression coefficients) was the level of acceptance of disability ( $\beta = .35$ ,  $p < .0005$ ). The positive regression coefficient indicated that a larger degree of acceptance of the disability was associated with more life satisfaction. The next best predictor was the hope scale ( $\beta = .22$ ,  $p = .002$ ). The positive regression coefficient indicated that higher levels of hope were associated with higher levels of

life satisfaction. Spiritual well-being ( $\beta = .16, p = .005$ ) was also a statistically significant predictor, indicating that those with higher levels of spiritual well-being tended to have higher levels of life satisfaction.

### Discussion

The current study was an attempt to provide an empirical demonstration of the predictors of life satisfaction in people with neuromuscular and neurological diseases by investigating the relationships between life satisfaction and (a) demographic and background variables; (b) psychological variables (hope and acceptance of disability); and (c) spiritual well-being. Based on the regression analysis, the best predictors of life satisfaction were acceptance of disability and hope. The next best predictor was spiritual well-being, with the demographic and background variables of age, sex, marital status, and employment status also predicting a significant proportion of the variance in life satisfaction.

According to the present study, life satisfaction is influenced by marital status. Respondents who had never been married or who were separated or divorced indicated lower satisfaction with life, as compared to the married individuals. For many people with disabilities, singlehood is not a purposely chosen status. Desolation, isolation, and a general lack of social support can engender feelings of loneliness. One of the benefits that marriage can bring is emotional support. Those who have never married are less likely than married or divorced individuals to have a confidant, as the frequency of interpersonal interactions in the social realm decreases substantially in later adulthood (Barrett, 1999).

Contrary to expectations that men with disabilities have a better quality of life than women (Riedinger et al., 2001), this study implies that women with disabilities are happier than men. The rise of the human rights movement in recent decades, particularly for women, individuals from ethnic and minority groups, and persons with disabilities, has changed the landscape of the power structure in American society. Perhaps women are more satisfied than men with the progress made in education, careers, intimate relationships and social status.

The length of time since the onset of the disability has been found to correlate positively with life satisfaction in individuals with "stable" disabilities such as spinal cord injury (Crewe, 2000), but this was not statistically significant in the current study. The lack of statistical significance for this variable could be due, in part, to the inclusion of acceptance of disability as a variable in the regression model. In this sample, time since disability and acceptance of the disability were significantly correlated ( $r = .18, p = .008$ ), and this

overlapping variance may have contributed to the lack of statistical significance for the time since disability.

The findings of this study indicate that participants with high hope enjoy high life satisfaction. Earlier research has documented similar results among people with spinal cord injuries (Elliott et al., 1991). Hope symbolizes "the light at the end of the tunnel" to many individuals who have been scarred physically and emotionally following the occurrence of a disability. The positive effects

**Table 1**

*Descriptive Statistics for Categorical Variables (N = 218)*

Variable	Frequency	Percentage
<b>Sex</b>		
Male	73	33.5
Female	145	66.5
<b>Marital status</b>		
Never married	70	32.1
Married	111	50.9
Divorced	32	14.7
Widowed	5	2.3
<b>Educational attainment</b>		
Less than high school	2	0.8
High school	67	30.
Associate degree	31	14.2
degree	77	35.3
Graduate degree	41	18.8
<b>Type of disability</b>		
Neuromuscular diseases	148	67.9
Neurological diseases	70	32.1
<b>Employment status</b>		
Employed full-time (40 hrs)	45	20.6
Employed part-time (less than 40 hrs)	16	7.3
Self-employed	18	8.3
Retired	52	23.9
Homemaker	21	9.6
Student	25	11.5
Unemployed	41	18.8

**Table 2**

*Descriptive Statistics for Continuous Variables (N = 218)*

Variable	Minimum	Maximum	M	SD	
Age	18	84	46.43	13.22	-
Years since diagnosis	.50	59	18.30	14.19	-
Acceptance of disability	10	127	100.75	16.51	.93
Hope	13	32	25.72	3.67	.83
Spiritual well-being	26	108	79.33	19.02	.93
Life satisfaction	6	35	21.56	7.54	.85

of spiritual well-being on the level of life satisfaction exemplified by research participants in the current study further reinforces that the contemplation of priorities in life is indeed a cognitively learned process.

Improving rehabilitation counselors' understanding of the progressive nature of neuromuscular and neurological diseases has important implications for writing short- and long-term vocational rehabilitation plans. In circumstances in which uncertainty is likely to impede positive vocational outcomes, rehabilitation counselors need to be able to foresee the challenges their clients might face in three, five, and ten years time. Advocating employment rights for people with disabilities and educating prospective and current employers on compliance with the Americans with Disabilities Act (ADA), as well as provision for job accommoda-

tions, will be key in keeping people with progressive disabilities in the workforce.

Spiritual practice and/or organized religion often provide psychological relief to those who are experiencing internal mental anguish. Given the importance of spiritual well-being in predicting life satisfaction in the current study, the spiritual needs of people with disabilities are squarely within the realm of rehabilitation counselors' duties. Buddhism, Islam, Hinduism, and Eastern Orthodox Christianity have flourished in recent years as more non-European immigrants settle in the United States. Because White Christians comprise the majority of rehabilitation practitioners (Kundu, Dutta, & Walker, 1997), there is an urgent need for them to grasp different religions' interpretations of the meanings of disability, suffering, and eternal life. This could be accomplished by conducting surveys in the communities that subscribe to non-Judeo-Christian beliefs, or by interviewing non-Judeo-Christian religious and spiritual leaders at places of worship.

Learned helplessness (a lack of hope) contributes to low self-esteem and lack of assertiveness, and is prevalent in such oppressed groups of people as domestic violence victims and persons with disabilities, who tend to perceive themselves as powerless. Such a psychological impasse usually stems from the belief that their efforts to take command of life events will be ineffective. Successful job placement and rehabilitation service outcomes lie largely in rehabilitation clients' preparedness in relation to vocational skills, as well as their mental readiness to work. Rehabilitation counselors can play a vital role in helping persons with disabilities transcend feelings of hopelessness and uncertainty in the face of adversity.

#### *Directions for Future Research*

Psychologists and social scientists have presented an array of suppositions in an attempt to unlock the myths prevalent in human cognitive adaptation and psychological defense mechanisms in unfamiliar intimidating situations. Although the call for secularism in governmental and judicial affairs has gained support in an increasingly diverse American society, it would nevertheless be of great benefit for rehabilitation researchers to identify and differentiate the coping strategies utilized by religious and nonreligious people with disabilities. With only 49 participants in the present study self-identifying as atheists and agnostics, the number of religious individuals is large and service providers should not ignore this unique subgroup of the rehabilitation population.

To enhance the generalizability of the findings, this study could be replicated with other types of disability groups to corroborate how rehabilitation clients' disposition to future time orientation might exert influence on their preference between short- and long-term vocational plans. People with disabilities' perceived uncertainty about the unpredictable progression of their disability

**Table 3**

*Regression Analysis (N = 218) on Life Satisfaction*

	<i>B</i>	<i>SE<sub>B</sub></i>	$\beta$	<i>t</i>	<i>p</i>
Constant	-9.16	3.49		-2.63	.009
Age	-.08	.04	-.14	-2.06	.041
Sex	2.02	.92	.13	2.21	.028
Marital status					
Never married	-2.37	.99	-.15	-2.40	.017
Other marital status	-3.07	1.15	-.15	-2.67	.008
Educational attainment					
Associate degree	.33	1.25	.02	.27	.790
Bachelor's degree	-.15	.99	-.01	-.15	.880
Graduate degree	-.72	1.17	-.04	-.61	.541
Type of disability	-.84	.95	-.05	-.88	.377
Employment status					
Employed full-time	2.10	1.29	.11	1.63	.105
Employed part-time	2.25	1.72	.08	1.31	.193
Self-employed	3.16	1.68	.12	1.88	.061
Homemaker	1.28	1.59	.05	.80	.422
Student	.51	1.56	.02	.33	.741
Retired	2.74	1.30	.15	2.11	.036
Years since diagnosis	.02	.03	.04	.68	.499
Hope	.44	.14	.22	3.07	.002
Spiritual well-being	.07	.02	.16	2.81	.005
Acceptance of disability	.16	.03	.35	5.04	< .0005
$F(18, 199) = 10.64, p < .0005, R^2 = .49, \text{Adjusted } R^2 = .44.$					

may instill in them a strong urgency to accomplish personal and vocational goals at a relatively fast rate compared to people without progressive disabilities. It is therefore highly recommended that a future direction for research should concentrate on seeking additional factors that contribute to the lessening of death anxiety and better mental preparation for the ever-deteriorating physical functioning.

One crucial topic for future empirical studies on life satisfaction is the development of a structural model to evaluate the theoretical assumptions of self-acceptance of disability and spiritual well-being. Due to the present study's small sample, its statistical analyses were limited to a series of multiple regressions. In general, effective structural equation modeling (SEM) requires a sample of at least 300. According to Klein (1998), SEM provides a far more rigorous alternative to multiple regressions when testing the overall fit of a proposed model to the data, as it simultaneously inspects many relationships among interdependent variables. Of course, the SEM approach requires a larger sample size than was available in the current study in order to be able to draw reasonable conclusions.

Health, in both physical and mental forms, affects the quality of life in persons with disabilities, as well as their ability to search and maintain gainful employment. The emergence of positive psychology offers rehabilitation researchers an exciting new arena in which to examine health outcomes and human strength and virtue. Further understanding is needed of this body of knowledge, particularly in terms of how living with uncertainty and unpredictability can moderate adjustment to disability. More importantly, future studies must emphasize the importance of promoting personal well-being by highlighting the gradual shift in focus from a decrease in pathology to an increase in untapped potential and potency.

### Limitations of the Study

Several caveats must be considered when interpreting the present study's findings. The prevalence numbers for individuals with muscular dystrophy and multiple sclerosis in the U.S. are estimated at approximately 200,000 (Siegel, 1999) and 350,000 (Brandes & Willmott, 2002), respectively. Admittedly, it would be imprudent to conclude that the responses of the 228 participants, a tiny fraction of this population, reflect those of the majority who were not polled in the current study. Almost 90% of the respondents claimed to be of European American descent; therefore, the sample population's homogeneity may limit the ability to generalize the results to ethnic minority members with progressive disabilities.

To avoid inundating prospective study participants with too many survey items, proven standardized instruments were not used to measure either the constructs of the perceived levels of physical functioning or the importance of religion. Rather, estimations were derived from their self-reports of subjective perceptions. Another possible shortcoming that might invalidate the generalization of the results is the under-representation of Buddhists and Muslims in the datasets.

### Conclusion

Understanding the predictors of life satisfaction among people with progressive disabilities is of paramount importance, and this was the motivation for the current study. The results indicated that the psychological variables of hope and acceptance of the disability, as well as spiritual well being, were the best predictors of life satisfaction, and that the demographic and background variables were less powerful predictors. Thus, clinicians, rehabilitation counselors, and social workers cannot merely look at the demographic profile of a person with a disability and assume that they understand the person's level of satisfaction and happiness. Deeper, internal constructs are key to understanding and increasing life satisfaction among people with disabilities.

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