

## Associations between Spirituality and Psychological Quality of Life in People Living With HIV/AIDS

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Medical advances have led to the extension of life for many people living with HIV/AIDS (PLH). As a result, Quality of Life (QOL) issues have moved to the forefront of HIV care. This study examined the relationship between spirituality (Ironson-Woods Spirituality/Religiosity Scale; Ironson, 2002) and psychological QOL (MOS-HIV; Wu, 1999). Psychological QOL is a concept which most people have an intuitive understanding of, but which continues to be difficult to define. For the purpose of this study, psychological QOL is a multi-dimensional concept that incorporates cognitive functioning, health distress, mental health, social functioning, and energy/fatigue (all scales from the MOS-HIV). We hypothesized that PLH who report higher levels of spirituality would report higher levels of psychological QOL along the five dimensions listed.

For this study, we recruited participants (N= 245, 48% female; 52.7% African Americans; 31.8% European American; 11% Latino; and 4.5% other ethnicity) from community AIDS service organizations in a major southern U.S. urban location. Our sample was sexually diverse with 29.8% of participants reporting being gay, 15.9% bisexual, and 54.3% straight. Average age was 42 (range=20 to 68). The majority of our sample was below the poverty level with 69.8% reporting household incomes of less than \$10,000.

Five exploratory hierarchical multiple regression analyses were conducted to evaluate factors associated with the total variance in the five psychological QOL dimensions: cognitive functioning, health distress, mental health, social functioning, and energy/fatigue QOL. Spirituality and symptom load were significant predictors in each of these models.

In our first model, spirituality significantly positively predicted cognitive functioning ( $t=2.29$ ,  $p<.05$ ), whereas symptom load ( $t=-8.12$ ,  $p<.001$ ) was negatively associated with our outcome variable. Additionally, HIV medication usage ( $t=2.09$ ,  $p<.05$ ) was positively associated with cognitive functioning. These variables accounted for a significant amount of variance in cognitive functioning (Adjusted R Square=.22,  $F(9,235)=8.84$ ,  $p<.001$ ).

Spirituality was also a significant positive predictor of less health distress ( $t=1.99$ ,  $p<.05$ ). Additionally, one medical factor, symptom load ( $t=-8.76$ ,  $p<.001$ ) was inversely associated with this outcome variable. These variables accounted for a significant amount of variance in health distress (Adjusted R Square=.27,  $F(9,235)=9.79$ ,  $p<.001$ ).

Spirituality was also a significant positive predictor of mental health ( $t=4.05$ ,  $p<.001$ ). Once again, symptom load ( $t=-8.47$ ,  $p<.001$ ) was inversely associated with the outcome variable. These variables accounted for a significant amount of variance in mental health (Adjusted R Square=.27,  $F(8,230)=11.08$ ,  $p<.001$ ).

In our fourth model, spirituality was again a significant positive predictor of social functioning ( $t=2.92$ ,  $p<.01$ ), but only one demographic factor, being European-American, was significantly positively associated with social functioning ( $t=2.57$ ,  $p<.05$ ). Again, symptom load proved to be significantly negatively associated with social functioning ( $t=-8.308$ ,  $p<.001$ ). These variables accounted for 28% of the variance in social functioning (Adjusted R Square=.28,  $F(9, 235)=9.97$ ,  $p<.001$ ).

And finally, our fifth model found spirituality to be a significant positive predictor of less energy/fatigue ( $t=2.60$ ,  $p<.01$ ). In this model, two variables were significantly negatively associated with the outcome variable, being European-American ( $t=-2.50$ ,  $p<.05$ ) and symptom load ( $t=-8.791$ ,  $p<.001$ ). Together, these variables accounted for 26% of the variance in energy/fatigue (Adjusted R Square=.26,  $F(9,235)=10.58$ ,  $p<.001$ ).

Belief in a higher purpose enables people who are terminally ill to find some benefit in negative life experiences (Lazarus & Folkman, 1984). According to Lazarus and Folkman, the presence of psychological and physical stakes cause beliefs to become infused with emotion so that positive value or meaning can be created in circumstances that may otherwise be overwhelming. These findings suggest that some PLH use spiritual beliefs to interpret the meaning of or perhaps appraise illness in such way that it has a strong positive association with higher levels of psychological QOL.

The integration of mind, body, and spirit in healthy individuals leads to homeostasis or a balanced, healthy life. For PLH, spirituality coupled in an integral manner with psychological well-being may enhance overall QOL. Clinicians need to be aware that spirituality is strongly associated with psychological QOL and that spirituality, when appropriate, must be addressed during treatment. Furthermore, if the spiritual nature of a patient is not recognized, the clinician may inadvertently do a disservice to the patient.

A limitation of our study is its cross-sectional correlational design, which prohibits us from drawing causal inferences. Therefore, future research must examine these relationships in larger, more diverse samples using longitudinal designs to determine the directionality of causality. Findings from this study on spirituality in an HIV+ population may lead researchers to investigate the relationship of spirituality and psychological QOL in people suffering from other chronic/terminal diseases.