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Titolo tesi: **The role of spirituality on stroke survivor-caregiver dyads' quality of life**

ABSTRACT

Background. Stroke is an important public health problem, representing one of the main causes of disability and death in industrialized countries and having a great impact on families. The prevalence of stroke ranges between 6.2% and 13.9% in the population over 60 years of age. In the whole population, the incidence is reportedly 141.3 cases per 100,00 inhabitants in males and 94.6 cases per 100,00 inhabitants in females. Stroke has a significant impact on stroke survivor-caregivers dyads' quality of life (QOL). Depressive symptomatology is an important comorbidity, which requires careful management for stroke survivors and care partners because of its severe impact on the QOL. However, although several recent studies have highlighted that higher depressive symptomatology in stroke survivors and care partners are associated with both stroke survivors' and care partners' lower QOL, no studies have identified potential moderators of this association in stroke dyads.

Some studies have shown that spirituality plays an important role in the enhancement of stroke survivors' and their caregivers' quality of life. Because spirituality is associated with patient and caregiver outcomes, a valid and reliable measure of spirituality is important. It had not previously been tested in stroke survivors and their caregivers. Although several studies have analyzed the effects of spirituality on stroke survivors' physical functioning and own caregiver's outcomes, such as a quality of life, few studies have explored the interaction between spirituality and anxiety and depression using a dyadic approach.

Objective. The objective of this doctoral program was (1) to evaluate the validity and reliability of the WHOQOL-SRPB for stroke survivors and their caregivers, (2) to evaluate the moderating role of spirituality on the association between depressive symptomatology and QOL in stroke survivor-care partner

dyads, (3) to analyze the influence of spirituality in the stroke survivor-caregiver dyads and specifically on anxiety and depression in both parties.

Methods. A cross sectional and longitudinal design was used in this dissertation program,. A total of 414 stroke survivors and 244 caregivers completed the WHOQOL-SRPB. The stroke survivors and their caregivers were enrolled at 10 rehabilitation hospital . The WHOQOL-SRPB factorial structure was assessed with confirmatory factor analysis (CFA), criterion-related validity was evaluated with the WHOQOL-BREF, and internal consistency reliability was assessed with Cronbach's alpha and ordinal alpha. (study 1). Longitudinal design with 223 stroke survivor-care partner dyads enrolled at survivor discharge from rehabilitation hospitals. Data collection was performed over 12 months. We measured survivors' and care partners' depression, quality of life, and spirituality. Examining the moderating role of spirituality on the association between depressive symptoms and QOL within survivor-care partner dyads, we used a traditional Actor-Partner-Interdependence Model and a basic Actor-Partner-Interdependence Model moderation model for a mixed variable (study 2). 217 stroke survivor-caregiver dyads were enrolled at discharge from several rehabilitation hospital in central and southern Italy. The actor –partner interdependence model was used to analyze the dyadic data. To verify the differences between survivors and caregivers, comparisons were made between the χ^2 values of the model in which actor and partner effects were constrained to be equal.(3). They were conducted three separate studies to correspond with each doctoral objective.

Results. In the first study the hypothesized eight-factor structure was supported by CFA. In both the stroke survivor and caregiver version, the model showed excellent fit indices. The factor loadings for the final models were strong: 0.78 – 0.98 for stroke survivors and caregivers ($p < 0.001$). The criterion-related validity for the WHOQOL-SRPB showed weak to moderate correlations with all of the WHOQOL-BREF dimensions. Ordinal alpha and Cronbach's both showed values above 0.70. In the second study, survivors (51% male) and care partners (66% female) were 70.7 and 52.3 years old, respectively. The survivor's spirituality significantly moderated the association between care partner

depressive symptomatology and survivor psychological QOL ($B=0.03$, $P<0.05$) and moderated the association between care partner depressive symptoms and care partner physical ($B=0.05$, $P<0.001$) and psychological ($B=0.04$, $P<0.001$) QOL. The care partner's own level of spirituality was significantly positively associated with their physical QOL ($B=0.28$, $P<0.001$). In the third study, four statistically significant actor effects were identified. Higher survivors' and caregivers' spirituality was associated with higher survivors and caregiver anxiety. The only significant partner effect that was identified was the association between stroke survivor spirituality and caregiver depression.

Conclusion. This doctoral program has shown the WHOQOL-SRPB scale is a valid and reliable instrument for measuring spirituality in stroke survivors and caregivers. Because spirituality is important for stroke survivors and caregivers, The WHOQOL-SRPB scale is recommended as an important tool in clinical practice and research. Spirituality appears to play an important protective role in both stroke survivors' and caregivers' depression, but not in anxiety. Moreover the role of spirituality in relation to QOL in medical-health contexts and the importance of examining such concepts within a dyadic framework. Greater awareness of the importance of spirituality among clinicians and nurses may improve cultural competence in healthcare services.

Key Words. Stroke, patient, caregiver, psychometrics, reliability, validity, WHOQOL-SRPB, depression; anxiety; quality of life; spirituality; dyads; APIM.