Predicting perceived health in Angolan elderly: The moderator effect of being oldest old

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ABSTRACT

The objective of this study was to test the predicting effects of variables measuring social support, dependence/active perceptions, and generativity, on this facet of well-being when controlled for socio-demographic variables (age, gender, marital status, and institutionalization). The research tries to extend previous literature by assessing them in a multivariate context, studying differential effects of these variables in young old and oldest old, and offering evidence of the scarcely studied population of Angola. The sample was formed by 737 young old and 266 oldest old. It was built a hierarchical regression, in which, among the different predictors, interactions effects between age and the psychosocial factors were included. Results provide evidence of the qualitative different perceived health and well-being of the young old and oldest old. When predicting perceived health of the Angolan oldest old, psychosocial factors lose much of its importance, and age itself and the limitations that accompanied it seem to be the key point.

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1. Introduction

Well-being is a complex construct concerning optimal experience and functioning (Deci & Ryan, 2008; Ryan & Deci, 2001), and so, a potential indicator of psychological adaptation and successful aging (Baltes & Baltes, 1990; Gow, Pattie, Whiteman, Whalley, & Deary, 2007; Rowe & Kahn, 1987). Thereby, a large amount of research has been accumulated in the last decades in the area of subjective well-being and its components (Diener, 1984; Diener, Oishi, & Lucas, 2003; Pavot & Diener, 1993; Pethtel & Chen, 2010). Well-being determinants provide an estimation of elderly social policies effectiveness, like welfare programs and success of medical treatments, and thus they should be identified so that to be promoted as people grow older (Rowe & Kahn, 1987).

Perceived health is defined as an indicator of general health and well-being (Idler & Benyamini, 1997), which is in line with the approach that emphasizes the importance of the individual's subjective experience of life in the definition of well-being (Diener, Suh, Lucas, & Smith, 1999). Moreover, it is one of the most widely used measures in gerontology (Sargent-Cox, Anstey, & Luszcz, 2008). In this context, perceived health is of particular interest in

the study of old age well-being (Enkvist, Ekström, & Elmstahl, 2012; Prieto-Flores, Moreno-Jiménez, Fernandez-Mayoralas, Rojo-Perez, & Forjaz, 2012), not only because of its paper as a sign of well-being, but also because its role as a predictor of survival (Leinonen, Heikkinen, & Jylha, 2001). Thereby, many studies have attempted to describe which factors predict perceived health in the elderly (Kirk-Sanchez, 2003; Nygren et al., 2005).

In several papers, social networks and social support have been shown to benefit health outcomes (Bishop, Martin, & Poon, 2006; Brown, Nesse, Vinokur, & Smith, 2003; Enkvist et al., 2012; Fiori & Denckla, 2012; Fratiglioni, Wang, Ericsson, Maytan, & Winbald, 2000; Fried et al., 2004; Gow et al., 2007; Okabayashi, Liang, Krause, Akiyama, & Sugisawa, 2004; Stephens, Alpass, Towers, & Stevenson, 2011; Thanakwang & Soonthorndhada, 2011; Thanakwang, 2009; Theurer & Wister, 2010; Zunzunegui et al., 2004). For example, Brown et al. (2003) built a logistic regression model in which receiving social support had a significant effect on mortality prediction in elderly, with an odd ratio of 1.3. Bishop et al. (2006) studied how social support affected impairment, tested with measures of illness, medication, and overall health. Social support was found to have a significant negative direct effect on impairment ($\beta = -0.22$). Recent studies also offer evidence for the importance of social support when valuating health states (Frick, Irving, & Rehm, 2012; Stephens et al., 2011; Thanakwang & Soonthorndhada, 2011).

Another component in aging literature usually related to health is individual's activity, the functional status or the ability to

autonomously perform activities (Yümin, Simsek, Sertel, Öztürk, & Yümin, 2011). Generally, researchers on aging and activity have highlighted the importance of understanding self-efficacy beliefs, so that they are linked to perceived diminishment or maintenance of quality of life (Fry, 2001), and positive effects of activity have been found on the well-being of the elderly (Everard, Lach, Fisher, & Baum, 2000; Garatachea et al., 2009; Salguero, Martínez-García, Molinero, & Márquez, 2011). For example, Everard et al. (2000) found, in a hierarchical regression model, significant effects of instrumental, social, and leisure activities on physical health, with β coefficients between 0.19 and 0.30. Meléndez, Tomás, Oliver, and Navarro (2009) also found indirect evidence of the effects of active aging on life satisfaction, through the effects of such constructs as environmental mastery or level of autonomy.

Generativity, conceived as "primarily the concern in establishing and guiding the next generation" (Erikson, 1963, p. 267), has emerged as a predictor of health in older adults (e.g., Efklides, Kalaitzidou, & Chankin, 2003). Efklides et al. (2003) study found, in a sample of Greek elders, particularly important for perceived health to have good adaptation to old age and generativity toward one's children, quantifying the correlation between generativity and perceived health in relation to others in 0.17, and the relation between generativity and health problems in −0.15.

When discussing perceived health predictors for the elderly, it has to be borne in mind the unavoidable development of physical disabilities with advancing age. In all countries the elderly segment of the older generation, or *oldest old*, is growing faster than its younger segments (Gwozdz & Sousa-Poza, 2010) and, thus, it has become an issue of great scope, accumulating a large amount of research in recent years (Baltes & Smith, 2003; Gwozdz & Sousa-Poza, 2010; Walker, 2005). This literature recognizes that the oldest old are different from their younger counterpart in functional status, health problems, and the degree of assistance they require (Menec & Chipperfield, 1997). So that, in the aging context age is expected to mediate or moderate the effects of the predictors of perceived health and, thus, is a factor that must be taken into account when studying these determinants. The comprehension of the age variations in predictors of perceived health is important because they may suggest different interventions to promote the overall health status of individuals from different age groups (Shooshtari, Menec, & Tate, 2007).

As it has been exposed, a great deal of research has been done on predictors of perceived health. However, no studies, as far as we know, have studied these effects differentially for young old and oldest old in a multivariate context. Thus, this research aims to test the predicting effects of variables measuring social support, dependence/activity perceptions, and generativity, on this facet of well-being when controlled for socio-demographic variables (age, gender, marital status, and institutionalization), extending previous literature by assessing them in a multivariate context, studying differential effects of these variables in young old and oldest old, and offering evidence of the scarcely studied population, the Angolan elderly.

2. Method

2.1. Design, participants and procedure

The research design is a cross-sectional survey. Participants were elderly people living in Luanda (Angola). The research had permission from the Ministry of Social Welfare of Angola. The participants were recruited with support from National Government, religious institutions and NGO's. The participants lived in nursing homes or community dwelling, either on their own or with their families. Participants completed a survey, including different scales of aging processes. When elderly's age and/or cultural level made self-completion difficult, trained interviewers were used.

A sample of 1003 Angolan elderly was used to conduct this research. In order to facilitate research comparisons, two subsamples will be described. The sample was non-probabilistic, since neither a census of elderly living in Luanda nor a complete list of nursing homes and day-care centers were available. The young-old subsample was formed by 737 participants aged 60–79 ($M = 68.73$, $SD = 5.74$). 66.2% of the sample were women; 52.2% were widows or widowers, 31.6% were singles or divorced, and 16.1% were married. 24.6% of elderly sample lived in home with their family, 5.2% lived alone, and 70.3% lived in nursing home. The oldest old subsample was formed by 266 participants aged 80–90 ($M = 84.83$; $SD = 3.49$). 63.2% of the sample were women; 90.6% were widows or widowers, 7.1% were singles or divorced, and 2.3% were married. Only 2.3% of elderly sample lived with their family, 4.9% lived alone, and 92.9% lived in nursing home.

2.2. Instruments

In addition to socio-demographic variables, several scales were used to measure psychological constructs related to the aging process. The scales were translated into Portuguese applying the standard back-translation procedure. They are presented below:

1. Perceived Health Scale (Fernández-Ballesteros, Zamarrón, & Ruiz, 2001). This scale assesses elderly's perception of health, and is composed of five Likert-type items, such as "*In the last twelve months, your health has been…*", scoring from 1 (*bad*) to 3 (*good*). It has shown high internal consistency and a one-factor structure, with an alpha coefficient was 0.77.
2. Emotional Support Scale (Shaw, Krause, Chatters, Connell, & Ingersoll-Dayton, 2004). Four items asking participants about the emotional support received from their friends form the scale. Example items are "*How much do your friends really care about you?*", "*How much can you open up to them if you need to talk about your worries?*" The internal consistency, alpha, in this sample was 0.84.
3. A two-items indicator of perceived adequacy of social relationships. It was adapted from the Aging Perception Scale (deGracia, Garre, & Marcó, 1999). The indicators were "*I have a good relationship with my closest relatives*" and "*I think the relationship with my friends is good*", and both were measured from (1) *totally disagree*, to (7) *totally agree*. Alpha in this sample was 0.72.
4. Two components adapted from the scale developed to measure goal priority by Lang and Carstensen (2002): (a) Generativity, that has been included as a three-point Likert scale with five items such as "*It is my priority to give my knowledge/experience on to others*"; and (b) Social Acceptance, also with three response points and five items, such us "*It is my priority to have good friends who accept me the way I am*" or "*It is my priority not to feel lonely*". The alpha coefficients were 0.88 in both cases.
5. Two subscales of the Care-Receiver Efficacy Scale (Cox, Green, Seo, Inaba, & Quillen, 2006): (a) The perception of dependence scale, with five indicators such as "*I feel like my freedom has been taken away*" or "*I hate to ask for help*"; and (b) performance-related quality of life, with items like "*I can still do a number of things that I enjoyed all of my life*" or "*I am able to contribute to my community*". The items were scored on a three-point scale, and had adequate reliabilities ($\alpha = 0.91$ and $\alpha = 0.92$, respectively).

2.3. Analyses

The analysis plan consisted on a hierarchical multiple regression (or blockwise selection) to determine which independent