Personality and Individual Differences 109 (2017) 23–27

Contents lists available at ScienceDirect

Personality and Individual Differences

journal homepage: www.elsevier.com/locate/paid

# Discriminant validity of hedonic, social, and psychological well-being in two Italian samples

Mohsen Joshanloo [a,*], Vincenza Capone [b], Giovanna Petrillo [b], Daniela Caso [b]

[a] Department of Psychology, Keimyung University, Daegu, South Korea
[b] Department of Humanities, University of Naples "Federico II", Italy, via Porta di Massa 1, 80133 Naples, Italy

ARTICLE INFO

*Article history:*
Received 14 September 2016
Received in revised form 12 December 2016
Accepted 19 December 2016
Available online 28 December 2016

*Keywords:*
Tripartite model of well-being
MHC-SF
Discriminant validity
ESEM
Eudaimonic
Hedonic

ABSTRACT

Two large Italian samples ($N_1 = 2248$ and $N_2 = 1439$) were used to investigate the factor structure and discriminant validity of 3 dimensions of the tripartite model of mental well-being, i.e., hedonic, social, and psychological well-being. The Mental Health Continuum-Short Form (MHC-SF) was used to measure the well-being dimensions. The data were analyzed using both Confirmatory Factor Analysis (CFA) and Exploratory Structural Equation Modeling (ESEM). The results supported the tripartite model in both samples. In factor analysis, three distinct factors emerged with weak to moderate intercorrelations, indicating a large portion of unshared variance between the factors. The three factors also demonstrated largely different relationships with nine external variables. These results support the factorial and discriminant validity of the dimensions of the tripartite model.



## 1. Introduction

Mental well-being is a multidimensional construct, encompassing private and social as well as hedonic and eudaimonic components (Joshanloo, 2016b; Keyes & Annas, 2009; Ryan & Deci, 2001). Hedonic (also called subjective) well-being involves the presence of life satisfaction and positive emotions, and the absence of dissatisfaction and negative emotions (Kahneman, Diener, & Schwarz, 1999; Ryan & Deci, 2001). In contrast, eudaimonic well-being captures qualities related to optimal functioning (Ryan & Deci, 2001). Developing one's potential and the pursuit of excellence (rather than pleasant feelings) are central themes in philosophical and psychological conceptualizations of eudaimonic well-being (Keyes & Annas, 2009). Psychological and social well-being represent the personal and social aspects of eudaimonia, respectively. Psychological well-being is principally conceptualized based on optimal functioning in one's private life, consisting of strengths such as self-acceptance, purpose in life, and a sense of continued personal growth (Ryff & Singer, 2008). Social well-being captures optimal functioning in one's social life, as a member of various social groups (Keyes, 1998). Social well-being embodies such qualities as having a sense of belonging to one's community, and a sense of worthiness as a member of society.

Hedonic well-being has increasingly gained popularity in public debate and scientific research over recent decades, and researchers show a tendency to ignore the psychological and particularly social aspects of mental well-being in psychological research (Joshanloo, 2014; Richardson, 2012). However, excluding psychosocial functioning when conceptualizing well-being is incompatible with much of psychological theorizing (Ryff & Singer, 2008), as well as with dominant lay understandings of well-being (Delle Fave, Brdar, Freire, Vella-Brodrick, & Wissing, 2011). Therefore, it can be argued that for a full understanding of human well-being, all three components should be considered together, and ignoring every single dimension can lead to incomplete or distorted views of well-being (Keyes, 2002). The tripartite model of mental well-being offers such a comprehensive conceptualization of mental well-being (Joshanloo, 2016b; Keyes, 2002). This model posits that the three distinct yet related components of hedonic, social, and psychological well-being are necessary in conceptualizing and measuring mental well-being. Factor-analytic research has confirmed that the three well-being dimensions emerge as distinct factors across many cultures (e.g., Joshanloo, 2016a; Joshanloo, Bobowik, & Basabe, 2016a).

### 1.1. Criticisms of the model

The correlations between hedonic and psychological well-being has been found to be too high in some Confirmatory Factor Analysis (CFA) studies. This has led some researchers to raise caution about the

* Corresponding author at: Department of Psychology, Keimyung University, 1095 Dalgubeol Boulevard, Dalseo-Gu, Daegu 42601, South Korea.
*E-mail addresses:* mjoshanloo@hotmail.com (M. Joshanloo), vincenza.capone@unina.it (V. Capone), petrillo@unina.it (G. Petrillo), caso@unina.it (D. Caso).

http://dx.doi.org/10.1016/j.paid.2016.12.036
0191-8869/

discriminant validity of the three well-being dimensions (e.g., Disabato, Goodman, Kashdan, Short, & Jarden, 2016; Kim, Lehning, & Sacco, 2016). However, simple structure CFA has recently been criticized for overestimating factor correlations, owing to zero constraints imposed on all cross-loadings (Asparouhov & Muthen, 2009; Brown, 2015). In fact, the assumption of zero cross-loadings has been found to be usually untenable in the real world of psychological data (Marsh, Morin, Parker, & Kaur, 2014). For a more realistic evaluation of psychological measurement models, Exploratory Structural Equation Modeling (ESEM; Asparouhov & Muthen, 2009) has been suggested as an alternative. ESEM is an integration of exploratory and confirmatory factor analyses. To discriminate between factors and make the solution more interpretable, ESEM utilizes rotation rather than constraining cross-loadings. By relaxing these constraints, ESEM usually yields more accurate estimates and superior fit than does CFA (Marsh et al., 2014).

Specification of cross-loadings in a measurement model remarkably affects the magnitude of the factor correlations that are crucial in inferring discriminant validity. In CFA, the constrained cross-loadings cannot assist in calculating model-implied estimates of factor correlation, resulting in the inflation of factor correlations (Brown, 2015). By relaxing these constraints, ESEM avoids this problem and accordingly yields more accurate estimates of factor correlation, which are usually smaller than those obtained in CFA (Asparouhov & Muthen, 2009; Marsh et al., 2014). Not surprisingly, considerably smaller factor correlations have been obtained between the mental well-being dimensions in recent ESEM studies (e.g., Joshanloo, 2016a; Joshanloo et al., 2016a), indicating adequate discriminant validity.

Another criticism of the model has focused on the lack of differential relationships between the three dimensions of the model and external variables. For example, a recent study showed that the well-being factors had rather similar relationships with some variables included in the study (e.g., Disabato et al., 2016). Stronger evidence to support the discriminant validity of the three well-being dimensions has been provided in studies that have used diverse external variables chosen on theoretical grounds (e.g., Huta, 2015). For example, Joshanloo (2016c), using ESEM in a large American sample, found that the three well-being dimensions showed remarkably different relationships with the Big Five personality traits. These studies provide initial evidence in support of the discriminant validity of the well-being dimensions. However, given that ESEM has been only recently used in the field of well-being, and given the scarcity of the available evidence, further research is clearly needed in various cultures.

### 1.2. The present study

The present study used two large Italian samples to investigate the factor structure and discriminant validity of the dimensions of the tripartite model. The tripartite model was measured using the Mental Health Continuum-Short Form (MHC-SF; Keyes, 2006), the shortest and most widely used scale to measure the three well-being dimensions. The scale has shown desirable psychometric qualities in Italy (Petrillo, Capone, Caso, & Keyes, 2015; Petrillo, Caso, & Capone, 2014). Yet, ESEM has never been used in Italy to examine the tripartite model. In addition, no studies have focused on the discriminant validity of the subscales in this culture. We examined the factor structure of the scale using both CFA and ESEM in both of our samples.

The second dataset included a large set of external variables, namely self-esteem, goal commitment, socio-political interest, learned hopelessness, social dysfunction, somatic symptoms, self-efficacy, future orientation, and social participation. These variables cover a wide array of individual differences in behaving, thinking, and feelings, which makes them good candidates for establishing the discriminant validity of the three well-being dimensions. We expected hedonic well-being to demonstrate stronger relationships with self-esteem, learned hopelessness, social dysfunction, and somatic symptoms. Like hedonic well-being that involves a positive affect balance (Kahneman et al., 1999), these variables are all related to affect and mood disorders (e.g., anxiety and depression). Consistent with this prediction, research shows that hedonic well-being and depression are associated even at the genetic level (Okbay et al., 2016). On the other hand, we expected self-esteem, self-efficacy, goal commitment, and future orientation to show stronger relationships with psychological well-being. These variables are associated with self-discipline, impulse control, and delayed gratification, which are all considered to be central themes in various conceptualizations of optimal psychological functioning (e.g., Baumeister, Vohs, Aaker, & Garbinsky, 2013; Coan, 1977). More specifically, whereas hedonic well-being is associated with having pleasurable experiences, eudaimonic well-being may require sustained effortful behavior as well as sacrificing some immediate gratifications in the interest of more long-term goals such as self-development and a meaningful life (Ryff & Singer, 2008). Finally, we expected social participation and socio-political interest to have especially strong relationships with social well-being.

## 2. Methods

### 2.1. Participants

#### 2.1.1. Sample 1

Convenience samples, collected between October 2015 and May 2016 in three distinct research projects, were merged to create a single dataset, including variables of age, gender, and the 14 items of the MHC-SF ($M_{age} = 41.56$, $SD_{age} = 16.15$). Of the 3100 paper-based questionnaires administered in various regions of Italy, 2248 were returned (response rate = 72.5%). Females constituted 67.38% of the sample. Participation was voluntary and anonymous. The surveys included variables related to other research projects that are not relevant to the present study.

#### 2.1.2. Sample 2

This convenience sample consists of 1439 respondents mainly from central and southern Italy ($M_{age} = 47.13$, $SD_{age} = 19.55$). Females constituted 51.5% of the sample. Participation was voluntary and anonymous. This sample has been used by Petrillo et al. (2015) for evaluating the construct validity of the MHC-SF using CFA. In the present study, we used nine of the available scales in the dataset to establish discriminant validity of the three dimensions of the MHC-SF within the framework of ESEM.

### 2.2. Measures

#### 2.2.1. MHC-SF

The Italian version of the MHC-SF (Petrillo et al., 2015) was included in both samples. The scale consists of 14 items to measure hedonic well-being (items 1–3; $\alpha_{\text{sample 1}} = 0.84$; $\alpha_{\text{sample 2}} = 0.75$), social well-being (items 4–8; $\alpha_{\text{sample 1}} = 0.76$; $\alpha_{\text{sample 2}} = 0.70$), and psychological well-being (items 9–14; $\alpha_{\text{sample 1}} = 0.86$; $\alpha_{\text{sample 2}} = 0.81$). Participants reported how much of the time they experienced the 14 symptoms of mental well-being during the past month, from 0 (*none of the time*) to 5 (*all of the time*).

#### 2.2.2. Social participation

The Social Participation List (Cicognani & Pirini, 2007) was used to measure social participation. The 14 items of the scale measure the frequency of involvement in social, recreational, sports, political, religious, and volunteering activities during the past month ($\alpha = 0.86$). The participants indicated their level of involvement in the activities on a 3-point scale (1 = *never*, 2 = *once*, and 3 = *several times*).

#### 2.2.3. Self-esteem

The Italian version of Rosenberg Self-Esteem Scale (Prezza, Trombaccia, & Armento, 1997) was used to measure overall self-esteem