

Dimensions of Social Well-Being in a Motor Manufacturing Organisation in South Africa

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The study examined the psychometric properties of the 15-item version of the Social Well-being Scale (SWBS-15; Keyes, 1998) for a South African sample with diversity in culture. The SWBS-15 and a biographical questionnaire were administered to employees in a motor manufacturing organisation ($N = 203$). The five-factor structure of social well-being obtained previously in Western studies, were not replicated. Instead, we found three factors with acceptable levels of internal consistency emerged through exploratory factor analysis. Significant differences regarding social well-being were obtained between groups that differed in terms of their marital status and job levels. The results suggest that social well-being in South Africa might be operationalized differently than it is currently operationalized in traditional western measurements.

Key Words. *Social Well-Being, Comparisons Between Demographic Groups*

There is currently a growing interest in and call for wellness and well-being by employers (Hillier, Fewell, Cann, & Shephard, 2005). Even economists and politicians are making efforts to find out just how much subjective well-being people are experiencing (Wagner, 2006). In line with this interest, it is the goal of the present study to investigate social well-being as a notable, but largely understudied facet of individuals' health or subjective well-being (Keyes & Shapiro, 2004). Questions remain regarding the structure of social well-being. It is therefore the specific focus of this study to establish whether a Western model and measure of social well-being is applicable in a South African context. *Social well-being in international perspective*. In 1948, the World Health Organisation (WHO) defined health as consisting of physical, mental and social well-being (Basch, 1990, Larson, 1996). Although this definition became the most accepted definition of health worldwide, criticism of the definition was widespread as well. One point of criticism was that the definition was formulated shortly after World War II and the politics of the time therefore demanded that human health be placed in a broader social context. Another point of criticism was that social well-being should not be included in the definition. Although social factors may directly affect health, they may also be seen as external factors and should therefore not be used to define personal health (Ware, Brook, Davies, & Lohr, 1981). Some other criticism stated that it was not certain whether social well-being or social health refers to society as a whole, to factors such as the distribution of economic wealth or whether it refers to individual social health (Larson, 1993).

Despite the criticism regarding the inclusion of social well-being in a definition of health, the RAND Health Insurance experiment in the USA in the late 1970's led researchers to conclude that social well-being may best be combined with mental well-being to form a dimension called psychosocial well-being (Ware et al., 1981). Goldsmith (1972) also noted that an important criterion for a health status index is its ability to correlate with other measures of social well-being. More recently, Keyes (2005) demonstrated through confirmatory factor analyses that emotional, psychological and social well-being constitute separate measures of mental health and that mental health and mental illness also constitute separate, correlated and unipolar dimensions of a complete state of health. It is evident that the link between mental and social health has been established by decades of research (Larson, 1993). It is furthermore noted that to understand optimal functioning and mental health, one should also investigate individuals' social well-being (Larson, 1993; 1996). Consequently, Keyes (1998) noted that what has been missing in the subjective well-being literature, is the recognition that individuals may evaluate the quality of their lives and personal functioning against social criteria. Already in 1897, Durkheim (1951) proposed that potential benefits of social life are social integration, cohesion, sense of belonging and interdependence. These benefits appear to provide a foundation for a global definition of a social dimension of well-being (Keyes, 1998). An inquiry into the nature of well-being should embrace the division of life into public and private tasks. Although the existing models emphasise private features of well-being, individuals remain embedded in social structures and communities, and face countless social tasks and challenges. However, since the WHO definition was first proposed, social well-being has been defined and operationalised in a variety of ways. There appears to be no universal agreement on the meaning or definition of social health, as social well-being is often referred to (Larson, 1993). *Constructs of social well-being*. Keyes (1998) defined social well-being as individuals' self-report of the quality of their relationships with other people, the neighbourhood, and the community. His measure of social well-being reflects individuals' assessments of their experiences in society, but are distinct from existing measures of social well-being that reflect the interpersonal (e.g., social support) and the societal (e.g., poverty, social capital) level of analysis (Keyes & Shapiro, 2004).

Social well-being according to Keyes (1998) consists of several elements that, together, indicate whether and to what degree individuals are functioning well in their social lives. This can be as neighbours, as co-workers, and as citizens (Keyes, 1998). Based on the health model, Keyes (1998) operationalised and validated social well-being as consisting of five dimensions, namely as individuals' perceptions of their integration into society (social integration), of their acceptance of other people (social acceptance), of the coherence of society and social events (social coherence), of a sense of contribution to society (social contribution), and of the potential and growth of society (social actualisation). Social integration is defined as the extent to which individuals feel that they have something in common with others who constitute their social reality, the extent to which they try to cultivate a genuine sense of belonging, and also the degree to which they feel that they belong to their community or society (Keyes, 1998; Keyes & Shapiro, 2004). Social acceptance of others can be seen as the social counterpart to self-acceptance and indicates that people hold

favourable views of human nature, expect others to be capable of kindness and consequently feel comfortable with others. Social contribution is the belief that one is a vital member of society, with something of value to give to the world. It includes the extent to which individuals believe that whatever they do in the world is valued by society and contributes to the common wealth (Keyes, 1998). Social actualization captures ideas of growth and development similar to the themes of self-realisation (Maslow, 1968), eudaimonic happiness (Waterman, 1993) and personal growth (Ryff, 1989). Individuals with a high degree of social actualisation are hopeful about the condition and future of society, they recognise the potential that resides in a collective, and believe that the world can change and improve for people like themselves (Keyes & Shapiro, 2004). Social coherence includes a concern for knowing about the world and constitutes the perception of the quality, organisation and operation of the social world. Social coherence involves appraisals that society is discernable, sensible and predictable (Keyes & Shapiro, 2004) and can be seen as similar to individual coherence as conceptualised by Antonovsky (Keyes, 1998).

After the five dimensions of social well-being had been theoretically substantiated, Keyes (1998) validated the Social Well-being Scale that operationalized these five dimensions. He investigated a 50-item scale and 15-item scale in two separate studies. Ten items per dimension were investigated in Study 1 and 3 items per dimension were investigated in Study 2. Study 1 constituted a random-digit-dialling sample of adults aged 18 or older living in Dane County, Wisconsin ($N = 373$). Study 2 constituted a random-digit-dialling sample of non-institutionalised English-speaking adults aged 25 to 74, living in the 48 contiguous states (USA), whose households included at least one telephone ($N = 3032$). Item analyses and confirmatory factor analyses in both studies corroborated the theoretical model of social well-being (consisting of the five dimensions described above). Both scales correlated with measures of anomie, generativity, perceived social constraints, community involvement and neighbourhood quality. As was also expected, the scales did not correlate with measures of dysphoria, global well-being, physical health and optimism. The five dimensions also yielded relatively high internal consistencies in both studies. For studies 1 and 2 respectively, the following alpha coefficients were obtained: social coherence (0.57; 0.64), social actualization (0.69; 0.64), social integration (0.81; 0.73), social contribution (0.75; 0.66) and social acceptance (0.77; 0.41). Cantarello and Sarrica (2007) used the Social Well-being Scale (SWBS) of Keyes (1998) to investigate how the internet is represented in everyday life and how it is related to social well-being. The SWBS was subjected to exploratory factor analysis. The principal components factor analysis yielded eleven factors with eigenvalues above one. When forcing a five-factor structure followed by varimax rotation, the factors accounted for 45% of the total variance. Relatively high levels of internal consistency was obtained for factors which they interpreted as social integration ($\alpha = 0.75$), social acceptance ($\alpha = 0.75$), social contribution ($\alpha = 0.72$), social actualisation ($\alpha = 0.63$) and social coherence ($\alpha = 0.58$). Cantarello and Sarrica (2007) concluded that, with minor variations, the resultant factor structure matched the one proposed by Keyes (1998).

No studies were found in South Africa that used the SWBS as a measure of social well-being and only a single study was found that conceptualised and operationalised social well-being according to the work of Keyes (1998). In this study social well-being was measured as part of a questionnaire measuring mental health, namely the Mental Health Continuum (MHC) (Keyes, Wissing, Potgieter, Temane, Kruger, & Van Rooy, 2007). Only five items were used to measure social well-being (1 item per dimension). The study yielded a modest level of reliability for the measurement of social well-being ($\alpha = 0.60$). *The influence of biographical characteristics on social well-being*. Social structural aspects constrain or facilitate individuals' ability and opportunity to respond successfully to life's social challenges. Social stratification, specifically educational attainment, and aging are two of these prominent social structural aspects. Educational attainment indirectly determines, through monetary sequelae, the quality of individuals' housing, neighbourhood, as well as the conditions and people encountered daily. As a result, acquisition of education evidently paves the way for successful responses to social challenges of life for the average adult (Keyes, 1998). The relationship between age and social well-being remains somewhat equivocal and inconclusive. Aging includes losses such as personal control, but as adults are able to adapt and age successfully, they also report higher levels of satisfaction with life and some dimensions of psychological well-being (Heidrich & Ryff, 1996). As adults age, they purportedly encounter tasks that force them to choose to adapt through private resignation or public social involvement. The private and the public sides of life are two potential sources of life's challenges, with possibly distinct consequences for judging a well-lived life. Aging and age differences include numerous aspects that are not always consistent. For example, despite the apparent constriction of social positions and activity (Carstensen, 1995) and the decline in physical health with age, research illustrates how adults seem to age successfully through several mechanisms. The ability to age successfully suggests that some facets of social well-being may increase with age. Keyes (1998) therefore decided to investigate a nonlinear relationship between age and social well-being. He found that social well-being is heterogeneous across ages. Four of the dimensions of social well-being increased with age, but social coherence decreased with age. According to Keyes and Shapiro (2004), the most robust predictor of social well-being is occupational status, followed by being male. Keyes (1998) found that gender was a strong predictor of overall social well-being with being male associated more strongly with social well-being than being female. This trend was less consistent when analyzed separately within each dimension of social well-being. There also appears to be a strong interaction effect between occupational status and gender with occupational status being more important to the social well-being of women than of men (Keyes & Shapiro, 2004).

Keyes and Shapiro (2004) described the relationship between marital status and social well-being as inconsistent. What they did find was that currently married adults are more likely than previously or non-married adults to have high levels of social integration. However, non-married adults reported significantly higher levels of social contribution than married individuals. Previously married adults also reported significantly higher levels of social coherence than married adults. In a further study, Keyes (2007) used the five dimensions of social well-being in addition to measurements of emotional and psychological well-being as indicators of mental health. He again found that the level of overall mental health increased as years of education increased. He also found that African Americans (Blacks) have higher levels of overall mental health than non-Hispanic Caucasians (Whites). Regarding gender, it was found that no marked difference existed between males and females regarding their mental health, but that there was an interaction effect between gender and race showing that black men reported higher levels of mental health than black women (Keyes, 2007).

In summary, it has been found that high-status persons, those who were married or never married, and males experienced the highest levels of overall social well-being. At the opposite end, females, those who have been previously married and those who have low occupational status, have the lowest levels of overall social well-being (Keyes & Shapiro, 2004). *Goals of the study.* The first objective of this study was to determine the psychometric properties of the SWBS for a South African sample. The second objective of this study was to investigate the differences in social well-being for various demographic groups in a South African sample.

Method

Participants and Setting

The non-random sample consisted of 203 employees from the marketing, personnel, production, finance and engineering departments in a motor manufacturing organisation in South Africa. The sample represented different ethnic groups and various organisational levels. Four of the 203 questionnaires received had to be discarded, since these were incomplete. The majority of the participants were male (68.8%). The sample consisted of 119 white (59.8%) and 69 black (34.7%) participants, whereas 11 (5.53%) of the participants were Asian or coloured. The ages of the participants varied between 18 and 20 (1.5%); 21 and 30 (34.2%); 31 and 40 (26.1%); 41 and 50 (22.6%) and older than 51 (15.6%). In terms of their marital status, 33.7% were single, 48.7% of the participants were married, whereas 12.1% were divorced and a further 1.5% was widowed. The participants had either 3 or less than 3 years of job tenure (29.6%); 4 to 6 years (19.1%); 7 to 9 years (13.6%); 10 to 12 years of job experience (8.5%) or had been working in the organisation for more than 12 years (28.1%). The participants performed mainly technical or engineering work (35.2%) whereas the rest of the participants performed administrative (14.1%), financial (10.6%), personnel (9%) production (15.6%) or marketing (15.6%) functions. Most of the participants were on a non-managerial level (40.2%), but 8.5% of the participants were students, 17.6% were supervisors, 22.6% were on middle management level and 10.1% were from senior management.

Instruments

The Social Well-being Scale (SWBS; Keyes, 1998) was used to measure social well-being. A biographical questionnaire was used to collect personal data regarding each participant's age, gender, race, marital status, job tenure, nature of work and job level. *Social Well-being Scale (SWBS).* The SWBS measures social well-being as a facet of subjective well-being. Social well-being is regarded as the extent to which individuals see themselves as thriving in their social life. The short 15-item version, measuring five dimensions of social well-being, was used in this study. These dimensions are Social Coherence (e.g., "The world is too complex for me"), Social Integration (e.g., "I don't feel I belong to anything I'd call a community"), Social Contribution (e.g., "My daily activities do not produce anything worthwhile for my community"), Social Actualisation (e.g., "Society has stopped making progress") and Social Acceptance (e.g., "People do not care about other people's problems"). The SWBS requires participants to consider a statement and then to indicate their responses on a seven-point scale ranging from strongly agree to strongly disagree. High Cronbach alpha reliabilities of 0.84 (Keyes, 1998) and 0.81 (Keyes, 2005) for the full scale (33 items) have been obtained. The short 15-item scale has yielded modest to acceptable internal consistency reliabilities of between 0.60 and 0.70 (Keyes, 1998). In South Africa, Keyes et al. (2007) found that the five items measuring social well-being as part of the mental health continuum measurement (MHC-SF) showed an internal consistency of 0.60.

Procedure

The data were collected by the first author in a motor manufacturing organisation. The purpose of the study was explained to participants and assurance of confidentiality was provided. Participants were required to sign a consent form to participate in the study prior to completing the questionnaires. Instructions were given on how to complete the questionnaire. Participants completed the questionnaire either in paper format or electronic format. Electronic questionnaires were sent out and returned via the organisation's internal communication system.

Data Analysis

The statistical analyses were carried out by means of the SPSS program (SPSS Inc, 2003). Negatively worded items of the SWBS-15 were reverse coded before any analyses were conducted. To assess the hypothesised fit of two proposed models, a 1-factor model of overall social well-being and a 5-factor model including the five dimensions as proposed by Keyes (1998), structural equation modelling (SEM) was performed, using the maximum likelihood method. Among the fit indices produced by the AMOS programme (Arbuckle, 1997) is the chi-square (CMIN) statistic, which is the test of absolute fit of the model. Because the chi-square value is sensitive to sample size, additional goodness of fit indices were used, namely chi-square divided by degrees of freedom (CMIN/df), normed fit index (NFI), comparative fit index (CFI) and root mean squared error of approximation (RMSEA). Obtained values of less than 0.90 for the fit indices of NFI and CFI are generally regarded as indicating that the fit of the model is unacceptable (Hoyle, 1995). For CMIN/df it is suggested that values should be

smaller than or equal to 2 (Tabachnik & Fidell, 2001). Browne and Cudeck (1993) suggested that the RMSEA should be 0.05 or less. Due to the poor fit of the models tested in this research, further explorative analyses were conducted. Exploratory factor analysis (Conway & Huffcut, 2003) was used to test the factor structure of the SWBS-15. Before the exploratory factor analysis was conducted, the correlation matrix was screened for items that did not correlate with any other items (or very few) or correlated very highly ($r > 0.9$), as suggested by Field (2005). Multicollinearity was also evaluated. The Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) and Bartlett's test of sphericity were used to evaluate the suitability of factor analysis for this particular sample. KMO values of between 0.7 and 0.8 are good, whereas Bartlett's test of sphericity should be statistically significant. In line with the recommendations of Conway and Huffcut (2003), principal axis factoring was used to extract factors. Eigenvalues greater than 1 and the scree test were used to decide on the retention of factors. Lastly, direct oblimin rotation was carried out. Items with factor loadings larger than 0.30 were retained in the factor structure. Cronbach alpha

coefficients were used to assess the reliability of the factors. One-way ANOVA was used to determine whether the various demographic groups differed with regard to social well-being.

Results

Firstly, attention was paid to construct validity and reliability of the SWBS-15 and secondly, comparisons between scores on the SWBS-15 for the various demographic groups were conducted.

Validity and Reliability of the SWBS-15

Structural equation modelling (SEM) was used to test the factorial models of the SWBS-15. Two models were proposed, namely a one-factor model that measures overall social well-being and a five-factor model that measures the five dimensions of social well-being as proposed by Keyes (1998). In comparing these two models, a class of models was suggested that encompassed both, so as to enable a fair comparison using the change in chi-square value. The single-factor model was viewed to be equivalent to the five-factor model, but with all factors perfectly intercorrelated. The five-factor model was tested with zero correlations between the five factors. Table 1 presents the models and fit statistics. Overall both models were unacceptable, indicating poor fit for both. Due to a lack of theoretical evidence, it was decided not to run any alternative models. Instead, it was decided to revert to exploratory factor analysis (EFA) to further assess the construct validity of the SWBS-15. Before conducting the EFA, diagnostic tests were performed to ascertain whether the intercorrelation matrix contained an adequate number of substantial pairwise correlations to justify conducting the factor analysis. In this regard, items 5, 12 and 15 were removed. The majority of *p-values* for these items were larger than 0.05 and they were therefore removed from further analyses as suggested by Field (2005). The determinant was 0.042 (greater than the required value of 0.00001) indicating that multicollinearity is not a problem for this dataset. The Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) was 0.76 and Bartlett's test of sphericity was statistically significant. These results provided sufficient justification to proceed with the factor analysis. Principal axis factoring was subsequently performed using the intercorrelations between the remaining 12 items as its input. Eigenvalues larger than 1 and the scree test suggested that three factors should be retained, explaining 55.62% of the variance. The resulting factor matrix was rotated to a simple structure using the direct oblimin rotation procedure. The rotated factor matrix and the communalities associated with the scales, is presented in Table 2. The variables were ordered and grouped by size of loading to facilitate interpretation.

The first factor was labelled as Social Predictability and Growth. Items loading on this factor relate to seeing one's social world as being ordered and believing that society is realising potential. Factor 2 was identified as Social Trust. Its items refer to believing in the goodness of society or one's social world and feeling supported. The third factor was labelled Social Value and Belonging, because its items deal with making a contribution to society and one item relating to a feeling of belonging in a community. The intercorrelations between these factors are displayed in Table 3. Factor 1 (Social Predictability and Growth) correlated to a small degree with Factor 2 (Social Trust) and to a moderate degree with Factor 3 (Social Value and Belonging). The latter showed little or no relationship with Factor 2 (Social Trust). These results confirmed that the constructs measured are inter-related to some degree. The means, standard deviations, skewness, kurtosis and Cronbach alpha coefficients of the three social well-being factors and overall social well-being are reported in Table 4. Overall social well-being was calculated by summing all three factors as Keyes and Ryff (1998) did with the original 5-factor model. The skewness and kurtosis of the scales were within an acceptable range. Similarly, the internal consistency reliabilities of the three factors were acceptable, as judged by the recommendation by Keyes (1998). The internal consistency results also compared well with results obtained by Keyes (1998) for the original five factors of social well-being. The means and standard deviations cannot be compared with results of other studies, because the scales are made up of different items.

Social Well-being and Demographic Variables

ANOVA was used to investigate mean differences in overall social well-being between the various demographic groups. For comparisons across age groups, it was found that there were only three participants who were younger than 20 years of age.

Table 1. SWBS-15 Construct Validity

Model	Description	CMIN	df	CMIN/df	NFI	CFI	RMSEA
Model 1	1-factor	383.54	90	4.26	0.48	0.52	0.13
Model 2	5-factor	408.76	89	4.59	0.44	0.48	0.13

Table 2. Rotated Factor Matrix of the SWBS

Item nr	Item statement	Factor			Communalities
		1	2	3	
SWBS14	Society isn't improving for people like me (-)	0.62	0.12	-0.04	0.45
SWBS11	Society has stopped making progress (-)	0.60	0.20	0.15	0.37
SWBS4	I cannot make sense of what's going on in the world (-)	0.45	-0.09	0.05	0.64
SWBS8	The world is too complex for me (-)	0.31	-0.04	0.20	0.21
SWBS3	My community is a source of comfort	-0.02	0.81	0.00	0.26
SWBS2	I believe that people are kind	0.15	0.55	-0.11	0.32
SWBS6	I feel close to other people in my community	-0.10	0.49	0.19	0.18
SWBS1	The world is becoming a better place for everyone	0.42	0.44	-0.21	0.84
SWBS9	I have nothing important to contribute to society (-)	0.16	-0.05	0.85	0.43
SWBS7	I have something valuable to give to the world	-0.04	0.05	0.57	0.55
SWBS10	I don't feel I belong to anything I'd call a community (-)	0.23	0.19	0.48	0.33
SWBS13	My daily activities do not produce anything worthwhile for my community (-)	0.34	-0.08	0.36	0.42

Factor loadings larger than 0.30 are in bold type

Factor labels: F1: Social Predictability and Growth, F2: Social Trust, F3: Social Value and Belonging

Table 3. Factor Correlation Matrix

Factor	Factor 1: Social Predictability and Growth	Factor 2: Social Trust	Factor 3: Social Value and Belonging
Factor 1: Social Predictability and Growth	1.00		
Factor 2: Social Trust	0.26	1.00	
Factor 3: Social Value and Belonging	0.34	0.03	1.00

This group was therefore omitted from the comparison. Similarly, there were only five participants each in the asian and coloured groups and these groups were also omitted when comparisons across race categories were made. The results are presented in Table 5. Statistically significant differences were found in terms of race, marital status and job level. Regarding race it was found that black participants experienced higher levels of social well-being than white participants. A post-hoc test (Scheffe) revealed that in terms of marital status, the only significant difference occurred between being married and single, with single employees scoring higher on social well-being than their married colleagues. In terms of job level, it appeared that students or learners experienced more social well-being than non-managerial employees and supervisors (LSD was used as the post-hoc test). Middle and senior management also experienced significantly higher levels of social well-being than supervisors. Furthermore, senior managers experienced higher levels of social well-being than non-managerial employees. Mean differences were also investigated for the three sub-factors of social well-being. Gender, race and nature of the job yielded no significant differences on any of the three factors. Significant differences were found between various age groups and their levels of Social Value and Belonging ($F(4,192) = 2.80, p = 0.02$). Post-hoc tests revealed that employees older than 50 years of age scored significantly lower than employees between 20 and 30 years. It was also found that single and divorced employees experienced significantly higher levels of Social Predictability and Growth than their married colleagues ($F(3,192) = 2.96, p = 0.03$). Further analysis showed that employees with between 7 and 12 years of experience in the organisation reported lower levels of Social Trust than their colleagues ($F(4,191) = 2.52, p = 0.04$). Significant differences between the various employee levels on Social Predictability and Growth ($F(4,191) = 3.48, p = 0.00$) as well as on Social Value and Belonging ($F(4,192) = 3.41, p = 0.01$) were obtained. It was found that senior and middle management experienced significantly higher levels of Social Predictability and Growth than employees who were supervisors or non-managerial employees. Students or learners and middle management scored significantly higher than non-managerial employees or supervisors in terms of their Social Value and Belonging.

Discussion

The purpose of the study was to determine the psychometric properties of the SWBS-15 for a South African sample and to analyse the mean social well-being levels for various demographic groups in a motor manufacturing organisation. Structural equation modelling based on known theory about the constructs measured by the SWBS-15 failed to confirm the 1-factor or 5-factor models, because both presented with poor fit statistics. Exploratory factor analysis revealed three factors with acceptable internal consistencies, namely Social Predictability and Growth, Social Trust, and Social Value and Belonging. Recent research has shown that not all Western models on interpersonal interaction are applicable to South African samples. For instance, Visser and Du Toit (2004) investigated whether the 32 subscales of an established personality inventory could be reduced to fit a broad factor model within a South African context. They found that the inventory could be meaningfully reduced to six factors, five of which corresponded to the Big Five model of personality. Visser and Du Toit (2004) labelled the sixth factor as Interpersonal Relationship Harmony. It was hypothesised that this factor resembled a Chinese tradition factor, similar to the local concept of *ubuntu*, that stresses relationship harmony and social interaction according to certain implicit rules of interpersonal relationships.

Table 4. Descriptive Statistics and Cronbach Alpha Coefficients of Social Well-being Factors

	N	Mean	Std. Deviation	Skewness	Kurtosis	a
Social Predictability and Growth	196	19.07	4.61	0.09	-0.62	0.62
Social Trust	196	16.95	4.53	-0.28	-0.17	0.69
Social Value and Belonging	197	21.74	4.68	-0.67	-0.28	0.74

Table 5. Analysis of Variance – Overall Social Well-being

Source	<i>F(df)</i>	<i>p</i>	Mean					
Age	<i>F</i> (3,185) = 1.62	0.19	20-30 years	31-40 years	41-50 years	51+ years		
			<i>N</i> = 66	<i>N</i> = 51	<i>N</i> = 41	<i>N</i> = 31		
			59.04	57.66	59.09	54.51		
Gender	<i>F</i> (1,188) = 0.74	0.38	Male	Female				
			<i>N</i> = 130	<i>N</i> = 60				
			58.52	57.15				
Race	<i>F</i> (1,179) = 5.40	0.02*	White	Black				
			<i>N</i> = 116	<i>N</i> = 65				
			56.81	60.47				
Marital Status	<i>F</i> (3,188) = 3.63	0.01*	Single	Married	Divorced	Widowed		
			<i>N</i> = 65	<i>N</i> = 93	<i>N</i> = 24	<i>N</i> = 10		
			61.18	56.13	58.00	54.90		
Job Tenure	<i>F</i> (4,187) = 2.17	0.07	< 3 years	3-6 years	7-9 years	10-12 years	12+ years	
			<i>N</i> = 55	<i>N</i> = 38	<i>N</i> = 27	<i>N</i> = 15	<i>N</i> = 57	
			60.49	58.89	55.37	53.53	57.47	
Nature of job	<i>F</i> (5,186) = 1.36	0.24	Administrative	Financial	Engineering or Technical	Personnel	Production	Marketing
			<i>N</i> = 28	<i>N</i> = 20	<i>N</i> = 68	<i>N</i> = 18	<i>N</i> = 28	<i>N</i> = 30
			57.39	56.75	56.44	59.83	58.17	61.70
Level of employment	<i>F</i> (4,187) = 3.86	0.00*	Student or Learner	Non-managerial Employee	Supervisor or Foreman	Middle Management	Senior Management	
			<i>N</i> = 16	<i>N</i> = 76	<i>N</i> = 33	<i>N</i> = 45	<i>N</i> = 22	
			63.12	56.71	53.96	59.53	61.77	

* $p < 0.05$

Similarly, Khumalo, Wissing and Temane (2006) explored the validity of the Values in Action Inventory of Strengths (VIA-IS) in an African context. The VIA-IS measures six hypothesised value clusters. In this study, second order confirmatory factor and exploratory principal factor analyses yielded three significant emic factors in the African group, namely 1) Wisdom, knowledge and courage, 2) Horizontal and vertical relatedness and 3) Integrity in a group context: temperance and justice. It was concluded that this factor pattern reflects an African collective culture value system. Although this research does not relate directly to research regarding social well-being, it suggests that interpersonal interaction and social relations in South Africa might be operationalised differently than it is currently operationalised in traditional western measurements. No other research in South Africa could be found that investigated social well-being by means of the measure of Keyes (1998) and results of this study suggest that further research and clarification is needed in terms of the factor structure of the Social Well-being Scale. Previous research findings regarding the relationship between age and social well-being have been somewhat equivocal and inconclusive. No significant differences could be found between the overall social well-being of various age groups in this motor manufacturing organization. However, significant differences were found between older (<50) and younger (20-30) employees regarding their level of social value and belonging. This factor is an indication of how much individuals feel that they are contributing something of worth to the community or that their daily activities are valued by their community. It also entails a sense of belonging to a community. It appears that employees older than 50 years do not experience that their daily activities are valued by the organization as much as other employees. They also experience less of a sense of belonging than other employees. The fact that these employees are nearing retirement may have contributed to them feeling of less value to the organization.

This finding corroborates the hypothesis of Keyes (1998) that the relationship between age and social well-being might be more complex and varied across ages. However, his finding that social well-being increases with age, specifically for social contribution and social integration, was contradicted by the findings in this study. Similar to the relationship between age and social well-being, Keyes and Shapiro (2004) described the relationship between marital status and social well-being as being inconsistent. Significant differences were found between married and single employees regarding their overall social well-being in the present research. Contrary to expectations, single employees expressed higher levels of overall social well-being than their married colleagues. Keyes and Shapiro (2004) suggested that single employees might score higher on a specific dimension of social well-being. In the present study, single and divorced employees scored higher than married employees in terms of their social predictability and growth. The findings of this study support those by Keyes and Shapiro (2004) who observed that previously married individuals scored higher in terms of their social coherence (predictability) than their married counterparts. According to Keyes (1998), gender is a strong predictor of overall social well-being. However, in the present study no significant differences between the social well-being of male and female groups were found. Keyes (2007) found a gender gap only among blacks, whereas white males and females demonstrated similar levels of overall mental health (which included a measurement of social well-being). It therefore appears that factors such as race should be controlled when potential gender disparities are being investigated. Keyes and Shapiro (2004) also found a strong interaction effect between occupational status and gender with high occupational status being associated with higher levels of social well-being for females than for males.

No previous results could be found that investigated differences in social well-being between various race groups. However, the results of this study indicated that blacks experienced higher levels of social well-being than whites. These results appear similar to those reported by Keyes (2007), namely that African Americans (Blacks) have higher levels of overall mental health (social, emotional and psychological well-being) than non-Hispanic Caucasians (Whites). Keyes (2007) described this as the paradox of race and health and argued that it requires more research to better understand how blacks are mentally resilient in the face of social inequalities. The claim of Keyes and Shapiro (2004) that occupational status is the most robust predictor of social well-being was corroborated by the findings of this study. Significant differences were found regarding overall social well-being, social predictability and growth as well as social value and belonging. The lowest level (students or learners) and the higher levels (middle and senior managers) experienced more social well-being than the middle to lower levels (supervisors or foremen and non-managerial employees) of the organization, with supervisors experiencing the lowest levels of social well-being. Excluding the student/learner group, social well-being therefore increased with occupational status in this organization (as suggested by literature). This being the first working experience of students or learners, it was to be expected that they would experience high levels growth and feel that they are contributing something of worth to the community. These feelings do however appear to taper off as students or learners progress in the organization, at least until the level of middle management is reached. These findings pose some challenges to the organization in terms of the induction, succession and overall management of employees on the lower levels of the organization in particular. There is currently a growing interest in and call for wellness and well-being efforts by employers (Hillier, Fewell, Cann, & Shephard, 2005). Social well-being is regarded as a notable facet of individuals' well-being. It is therefore recommended that employers take cognisance of and use the findings of this research in their well-being efforts in their organisations. It is recommended that they investigate means of facilitating the successful retirement of their employees and that they investigate their recognition practices for employees older than 50 years of age. It is acknowledged that the 12-item version of the SWBS-15 that was used in the current study, when broken up into three subscales, is too short to achieve stable and accurate measurement results, despite the suggestions of Keyes (1998) regarding adequate internal consistency reliabilities for scales with few items. Further efforts to validate a Social Well-being Scale that contains more items than the present 15 items, are clearly called for.

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