Life satisfaction and internal migration intention in South Africa

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Abstract

This study explored the relationship between satisfaction with life and internal migration intention in South Africa. Data were from three waves of the National Income Dynamics Surveys (NIDS) conducted in 2008, 2010, and 2012. Analyses of data were by descriptive statistics, Pearson Chi square, ordinary least square and binary logistic regressions. The regression coefficient of life satisfaction was 3.29 in 2008, 2.96 in 2010, and 3.10 in 2012. Well-being variables significantly predicted life satisfaction, even as life satisfaction was negatively correlated with intention to migrate. The significant predictor of life satisfaction was race while the intention to migrate was influenced by life satisfaction in 2008 (OR=0.95), 2010 (OR=1.06) and 2012 (OR=0.98). Other predictors of intention to migrate were age, race and educational status. These findings will be relevant in the assessment and evaluation of the efficacy of policy interventions and strategies aimed at improving satisfaction with life in the country.

Keywords: Intention to migrate; life satisfaction; migration; subjective well-being; South Africa

Introduction

Migration usually occur due to real or perceived wealth differentials between areas of origin and destination (Ajaero and Onokala, 2013), and researchers are beginning to interrogate if the intention to migrate is positively or negatively dependent on life satisfaction and subjective well-being (SWB) (MacKerron, 2012; Diener and Chan, 2011). Moreover, national and regional governments across the world have continued to view life satisfaction as a key indicator of individual welfare and societal progress (OECD, 2013; Office for National Statistics, 2013; Helliwell et al., 2013).

Studies show that higher levels of life satisfaction is associated with increases in productivity and income (Oswald et al., 2012; De Neve and Oswald, 2012), good physical health (Diener and Chan, 2011), and improved quality of social capital (Guven, 2011; De Neve et al., 2013). Life satisfaction has also been positively linked with higher subjective income and economic status (Kapteyn et al., 2013; Marum et al., 2014), but negatively associated with poor mental health (Schrank et al., 2014), hopelessness (Haatainen et al., 2004), and mood disorders (Strine et al., 2009). While some scholars see life satisfaction as a cognitive assessment of life as a whole based on the fit between personal goals and achievements (Pavot & Diener, 1993), others view it as both a component and a crucial indicator of quality of life (Moons et al., 2006) and subjective well-being (SWB) (Vaillant, 2003).

Subjective measures of well-being have been extensively validated as reliable measures of individual well-being and quality of life (Polgreen and Simpson, 2011; Diener et al., 2012). In this context, life satisfaction level has been identified as a key holistic indicator of subjective well-being (Linley et al., 2009). The use of life satisfaction as the key variable of subjective well-being have also been justified by literature, since it is widely accepted that life satisfaction is a cognitive and judgmental state, which refers to an assessment of life as a whole (Tsou and Liu 2001; Helliwell and Barrington-Leigh 2010; Mhaolain et al., 2012), and thus, life satisfaction can influence the migration intention of individuals and households (Ajaero and Onokala 2013).

Chindarkar (2012) opines that examination of the relationship between life satisfaction and migration intention provides a more complete understanding of why people move, and as such, are germane in modifying the magnitude and/or direction of migration, especially as regards to improving the life satisfaction of individuals. Even though it is not always guaranteed that migration intentions will be matched with actual migration, De Jong (1999, 2000) theorized that the intentions to move are the primary determinants of actual migration.

Despite the fact that the volume of internal migrants was estimated at 763 million in 2005 (UN-DESA, 2013), which is far greater than the volume of international migrants which increased from 173 million in 2000 to 244 million in 2015 (UN-DESA, 2015), most of the studies on life satisfaction-

migration intention nexus have concentrated on international migration. In addition, these studies on life satisfaction and migration intention have excluded study of African countries, and longitudinal studies of life satisfaction are also generally lacking in Africa.

Many governments across Africa, South Africa inclusive, are working towards achieving the post 2015 development goal 10 which is aimed at the reduction of inequality within and between countries. Subsequently, governments in Africa have been initiating policies aimed at increasing their citizens' levels of satisfaction with life and well-being (Ivlevs, 2014). It is on this note that this study explored the relationship between subjective well-being, life satisfaction, and internal migration intentions in South Africa. Specifically, this study proffers the following hypotheses: (i) positive subjective well-being leads to greater life satisfaction; (ii) low level of life satisfaction is positively associated with migration intention; and (iii) socio-economic variables mediate the relationship between life satisfaction and migration intention.

Literature review and theoretical framework

Life-satisfaction, together with mental and physical health indices is used to assess subjective welfare of people. As such, life satisfaction which has antecedents in the work domain, family domain, and personality traits is used to measure the apparent quality of life within a country, social group or household (Veenhoven, 1984; Veenhoven 1993 a & b). In addition, life satisfaction which involves desire to change one's life; satisfaction with past; satisfaction with future; and significant other's views of one's life (Diener et al., 1999), can also be used to monitor social progress (Easterlin, 1974), and to assess and evaluate the efficacy of policy interventions aimed at improving quality of life of populations and households (Hinrichsen, 1985).

It has been emphasized that life satisfaction is a consequence of individual happiness and subsequently, the study of indicator of life satisfaction has shifted from emphasis on wealth to emphasis on well-being of individuals and households (Clark, et al. 2008; Deaton, 2008; Aknin, and Norton 2009). Studies have also shown that life satisfaction has a positive relationship with perceived health and perceived happiness (Conceica˜o and Bandura, 2008) while mental health appear more strongly associated with SWB than with physical health (Dolan and Metcalfe, 2012). In addition, greater levels of life satisfaction exist among individuals and households who have social contact with friends (Lee, 1988), who participate in leisure activities (Newman et al., 2014), who get involved in voluntary groups (Tkach and Lyubomsky, 2006), and those who have a strong

sense of belonging to a household or community (Prezza et al., 2001).

Furthermore, it has been found that increases in life satisfaction has positive relationship with; increase in age (Baird et al, 2010), people who are very religious (Ellison et al., 1989), and people who live in good neighbourhood (Hou, 2014). Women are more satisfied than men (Borges et al, 1984), married people are also more satisfied with life compared to those who are cohabiting, divorced or widowed (Branch-Allen and Jayachandran 2016). However, while some authors report positive association between socio-economic status and life satisfaction (Headley et al, 2008), others report a negative relationship (Luttmer, 2005). In addition, life satisfaction differentials by ethnicity (Hou, 2014) and location (Kangiuan, 2010) remains debatable and are often explained with the aid of other socio-economic and demographic factors.

Several studies have shown mixed associations between life satisfaction and intention to migrate. For instance, in Mexico, Stark and Taylor (1991) examined the effect of relative deprivation and dissatisfaction with life on migration. Their results indicated that greater relative deprivation and dissatisfaction with life in terms of income is associated with a higher probability of a household allocating its labor time towards migration. De Jong (2000) studied internal migration and life satisfaction using the 1992 and 1994 waves of the Thailand National Migration Survey and showed that there exist gender differences in subjective views of life satisfaction even as the study found that subjective views of life satisfaction based on income, comfort, stimulation, and affiliation are important predictors of intention of populations to migrate.

Studies comparing happiness levels of natives and immigrants in Europe and the United States show that after many years of living in another country, immigrants still report lower happiness levels than the natives (Safi, 2010; Bartram 2011; Bobowik, 2011; Bartram, 2011). In Latin America, Graham and Markowitz (2011) profiled potential immigrants and showed that unhappiness is highly correlated with intention to migrate. Otrashchenko and Popova (2014) also showed that in Central and Eastern Europe, people who are less satisfied are more likely to report intentions to engage in both international and internal migrations. Markowitz (2011) and Chindarkar (2014) posited a negative correlation between subjective well-being and the intention to migrate in Latin America countries. Using the Gallup World Survey data for 116 countries, Cai et al (2014) found a negative association between life satisfaction and intention to engage in international migration. However, Polgreen and Simpson (2011) report that

intention to migrate in relatively unhappy countries decreases as the happiness level of the country increases while the opposite is true for relatively happy countries. Amaike (2014) also examined the importance of education as a predictor of life satisfaction among 1321 Nigerian retirees and found out those higher educational levels leads to better living conditions and a higher level of life satisfaction. An individual's perception of his/her income relative to a reference group remains a crucial subjective well-being indicator and determinant of life satisfaction and migration intention (Stark and Taylor, 1991; Clark et al., 2008; Helliwell and Huang, 2009). Literature also suggests that perceived good physical health is positively associated with life satisfaction and migration intention (MacKerron, 2012; Diener and Chan, 2011)

Emigration intentions have been used as a good predictor of actual future emigration as Böheim and Taylor (2002) showed that in the UK, people who made a decision to move are three times more likely to migrate compared to people who never made the decision to migrate. Also, and Creighton (2013) showed that aspirations to move can be used to predict subsequent moves while Dalen and Henkens (2013) found that one-third of native Dutch residents who had intention to move abroad actually migrated within the five years following the intention to move.

However, most of these studies concentrated on international migration and life satisfaction linkages. There also exists dearth of studies of life satisfaction in Africa despite the quest of the region to achieve the post development goals, especially goal 10 which targets reduction of inequality within and between countries. The need to empirically determine the relationship between subjective well-being, life satisfaction and migration intention in South Africa, therefore necessitated this study.
Theoretically, this study is hinged on the neoclassical theory of migration decision. This theory is based on the assumptions that : (i) one can easily integrate satisfaction with life and subjective well-being into migration decision, (ii) people believe that the attainable levels of life satisfaction after migration are on averagehigher for migrants than for non-migrants. (iii) the level of life satisfaction of an individual in combination with socio-economic characteristics influence migration intention. This Neoclassical model will be used to interrogate the hypotheses which states that positive subjective well-being is associated with higher levels of life satisfaction, and that the lower the level of life satisfaction of an individual, the more likely it is for the individual to have the intention to migrate because of real or perceived well-being differentials between the migration origin and destination. Conversely, it

assumes that the higher the life satisfaction of an individual, the less likely it is for the individual to have the intention to migrate. (Ek et.al., 2008; Polgreen and Simpson, 2011; Ajaero and Onokala, 2013).

The findings will be of relevance in the comprehension of the determinants and consequences of migration on family demography in South Africa, since migration, fertility and mortality are the major drivers of population change at the micro, macro and the meso scales (Ejekwumadu, Madu and Ajaero, 2009). The results will also be relevant in the measurement of satisfaction with life among individual or households in South Africa, and will also be useful in the assessment and evaluation of the efficacy of policy interventions aimed at improving the satisfaction with life in the country.

Data and methods
Data source
The data used for the study were the three waves of the longitudinal National Income Dynamics Survey (NIDS) project conducted in South Africa in 2008, 2010, and 2012. The NIDS project was conceived to provide empirical evidence of the dynamic nature of households as well as the changes in the living conditions of these household members across South Africa. Wave 1 of the NIDS survey took place in 2008 and provided the baseline sample on the well-being of 28,226 sample members in 7,296 households in all the provinces in South Africa. The next wave was held in 2010 and successful interviews were obtained for a total of 28,551 household residents in 6,787 households. The most recent wave, Wave 3, took place in 2012 and interviewed a total of 32,633 household residents in 8,040 households nationwide. These datasets were weighted to adjust for differences in sampling probabilities before the analysis.

Dependent and independent variables
The study had two dependent variables for types of regression analysis. The first type of regression analysis was the ordinary least square regression (OLS) which was used to estimate the predictors of life satisfaction and it has an ordinal variable of life satisfaction (1-very dissatisfied,....10-very satisfied) as the dependent variable regression analysis was the binary logistic regression which was used to estimate the predictors of migration intention, and it has the intention to migrate internally within the country which had two categories (yes-1 or no-0) as the dependent variable. However, the life satisfaction variables was also used as an explanatory variable in the binary logistic regression model, as a predictor of intention to migrate.

The justification for using life satisfaction as an indicator of general subjective well-being variable of subjective well-being is because as earlier noted; life satisfaction has been identified as a key holistic indicator of subjective well-being (Linley et al., 2009; Erdogan et al., 2012).

Subjective well-being independent variables used for both the OLS and binary logistic models were subjective income classification in comparison to other households within a vicinity at the time of each survey (below average, average, above average), self-rated physical health at the time of each survey (1-excellent/good health or 0-fair/poor health), and present happiness level compared to the happiness level ten years prior to each survey (happier, the same, less happy). The control socio-economic variables were gender, age groups, marital status, education, and race.

Data analysis

Descriptive statistics were used to highlight the subjective well-being variables for the three waves of the NIDS while the Pearson Chi square test were used to in carrying out bivariate analysis of migration intention and demographic variables. For each of the waves of NIDS, two OLS models A and B were fitted. Model A contained only the subjective well-being variables of subjective income classification, self-rated health, and happiness levels as the predictor variables of life satisfaction. In Model B, the socio-economic variables were added to the contents of model A as the independent variables.

To assess the effects of life satisfaction, subjective well-being and socio-economic variables on migration intention, binary logistic models were fitted for each of the three waves of NIDS. In the logistic models, life satisfaction was also used as an independent variable together with the independent variables. The logistic model has three categories A, B, and C, Model A was the model of life satisfaction as the only predictor of migration intention while model B contained the addition of subjective income classification, happiness level, and self-rated health to the contents of model A. Finally in model C, life satisfaction, subjective well-being, and socio-economic variables were used as the independent variables. Stata SE version 12.0 was used for all the analysis at 95% confidence level.

Results

Highlight of subjective well-being variables

The trends in subjective well-being variables from wave 1 to wave 3 of the NIDS are shown in Table 1. Majority of the respondents in the three waves of the survey ranging from 54.54% in 2008 to 47.62% in both 2010 and 2012 stated that they earned below average income compared to other households in their vicinity. Conversely, more of the respondents felt happier with their lives than they were ten years preceding each of the surveys. While 49.67% felt happier in 2012, 42.01% were happier in 2008. In terms of perception of their physical health status, more than half of the respondents in the three waves of the survey were of the view that they had good health   status.

Table 1: Descriptive statistics of well-being variables (%)

Well-being variables	Wave 1 (2008)	Wave 2 (2010)	Wave 3 (2012)
Subjective income classification			
Below average	54.84	47.62	47.62
Average	37.49	36.01	36.01
Above average	7.65	16.37	16.37
Total	*100.00*	*100.00*	*100.00*
Happiness level			
Less happy	25.26	17.71	17.53
The same	32.73	39.11	32.80
Happier	42.01	43.17	49.67
Total	*100.00*	*100.00*	*100.00*
Self-rated health			
Poor	20.17	10.35	12.11
Fair	24.28	19.69	28.61
Good	55.56	68.96	59.29
Total	*100.00*	*100.00*	*100.00*

The bivariate results showed significant variations in the migration intention of the different socio-economic groups across the three waves of the

survey with the exception of the gender group. For instance, in 2008, 58.93% of females intended to migrate as against 41.07% of males and in 2012,

57.51% of females intended to migrate as against 42.49% of males.

Majority of the Blacks intended to migrate in the three waves ranging from 90.63% in 2010 to 80.59% in 2012. In terms of education, more than half of respondents who intended to migrate comprising of 65.93% in 2008, 61.70% in 2010 and 62.42% in 2012 had secondary education.

Table 2: Bivariate results of intention to migrate and soico-economic variables.

Variables	2008 Freq (%)	2008 Chi-sq	2010 Freq (%)	2010 Chi-sq	2012 Freq (%)	2012 Chi-sq
Gender		1.04		5.57*		5.55*
Male	428 (41.07)		468 (45.22)		882 (42.49)	
Female	614 (58.93)		567 (54.78)		1194 (57.51)	
Education		148.9*		47.4*		106.8*
None	59 (5.66)		87 (8.41)		163 (7.86)	
Primary	183 (17.56)		175 (16.92)		322 (15.53)	
Secondary	687 (65.93)		638 (61.70)		1294(62.42)	
Tertiary	113(10.84)		134 (12.96)		294 (14.18)	
Age group		266.6*		146.4*		291.8*
15-24 years	324 (31.09)		349 (33.75)		794 (38.25)	
25-34 years	362 (34.74)		331 (32.01)		571 (27.50)	
35-44 years	197 (18.91)		146 (14.12)		309 (14.88)	
45-54 years	86 (8.25)		104 (10.06)		193 (9.30)	
55-64 years	47 (4.51)		65 (6.29)		108 (5.20)	
65+ years	26 (2.50)		39 (3.77)		101 (4.87)	
Income Classification		53.38*		89.70*		81.82*
Below average	678(65.07)		607 (58.65)		1227(59.10)	
Average	302 (28.98)		349 (33.72)		702 (33.02)	
Above average	65 (5.95)		79 (7.63)		147 (7.08)	
Race		16.6*		44.9*		24.4*
Black	855 (82.05)		938 (90.63)		1673(80.59)	
Coloured	139 (13.34)		77 (7.44)		349 (16.81)	
Asian/Indians	26 (2.50)		6 (0.58)		15 (0.72)	
White	22 (2.11)		14 (1.35)		39 (1.88)	
Marital status		176.7*		89.9*		138.9*
Never married	756 (74.26)		750 (72.46)		1394 (67.21)	
Married	135 (13.26)		170 (16.43)		413 (19.91)	
Living with partner	110 (10.81)		64 (6.18)		155 (7.47)	
Div/wid/sep.	17 (1.67)		51 (4.93)		112 (5.40)	

* Significant at 0.05 level of confidence

Predictors of life satisfaction and intention to migrate

Generally, most of the well-being and socio-economic variables were significantly associated with increase in life satisfaction (Table 3). In the three waves of the survey, the coefficients showed that increases in happiness status translated to increases in general life satisfaction.

Table 3: OLS of predictors of life satisfaction

Independent variables	2008 A	2008B	2010A	2010B	2012A	2012B
Model intercept	3.41*	3.29	3.29*	2.96*	3.42*	3.10*
Happiness status: Less happy	1.00	1.00	1.00	1.00	1.00	1.00
The same	1.02*	0.94*	0.43*	0.40*	0.70*	0.70*
Happier	2.19*	2.01*	1.52*	1.34*	1.65*	1.49*
Income class: Below average	1.00	1.00	1.00	1.00	1.00	1.00
Average	1.03*	0.85*	0.88*	0.71*	1.07*	0.89*
Above average	1.79*	1.61*	-0.39*	-0.38*	0.23*	0.06
Self-rated health: Poor	1.00	1.00	1.00	1.00	1.00	1.00
Fair	-0.01	0.03	-0.12	-0.08	-0.08	0.05
Good	0.14*	0.03	0.48*	0.51*	0.23*	0.30*
Gender: male		1.00		1.00		1.00
Female		-0.12*		0.06		-0.01
Education: None		1.00		1.00		1.00
Primary		0.36*		-0.01		0.03
Secondary		0.54*		0.21*		0.07
Tertiary		0.87*		0.51*		0.35
Age group: 15-24 years		1.00		1.00		1.00
25-34 years		-0.24*		0.04		-0.18*
35-44 years		-0.23*		0.13		-0.15*
45-54 years		-0.09		0.08		-0.01
55-64 years		-0.19		0.41*		0.08
65+ years		0.11		0.40*		0.29*
Race: Black		1.00		1.00		1.00
Coloured		1.19*		1.42*		1.37*
Asian/Indians		1.03*		2.70*		2.06*
White		1.15*		2.13*		1.68*
Marital status: never married		1.00		1.00		1.00
Married		-0.02		-0.02		0.17*
Living with partner		0.01		-0.22*		0.06
Widowed/separated		0.11		-0.15		0.04

* *Significant at 0.05 level of confidence*

For instance, Model A shows that each unit increase in the happiness status of happier respondents is associated with 2.19 unit increase in their life satisfaction in 2008 while in 2012, each unit increase in happiness level of the respondents with the same happiness status resulted in 0.70 unit increase in their life satisfaction. With the addition of socio-economic variables in model B, increases in happiness levels still translate to increases in life satisfaction but with lower coefficients. Generally, the coefficients of all the subjective well-being variables were lower in model B compared to model A. Furthermore, females were associated with reduction in their life satisfaction in 2008 (r=-0.12) and in 2012 (r=0.01)

but in 2010, they were associated with a slight increase in life satisfaction with a coefficient of 0.06.

The logistic regression results in model A showed that respondents who had the intention to migrate in 2012 (OR=0.95) and in 2008 (OR=0.93) were significantly less likely to be very satisfied with life but in 2010 respondents who had the intention to migrate were insignificantly but more likely to be very satisfied with life (OR=1.02) (Table 4). With the addition of subjective well-being variables in model B, respondents with the intention to migrate were still significantly less likely to be satisfied with life in 2012 (OR=0.98) and 2008 (OR=0.97) but significantly more likely to be very satisfied with life in 2010

(OR=1.06). However it can be seen that the odds ratios slightly increased for life satisfaction in model B compared to model A.

Other specific variables in model C that increased the likelihood of respondents having the intention to migrate in 2008 included education, being a female, and respondents who reported fair physical health status. In 2010, the variables that increased the likelihood of respondents intending to migrate included being aged 25-34 years and having post-primary education. Finally, in 2012 the variables which increased the likelihood of migration intention were having tertiary education, being Colored, being married, and living with a partner.

Table 4: Logistic regression of predictors of migration intention

Variables	2008A	2008B	2008C	2010A	2010B	2010C	2012A	2012B	2012C
Model intercept	0.25*	0.18*	0.42*	0.09*	0.11*	0.23*	0.19*	0.05*	0.14*
Life satisfaction	0.93*	0.97*	0.95*	1.02	1.04*	1.06*	0.95*	0.98	0.98*
Happiness status									
Less happy		1.00	1.00		1.00	1.00		1.00	1.00
The same		0.63*	0.61*		0.73*	0.74*		0.77*	0.75*
Happier		0.72*	0.66*		0.61*	0.62*		0.62*	0.56*
Income class									
Below average		1.00	1.00		1.00	1.00		1.00	1.00
Average		0.63*	0.55*		0.73*	0.70*		0.73*	0.67*
Above average		0.64*	0.58*		0.35*	0.34*		0.63*	0.59*
Self-rated health									
Poor		1.00	1.00		1.00	1.00		1.00	1.00
Fair		1.84*	1.05		1.02	0.73*		1.26*	0.85
Good		2.11*	0.85		1.52*	0.85		1.34*	0.71*
Gender									
Male			1.00			1.00			1.00
Female			1.02			0.92			0.96
Education									
None			1.00			1.00			1.00
Primary			1.17			0.90			0.74*
Secondary			1.62*			1.07			0.98
Tertiary			3.64*			1.64*			1.43
Age group									
15-24 years			1.00			1.00			1.00
25-34 years			0.88			1.15			0.91
35-44 years			0.71*			0.76*			0.60*
45-54 years			0.39*			0.64*			0.34*
55-64 years			0.26*			0.50*			0.27*
65+ years			0.16*			0.32			0.28*
Race									
Black			1.00			1.00			1.00
Colored			1.20			0.49*			1.58*
Asian/Indian			3.56*			0.48			0.91
White			0.89			0.54*			0.85
Marital status									
Never married			1.00			1.00			1.00
Married			0.80			0.91			1.12

Living with partner	1.37*	0.98	1.10
Widowed/separated	0.44*	0.79	0.84

* Significant at 0.05 level of confidence

Discussion and conclusion

According to Dalen and Henkens (2013), the intention to migrate can effectively be used to predict actual migration activities. Subsequently, the results of this study showed significant differences in the intention of the various socio-economic groups to migrate with the exception of the gender group. While some of the findings support existing literature on selectivity of migration, others contradict existing literature on the selectivity of migration. For instance, in all the three waves of the NIDS, more younger people, secondary school leavers, and the never-married respondents indicated their intention to migrate. These results support findings by Ajaero and Onokala (2013) which showed that migration is selective of the young, the unmarried and the averagely educated people. However, in this study females had more intention to migrate and this contradicts the results of most migration literature which show that males migrate more than females.

The results of the OLS with life satisfaction as the dependent variable showed that the subjective well-being measures are good predictors of life satisfaction. For instance, happier respondents, respondents with above average income and those with good self-rated physical health indicated more satisfaction with life. These results validates findings by Clark et al (2008), Polgreen and Simpson (2011), Diener et al (2012),and MacKerron, (2012) which posit that the better the subjective well-being variables, the more satisfied individuals are with their life. Some exception to the fact that subjective well-being lead to greater satisfaction were however found for people with above average income classification, and with fair self-rated health in 2010.

This may be due to the fact that the country hosted the 2010 World cup and this made it possible for people with below average income classification and with lesser quality of self-rated health to be satisfied with life since they enjoyed the international glamour and thrills that accompanied the world cup.

The trend of results in the OLS was also observed in the logistic regression results for 2010 which further lends credence to the fact that the hosting of the world cup may have served as a catalyst for making disadvantaged respondents to be more satisfied with their life. However, the logistic regression results for 2008 and 2012 show that generally, people who are less satisfied with their life and who has lower levels of subjective well-being are more likely to have intention to migrate. This finding validates other findings by Cai et al (2014) and Chindarkar (2014) that posited a negative association between life satisfaction and intention to migrate. Finally, the findings of this study agree with Ivles (2014) that socio-economic factors work in combination with subjective well-being and life satisfaction variables to influence migration intention of individuals and households. In this context, increases in educational attainment increases the likelihood that an individual will have the intention to migrate while increases in age decreases the likelihood of migration intention.

In conclusion, this study has provided empirical evidence on the relationship between subjective well-being, life satisfaction and internal migration intention in South Africa. It has also lent credence to existing theories and literature that life satisfaction is a significant factor of migration intention, especially for the more educated and younger populations. Finally, the findings of this study are germane in development of policies and implementation of strategies aimed at managing and modifying the determinants, magnitude and/or direction and consequences of migration in South Africa. The development of such policies are important since migration has been identified as a key driver of the dynamics of family demography, population changes, and quality of life at the household, community, regional, national and international scales. Finally, the implementation, monitoring and evaluation of such policies based on empirical evidence from this work remains germane in the quest of the country to achieve the post 2015 development goals especially as it pertains to reduction of inequality between households and different locations in the country.

Limitation of the study

The use of interprovincial migration variables since international as well as rural-urban or urban-rural migration characteristics were not in the dataset.

Authors contributions:

References

Ajaero, C.K. and Onokala, P.C. 2013. "The Effects of Rural-Urban Migration on Rural Communities of Southeastern Nigeria". *International Journal of Population Research.* Vol.2013 pp 1-10.

Amaike, B. 2014. Education as a correlate of life satisfaction among formal sector retirees in Lagos State, Nigeria. *African Population Studies* Vol 27, 2: 434-445

Baird, B. M., Lucas, R. E. and Donnellan, M. B. 2010. Life satisfaction across the lifespan: Findings from two nationally representative panel studies. *Social Indicators Research*, 99 (2), 183-203, (2010).

Bartram, D. 2011. "Economic migration and happiness: Comparing immigrants' and natives' happiness gains from income". *Social Indicators Research*, 103(1), 57–76.

Bobowik, M. 2011. "Personal values and well-being among Europeans, Spanish natives and immigrants to Spain: Does the culture matter?" *Journal of Happiness Studies,* 12(3), 401–419.

Böheim, R. and Taylor, M.P. 2002. "Tied down or room to move? Investigating the relationships between housing tenure, employment status and residential mobility in Britain". *Scottish Journal of Political Economy,* 49 (4): 369-392.

Borges, M. A., Levine, J. R., & Dutton, L. J.1984. Men's and women's ratings of life satisfaction by age of respondent and age interval judged. *Sex Roles,* 11: 3-4

Branch-Allen, R and Jayachandran, J. 2016. Determinants of life satisfaction in Canada: A causal modeling approach. *SHS Web of Conferences* **26**, 01073. D OI: 10.1051/ shsconf /20162601073

Cai, R, Esipova, N., Oppenheimer, M. and Feng, S. 2014. "International migration desires related to subjective well-being". *IZA Journal of Migration,* 3:8

Chindarkar, N. 2014. "Is subjective well-being of concern to potential migrants from Latin America?" *Social Indicators Research,* 115(1):159-182.

Clark, A.E.,Frijters, P. and Shields, M. 2008. "Relative income, happiness and utility: an explanation for the Easterlin paradox and other puzzles" *Journal of Economic Literature,* 46(1): 95-144.

Conceica˜o, P & Bandura, R. 2008. "Measuring subjective wellbeing: A summary review of the literature". http://web.undp.org/developmentstudies/doc s/subjective_wellbeing_conceicao_bandu ra.pdf. Accessed 20th April, 2017.

Creighton, M. J. 2013. "The role of aspirations in domestic and international migration". *Social Sciences Journal,* 50(1):79-88.

Dalen, H.P. van, and Henkens, K. 2013. "Explaining Emigration Intentions and Behaviour in the Netherlands, 2005-10," *Population Studies* 67(2): 225-241

De Jong, G. 1999. "Choice Processes in Migration Behavior" In Pandit, K. & Withers S.D. (eds.), *Migration and Restructuring in the United States.* New York, NY: Rowman and Littlefield.

De Jong, G. 2000. "Expectations, gender, and norms in migration decision making". *Population Studies* 54(3), 307 – 319

Devan, J., & Tewari, P. S. 2001. "Brains abroad". *The McKinsey Quarterly Special Edition Emerging Markets,* 4, 51–66.

De Neve, J.-E., Diener, E., Tay, L., and Xuereb, C. 2013. "The Objective Benefits of Subjective Well-Being" In Helliwell, J., Layard, R., & Sachs, J., eds. *World Happiness Report 2013.* New York: UN Sustainable Development Solutions Network.

De Neve, J.-E., and Oswald, A. J. 2012. "Estimating the influence of life satisfaction and positive affect on later income using sibling fixed effects". *PNAS: Proceedings of the National Academy of Sciences* 109(49): 19953-19958.

Diener, E., Inglehart, R., and Tay, L. 2012. "Theory and validity of life satisfaction scales". *Social Indicators Research* 112(3):497-527

Diener, E. and Chan, M.Y. 2011. "Happy people live longer: Subjective well-being contributes to health and longevity". *Applied Psychology: Health and Well-Being* 3(1): 1-43.

Diener, E., Suh, E.H., Lucas, R.E., & Smith, H.L. 1999. Subjective well- being: Three decades of progress .*Psychological Bulletin*, 125, 276-302.

Dolan, P., & Metcalfe, R. 2012. Valuing health: A brief report on subjective well-being versus preferences. *Medical Decision Making,* 32(4): 578–582.

Easterlin, R. A. 1974. "Does economic growth improve the human lot? Some empirical evidence". In: David, P. A. and W. R. Melvin (Eds.) *Nations and Households in economic growth.* New York: Academic press. 89-125.

Ellison, C. G., Gay, D. A., & Glass, T. A.1989. Does religious commitment contribute to individual life satisfaction? *Social Forces,* 68 (1), 100-123.

Ejekwumadu, E.U., Madu, I.A and Ajaero, C.K. 2009. "The effects of migration and fertility on the age-sex structure of Lagos State, Nigeria". *Economia Seria Management.* Vol. 12. No. 2 pp28-38
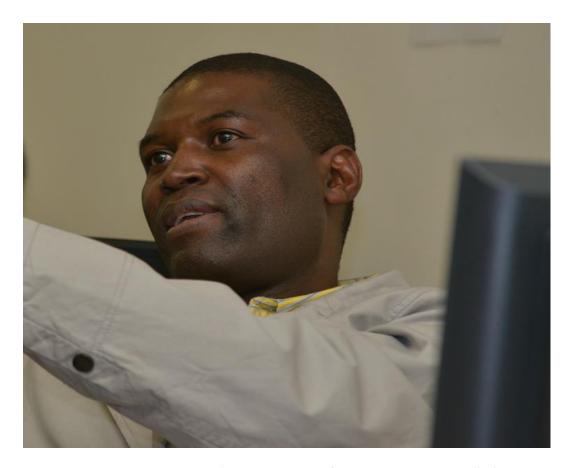
Erdogan, B., Bauer, T.N., Truxillo, D.M., and Mansfield, L.R. 2012. "Whistle while you work: a review of the life satisfaction literature". *Journal of Management*, 38: 1038-1083

Ek, E., Koiranena, M. Raatikkaa, V., Järvelinc, M and Taanila, A 2008. "Psychosocial factors as mediators between migration and subjective well-being among young Finnish adults". *Social Science & Medicine*, 66(7): 1545-56.

Graham, C. and Markowitz, J. 2011. "Aspirations and Happiness of Potential Latin American Immigrants". *Journal of Social Research and Policy* 2(2): 9–25.

Guven, C. 2011. "Are Happier People Better Citizens?" *Kyklos* 64 (2): 178-192.

Haatainen K, Tanskanen A, Kylmä J, Honkalampi K, Koivumaa-Honkanen H, Hintikka J, et al. 2004. Factors associated with hopelessness: a population study. *Int J Soc Psychiatry*, 50:142-52.

Headley, B., Muffels, R., & Wooden, M. 2008. Money does not buy happiness: Or does it? A re-assessment based on the combined effects of wealth, income, and consumption. *Social Indicator Research*, 87 (1), 65-82.

Helliwell, J. F. and Barrington-Leigh, C. 2010. "Measuring and understanding subjective well-being". *NBER working paper series no. 15887.*

Helliwell, J. F., and Huang, H. 2009. "How's the job? Well-being and social capital in the workplace". *Industrial and Labor Relations Review*, 63(2), 205–227.

Helliwell, J. F., Layard, R., & Sachs, J. (Eds.). (2013): *World happiness report.* New York: UN Sustainable Development Solutions Network.

Hinrichsen, G. A. 1985. The impact of age-concentrated, publicly assisted housing on older people's social and emotional well-being. *Journal of Gerontology*, 40, 758-760.

Moons, P., Budts, W., & De Geest, S. 2006. Critique on the conceptualisation of quality of life: a review and evaluation of different conceptual approaches. *Int J Nurs Stud*, 43:891-901

OECD. (2013): *Guidelines on measuring subjective well-being.* Paris: OECD. Retrieved from http://www.oecd.org/statistics/Guidelines on Measuring Subjective Well-being.pdf

Office for National Statistics 2013. *Personal Well-being in the UK, 2012/13.* United Kingdom: Office for National Statistics.

Ostrachshenko, V. and Popova, O. 2014. "Life (Dis)Satisfaction and the Intention to Migrate: Evidence from Central and Eastern Europe". *Journal of Socio-Economics* 48: 40– 49.

Oswald, A. J., Proto, E.,and Sgroi, D. 2012.

Hou, F. 2014. Keep up with the Joneses or keep on as their neighbours: Life satisfaction and income in Canadian urban neighborhoods. *Journal of Happiness Studies*, Volume 15(5): 1085-1107.

Kangiuan, L. V., Wang, J., & Wei, L. V. 2010. Study on the residents satisfaction degree in the urban and rural fringe in China - Based on structural equation model. *Journal of Cambridge Studies*, 5: 2-3.

Lee, G. R. 1988. Marital satisfaction in later life: The effects of nonmarital roles. *Journal of Marriage and the Family*, 50 (3): 775-783.

Luttmer, E. F. 2005. Neighbors as negatives: Relative earnings and well-being. *The Quarterly Journal of Economics*, 120(3), 963–1002.

Ivles, A 2014. "Happy moves: assessing the impact of subjective well-being on the emigration decision". *Economic Working Paper Series 1402*, University of the West of England

Kapteyn, A., Smith, J.P., & van Soest, A. 2013. Are Americans really less happy with their incomes? *Rev Income Wealth*, 59:44-65.

MacKerron, G. J 2012. "Happiness economics from 35,000 feet". *Journal of Economic Surveys*, 26 (4): 705-735.

Marum, G., Clench-Aas J., Nes R.B. & Raanaas, R.K. 2014. The relationship between negative life events, psychological distress and life satisfaction: a population-based study. *Qual Life Res*, 23:601-11.

Mhaolain, A.M.N., Gallagher, D., Connell, H.O., Chin, A.V., Bruce, I., Hamilton, F., Teehee, E, et al. 2012. "Subjective well-being amongst community-dwelling elders: what determines satisfaction with life: Findings from the Dublin Healthy Aging Study". *International Psychogeriatrics*, 24; 2: 316-323.

Happiness and productivity. University of Warwick.

Pavot W, and Diener E. 1993. Review of the satisfaction with life scale. *Psychological Assessment*, 5:164-72.

Polgreen, L. and Simpson, N. 2011. "Happiness and International Migration". *Journal of Happiness Studies* 12(5): 819-840.

Prezza, M., Roberti, A. M., & Tedeschi, G.2001. Sense of community referred to the whole town: Its relations with neighboring, loneliness, life satisfaction and area of residence. *Journal of Community Psychology*, 29 (1): 29-52.

Safi, M. 2010. "Immigrants' life satisfaction in Europe: Between assimilation and discrimination". *European Sociological Review* , 26(2), 159–176.

Schrank, B., Brownell, T., Tylee, A., & Slade, M. 2014. Positive psychology: an approach to supporting recovery in mental illness. *East Asian Arch Psychiatry*, 24:95-103.

Stark, O. and Taylor, J. E. 1991. "Migration Incentives, Migration Types: The Role of Relative Deprivation". *The Economic Journal* 101(408): 1163-78.

Strine, T.W., Kroenke, K., Dhingra, S., Balluz, L.S., Gonzales, O., Berry, J.T., et al. 2009. The associations between depression, health-related quality of life, social support, life satisfaction, and disability in community-dwelling US adults. *J Nerv Ment Dis*, 197:61-4.

Tkach, C., & Lyubomirsky, S. 2006. How do people pursue happiness? Relating personality,happiness-increasing strategies, and well-being. Journal of Happiness Studies, 7 (2):183-225.

United Nations Population Division Department of Economic and Social Affairs (UN DESA) 2013. "*Cross-national comparisons of internal migration: An update on global patterns and trends*". Technical Paper No. 2013/1
http://www.un.org/en/development/desa/population/publications/pdf/technical/TP201 3-1.pdf

United Nations Population Division Department of Economic and Social Affairs (UN DESA) 2015. *"Trends in International Migrants Stock: The 2015 Revision"*. (POP/DB/MIG/Stock/Rev.2015, Table 1)
http://www.un.org/en/development/desa/population/migration/data/estimates2/data/UN_MigrantStockTotal_2015.xlsx

Vaillant, G. 2003. Mental health. *Am J Psychiatry*, 160: 1373-84.

Veenhoven, R. 1984. Conditions *of happiness*. Dordrecht: Reidel, (reprinted 1991 by Kluwer Academic.)

Veenhoven, R. 1993a. *Bibliography of Happiness, 2472 contemporary studies on subjective appreciation of life*. RISBO. Studies in Social and Cultural Transformation nr1, Erasmus University Rotterdam, Netherlands (www2.eur.nl/fsw/research/happiness).

Veenhoven, R. 1993b *Happiness in Nations. Subjective appreciation of life in 56 nations (1946-1992)*. RISBO, Studies in Social and Cultural Transformation 2. Erasmus University Rotterdam, Netherlands.
(www2.eur.nl/fsw/happiness/hap_nat/nat_fp.htm)

Veenhoven, R. 1996. "The study of life satisfaction " In: Saris, W.E., Veenhoven, R., Scherpenzeel, A.C. & Bunting B. (eds). *A comparative study of satisfaction with life in Europe. Eötvös University Press, pp. 11-48*

Dedication to the memory of late Dr. Jeremy Gumbo

This Special Issue is dedicated to the memory of, Late Dr Jeremy Gumbo, an honorary staff of the Programme in Demography and Population Studies, University of the Witwatersrand, Johannesburg. Dr. Gumbo was one of the leading lights and ambassadors of Wits Demography. Until his death on May 5, 2017 he was full of promise and passion. He played important role in the development and growth of demographic training in South Africa. He was involved in the processes leading to the production of this Issue, until death came.

During his short span, Dr Gumbo had seven publications in accredited Journals, nine conference presentations; supervised twelve Honors and Masters students to completion and taught several courses. He won the Best Student Oral Presentation Award at the Population Association of Southern Africa Annual Conference in 2011.

Until his death, Dr Gumbo was the Head Demographer at the Respiratory and Meningeal Pathogens Research Unit [RMPRU], Baragwaneth Academic Hospital, Soweto, South Africa, from where he assisted in the training and supervision of graduate students of the Demography and Population Studies at Wits.

Dr. Gumbo was a down-to-earth individual, very friendly, passionate, committed, and ever-ready to lend a helping hand and a mentor to his peers. His passion, commitment and love to Wits Demography will be missed but his contribution to the research agenda of this enterprise will not be forgotten.

'Sleep on, our good friend and brother, who loved DPS and her students with all his life'. In your friendship, there was no guile. We shall continue to remember you, our Jeremy!