Economic Factors and Life Satisfaction: Trends from South African Communities

Chengedzai Mafini¹

Abstract: This article investigated the influence of four economic factors, namely education, health, income level and household size on the life satisfaction of township residents in South Africa. The sample consisted of 985 individuals drawn from three townships located in the southern part of Gauteng Province. The association between each economic factor and life satisfaction was analysed using regression analysis. Education, health, and household size predicted life satisfaction, which validates traditionally acknowledged relationship trends. However, income was not statistically significant, which contradicts conventional perspectives. Education was the strongest predictor of life satisfaction when compared to other economic factors. Overall, the results of the study confirm the complexity of the association between economic factors and life satisfaction. Governments in developing countries may refer to the results of the study in their quest to develop and implement economic initiatives and policies aimed at improving the well-being of poor communities.

Keywords: Life satisfaction; education; health; income; household size; township societies; South Africa

JEL Classification: H31

1. Introduction and Background

Lately, public unrest appears to have become the norm in South Africa. Prominent examples of this civil turbulence include an exponential increase in service delivery protests, the rise of xenophobic violence targeted at foreigners, country-wide mass protests by higher education students who are demanding free education, protests by labour unions as they demand better working conditions for workers, and the Marikana Strike of 2012 which resulted in the massacre of 44 mine workers. Due to these developments, South Africa has been christened the "protest capital of the world" since the protests have reached epidemic proportions. The effects of the protests have been devastating, ranging from loss of life to extensive destruction of infrastructure, damage to the national brand, loss of

¹ Head of the Logistics Department, Faculty of Management Sciences, Vaal University of Technology, South Africa, Address: Private Bag X021, Vanderbijlpark, 1900, South Africa, Corresponding author: chengedzai@hotmail.com.

investor confidence and political instability, amongst others (Nleya, 2011). A notable feature in most of these protests is that they are either concentrated in townships or involve at most, residents of townships. This is not surprising, since the majority of the residents of townships are low income earners who experience the harsh realities of economic deprivation in modern South Africa.

The manifestations of civil discontentment mentioned above attract a number of conundrums that require urgent answers. Chief among these questions is the reason why people have resorted to such extreme measures. Whilst several answers could be provided, each having its own merits and demerits, one possibility is that people in townships are generally dissatisfied with the quality of their lives. Perhaps this dissatisfaction emanates from unmet expectations, compelling these people to resort to venting out their frustrations in order to be heard by in government. This perspective emphasises low life satisfaction experiences stemming from the failure to resolve the dissonance towards numerous, complex and pressing economic issues, which generates the desire for mass public protests.

It is against the above-narrative that this study ventured to investigate the interplay between economic factors and life satisfaction. Specifically, the aim of the study is to examine the influence of four economic factors, namely education, health, income and household size on life satisfaction amongst residents of South African townships. As exhibited through their popular protestations, residents of South African townships are a sensitive cohort who do not hesitate to express themselves in matters regarding their welfare, which creates an impetus to tap into their views frequently. Besides, life satisfaction trends in society are rarely constant, and this actuates the need to monitor them on a continuous basis. Still, for a developing country such as South Africa, empirically generated information about life satisfaction patterns is an important reference source in public policy formulation and implementation. Thus this study is significant in that it could provide updated information on economic well-being of South African township dwellers, who are an important strategic constituency within the country.

2. Theoretical Insights and Propositions

This section briefly analyses literature on life satisfaction and the four economic factors under consideration in this study. These discussions culminate in a proposition on the influence of each factor on life satisfaction.

2.1. Life Satisfaction

As defined by Graham (2014) satisfaction in general is the realisation of one's desires and goals. Satisfaction has also been conceptualised with respect to the concept of happiness (Diener, 2000), or a consistent, optimistic mood state (Steel et al., 2008) as well as contentment and stability (Fowler & Christakis, 2008). These

conceptualisations provide a linkage between satisfaction and the fulfilment or gratification of aspirations or needs. In this study, life satisfaction was perceived as the emotional reactions of an individual outside his/her work life (Demirel, 2014) or a result obtained by the comparison of what a person wants and possesses (Özer & Sackes, 2011). This denotes that life satisfaction includes elements such as a general attitude of the individual towards life, being happy in daily life, feeling physically better-off, economic security and having well-fulfilling social relationships. The evaluative process of life satisfaction enables individuals to assess their own range of life satisfaction levels based on a presumed standard set of criteria that meets their expectations (Lewis et al., 2011). People possess unique criteria that express what a good life is, which may offset the typical benchmarks of a good life such as health and successful relationships (Gilman & Huebner, 2006). Hence, individuals may possess different sets of standards to define success in their life domains.

2.2. Education and Life Satisfaction

Empirical findings substantiate a positive relationship between education and life satisfaction. Özer and Sackes (2011) suggest that education is positively related to life satisfaction because it enables people to make progress towards their goals or to adapt to changes in life. Research by Cuñado and Pérez-de-Gracia (2012) concluded that people with higher education levels appear to be more optimistic in their outlook of life and have more realistic expectations for life in general. Some scholars (Amaike, 2009; Martikainen, 2009) opine that education improves life satisfaction through its close connection with income and occupational status. In a number of studies conducted in international contexts (Frey, 2008; Salinas-Jiménez et al., 2011; Veenhoven, 2010), it emerged that education was positively and significantly related to life satisfaction. In another study by Frijns (2010), a hypothesis suggesting that education generally exerts a more positive effect on life satisfaction among individuals living in economically deprived regions found support and was accepted. These insights culminate in the formulation of the following proposition:

Proposition 1: The higher the level of education, the higher the life satisfaction of residents amongst township societies

2.3. Health and Life Satisfaction

According to O'Neill (2010) various cross-sectional studies have shown that reports of good physical health are associated with higher levels of life satisfaction. Several studies (Kim & Shin, 2009; Skevington et al., 2004; Tiliouine, 2009; Veenhoven, 2009) consider health to be an important domain accounting for life satisfaction. Gwozdz and Sousa-Poza (2010) contend that ill health may negatively influence well-being as it interferes with the attainment of goals. In studies by some scholars (Kim, 2012; Oshio & Kobayashi, 2010) health was found to be

amongst the most significant domains of life that predict life satisfaction. Lee and Oh (2013) further affirm that amongst the drivers of well-being is satisfaction with current health and with the availability and quality of medical services. In a South African survey, Ebrahim et al. (2013) observed that health was a major determinant of life satisfaction amongst all racial groups. In another study by Vinson and Ericson (2012) respondents who mentioned that their health was "very good" were more than five times likely to be in the high life satisfaction category when compared to those who indicated that their health was "poor", giving a mathematical ratio of 5:1. Kapteyn et al. (2009) found that global life satisfaction is well-described by four domains, namely job or daily activities, social contacts and family, health, and income. These insights suggest that good health predisposes people to enjoy a high degree of life satisfaction and happiness. In view of this, the following proposition is suggested:

Proposition 2: Good health leads to higher satisfaction with life amongst residents of township societies

2.4. Income and Life Satisfaction

Research on the influence of income on life satisfaction is quite extensive and mainly shows a positive interaction between the two factors. As argued by Easterlin et al. (2010) an increase in income and consumption facilitates the satisfaction of a greater number of needs, leading to the attainment of higher levels of well-being. Studies by Deaton (2008) and Pittau et al. (2010) found particularly strong relationships between income and life satisfaction amongst people in "lowincome" countries. South African research, (Møller, 1999; 2004) found that income has a greater influence on life satisfaction than race. Economic status among South Africans tends to correlate with life satisfaction, with those in the high income bracket reporting higher satisfaction than those in the lower income bracket (Yul & Gaibie, 2011). Several other South African studies focusing on the economics of happiness (Hinks & Gruen, 2007; Mahadea & Rawat, 2008; Møller, 2007; Posel & Casale, 2011; Powdthavee, 2003) have since sustained the positive linkage existing between income and life satisfaction. Further confirmation of the positive connection between income and life satisfaction in selected but different geographical contexts is found through findings by Helliwell et al. (2009) in Western Europe, the US and Canada, Sacks et al. (2010) in 140 countries across the world, as well as Leigh and Wolfers, 2006) in Australia. Upon reflecting on these insights, it is rational to expect that income generally matters more for individuals living in economically deprived regions such as townships. To test this assertion, the following proposition is formulated:

Proposition 3: Higher levels of income lead to higher levels of life satisfaction amongst residents of township societies.

2.5. Household Size and Life Satisfaction

Household size is an important determinant of family's or individual's poverty status since the official measure of poverty incorporates family size (Anderson et al., 2012). When the family is unwieldy, it may be unable to function well in areas such as childcare and ability to adequately educate children in the family (Kingdon & Knight, 2007). Lelkes (2010) affirms that family size is influenced by an assortment of factors that include economic, socio-cultural, and environmental factors that is occupational, social and economic status of the family. In turn, choice of family size determines the level of benefit or shortcoming the individual or family will enjoy. For instance, a smaller family size may be able to afford better levels of education, incomes, health and economic life (van der Maesen & Walker, 2012). However, larger family sizes typically lead to low or poor levels of education, income, health, welfare and economic status. To ensure a better quality of life it is deemed necessary to avoid a large family size in order to mitigate the burden and negative effects of choosing a large family size (Hou, 2014). Knies (2011) found that families with relatively small sizes (one to six children) do not visit the hospital for treatment regularly, hence a lesser expenditure on health. A study by Arthur (2006) observed a significant relationship between the levels of education of respondents and choice of family size, with those in smaller households having better education. In parallel, Jenkins et al. (2011) found that among both male and female children, smaller family size and higher parental socio-economic position were both associated with substantially higher school marks, university entrance as well as disposable income, which has a positive bearing on their life satisfaction. Based on these findings, it is reasonable to anticipate that in the current study, people in smaller households could experience higher levels of life satisfaction. For that reason, the following proposition is submitted:

Proposition 4: The smaller the size of the household the greater the life satisfaction of people in township societies

3. Research Method

3.1. Research Design and Sample

A quantitative approach using the cross sectional survey design was adopted. In making this selection, various advantages of cross sectional surveys that include representativeness, impartiality, replicability and being systematic were considered, as suggested by Moutinho and Hutcheson (2011). Upon considering the geographical scope of the study, three low-income townships, namely Sebokeng, Sharpville and Sicelo that are located in the southern part of Gauteng Province, South Africa were included. For Sebokeng Township, only zone 10 and zone 17

were included and for Sharpville, only Tshepiso was included while the entire township of Sicelo was included in the study. The non-probability sampling approach using the convenience sampling techniques was then applied to recruit respondents.

An analysis of the demographic details of respondents showed that in Sebokeng, nearly 72% (n=214) of the respondents were unmarried, while in Sharpville almost 65% (n=184) of the respondents were not married and in Sicelo close to 66% (n=264) of the respondents were unmarried. Age-wise, in Sebokeng the greatest number of respondents (45%; n=134) were aged between 36 and 50 years. A similar pattern was observed in Sharpville where approximately 51% (n=146) of the respondents were also aged between 36 and 50 years. However, a somewhat different pattern emerged in Sicelo, where most of the respondents were in the 18 to 35 age cohort (55%; n=220). These results depict a general dominance of the younger age group in the current study. In terms of gender, the statistical representation for males was the following: 55% (n=165) for Sebokeng; 51% (n=146) for Sharpville; and nearly 57% (n=228) for Sicelo. Still, most of the respondents recruited in Sebokeng (61%; n=183) and Sharpville (53%; n= 150) were employed. However, in contrast, almost equal numbers of employed and unemployed respondents (50%; n=402) were drawn in Sicelo. These results illustrate that there was sufficient representation of both unemployed and employed people in this study.

3.2. The Survey

The current paper was part of a broader study that investigated the influence of socio-economic factors on life satisfaction. The portion used in this paper includes data collected from the part of the survey instrument that comprised the Satisfaction with Life Scale (Diener et al, 1985) to measure life satisfaction. Categorical data was elicited on economic factors through questions requesting respondents to indicate their profiles in terms of each economic factor. Permission to collect data was granted by local ward councillors in Sebokeng, Sharpville and Sicelo, respectively. After developing the questionnaire, 500 copies were distributed in each of the three townships in November 2014 to the conveniently selected sample of respondents. The questionnaires were administered with the assistance of two trained research assistants who are students at a university located in Southern Gauteng. To explain the aim of the study, a cover letter was attached to the questionnaire. Before participating in the study, respondents were requested to sign an informed consent form. During the data collection process, various ethical considerations were observed, and these include participant confidentiality, voluntary participation and protection from harm and victimisation. Additionally, respondents were assured that the results of the study would be made available to those who were interested. Data collection was conducted during weekends when most residents of these townships were available.

3.3. Data Analysis

After the questionnaires were collected, they were subjected to screening in order to eliminate incomplete ones or those that were spoilt. Afterwards, the data were captured on a Microsoft Excel spreadsheet. Thereafter, the Excel spreadsheet was imported into the SPSS Version 23.0 for data analysis. The data analysis included frequency distributions for demographic analyses and regression analysis to test the association between economic factors and life satisfaction.

4. Regression Analysis

Regression analysis using a single regression model combining data collected from the three township was employed to measure the association between economic factors and life satisfaction. The results obtained in the regression analysis are reported in Table 1.

Table 1. Regression Analysis: Economic Factors and Life Satisfaction

Independent variables: Socio-	Dependent variable: Life satisfaction		
economic factors	Beta (β)	T (t)	Sig (P)
Educational Level: No Formal Educational Qualification	-0.105	-2.863	0.005
Matric: Reference Group		3.426	0.000
Post Matric	0.570	0.451	0.652
Health Status	0.132	2.299	0.022
Income Level: Low Income	-0.016	-0.234	0.815
Medium Income Reference Group		0.514	0.608
High Income	0.021	0.930	0.348
Household Size: Small family	0.497	3.633	0.000
Medium family: Reference Group		1.909	0.057
Large family	-0.177	-2.001	0.046
Senior citizens	-0.142	-3.421	0.001
$R = 0.369$ Adjusted $R^2 = 0.298$ * Significant at the .05 level			

As reported in Table 1, the R-square value for the regression model was calculated at 0.298, implying that the independent variables accounted to nearly 29% of the total variance explained in life satisfaction. This further gives the hint that an estimated 71% of the total variance is accounted for by other factors that were not included in this study.

Educational level was entered in the regression model using three categories; namely no formal educational qualification, matric (reference group) and

postmatric. People without formal education were found to possess less life satisfaction (β = -0.105; P =0.005) when compared to those with matric. Those with postmatric levels of education were found to be more satisfied with life (β = 0.570; P =0.652) than those with matric. The positive beta associated with higher educational levels signifies that life satisfaction increases as educational levels increase. By implication, in township societies, it is expected that people with higher levels of education demonstrate a higher satisfaction with life than those who are less educated or are without education. Therefore, Proposition 1 was supported and accepted in this study.

With regards to health status, the results of the regression analysis revealed that people with people in good health experienced higher life satisfaction ($\beta = 0.132$; P = 0.022) when compared to those with poor health. The positive beta result depicts that life satisfaction increases as health improves while poor personal health is linked to a decline in life satisfaction. This shows that in low income urban societies, people who are in good health experience higher satisfaction with life than those who are in poor health. Thus, Proposition 2 was supported and is accepted in this study.

With reference to income status, the results of the regression analysis made it plain that income was not statistically significant for all categories that were entered into the regression model (P= 0.815 for Low income; P = 0.608 for Medium Income and P =0.348 for High Income). The beta value for low income was negative and almost negligible or close to zero (β = -0.016), indicating that the difference in life satisfaction between low income earners and middle income earners was marginal. Besides, the life satisfaction for high income earners was marginally higher (β = 0.021) than that of medium income earners. These results unmask the interesting notion that higher levels of income may not necessarily lead to higher levels of life satisfaction and that low income does not automatically signal dissatisfaction with life. Along these lines, it is likely that in the context of the low income urban townships sampled in this study, income status does not determine the levels of satisfaction with life. Hence, Proposition 3 was not supported and was rejected in this study.

Regarding household size, the results of the regression analysis showed that people in smaller households had greater satisfaction with life (β = 0.497; P=0.000) when compared to those in medium sized families. Moreover, people in large families had lower life satisfaction (β = -0.177; P=0.046) when compared to those in medium sized families. The negative beta result denotes that the larger the size of the household, the lower the life satisfaction, and *vice versa*. This makes it clear that in low income urban societies, households with fewer individuals are more likely to be satisfied than those with many individuals living together under the same roof. Therefore, Proposition 4 was supported and accepted in this study.

5. Discussion

5.1. Orthodox Trends

In this study there emerged an apparent stream of results that conformed to traditionally accepted trends. The influence of education, health and household size on life satisfaction was consistent with conventionally accepted trends as presented by the results of previous studies. For instance, the positive influence of education on life satisfaction is consistent with the results of previous studies of authors such as Amaike (2006), Cuñado and Pérez-de-Gracia (2012), Daukantaite and Zukauskiene (2006), Özer and Sackes (2011) and Salinas-Jiménez *et al.* (2011) in which it was found that education exerts a positive influence on life satisfaction.

With regard to health, the results of this study found that good health leads to better satisfaction with life in all three townships. This result is congruent to the results of a number of previous studies (Blanchflower, 2008; Diener et al., 2010; Ebrahim, Botha & Snowball., 2013; Lee & Oh, 2013) in which health emerged as a determinant of life satisfaction. On household size and life satisfaction, the results of the study validate the conclusion of previous studies (Anderson et al., 2012; Jenkins et al., 2011; Lelkes, 2010; Maesen & Walker, 2012) that smaller household size leads to increased life satisfaction. These orthodox results provide a level of validation to previous studies that produced similar results. Thus, people in the townships surveyed in this study are generally not different from the rest of the world in terms of their beliefs and attitudes towards the life satisfaction and the economic factors mentioned.

5.2. Heterodox Trends

In this study heterodoxy is taken to imply those results that are at variance with or are not consistent with the previously established trends regarding the relationship between specific economic factors and life satisfaction. Heterodoxy was observed in results concerning the influence of income on life satisfaction.

The study places a limitation on the influence of income on life satisfaction. The conventional perspective on this relationship as shown in previous studies (e.g. Howell & Howell, 2008; Lucas & Schimmack, 2009) is that there is a causal relationship between money and well-being. This perspective is premised on the view that money can be exchanged for goods and services that enhance the utility enjoyed by an individual. Contrary to this assertions, the results for Sharpville Township show that income did not predict life satisfaction, which depicts that this particular group of people did not did not draw well-being or happiness from money. It should be noted that people making these assertions in the present study are possibly of low economic means, which denotes that economic depravity did not signal any serious threat to one's life satisfaction. The case of Sharpville validates the Easterlin paradox, which postulates that no interconnection exists

between life satisfaction and/or happiness and the economic development of a society (Easterlin et al., 2010). As economic well-being decreases in the long run, people may accept their circumstances and tend to rely on non-economic factors such as marriage, religion and social networks, among others, for satisfaction in life (Easterlin et al., ibid). It could then be the existent case in places such as Sharpville, some economically deprived people have since accepted their fate and look to other factors as potential sources for satisfaction in life.

Another possible explanation for the unorthodox results obtained in Sharpville could be the influence of relative incomes. As suggested by Stutzer (2004), raising income is likely to result in very small gains in life satisfaction, but these gains are likely to increase when the individuals begin earning more than their reference groups such as friends or neighbours. Similarly, individuals who earn less than their reference groups are likely to report less life satisfaction (Luttmer, 2005). Where incomes of people in a particular geographic location are almost similar, income ceases to exert an influence on life satisfaction (Boyce et al., 2010). It is possible that differences in income levels are less significant in some places, as the case of Sharpville proves. Under such conditions the influence of income in life satisfaction likewise becomes almost immaterial.

5.3. Conclusions

In this study, we investigated the influence of four economic factors on the life satisfaction of people in township societies in South Africa. The economic factors consisted of education, health, income level and household size. The results of the study showed that education, health and household size significantly predicted life satisfaction amongst people in township societies. However, income did not predict life satisfaction. Education was the strongest predictor of life satisfaction when compared to other economic factors. The study makes it clear that life satisfaction is a complex concept which should be considered contextually. Observations made in one context cannot be applied universally, but each occasion has to be given individual attention in order to capture its unique results.

6. References

Amaike, B. (2006). Education, multi-generational family and the Nigerian undergraduates: the quest for moral rebirth in F.A.D. Oyekanmi and Nwabueze, N. (Eds.) *Education and Regeneration of Traditional Values in Nigeria*. Lagos: Department of Sociology, University of Lagos, Akoka, pp. 266–287.

Amaike, G.O. (2009). Livelihood and living conditions of formal sector retirees in Lagos State, Nigeria. *Unpublished Ph.D. Thesis*. Lagos: Department of Sociology and School of Postgraduate Studies, University of Lagos, Lagos State, Nigeria.

Anderson, C.; Kraus, M.W.; Galinsky, A.D. & Keltner, D. (2012). The local-ladder effect: social status and subjective well-being. *Psychological Science*, 23(7), pp. 764–771.

Arthur, J.L. (2006). Implications of family size on the quality of life of people in the Sunyani Municipality. *Unpublished Master's Dissertation*, Faculty of Social Sciences, University of Cape Coast, Ghana.

Bhorat, H. & Van der Westhuizen, C. (2012). Poverty, inequality and the nature of economic growth in South Africa. *DPRU Working Paper*, 12/151. Cape Town: Development Policy Research Unit, University of Cape Town.

Blanchflower, D.G. (2008). *Is unemployment more costly than inflation*? NBER Working Paper No. 13505. Retrieved 19 December 2014 from: http://www.nber.org/papers/w13505.

Cuñado, J. & Pérez-Gracia, F. (2012). Does education affect happiness? Evidence for Spain. *Social Indicators Research*, 108(1), pp. 185–196.

Daukantaite, D. & Zukauskiene, R. (2006). Swedish and Lithuanian employed women's subjective well-being. *International Journal of Social Welfare*, 15, pp. 23–30.

Deaton, A. (2008). Income, health and well-being around the world: evidence from the Gallup World Poll. *Journal of Economic Perspectives*, 22(2), pp. 53–72.

Demirel, H. (2014). An investigation of the relationship between job and life satisfaction among teachers. *Procedia - Social and Behavioral Sciences*, 116, pp. 4925–4931.

De Witte, H.; Rothmann, S. & Jackson, L.T.H. (2012). The psychological consequences of unemployment in South Africa. *South African Journal of Economic and Management Sciences*, 15(3), pp. 236–252.

Diener, E.D. (2000). Subjective well-being: the science of happiness and a proposal for a national index. *American Psychologist*, 55, pp. 34–43.

Diener, E.D.; Emmons, R.A.; Larsen, R.J. & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49(1), pp. 71–75.

Diener, E.D.; Helliwell, J.F. & Kahneman, D. (2010). *International differences in wellbeing*. New York: Oxford University Press.

Easterlin, R.A.; McVey, L.A.; Switek, M.; Sawangfa, O. & Zweig, J.S. (2010). The happiness-income paradox revisited. *Proceedings of the National Academy of Sciences*, 107(52), pp. 224–263.

Ebrahim, A.; Botha, F. & Snowball, J. (2013). Determinants of life satisfaction among race groups in South Africa. *Development Southern Africa*, 30(2), pp. 168–185.

Fowler, J.H. & Christakis, N.A. (2008). Dynamic spread of happiness in a large social network: longitudinal analysis over 20 years in the Framingham Heart Study. *British Medical Journal*, 337, pp. 2338–2339.

Frey, B.S. (2008). Happiness: a revolution in economics. Cambridge, Massachusetts: MIT Press.

Frijns, M. (2010). Determinants of life satisfaction: a cross-regional comparison. *Unpublished Masters Dissertation*. School of Business and Economics. Maastricht University. Netherlands.

Gilman, R. & Huebner, E.S. (2006). Characteristics of adolescents who report very high life satisfaction. *Journal of Youth and Adolescence*, 35, pp. 311–319.

Giordano, R.; Depalo, D.; Pereira, M.; Eugène, B.; Papapetrou, E. & Perez, J. (2011). The public sector pay gap in a selection of Euro area countries. *Working Paper*, No. 1406, European Central Bank, Frankfurt.

Graham, M.C. (2014). Facts of Life: ten issues of contentment. Parker, Colorado: Outskirts Press.

Gwozdz, W. & Sousa-Poza, A. (2010). Ageing, health and life satisfaction of the oldest old: an analysis for Germany. *Social Indicators Research*, 97, pp. 397–417.

Harper, J. (2011). Public perceptions of and attitudes towards community recreation and parks services: Canada, Recreation and Parks Matter. 2011 National Recreation Summit. Retrieved 13 November 2014 from: http://lin.ca/sites/default/files/attachments/Harper_Jack%5B1%5D.pdf.

Hinks, T. & Gruen, C. (2007). What is the structure of South African happiness equations? Evidence from quality of life surveys. *Social Indicators Research*, 82, pp. 311–336.

Helliwell, J.F.; Barrington-Leigh, C.P.; Harris, A. & Huang, A. (2009). International Evidence on the Social Context of Well-Being. *NBER* Working Paper No WP 14720. Cambridge, National Bureau of Economic Research.

Hou, F. (2014). Life satisfaction and income in Canadian urban neighbourhoods. *Analytical Studies Branch Research Paper*, No. 357.

Howell, R.T. & Howell, C.J. (2008). The relation of economic status to subjective well-being in developing countries: A meta-analysis. *Psychological Bulletin*, 134(4), pp. 536–560.

International Labour Organisation. (2014). *Global employment trends*, 2014. risk of a jobless recovery. Retrieved 21 May 2015 from: http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/ publication/wcms_233953.pdf.

Jenkins, S.P.; Brandolini, A.; Micklewright, J. & Nolan, B. (2011). The Great Recession and the distribution of household income. Conference presentation, Incomes across the Great Recession, XIII European Conference of the Fondazione Debenedetti, 10 September 2011, Palermo, Sicily.

Kapteyn, A.; Mackenbach, J.; Siegrist, J. & Weber, G. (Eds.) (2009). First results from the Survey of Health, Ageing and Retirement in Europe (2004–2007). Starting the longitudinal dimension. Mannheim: Mannheim Research Institute for the Economics of Aging (MEA), pp. 125–130.

Kim, K. (2012). The relationship of social support, leisure satisfaction, psychological happiness and participatory behavior of the elderly participation in swimming activities. *Korean Journal of Physical Education*, 51, pp. 53–62.

Kim, B. & Shin, B.C. (2009). Study on the satisfaction of leisure and life, according to the degree of participation of the swimming club members. *Journal of Sport and Leisure Studies*, 38, pp. 1295–1303.

Kingdon, G.G. & Knight, J. (2007). Community, comparisons and subjective well-being in a divided society. *Journal of Economic Behavior and Organization*, 64(1), pp. 69–90.

Knies, G. (2011). Life satisfaction and material well-being of young people in the UK' in Understanding Society: Early Findings from the First Wave of the UK's Household Longitudinal Study. Retrieved on 6 November 2014 from: http://research.understandingsociety.org.uk/findings/early-findings.

Lee, B. & Oh, D. (2013). The effects of health perception on living health belief, living satisfaction and wellbeing-oriented activities according to swimming participation with middle-aged women. *Journal of Exercise Rehabilitation*, 9(3), pp. 381–388.

Leigh, A. & Wolfers, J. (2006). Happiness and the Human Development Index: Australia is not a Paradox. *The Australian Economic Review*, 39(2), pp. 176–184.

Lelkes, O. (2010). Social participation and social isolation. In Atkinson, A.B. & Malier, E. (Eds.). *Income and living conditions in Europe*. Eurostat, Luxembourg, pp. 217–240.

Lewis, A.D.; Huebner, E.S.; Malone, P.S. & Valois, R.F. (2011). Life satisfaction and student engagement in adolescents. *Journal of Youth and Adolescence*, 40, pp. 249–262.

Lucas, R.E. & Schimmack, U. (2009). Income and well-being: how big is the gap between the rich and the poor? *Journal of Research in Personality*, 43(1), pp. 75–78.

Luttmer, E.F.P. (2005). Neighbours as negatives: relative earnings and well-being. *Quarterly Journal of Economics*, 120(3), pp. 963–1002.

Maesen Van der, L.J.G. & Walker, A. (eds.) (2012). Social quality: from theory to indicators. Palgrave Macmillan, Basingstoke, UK.

Mahadea, D. & Rawat, T. (2008). Economic growth, income and happiness: an exploratory study. *South African Journal of Economics*, 76, pp. 276–290.

Martin, K.D. & Hill, R.P. (2012). Life satisfaction, self-determination, and consumption adequacy at the bottom of the pyramid. *Journal of Consumer Research*, 38(6), pp. 1155–1168.

Martikainen, L. (2009). The many faces of life satisfaction among Finnish young adults. *Journal of Happiness Studies*, 10(6), pp. 721–737.

Møller, V. (1999). South African quality of life trends in the late 1990s: major divides in perceptions. *Society in Transition*, 30, pp. 93–105.

Møller, V. (2004). Living with crime: does crime affect victims' perceived quality of life? *South African Crime Quarterly, No 9.* Retrieved on 9 December 2014 from: http://www.issafrica.org/pubs/CrimeQ/No.9/Moller.htm.

Møller, V. (2007). Satisfied and dissatisfied South Africans: results from the general household survey in international comparison. *Social Indicators Research*, 81, pp. 389–415.

Møller, V. & Devey, R. (2003). Trends in living conditions and satisfaction among poorer older South Africans: objective and subjective indicators of quality of life in the October Household Survey. *Development Southern Africa*, 20(4), pp. 457–476.

Moutinho, L. & Hutcheson, G. (2011). *The SAGE Dictionary of quantitative management research*. London: SAGE Publication Ltd.

Nleya, N. (2011). Linking service delivery and protest in South Africa: an exploration of evidence from Khayelitsha. *Africanus*, 50(1), pp. 3–13.

Odupe, O.D. (2012). A dummy variable regression on students' academic performance. *Transnational Journal of Science and Technology*, 2(6), pp. 47–54.

O'Neill, M. (2010). Cultural attendance and public mental health – from research to practice. *Journal of Public Mental Health*, 9(4), pp. 22–29.

Oshio, T. & Kobayashi, M. (2010). Income inequality, perceived happiness, and self-rated health: evidence from nationwide surveys in Japan. *Social Science and Medicine*, 70, pp. 1358–1366.

Özer, B.U. & Sackes, M. (2011). Effects of academic procrastination on college students' life satisfaction. *Procedia Social and Behavioral Sciences*, 12, pp. 512–519.

Pittau, M.G.; Zelli, R. & Gelman, A. (2010). Economic disparities and life satisfaction in European regions. *Social Indicators Research*, 96(2), pp. 339–361.

Posel, D.R. & Casale, D.M. (2011). Relative standing and subjective well-being in South Africa: the role of perceptions, expectations and income mobility. *Social Indicators Research*, 104, pp. 195–223.

Powdthavee, N. (2003). *Happiness and the standard of living: the case for South Africa*. Warwick Economic Research Papers No. 675. Retrieved on 8 July 2014 from: http://www.powdthavee.co.uk/resources/ handbook2006.pdf.

Sacks, D.W.; Stevenson, B. & Wolfers, J. (2010). Subjective well-being, income, economic development and growth. *Working Paper*, No 16441. Cambridge, National Bureau of Economic Research.

Salinas-Jiménez, M.M.; Artés, J.Y. & Salinas-Jiménez, J. (2011). Education as a positional good: a life satisfaction approach. *Social Indicators Research*, 103(3), pp. 409–426.

Skevington, S.M.; Sartorius, N. & Amir, M. (2004). Developing methods for assessing quality of life in different cultural settings: the history of the WHOQOL instruments. *Social psychiatry and psychiatric epidemiology*, 39(1), pp. 1–8.

Steel, P.; Schmidt, J. & Shultz, J. (2008). Refining the relationship between personality and Subjective well-being. *Psychological Bulletin*, 134(1), pp. 138–161.

Stutzer, A. (2004). The role of income aspirations in individual happiness. *Journal of Economic Behavior and Organization*, 54(1), pp. 89–109.

Tiliouine, H. (2009). Health and subjective wellbeing in Algeria: a developing country in transition. *Applied Research in Quality of Life*, 4(2), pp. 223–238.

Yul, D.D. & Gaibie, F. (2011). Quality of life in post-apartheid South Africa. *Politikon: South African Journal of Political Studies*, 38(2), pp. 231–256.

Van der Maesen, L.J.G. & Walker, A. (eds.) 2012. *Social quality: from theory to indicators.* Palgrave Macmillan, Basingstoke, UK.

Veenhoven, R. (2009). How do we assess how happy we are? In Dutt, A.K. and Radcliff, B. (Eds), *Happiness, economics and politics: Towards a multi-disciplinary approach*. Edward Elgar Publishers, Cheltenham, Chapter 3. pp. 45–69.

Veenhoven, R. (2010). Capability and happiness: conceptual difference and reality links. *Journal of Socio-Economics*, 39(3), pp. 344–350.

Vinson, T. & Ericson, M. (2012). Life satisfaction and happiness. Richmond: Jesuit Social Services.