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Socio-Contextual Factors as Determinants of Psychological Wellbeing of Selected Aged in South Africa: A Moderating Approach

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ABSTRACT

The psychological wellbeing of the elderly has become an important global health issue. This study investigated the socio-contextual factors moderating some dimensions of psychological well-being (self-acceptance, purpose in life, environmental mastery and autonomy) among 301 selected aged in South Africa. Simple random and purposive sampling techniques were deployed to select the respondents (93 males and 208 females) in Buffalo city, South Africa. A questionnaire pack which included the Ryff Psychological Well-Being Scale (RPWBS) and the Physical Activity Scale for the Elderly (PASE) were utilised. The study found a significant relationship between physical activity and psychological wellbeing of the elderly. However, ethnicity could moderate the relationship between physical activity and the dimensions of psychological wellbeing. Recreational activities, particularly in Black communities, must be improved to encourage participation in physical exercise.

Keywords: Community involvement, elderly, ethnic affiliation, physical activity, place of living, psychological well-being

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INTRODUCTION

The need to appreciate and improve the psychological wellbeing (PWB) of the elderly has taken a centre-stage in policy making and implementation, thereby occupying an important space in global ageing discourse. Some researchers have emphasised the correlations between certain socio-contextual factors such as gender (Cutler et al., 2013; Freedman et al., 2013), income (Bai, 2016), education (Dong & Zhang, 2015; Menkin et al., 2017), ethnicity and race (Sarkisian et al., 2006) as determinants of the wellbeing of the elderly. For instance, a positive correlation between levels of education and wellbeing of the elderly has been reported (Dong & Zhang, 2015; Kwon et al., 2016). The studies found that educated elderly were more likely to experience moderate psychological wellbeing owing to intellectual and mental resources at their disposal (Gerber et al., 2016; Kwon et al., 2016). They, therefore, may experience higher levels of mastery required for successful ageing (Fagerström & Aartsen, 2013) as they are more likely to engage in physical activity (PA) and are inclined to regularly utilise health services available at their disposal (Silverstein & Giarrusso, 2013).

Other studies have further shown that residential area or choice of accommodation are important determinants of the psychological wellbeing of the elderly (Granborn et al., 2014). For example, Gurak and Kritz (2013) succinctly noted that the elderly in rural United States were largely psychologically deficient compared to their counterparts in urban areas. They found that elderly in rural USA reported poor family relationships, weakened social ties, emotionally irrelevant social exchanges and relationships, lack of access to basic health services and recreational facilities compared to their urban counterparts. However, other studies have proven that the association between residential area/choice of accommodation may be mediated by place of attachment and other environmental factors (Gary et al., 2002).

Similarly, the relationships between physical activity and wellbeing of the elderly have been investigated and documented. Studies have found that old people who frequently engage in physical exercise have lower risk of developing cognitive impairments and cardiovascular diseases, hence improved psychological wellbeing (Ferrand et al., 2014). However, in spite of the health benefits of physical exercise, very few older adults engage in physical activities in South Africa (Schoenborn et al., 2013), especially in Black communities (Frisoli, 2016). Inadequate physical exercise among elderly South Africans may have compounded the alarming rates of communicable diseases such as hypertension, stroke, heart diseases, diabetes and cancers in South Africa (Frisoli, 2016).

Nevertheless, studies comparing physical activity and wellbeing of the elderly among different ethnic groups in South Africa are scarce. Although, some studies have compared methods of measuring physical activity in older adults (Kolbe-Alexander et al., 2006), as

well as the correlation between physical activity, body composition and handgrip strength among old people (Shozi, 2018), very few studies, have examined the relationship between physical activity and the wellbeing of the elderly and how this relationship is moderated by socio-contextual factors. In this study, attention is on the relationships between physical activity and the psychological wellbeing of the elderly and how the place of living, community involvement and ethnicity could moderate this relationship. The study is premised on the following hypotheses;

1. that there is a significant statistical relationship between age, physical activity and the focused four dimensions of psychological wellbeing;

2. that there is a significant statistical interaction between ethnicity and place of living on the dimensions of wellbeing;

3. that there is a significant interaction between ethnicity, community involvement and the dimensions of psychological wellbeing;

4. that ethnic affiliation moderates the relationship between physical activity and the focused dimensions of psychological wellbeing.

It is important to note that the psychological wellbeing of the elderly is measured using the Ryff's Psychological Wellbeing Scale (RPWBS) while the physical activity is measured using The Physical Activities Scale for the Elderly (PASE). Details of these scales are provided in the methodology section.

MATERIALS AND METHODS

Design

This study utilised a cross-sectional survey by adopting an ex-post facto design.

Study Setting and Population of Study.

This study was conducted among aged people in Buffalo City, Eastern Cape, South Africa (SA). The Eastern Cape is divided into two metropolitan municipalities (Buffalo City Metropolitan Municipality and Nelson Mandela Bay Metropolitan Municipality) and six district municipalities, which are further subdivided into 37 local municipalities (Statistics South Africa, 2014). Buffalo City Metropolitan Municipality is situated on the east coast of the Eastern Cape Province with a total population above 785 000 (Statistics South Africa, 2011). The racial composition of the Buffalo City metro comprised Black (92.9%), Coloured (2.4%), Asian (0.2%) and White (4.5%) (Statistics South Africa, 2014). As at 1996, the total number of the elderly in Buffalo City was a slight above 50,000. This had jumped to 66,870 in 2011 (Statistics South Africa, 2011). Out of this total, 49,736 were Black while 13,003 were White. The increase in the population of the elderly not only in Buffalo City but across South Africa, has resulted in a corresponding increase in elderly homes.

Records obtained from the Office of the Department of Social Development, Eastern Cape, showed that a total of 33 elderly homes were legally operating in Eastern Cape. Of these, 12 were located within the

Buffalo city area. All of these homes were approached for participation. Incidentally, 10 of the 12 institutions consented to participate in the study each of which had participants with criteria for inclusion in the study (for ethical reasons, names of these institutions are not mentioned in the study). However, all the institutions chosen for the study were government subsidised homes, three of which depended totally on government's full subsidy while the rest had partial subsidy. The homes differed in size and number. The home with the minimum residents had 25 residents while the largest had 150 residents. In each of these homes, at least 10% of the total population participated in the study. This percentage has been proven sufficient for a sample of a population (Hashim, 2011).

Meanwhile, quite a number of people still do not believe in keeping old people in government approved homes. They keep them in private residences. This is most common among the Black community in the Eastern Cape. Many cite cultural factors for the non-use of government approved homes for the elderly. Hence, for the purpose of this study, participants were recruited from private residential homes and government subsidised institutions. In all, 191 isiXhosa elderly and 110 English elderly participated in the study, totalling 301 participants.

Instruments

The Ryff PWB Scale (RPWBS). Ryff Psychological Wellbeing Scale (RPWBS) is a self-report questionnaire designed by Ryff et al. (1995) to measure six dimensions of psychological wellbeing that include self-acceptance, (the capacity to evaluate oneself and one's past life positively), environmental mastery (the ability to manage one's life and the surrounding world), positive relations with others (having quality of relationship skills), autonomy (making self-decision in life), purpose in life (having purpose and meaning to life) and personal growth (the belief that one is still growing and developing) (González-Celis et al., 2016). Each of the six dimensions contains 14 items with the scale consisting of 84 items altogether. The author's overall Cronbach alpha was .81 while the current study recorded .72 for isiXhosa (the black sample) and .86 for white group. Both groups had .82 Cronbach alpha. More so, the RPWBS has six-point Likert-type scale: 1=strongly disagree; 2=moderately disagree; 3=slightly disagree; 4=slightly agree; 5=moderately agree, and 6=strongly agree. The reliability RPWBS dimensions were personal growth 0.227, self-acceptance 0.76, positive relations 0.028, environmental mastery 0.68, autonomy 0.74, and purpose of living 0.64. However, the current study focused attention on only four dimensions (self-acceptance, environmental mastery, autonomy and purpose in life) leaving out personal growth and positive relation owing to low reliability co-efficient scores on the scales in order to avoid misleading results (Kruyen, 2012).

The Physical Activities Scale for the Elderly (PASE). The physical activities scale for the elderly (PASE) assesses activities such as walking, recreational activities, exercise, housework, yard work and caring for others among the aged (Washburn et al., 1993). It uses frequency, duration, and intensity level of activity over the previous week to assign a score, ranging from 0 to 793, with higher scores indicating greater PA. The PASE response ranges from "Never to No" while its score algorithm was derived from PA measured by movement counts from an electronic PA monitor, activity diaries and self-assessed activity levels in a general population of non-institutionalized older persons. This self-report or interviewer-administered instrument was completed in 5 to 15 minutes. According to the authors, the test-retest reliability examined over 3 to 7 weeks was 0.75 (95% CI=0.69-0.80). While the construct validity was done by correlating PASE with health status and physiologic assessment. PASE positively correlated with grip strength (r=0.37), static balance (r=+0.33), leg strength (r=0.25) and negatively associated with resting heart rate (r=-0.13), age (r=-0.34) and perceived health status (r=-0.34); and overall Sickness Impact Profile score (r=-0.42). While the current study reported .710 Cronbach alpha.

It is important to mention that the two instruments were also translated to isiXhosa dialect as some of isiXhosa speaking elderly participants did not understand English language. The transcription was done through experts from tertiary education in South Africa and isiXhosa linguists. The reliability of the used scales was upheld at the preliminary stage of translation among the elderly (note; those who participated in the pilot study were excluded from the main study).

Sampling Techniques and Procedure

The current study relied on a combination of simple random and purposive sampling techniques. On the one hand, the simple random sampling technique was deployed to select respondents from the government approved homes for the elderly. The cognitive capacity of the participants was ascertained by checking through the medical records of the elderly with the assistance of nurses. Those who had history of cognitive disabilities were excluded while those who were cognitively capable were selected and assembled into a hall where tally containing "A" and "B" were administered to them and those who picked A were sampled as the participants for this study. Thereafter, researchers explained the purpose of the study to them and those who consented to participate in the study were involved.

On the other hand, purposive sampling technique was employed to select elderly in their personal homes. Those who were contacted at their various homes were questioned for screening using "The Mini–Mental State Examination (MMSE)" (Pangman et al., 2000) as a guide to ascertain cognitive ability. A clinical study has revealed the efficacy of this test (Pangman et al., 2000). The elderly living in their personal homes who had a good score of cognitive ability were the only ones included in this study.

Ethical Considerations

Ethical approval was granted by Govern Mbeki Research Centre (GMRDC) Ethical Committee (LOU011SNT001). The permission to use the aged institutions, translate the used instruments to local language was sought and granted. Also, compensation, voluntary right and other ethical protocols were observed. Confidentiality and anonymity of the respondents were guaranteed.

Data Analysis

Descriptive (frequency, mean, and standard deviation) and inferential statistics were deployed to analyse the collected data. Descriptive statistics was used to describe the demographic characteristics of the respondents. The Pearson product moment correlation, two-way analysis of variance and regression analysis were deployed to test the hypotheses.

RESULTS

From Table 1, a total of 301 respondents participated in the study; 93 males, 208 females. The age range was 65 – 69 years (32.1%), 70-79 years (33.4%) and above 80 years (34.4%). From the table, the widows were 30.9%, single/separated/divorced 31.6% and those still married or living together were 37.5%. Racial composition showed that IsiXhosa (Black) were 57.9% while the Whites were 42.1%. Of this, 102 (36.5%) were living in either private homes or rented apartments while 191 (63.5%) were living in Home for the Aged.

Table 1

Descriptive analysis of the demographic factors

Variables	Frequency	Percentage
Age		
65-69	98	32.1
70-79	100	33.4
80-89	103	34.4
Total	**301**	**100.0**
Gender		
Male	93	30.9
Female	208	69.1
Total	**301**	**100.0**
Marital Status		
Married/Living Together	95	31.6
Single/Separated/ Divorced	113	37.5
Widowed	93	30.9
Total	**301**	**100.0**
Living Arrangement		
Own/Rented Home	110	36.5
Home for the Aged	191	63.5
Total	**301**	**100.0**
Ethnic Affiliation		
White	129	42.1
Black (IsiXhosa)	172	57.9
Total	**301**	**100.0**
Age range = 65.45±89.1		

Test of Hypothesis One

The first hypothesis states that there is a significant statistical relationship between age, physical activity and the focused four dimensions of psychological wellbeing. The result is presented below.

From the results in Table 2, physical activity has a significant positive relationship with purpose in life as dimension of psychological wellbeing (r= .251, p< .05). however, age is not significantly correlated. This means that, the higher the physical activity the higher the purpose in life among the aged.

Table 2

Correlations between age, physical activity and psychological wellbeing

	Variables	1	2	3	4	5
1	Age	-				
2	PA	.199**	-			
3	Self-acceptance	-.035	-.088	-		
4	Purpose in Life	-.400	-.251**	.592**	-	
5	Environment mastery	-.009	-.015	.551**	.481**	-
6	Autonomy	-.006	-.030	.573**	.389**	.314**

**p <= .01, *p <= .05

Test of Hypothesis Two

The second hypothesis states that there is a significant interaction between ethic affiliation and place of living on the dimensions of wellbeing. The result is revealed in Table 3 below.

Table 3

Two-way variance analysis showing the interaction between ethnic affiliation and place of living and dimensions of wellbeing

Dimensions of PWB	IV	MS	F-Value	P	F
Autonomy	2	102.52	1.411	0.246	0.0
Environmental Mastery	2	112.97	1.778	0.171	0.0
Purpose of Life	2	159.03	2.641	0.074	0.0
Self-acceptance	2	49.75	0.687	0.504	0.0

The result in Table 3 shows that there is no interaction between ethnicity and place of living at mean difference score on all the dimensions of psychological wellbeing, hence no need to conduct the Scheffé test.

Test of Hypothesis Three

Hypothesis three states that there is significant interaction between ethnic affiliation and community involvement on the dimensions of PWB. The result is shown in Table 4.

Table 4

Two-way variance analysis with the interaction between ethnicity and community involvement on PWB

Dimensions of PWB	**IV**	**MS**	**F-Value**	**P**	**F**
Autonomy	2	829.10	11.400**	0.000	0.11
Environmental Mastery	2	1486.97	23.964**	0.000	0.21
Purpose of Life	2	136.85	6.589**	0.000	0.06
Self-acceptance	2	1087.47	15.589**	0.000	0.15

**p <= .01, *p <= .05

From Table 4, there is a significant interaction between ethnic affiliation and community involvement on the dimensions of PWB. The significant mean difference scores and a medium effect size of only environmental mastery and self-acceptance was revealed. Further analyses were conducted on environmental mastery and self-acceptance using the Sheffé test in Table 5 and Table 6 to show the differences between the specific groups.

Table 5

Results of interaction between ethnic affiliation and community involvement for environmental mastery

Ethnicity	Community involvement	N	Risk factor	
			$\overline{X}$	Sd
isiXhosa	No	152	57.39	7.250
	Yes	19	58.16	7.697
English	No	80	62.68	8.890
	Yes	49	67.86	8.188

From Table 5, the result shows that community involvement levels are higher for environmental mastery for the White group than the Black individuals. In other words, environmental mastery is higher for White participants when they experienced

community involvement. From Table 6, the Whites who were involved in community activities did score high on self-acceptance than the black who partook in community activities. Results found that in the means of community involvement there were significant variance in environmental mastery and self-acceptance among isiXhosa and White participants.

Table 6

Interaction between ethnic affiliation and community involvement on self-acceptance

Ethnicity	Community involvement	N	Risk factor	
			$\overline{X}$	Sd
isiXhosa	No	152	60.53	7.218
	Yes	19	61.00	6.209
English	No	80	64.31	10.433
	Yes	49	69.92	7.697

Test of Hypothesis Four

The fourth hypothesis states that ethnic affiliation will significantly moderate the relationships between physical activity (PA) and the focused dimensions of PWB. The result is shown in Table 7.

The results in Table 7 indicate that ethnicity moderates the relationship between physical activity and psychological wellbeing (autonomy, environmental mastery, purpose in life, and self-acceptance). In all these cases, the moderating effect of ethnicity is significant on the 1% level. Result shows that physical activity and ethnicity accounted for a significant variance that occurred in autonomy ($\Delta R^2 = 0.097$; $F_{(1;280)} = 30.015$; $p = .000$) with addition of 9.7% variance recorded. Consequently, it can be inferred that ethnicity indeed moderates the relationship between physical activity and autonomy of elderly persons. Also, physical activity and ethnicity have statistical significant variance in environmental mastery ($\Delta R^2 = 0.161$; $F_{(1;280)} = 53.553$; $p = .000$), however, 16.1% variance is was reported to be caused by the two factors.

Regarding purpose in life, there was a significant statistical changes ($\Delta R^2 = 0.040$; $F_{(1;280)} = 12.468$; p=0.000) as a result of physical activity and ethnic affiliation. The variance in purpose in life could be explained as 4.0%. Consequently, it can be inferred that ethnicity indeed moderates the relationship between physical activity and purpose in life of elderly persons.

Table 7 equally shows a significant changes in self-acceptance (ΔR^2=0.102; $F_{(1;280)}$=31.920; p=.000) as a result of physical activity and ethnic affiliation where 10.2% more variance was recorded. This implies that ethnicity indeed moderates the

Table 7

Moderated hierarchical regression analyses with PA as independent variable, ethnic affiliation as the moderator and the focused four PWB dimensions involved among participants

Model	R	R^2	Adjusted R^2	Change statistics				
				R^2 change	F change	df1	df2	Sig. F Change
Autonomy								
1	0.033	0.001	-0.002	0.001	0.300	1	281	0.584
2	0.313	0.098	0.091	0.097	30.015**	1	280	0.000
Environmental mastery								
1	0.015	0.000	-0.003	0.000	0.064	1	281	0.801
2	0.401	0.161	0.155	0.161	53.553**	1	280	0.000
Purpose in life								
1	0.251	0.063	0.060	0.063	18.944	1	281	0.000
2	0.321	0.103	0.097	0.040	12.468**	1	280	0.000
Self-acceptance								
1	0.088	0.008	0.004	0.008	2.189	1	281	0.140
2	0.331	0.109	0.103	0.102	31.920**	1	280	0.000

**p <= .01, *p <= .05

relationship between physical activity and self-acceptance of elderly persons.

Furthermore, the nature of moderating effects was investigated using regression coefficients for the regression comparisons between physical activity and three PWB's dimensions (autonomy, environmental mastery and self-acceptance) for the isiXhosa and White elderly separately. The regression lines are presented in Figure 1 for autonomy, Figure 2 for environmental mastery, Figure 3 for purpose in life and Figure 4 for self-acceptance.

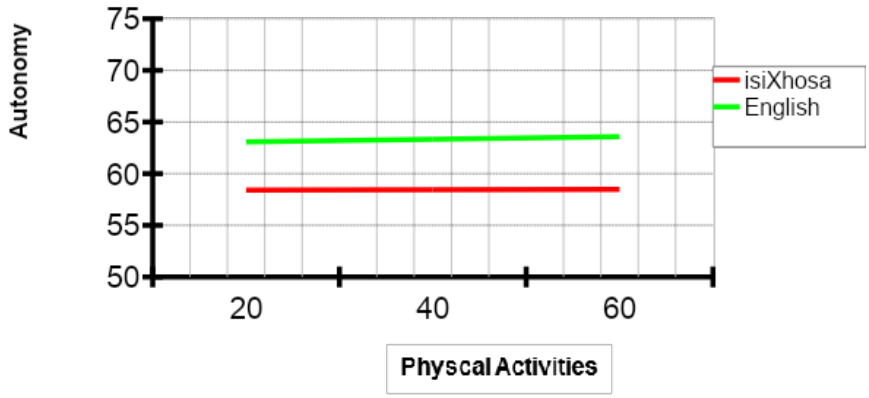

Figure 1. Regression lines of isiXhosa- and White-speaking elderly with PA as the independent variable and autonomy as the dependent variable

Figure 1 shows that the two regression lines run parallel. With lower levels of physical activity, the White elderly showed higher levels of autonomy in comparison with the isiXhosa elderly. An increase in physical activity implies that the levels of autonomy experienced by the two respective groups remain approximately the same due to the slopes of the respective regression lines that are approximately 0. For the White elderly, it is 0.013, and for the isiXhosa elderly, it is 0.001. Although the levels of autonomy for the respective groups remain approximately the same with an increase in physical activity, the White elderly consistently showed higher levels of autonomy than the isiXhosa elderly showed.

In Figure 2, the regression lines showed approximately the same slopes because they are displayed parallel with White elderly scoring 0.013 and the isiXhosa having -0.006. With lower levels of physical activity, the White elderly showed higher levels of environmental mastery in comparison with the isiXhosa elderly. With an increase in physical activity, the levels

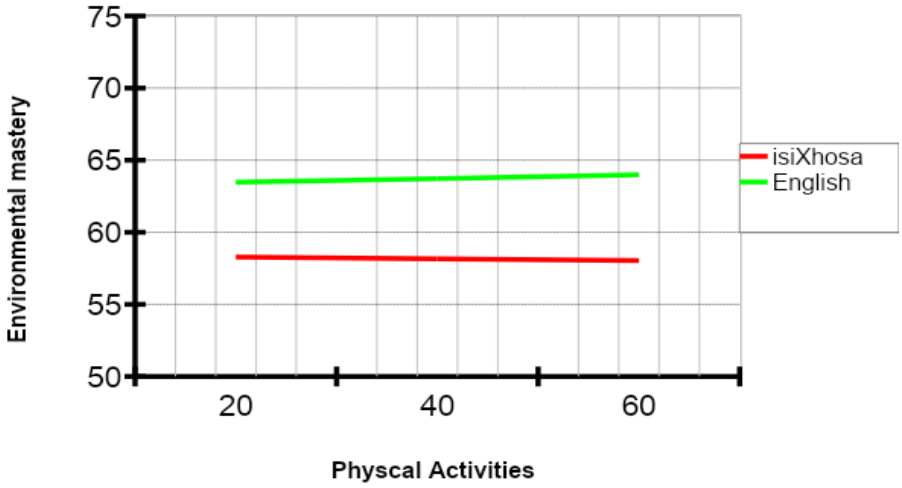

Figure 2. Regression lines of isiXhosa- and White-speaking elderly with PA as the independent variable and environmental mastery as the dependent variable

of environmental mastery experienced by the two groups respectively remain approximately the same. Even though the levels of environmental mastery for the respective groups remain approximately the same with an increase in physical activity, the White elderly consistently showed higher levels of environmental mastery than the isiXhosa elderly showed.

In Figure 3, the regression lines for the two ethnic groups are indicated to illustrate the relationship between physical activity and purpose in life. The two regression lines also displayed the same parallel lines. Where lower levels of physical activity, the White elderly showed higher levels of purpose in life in comparison with the isiXhosa elderly. With an increase in physical activity, the levels of purpose in life experienced by the two groups respectively remain approximately the same due to the respective regression lines that are close to zero and approximately the same. For the White elderly, it is 0.028 and for the isiXhosa elderly it is 0.023. Although the levels of purpose in life for the respective groups remain approximately the same with an increase in physical activity, the White elderly throughout showed higher levels of purpose in life than the isiXhosa elderly.

In Figure 4, the regression lines for the two ethnic groups are indicated to illustrate the relationship between physical activity and self-acceptance. The two regression lines show approximately the same probable tendency: The White elderly scored 0.021 while the Black elderly reported 0.006 scores. Although the levels of self-acceptance for the respective groups remain approximately the same with an increase in physical activity, the White elderly showed higher levels of self-acceptance than their isiXhosa elderly.

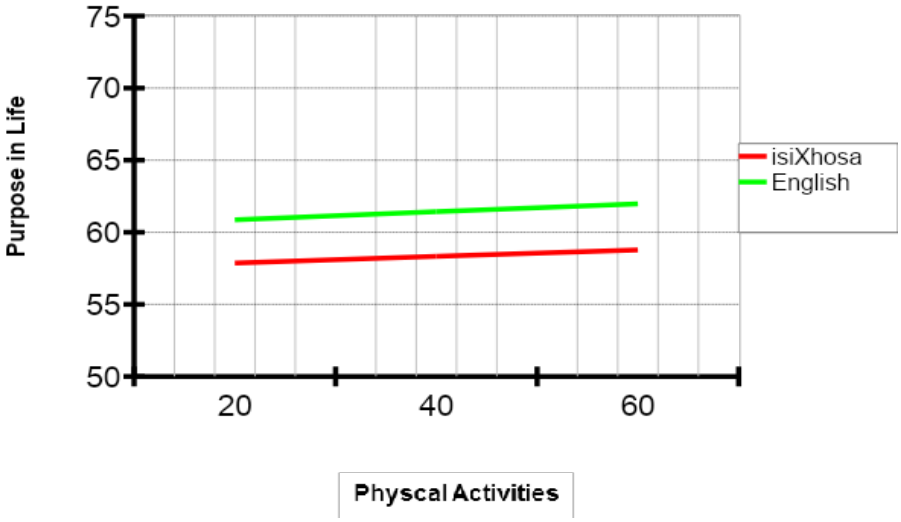

Figure 3. Regression lines of isiXhosa- and White-speaking elderly with PA as the independent variable and purpose in life as the dependent variable

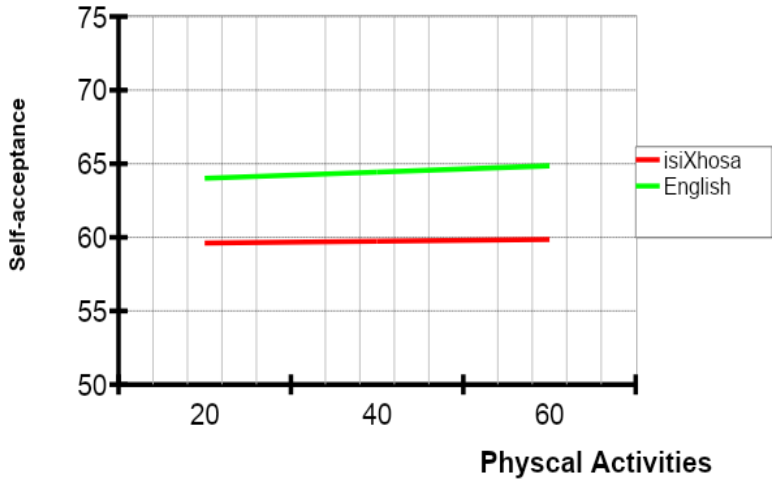

Figure 4. Regression lines of isiXhosa- and White-speaking elderly with PA as the independent variable and self-acceptance as the dependent variable

DISCUSSION

This study attempted to find out the relationship between physical activity and psychological wellbeing of the elderly in Buffalo City, South Africa and how this relationship is moderated by socio-contextual factors. The study found a significant relationship between physical

activity and psychological wellbeing of the elderly irrespective of ethnic background. This indicates that the more the physical activities, the higher the level of purpose in life experienced by the elderly. Similar results were obtained by previous researchers (Jimmefors et al., 2014; Zhang, & Chen, 2019).

However, the results further showed that there is no interaction between ethnicity and place of living in relation to all the four dimensions of psychological wellbeing. Though findings on the association between ethnicity and psychological wellbeing have shown mixed and contradictory reactions, Ryff et al. (2003) had found that perceived daily racial discrimination had a negative correlation with psychological wellbeing. The study further revealed that there was a significant interaction between ethnicity and community involvement on some dimensions of the psychological wellbeing (environmental mastery and self-acceptance). Also, place of residence and community involvement also had an influence on environmental mastery and self-acceptance among the elderly. This finding is in agreement with the previous studies (Asoglu et al., 2014; Ferrand et al., 2014; Gary et al., 2002). Previous studies have demonstrated that place of residence and level of community involvement are important determinants of psychological wellbeing of the elderly. It has been demonstrated that elderly who reside in a place where there is huge community involvement are more likely to enjoy ageing life because they experience little or no loneliness. The community provides a platform for the elderly to engage in emotionally relevant social relationships. The formation of age group cohort in community development is a good example of how community membership may enhance psychologically.

Furthermore, the current study found that the White elderly who were involved in the community showed a significantly higher self-acceptance score. Similar past results have been in mixed forms. For instance, a similar study was linked to ethnicity bias and suggested that income, education and gender factors might have served as mediating factors (McClintock et al., 2016; Phillipson, 2015). A study in America showed that place of living was associated with psychological wellbeing among the elderly. However, such association can be mediated by place of attachment and other environmental factors.

It is also good to note that some previous findings negate the current finding. They argued that in most racially or ethnically divided societies, the elderly that belong to the minority racial or ethnic groups are often subjectively constructed as problematic 'others' which often negatively affect their wellbeing, particularly psychological wellbeing (Torres, 2015; Zubair & Victor, 2015). In other words, systemic and institutional humiliation of the minority elderly in racially divided societies leaves a deep 'rift' in their socio-psychological domain, which in most instances, results in the loss of purposefulness, sense of usefulness and importance.

Finally, some studies have found that physical activity relates with psychological wellbeing. The current study revealed that higher scores in physical activity have the tendencies to significantly increase the levels and dimensions of psychological wellbeing (that is, autonomy, environmental mastery, purpose in life and self-acceptance) among both groups. Many kinds of research have proven that low physical activity could deteriorate the wellbeing of the elderly (Frisoli, 2016; Kolbe-Alexander et al., 2006; Shozi, 2018). This provides an opportunity for improvement in recreational activities to enhance the psychological wellbeing among the elderly, especially the Black population having scored the lowest scores.

CONCLUSIONS

This study has examined the socio-contextual factors as determinants of psychological wellbeing among selected aged in South Africa using a moderating approach. The results revealed a statistical relationship between physical activity and purpose of life. There was a significant statistical interaction between ethic affiliation and place of living on the focused dimensions of psychological wellbeing. However, community involvement could moderate the effect of physical activity on psychological wellbeing. Community involvement was significant on environmental mastery and self-acceptance among the two groups. It was also shown that the White elderly revealed higher levels of psychological wellbeing than the isiXhosa elderly. Moreover, higher scores in physical activity did significantly increase the levels of psychological wellbeing (autonomy, environmental mastery, purpose in life, and self-acceptance) among both groups. It is therefore recommended that recreational and physical activities be encouraged among the elderly residing in both private and retirement homes, especially among the Black population. However, those participating in physical activity must be ascertained to be physically and cognitively fit to do so.

Also, there is the need for the advocacy of social relationship and peer-to-peer support model at the Municipality level. These models have been used successfully to aid Quality of Life (QoL) of the elderly in previous studies (Chang et al., 2014; Geffen et al., 2019). Furthermore, volunteer visits and community involvement are important avenues to improve the psychological wellbeing of the elderly. A study (Geffen et al., 2019) has found this method to be effective in boosting the mental healthiness and general wellbeing of the aged. In addition, the government may need to formalise structures to support the psychological wellbeing of the elderly in South Africa, particularly among the Black population. Social workers and psychologists should form an alliance in the development and management of elderly's psychological wellbeing at all levels of government.

Limitations of the Study

Although the population of study for this particular study was adequate for a

quantitative study of this nature, subsequent studies may involve all population groups in South Africa, the Black, Whites and Coloured and other ethnic groups.

The response bias by the respondents was difficult to control in a self-report survey like this.

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REFERENCES

Asoglu, M. R., Selcuk, C., Cam, C., Cogendez, E., & Karateke, A. (2014). Effects of urinary incontinence subtypes on women's Quality of Life (including sexual life and psychosocial state). *European Journal of Obstetrics and Gynecology and Reproductive Biology, 176,* 187-190. https://doi.org/10.1016/j.ejogrb.2014.02.008

Bai, X. (2016). Alignment or struggle? Exploring socio-demographic correlates of individual modernity in Chinese older people. *Ageing and Society*, *36*(1), 133-159. https://doi.org/10.1017/S0144686X14001020

Chang, P., Wray, L., & Lin, Y. (2014). Social relationships, leisure activity, and health in older adults. *American Psychological Association, 33*(6), 516-523. https://doi.org/10.1037/hea0000051

Cutler, D. M., Ghosh, K., & Landrum, M. B. (2013). Evidence for significant compression of morbidity in the elderly U.S. Population. In D. A. Wise (Ed.), *Discoveries in the Economics of Aging* (pp. 21-30). University of Chicago Press. https://doi.org/10.3386/w19268

Dong, X., & Zhang, M. (2015). The prevalence of neurological symptoms among Chinese older adults in the greater Chicago area. *AIMS Medical Science, 2*(1), 35-50. https://doi.org/10.3934/medsci.2015.1.35

Fagerström, J., & Aartsen, M. (2013). Successful ageing and its relationship to contemporary norms. A critical look at the call to "age well". *Recherches sociologiques et anthropologiques, 44*(1), 51-73. https://doi.org/10.4000/rsa.918

Ferrand, C., Martinent, G., & Durmaza, N. (2014). Psychological need satisfaction and well-being in adults aged 80 years and older living in residential homes: Using a self-determination theory perspective. *Journal of Aging Studies, 30,* 104-111. https://doi.org/10.1016/j.jaging.2014.04.004

Freedman, V. A., Brenda, C., & Spillman, P. M. (2013). Trends in late-life activity limitations in the United States: An update from five national surveys. *Demography, 50,* 661-671. https://doi.org/10.1007/s13524-012-0167-z

Frisoli, A. (2016). *The South African elderly: Neglect, social contribution and the HIV/AIDS Epidemic.* CUNY Academic Works.

Gary, W., Evans, E. K., & Paul, E. (2002). Housing quality and psychological well-being among the elderly population. *The Journals of Gerontology, 57*(4), 381-383. https://doi.org/10.1093/geronb/57.4.P381

Geffen, L. N., Kelly, G., Morris, J. N., & Howard, E. P. (2019). Peer-to-peer support model to improve quality of life among highly vulnerable, low-income older adults in Cape Town, South Africa. *BMC Geriatrics, 19,* Article 279. https://doi.org/10.1186/s12877-019-1310-0

Gerber, A. M., Botes, R., Mostert, A., Vorster, A., & Buskens, E. (2016). A cohort study of elderly people in Bloemfontein, South Africa, to determine health-related quality of life and functional abilities. *South African Medical Journal, 106*(3), 298-301. https://doi.org/10.7196/samj.2016.v106i3.10171

González-Celis, A. L., Chávez-Becerra, M., Maldonado-Saucedo, M., Vidaña-Gaytán, M. E., & Magallanes-Rodríguez, A. G. (2016). Purpose in life and personal growth: Predictors of Quality of Life in Mexican elders. *Psychology, 7,* 714-720. https://doi.org/10.4236/psych.2016.75074

Granborn, M., Himmelsbach, I., Haak, M., Löfqvist, C., Oswald, F., & Iwarsson, S. (2014). Residential normalcy and environmental experiences of very old people: Changes in residential reasoning over time. *Journal of Ageing Studies, 29,* 9-19. https://doi.org/10.1016/j.jaging.2013.12.005

Gurak, D., & Kritz, M. (2013). Elderly immigrants in rural America: Trends and characteristics. In N. Glasgow., & E. H. Berry (Eds.), *Rural Aging in the 21st Century* (pp. 331-352). Springer. https://doi.org/10.1007/978-94-007-5567-3_18

Hashim, Y. A. (2011). Determining sufficiency of sample size in management survey research activities. *International Journal of Organisational Management & Entrepreneurship Development, 6*(1), 119-130.

Jimmefors, A., Garcia, D., Rosenberg, P., Fariba, M., Adrianson, L., & Archer, T. (2014). Locomotion (empowering) and assessment (disempowering) self-regulatory dimensions as a function of affective profile in high school students. *International Journal of School and Cognitive Psychology, 2*(1), Article 103. https://www.researchgate.net/publication/261994080_Locomotion_Empowering_and_Assessment_Disempowering_Self-Regulatory_Dimensions_as_a_Function_of_Affective_Profile_in_High_School_Students

Kolbe-Alexander, T. L., Lambert, E. V., Harkins, J. B., & Ekelund, U. (2006). Comparison of two methods of measuring PA in South African older adults. *Journal of Aging and Physical Activities, 14*(1), 99-114. https://doi.org/10.1123/japa.14.1.98

Kruyen, P. M. (2012). *Using short tests and questionnaires for making decisions about individuals: When is short too short?* [Doctoral dissertation, Tilburg University]. Ridderprint.

Kwon, I., Bharmal, N., Choi, S., Araiza, D., Moore, M., Trejo, L., & Sarkisian, C. A. (2016). Older ethnic minority women's perceptions of stroke prevention and walking. *Women's Health Issues, 26*(1), 80-86. https://doi.org/10.1016/j.whi.2015.08.003

McClintock, M. K., Dale, W., Laumann, E. O., & Waite, L. (2016). Empirical redefinition of comprehensive health and well-being in the older adults of the United States. *Proceedings of the National Academy of Sciences May 2016, 113*(22), E3071-E3080. https://doi.org/10.1073/pnas.1514968113

Menkin, J. A., Robles, T. F., Gruenewald, T. L., Tanner, E. K., & Seeman, T. E. (2017). Positive expectations regarding aging linked to more new friends in later life. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 72,* 771-781. https://doi.org/10.1093/geronb/gbv118

Pangman, V. C., Sloan, J., & Guse, L. (2000). An examination of psychometric properties of the mini-mental status examination and the standardized mini-mental status examination: Implications for clinical practice. *Applied Nursing Research, 13*(4), 209-213. https://doi.org/10.1053/apnr.2000.9231

Phillipson, C. (2015). Placing ethnicity at the centre of studies of later life: Theoretical perspectives and empirical challenges. *Ageing and Society*, *35*(5), 917-934. https://doi.org/10.1017/s0144686x14001032

Ryff, C. D., Keyes, M., & Corey. L. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology, 69*(4), 719-727. https://doi.org/10.1037/0022-3514.69.4.719

Ryff, C. D., Keyes, C. L., & Hughes, D. L. (2003). Status inequalities, perceived discrimination, and eudaimonic well-being: Do the challenges of minority life hone purpose and growth? *Journal of Health and Social Behavior, 44*(3), 275-291. https://doi.org/10.2307/1519779

Sarkisian, C. A., Shunkwiler, S. M., Aguilar, I., & Moore, A. A. (2006). Ethnic differences in expectations for aging among older adults. *Journal of the American Geriatrics Society*, *54,* 1277-1282. https://doi.org/10.1111/j.1532-5415.2006.00834.x

Schoenborn, C., Adams, P., & Peregoy, J. (2013). Health behaviors of adults: United States, 2008-2010. *Vital Health Statistics, 10*(257), 1-184.

Shozi, S. (2018). *Physical activities, body composition and handgrip strength among South African adults: The PURE study.* [Master's dissertation, North-West University]. Boloka Institutional Repository.

Silverstein, M., & Giarrusso, R. (Eds.). (2013). *Kinship and cohort in an aging society: From generation to generation*. Johns Hopkins University Press. https://doi.org/10.1017/S0144686X14001263

Statistics South Africa. (2011). *Census 2011: Profiles of older persons in South Africa.* https://www.statssa.gov.za/publications/Report-03-01-60/Report-03-01-602011.pdf

Statistics South Africa. (2014). *Mortality and causes of death in South Africa, 2013: Findings from death notification.* https://www.statssa.gov.za/publications/P03093/P030932014.pdf

Torres, S. (2015). Expanding the gerontological imagination on ethnicity: Conceptual and theoretical perspectives. *Ageing & Society, 3*(5), 935-960. https://doi.org/10.1017/S0144686X14001330

Washburn, R. A., Smith, K. W., Jette, A. M., & Janney, C. A. (1993). The PA Scale for the Elderly (PASE): Development and evaluation. *Journal of Clinical Epidemiol, 46*(2), 153-162. https://doi.org/10.1016/0895-4356(93)90053-4

Zhang, Z., & Chen, W. (2019). A systematic review of the relationship between physical activity and happiness. *Journal of Happiness Studies, 20,* 1305-1322. https://doi.org/10.1007/s10902-018-9976-0

Zubair, M., & Victor, C. (2015). Exploring gender, age, time and space in research with older Pakistani Muslims in the United Kingdom: Formalised research 'ethics' and performances of the public/private divide in 'the field'. *Ageing and Society*, *35*(5), 961-985. https://doi.org/10.1017/S0144686X14001378