Nigerian Psychological Research, Volume 4, September 2016, 572 - 593

ISSN:2408-5448

REVALIDATION OF SOME MEASURES OF PSYCHOLOGICAL WELLBEING USING A CROSS-SECTION OF NIGERIAN ADULTS

Igbokwe, D.O.,[1] Agbu, J. O.,[2] Adekeye, O. A.,[3] Adeusi, S.O.,[4] Obidiran, O. D.,[5] Yabilsu, S. J.,[6] Akindele, Z. A.,[7] Agoha, B.C.E.,[8] & Ndom, R. J. E.,[9]

[1] Department of Psychology,
College of Leadership Development Studies,
Covenant University,Ota, Ogun State.

[2] Faculty of Health Sciences
National Open University of Nigeria
91 Cadastrial Zone, Jabi, Abuja
oagbu@noun.edu.ng

[3-8] Department of Psychology,
College of Leadership Development Studies,
Covenant University,Ota, Ogun State.

[9]Department of Behavioural Sciences,
University of Ilorin, Kwara State.

***Correspondence**:david.igbokwe@covenantuniversity.edu.ng, +234-703-2606-393

ABSTRACT

This study was conducted to establish initial validity and reliability of some measures of psychological wellbeing for use in Nigeria. Two hundred and five adult Nigerians were randomly selected from a community in Ota, Ogun State using a multi stage sampling method which culminated in odd and even number method of simple random sampling for participants' selection. The participants were aged between 17 and 80 years ($\overline{X}$ =29.22, SD=11.93). A battery of the short forms of six psychological wellbeing instruments in a paper was administers, viz: Personal Growth Initiative Scale (PGIS), Gratitude Questionnaire – 6 (GQ-6), Meaning in Life Questionnaire (MILQ), Satisfaction With Life Scale (SWLS), Life Orientation Test-Revised (LOT-R), and Worry Domain Questionnaire Short Form (WDQ-SF). A Principal Component Analysis (PCA) was conducted with adequate measures of Kaiser-Meyer-Okin and Bartlett's Test of Sphericity for each of the instrument and results showed factorial validity of each instrument based on its factor loadings and consistent with literature. A correlation coefficient revealed the Cronbach alpha to be as follows for the instruments: PGIS = .840; GQ-6 = .316; MILQ = .825; SWLS = .718; LOT-R = .391; WDQ =.815. Each instrument showed initial validity for possible - use in Nigeria.

Key Words: Revalidation, psychological wellbeing, Nigerian adults. .

INTRODUCTION

Psychological wellbeing is referred to as "positive psychological functioning" in the areas of self-acceptance, personal growth, purpose in life, positive relations with others, environmental mastery and autonomy (Ryff & Keyes, 1995, p.720). Presently, there is sparse research literature in the area of psychological well-being in Nigeria. This sparsity was brought to the fore by Diener, Suh, Lucas, and Smith (1999) in their review of three decades of subjective well-being studies where no well-being study in Nigeria was reported or reviewed. Diener *et al's* (1999) study highlights the need for scholars to engage in vigorous studies in the area of psychological well-being in Nigeria. One of the major challenges with the study of wellbeing in Nigeria is the insufficient accessibility and shortage of locally validated, adapted, adopted or locally developed measures of psychological wellbeing by researchers.

The paucity of indigenous literature on psychological well-being literature is rather surprising owing to the fact that the Nigerian state has been considered to be one of the happiest people on earth with a fair rank of 78 out of the 158 countries ranked in the 2015 World happiness report by Helliwell, Huang and Wang (2015) and presently, the fourth happiest country in Africa (Helliwell, *et al*, 2015). Happiness is one of the core measures of positive wellbeing and has been empirically examined among prison inmates in Nigeria with personality, perceived social support and emotional intelligence predicting happiness among prison inmates (Balogun, 2014). Notwithstanding the report by Balogun (2014), Nigeria is among the countries within the low human development category (HDR, 2014) with 79.2% of unemployed people estimated to be living below $2 a day. This state of affair, i.e. the coexistence of happiness and gross poverty, makes it probable that issues bothering on psychological wellbeing of Nigerians whether positive or negative psychological well-being should ideally attract research interest among scholars.

Along these lines, Rigon, Abah, Dangoji, Walker, Fredian, Ogunleye & Hirst (2015) in their recent study in Nigeria used the Multidimensional Poverty Index (MPI) of 2014 to indicate the presence or absence of well-being. The Oxford Poverty and Human Development Initiative (OPHI, 2015) reported that 17% of Nigerians are vulnerable to poverty while 32.8% are living in severe poverty. The OPHI (2015) further reported the incidence of poverty to be 53.3% and the average intensity of deprivation across the poor to be 56.8%. These empirical findings

shows that general well-being in Nigeria is below expectation.

It is important to note that some of the studies on wellbeing in Nigeria have used scales validated for the purpose of that particular study. For instance, Salami (2010) used scales with validity coefficients from other climes without revalidating it in Nigeria (Adeyemo & Adeleye, 2008; Akpunne, 2015) or have used and mentioned psychological well-being while examining social well-being as a construct in a qualitative study (Ajiboye, 2011), or have studied psychological wellbeing without specifically measuring the construct with an instrument (Adegoke, 2014). Others used scales measuring opposite constructs of psychological well-being while alluding to psychological wellbeing (Asiyanbola, 2012) or have focused on general wellbeing of Nigerians (Rigon, *et al*, 2015). Since almost all the studies conducted in the area of wellbeing in Nigeria have not focused on establishing the validity of psychological wellbeing measures, the principal objective of this study therefore is to initially validate six identified instruments (Personal Growth Initiative Scale (PGIS), Gratitude Questionnaire – 6 (GQ-6), Meaning in Life Questionnaire (MILQ), Satisfaction With Life Scale (SWLS), Life Orientation Test - Revised (LOT-R), and Worry Domain Questionnaire (WDQ) that measure psychological wellbeing in Nigeria in order for researchers to use them as a starting point in assessing the presence of positive psychological well-being or the lack of it in Nigeria.

METHOD

Participants

Participants in this study consisted of two hundred and five Nigerian adults randomly selected from Ota, Ogun State using a multi stage sampling method which culminated in odd and even number method of simple random sampling for participant's selection **(see procedure section)**. Their ages ranged between 17 and 80 years ($\overline{X}$ =29.22; *SD*=11.93). Of this number, 72 (35.1%) were males and 133 (64.9%) were females.

Measures/Instruments

Six instruments were used in this study.

Personal Growth Initiative Scale (PGIS): This scale was designed by Robitschek (1998). The original PGIS is a self-report instrument that yields a single scale score for personal growth initiative. Test retest reliability of 0.74 and validity evidence of the PGIS is strong. PGIS takes about 5 minutes to complete, but there is no time limit. The PGIS is a 9-item questionnaire which measures the respondent's

personal growth initiative. The items has a 6 Likert-type response format which ranges from definitely disagree (0) to definitely agree (5). The scores are calculated by summing the responses on the items; the minimum score is 0 while the maximum score is 45. The higher the score, the higher the level of personal growth initiative (Robitschek, 1998, 1999).

*Gratitude Questionnaire (GQ6):*The GQ6 was designed to measure the gratitude level of respondents. The GQ6 was developed by McCullough, Emmons and Tsang (2002). It is a 6-item questionnaire which has a 7 Likert-type response pattern which ranges from strongly disagree (1) to strongly agree (7). The GQ6 is the short form of the original 39 item Gratitude Questionnaire. The GQ6 has only one structure or dimension and this was established through a confirmatory factor analysis by McCullough, *et al* (2002) who also found an internal consistency reliability coefficient of .82. The GQ-6 has good psychometric qualities and has been validated with other measures. The reported estimates of Cronbach's Alpha coefficient for GQ6 are from 0.76 to 0.84 (McCullough *et al.,* 2002). The GQ6 correlates positively with other constructs like Satisfaction With Life Scale (SWLS) (0.53), Life Orientation Test (LOT) (0.51), general affective traits and wellbeing, prosocial traits and behaviours, spiritual and religiosity traits, the big five inventory and social desirability scale (McCullough *et al.,* 2002,). Items on the GQ-6 are added to obtain a total score while items 3 and 6 are reversely scored. The scores on the GQ6 ranges between 6 and 42.

*Meaning in Life Questionnaire (MILQ):*This is a 10 item questionnaire designed to measure two dimensions of meaning in life. It was developed by Steger, Frazier, Oishi, and Kaler (2006). The dimensions are: (1). Presence of Meaning – how much respondents feel their lives have meaning and (2). Search for Meaning – how much respondents strive to find meaning and understanding in their lives. Items on the scale are on a 7-point Likert-type format scale ranging from 1 – Absolutely True to 7 – Absolutely Untrue. Items 1, 4, 5, 6, and 9 make up the Presence of Meaning subscale while items 2, 3, 7, 8, and 10 make up the Search for Meaning subscale. Scoring is kept continuous but item 9 is reversely scored. The Cronbach's Alpha Coefficients for the target self-reports on the MILQ–Presence and MILQ–Search are 0.81 and 0.84 respectively and the MILQ score for each subscale ranges between 5 and 35 (Steger *et al.,* 2006).

*Satisfaction with Life Scale (SWLS):*The scale was developed by Diener, Emmons, Larsen and Griffin (1985). It is a short 5-item instrument

designed to measure global cognitive judgments of satisfaction with one's life. The scale usually requires only about one minute of a respondent's time. The Satisfaction with Life Scale (SWLS) was developed as a measure of the judgmental component of Subjective Well-Being (SWB). Initially, the test-retest reliability was 0.82, internal consistency of items to total correlation ranges from 0.57 to 0.75. SWLS scores ranges between 5 and 35

*Life Orientation Test-Revised (LOT-R):*Scheier and Carver (1992) developed the original LOT which had 12 items: 4 worded positively, 4 worded negatively, and 4 fillers. However, as a result of disparity between the measure and theoretical underpinnings of life orientation, they developed a revised version LOT-R (Scheier, Carver, & Bridges, 1994).LOT-R is a 10-item measure of optimism versus pessimism. Of the 10 items, 3 items measure optimism, 3 items measure pessimism, and 4 items serve as fillers. Respondents rate each item on a 4-point scale: 0 = strongly disagree, 1 = disagree, 2 = neutral, 3 = agree, and 4 = strongly agree. Items 3, 7, and 9 are reverse scored (or scored separately as a pessimism measure). Items 2, 5, 6, and 8 are fillers and should not be scored. Scoring is kept continuous but there is no benchmark for being an optimist or pessimist. The LOT-R and LOT scales have a correlation of 0.95.

*Worry Domain Questionnaire-Short Form (WDQ-SF):*The WDQ-SF is a self-report questionnaire widely used to assess levels of worry across five domains of everyday concern. These domains are: relationships, lack of confidence, aimless future, work, and financial issues. The scale was originally developed by Tallis, Eysenck and Matthews (1992). The original WDQ has 25 items with a Likert type response options ranging from not at all (1) to extremely (5) and can be assessed either with the global score or the individual subscale score. The WDQ has a test retest reliability coefficient of 0.79 and a convergent reliability coefficient of 0.67 with the Penn State Worry Questionnaire (Meyer, Miller, Metzger, & Borkovec, 1990). The short form of the WDQ, which is WDQ-SF, has 10 items with Likert type response options ranging from Not at All (0) to Extremely (4). This was developed by Stöber and Joormann (2001). It has a Cronbach's Alpha coefficient of 0.88 and a five factor structure. The WDQ-SF has a correlation of 0.97 with the WDQ showing a very good reliability coefficient. For the WDQ-SF, two items each represents the five subscales of the original WDQ. WDQ-SF scores ranges between 0 and 40.

Procedure

A multistage sampling technique was used in this study with Ogun State as the sampling frame. The multistage sampling procedure was applied as follows: Using the Nigerian Zip Codes (2017), a systematic random sampling procedure was applied with 4 as the nth term. From Ogun State, the 4th Local Government Area, Ado-Odo Ota district/area was selected, from Ado-Odo Ota, the 4th street, Benja Village, a residential quarters beside Covenant University, Canaan land was further selected. Using the odd and even technique of simple random sampling, three research assistants sampled every odd numbered house in Benja Village and every odd numbered person within each sampled residence. The selected participants were briefed on the academic purpose of the research and administered the questionnaires. Participation was voluntary anonymous and incentive free.

Analysis

A principal component analysis (PCA) was used to examine the factor structure of each of the scales. Means and standard deviations were calculated for the scales and their subscales and Multivariate Analysis of Variance (MANOVA) was used to examine gender differences in response to the scales and subscales. The correlation matrix was calculated with Pearson Product Moment Correlation Coefficient (PPMCC) and the reliability analysis was calculated using the Cronbach's Alpha (α) reliability analysis. The Statistical Package for Social Sciences (SPSS), version 22 was used for the analysis with $p \leq 0.05$ (95%) used as the level of significance.

RESULTS

Table 1: Showing the Internal Consistency and Gender Differences of the Well-being Scales and Subscales.

Well-being Scales and Subscales	No of Items	α	Women (n=133)		Men (n=72)		F	Sig.	eta
			X	*SD*	*X*	*SD*			
Personal Growth Initiative Scale (PGIS)	9	.84	27.77	11.36	28.14	11.41	.54	.46	.00
Gratitude Questionnaire – 6 (GQ-6)	6	.74	35.99	5.84	35.22	6.52	.50	.48	.00
Meaning in Life Questionnaire (MILQ)	10	.83	52.62	12.69	53.04	15.93	1.02	.31	.01
1. Presence	3	.78	26.56	7.71	26.67	8.75	.51	.48	.00
2. Search	3	.90	26.06	9.22	26.38	10.01	.69	.41	.00
Satisfaction With Life Scale (SWLS)	5	.72	21.65	7.54	19.79	7.65	1.40	.24	.01
Life Orientation Test - Revised (LOT-R)	10	.49	12.13	3.77	11.53	4.41	.81	.37	.00
1. Pessimism	3	.51	8.15	3.28	7.50	3.67	1.20	.28	.01
2. Optimism	3	.57	3.98	1.67	4.03	1.65	.02	.90	.00
Worry Domain Questionnaire (WDQ)	10	.82	10.63	9.50	12.26	9.28	2.42	.12	.01
1. Relationships	2	.37	1.62	2.25	1.99	2.41	2.04	.16	.01
2. Lack of Confidence	2	.49	1.83	2.32	1.76	2.19	.00	.95	.00
3. Aimless future	2	.52	2.53	2.49	3.14	2.90	3.53	.06	.02

4.	Work	2	.68	2.36	2.87	2.82	2.73	2.02	.16	.01
5.	Financial	2	.66	2.30	2.72	2.56	2.73	.70	.40	.00

The F tests and effect sizes represents the result of a multivariate analysis of variance (MANOVA) on the scales and subscales. *p < .05.

Table 1 shows the descriptive statistics, internal consistency and gender differences of the well-being scales and subscales used for this study. The Cronbach alpha (α) ranged from .37 to .90 for the entire scales and subscales. The Cronbach alpha of the PGIS showed .84, GQ6 showed .74, MILQ showed .83, SWLS showed .72, LOTR showed .49 and WDQ showed .82. A MANOVA on gender differences in the scores of participants in Table 1 showed no significant gender differences in the manifestation of wellbeing among the participants. However, women showed higher mean scores in GQ6, SWLS and LOTR while men showed higher mean scores in PGIS, MILQ and WDQ.

Table 2: Correlation Matrix between the Wellbeing Scales and Demographic Variables

	PGIS	GQ6	MILQ	SWLS	LOTR	WDQ	Age	Sex	MStat.	Lev. of Ed.	
PGIS	-										
GQ6	-.118	-									
MILQ	.190**	.134	-								
SWLS	.311**	-.005	-.034	-							
LOTR	.291**	-.346**	-.084	.226**	-						
WDQ	-.134	.085	-.003	-.121	-.029	-					
Age	-.129	.081	-.083	.017	-.113	-.014	-				
Sex	-.015	.061	-.014	.117	.072	-.083	-.145*	-			
Marital Status	-.003	.099	.012	.042	-.026	.022	.491**	.050	-		
Level of Edu.	.400**	-.098	.154*	.094	.155*	-.086	-.080	-.011	-.061	-	

N = 205, *p<.05, **p<.001

The inter item correlation between the wellbeing scales and demographic variables is shown in table 2. Except for level of education which correlated positively with PGIS (.400, p<.001), MILQ (.154, p<.05) and LOTR (.155, p<.05), the other demographic variables *viz*: age, sex and marital status did not correlate significantly with any of the wellbeing scale.

Table 3: Result of the PCA of the PGIS

Items	Factor 1	Factor 2	h2
Variable 3	.878		.684
Variable 4	.722		.554
Variable 7	.704		.510
Variable 1	.677		.522
Variable 5	.537	.417	.629
Variable 2		.719	.610
Variable 6		.713	.667
Variable 9		.708	.435
Variable 8	.338	.520	.515
% of Variance	44.10%	12.86%	

The result of the factor analysis of the PGIS is shown in Table 3. The preliminary analysis for the suitability of the data for factor analysis showed the Kaiser-Meyer-Okin Measure of Sampling Adequacy (KMO) Statistic value of .834 which exceeded the value of .6 recommended by Kaiser (1970). The data showed a significant Bartlett's Test of Sphericity ($p<.000$) and the correlation coefficient was also adequate for factor analysis, with majority of the correlation coefficient above .3. Two factors were extracted from the factor analysis of the PGIS (table 3) with communalities ranging from .435 to .684. Of the two extracted factors with eigenvalues greater than 1, the first factor explained 44.10% of the total variance while the second factor explained 12.86% of the total variance.

Table 4: Result of the PCA of the GQ6

Items	Factor	h2
Variable 2	.784	.614
Variable 5	.768	.590
Variable 1	.705	.497
Variable 4	.668	.447
Variable 3	.601	.362
Variable 6	.557	.310
% of Variance	47.00%	

The result of the factor analysis of the GQ6 is shown in Table 4. The preliminary analysis for the suitability of the data for factor analysis showed the Kaiser-Meyer-Okin Measure of Sampling Adequacy (KMO) Statistic value of .760 which exceeded the value of .6 recommended by Kaiser (1970). The data showed a significant Bartlett's Test of Sphericity ($p<.000$) and the correlation coefficient was also adequate for factor analysis, with majority of the correlation coefficient above .3. One factor was extracted from the factor analysis of the GQ6 (table 4) with communalities ranging from .310 to .614. The extracted factor had an eigen value greater than 1 and it explained 47.004% of the total variance.

Table 5: Result of the PCA of the MILQ

Items	Factor 1	Factor 2	h2
Variable 2	.877		.765
Variable 8	.846		.774
Variable 3	.834		.696
Variable 7	.833		.794
Variable 10	.831		.664
Variable 4		.838	.688
Variable 5		.789	.670
Variable 6		.732	.589
Variable 1		.686	.453
Variable 9		.590	.371
% of Variance	41.43%	23.22%	

The result of the factor analysis of the MILQ is shown in Table 5. The preliminary analysis for the suitability of the data for factor analysis showed the Kaiser-Meyer-Okin Measure of Sampling Adequacy (KMO) Statistic value of .833 which exceeded the value of .6 recommended by Kaiser (1970). The data showed a significant Bartlett's Test of Sphericity ($p<.000$) and the correlation coefficient was also adequate for factor analysis, with majority of the correlation coefficient above .3. Two factors were extracted from the factor analysis of the MILQ (table 5) with communalities ranging from .371 to .794. Of the two extracted factors with eigen values greater than 1, the first factor explained 41.43% of the total variance while the second factor explained 23.22% of the total variance.

Table 6: Result of the PCA of the SWLS

Items	Factor	h2
Variable 2	.780	.608
Variable 3	.744	.553
Variable 4	.727	.529
Variable 1	.638	.407
Variable 5	.538	.290
% of Variance	47.73%	

The result of the factor analysis of the SWLS is shown in Table 6. The preliminary analysis for the suitability of the data for factor analysis showed the Kaiser-Meyer-Okin Measure of Sampling Adequacy (KMO) Statistic value of .752 which exceeded the value of .6 recommended by Kaiser (1970). The data showed a significant Bartlett's Test of Sphericity ($p<.000$) and the correlation coefficient was also adequate for factor analysis, with majority of the correlation coefficient above .3. One factor was extracted from the factor analysis of the SWLS (table 6) with communalities ranging from .290 to .608. The extracted factor had an eigen value greater than 1 and it explained 47.734% of the total variance.

Table 7: Result of the PCA of the LOTR

Items	Factor 1	Factor 2	h2
Variable 4	.801		.640
Variable 10	.724		.541
Variable 1	.668		.444
Variable 7		.787	.647
Variable 9		.744	.559
Variable 3		.569	.326
% of Variance	29.72%	22.94%	

The result of the factor analysis of the LOTR is shown in Table 7. The preliminary analysis for the suitability of the data for factor analysis showed the Kaiser-Meyer-Okin Measure of Sampling Adequacy (KMO) Statistic value of .572 which exceeded the value of .6 recommended by Kaiser (1970). The data showed a significant Bartlett's Test of Sphericity (p<.000) and the correlation coefficient was also adequate for factor analysis, with majority of the correlation coefficient above .3. Two factors were extracted from the factor analysis of the LOTR (table 7) with communalities ranging from .326 to .647. Of the two extracted factors with eigen values greater than 1, the first factor explained 29.715% of the total variance while the second factor explained 22.939% of the total variance.

Table 8: Result of the PCA of the WDQ

Items	Factor	h2
Variable 3	.772	.596
Variable 2	.731	.535
Variable 6	.695	.482
Variable 1	.634	.402
Variable 4	.620	.385
Variable 5	.618	.382
Variable 10	.574	.330
Variable 8	.509	.259
Variable 7	.503	.253
Variable 9	.456	.208
% of Variance	38.31%	

The result of the factor analysis of the WDQ is shown in Table 8. The preliminary analysis for the suitability of the data for factor analysis showed the Kaiser-Meyer-Okin Measure of Sampling Adequacy (KMO) Statistic value of .847 which exceeded the value of .6 recommended by Kaiser (1970). The data showed a significant Bartlett's Test of Sphericity (p<.000) and the correlation coefficient was also adequate for factor analysis, with majority of the correlation coefficient above .3. One factor was extracted from the factor analysis of the WDQ (table 8) with communalities ranging

from .208 to .596. The extracted factor had an eigen value greater than 1 and it explained 38.305% of the total variance.

DISCUSSION

This study was conducted to revalidate some measures of wellbeing using Nigerian samples. Personal Growth Initiative Scale (PGIS), Gratitude Questionnaire – 6 (GQ-6), Meaning in Life Questionnaire (MILQ), Satisfaction With Life Scale (SWLS), Life Orientation Test - Revised (LOT-R), and the Worry Domain Questionnaire (WDQ) were revalidated.

All the scales used in study have been revalidated in other countries. For instance, PGIS has been revalidated in Iran (Joshanloo & Ghaedi, 2009) and Rwanda **(**Blackie, Jayawickreme, Forgeard & Jayawickreme, 2015), GQ-6 has been revalidated in Taiwan (Chen, *et al.*, 2009), MILQ has been revalidated in China (Chan, 2014), SWLS has been revalidated in Brazil (de Sousa, *Santos, Lopes, da Costa & Cristino, 2015) and Spain (V*ázquez, Duque & Hervás, 2013), LOT-R has been revalidated in Germany (Glaesmer *et al*., 2011), Italy (Chiesi, Galli, Primi, Innocenti Borqi, & Bonacchi, 2013) and Hong Kong (Lai, Cheung, Lee & Yu, 1998) while WDQ-SF has been revalidated in Germany (Stober, 1998). Although PGIS has previously been used in Nigeria for a study (Ogunyemi & Mabekoje, 2007), it was not validated with Nigerian samples then. The present is study is one of the first validation attempts on the PGIS. This study revalidated the original PGIS. However, further studies can revalidate the recent version PGIS II (Robitscheck, *et al.*, 2012).

Higher scores on the PGIS show good psychological wellbeing while lower scores show psychological distress. Although the original PGIS (Robitschek, 1998, 1999) has been noted to be unidimensional (Robitscheck, *et al*, 2012), the present study has found a multidimensional construct from factor analysis with items loading in two different factors. It was this unidimensionality that made Robitscheck *et al* (2012) to develop the multidimensional PGIS II with four factors *viz*: Readiness for change, planfulness, using resources, and intentional behavior. From the result of the present study, men manifested a higher level of PGIS than women. This finding has implication for the advancement of women and the need for women to be empowered more to pursue personal growth.

The short form of the GQ-6 (McCullough *et al*, 2002) was revalidated in this study. It was earlier revalidated in Taiwan (Chen *et al*, 2009). The GQ-6 from the findings of this study is a unidimensional scale,

consistent with previous studies. Measures of gratitude including the GQ-6 has been found to consistently access gratitude disposition among young people as it does old people (Froh, *et al*, 2011) and this shows consistency of reliability of these measures. It has been established that gratitude enhances well-being by assisting people to cope with stressful situations, assisting them to reduce negative emotions, reduce strivings for materialistic things, assisting in morality, spiritualty among others (Emmons & Mishra, 2012). Sansone and Sansone (2010) alluded to the need to add gratitude to psychotherapeutic practice and suggested ways to enhancing gratitude in therapy. The importance of gratitude cannot be overemphasized. For instance, Algoe, Haidt and Gable (2008, p.425) reported that "gratitude may function to promote relationship formation and maintenance." The finding of the present study of a slightly higher gratitude score of women had also been reported by Kashdan, Mishra, Breen and Froh (2009). According to Polak and McCullough (2006, p.343), "gratitude may have the potential to reduce materialistic strivings and consequently diminish the negative effects of materialistic strivings on psychological well-being." In a county like Nigeria where materialism has been reported to be replete even among youths (Elgbadon & Adejuwon, 2015), the validation of the GQ-6 in this culture will enable researchers compare outcomes from the construct with that from other constructs like materialism.

The Meaning in Life Questionnaire (MILQ) has been revalidated in various countries like Chile using a national household survey of 1997 households (Steger & Samman, 2012). In their Chilean study, Steger and Samman (2012) found the MILQ to be valid and reliable and also found it positively correlated with other wellbeing measures. The MILQ has also been validated among persons with serious mental illness with good reliability outcome (Schulenberg, Strack & Buchanan, 2011). Using a cross section of Hong Kong Chinese caregivers, Chan (2014) factorially revalidated the Chinese version of the Meaning in Life Questionnaire (C-MLQ) and found a two factor structure (presence and search for meaning) as established by the present study and by Steger, *et al*'s (2006) study. There are cultural differences in the manifestation of the subscales of the MILQ. For instance, Steger, Kawabata, Shimai and Otake (2008) found that Americans tend to manifest greater presence of meaning while Japanese have greater search for meaning. Steger, Kashdan, Sullivan & Lorentz (2008) noted the need for people who do not have meaning in life to assiduously search for it. The MILQ

and even the SWLS are tools that can assist psychologists in assessing enduring wellbeing (Steger & Kashdan, 2006). The present study has revalidated both the MILQ and SWLS for research use in Nigeria and it is believed that these revalidated scales will assist researchers greatly.

According to Pavot and Diener (1993, p.164), "the Satisfaction with Life Scale (SWLS) was developed to assess satisfaction with the respondents life as a whole. It assesses respondent's conscious evaluative judgment of his or her life by using the person's own criteria." The SWLS from the present study has a one factor structure which is consistent with previous studies (Diener *et al*, 1985; Sachs, 2003; Gouveia, Milfont, da Fonseca & Coelho, 2009; Silva, Taveira, Marques & Gouveia, 2014). Also, some confirmatory factor analyses have also shown the SWLS to have a single structure (Shevlin & Bunting, 1994; Lewis, Bunting, Shevlin &Joseph, 1995) and this structure is invariant among sexes (Atienza, Balaguer & Garcia-Merita, 2003).

The SWLS has good cross-cultural validity and utility which has been shown by various studies (Pavot & Diener, 1993). Silva *et al* (2014) revalidated the SWLS among Portuguese students and found a good Cronbach Alpha coefficient of .70, inter item correlations of above .20 and test retest correlation result of .77. The SWLS was found to be reliable in measuring satisfaction with life even among people with Parkinson disease with good internal consistency reliability of .90 and a test-retest reliability of 0.78. (Rosengren, Jonasson, Brogardh & Lexell, 2015).As was noted by Pavot and Diener (1993), clinicians can use the SWLS effectively to assess therapy outcomes and the scale can be used across cultures. The cross-cultural utility of the SWLS alludes to the importance of the present revalidation of the scale for use in Nigeria.

The presently study also revalidated the Life Orientation Test-Revised (LOT-R). However, the multidimensional factor structure result from the present study on LOT-R is incongruent with some earlier studies such as Scheier, Carver and Bridges (1994) and Bastianello, Pacco and Hutz (2014) who found the LOT-R to be unidimensional. Interestingly, when the findings of the present study is examined in the light of what the LOT-R measures which is optimism – pessimism. The present finding of a two-dimensional scale appears more useful. When Scheier, *et al* (1994) developed the LOT-R, they reported that item 1, 4, and 10 measured optimism while items 3, 7 and 9 measured pessimism and the rest are filler items. This theoretical dual dimension of the LOT-R is reflected in

the present study with 4, 10 and 1 loading together in factor 1 (optimism) and items 7, 9 and 3 loading together in factor 2 (pessimism). Apart from the present finding, other authors like Creed, Patton and Bartum (2002) also found a two dimensional factor structure of the LOT-R. Interestingly, Bastianello, *et al* (2014) noted the factor structure disparity reported by authors on the dimension of the LOT-R with some reporting it as unidimensional and some as multidimensional. Consistent with other studies such as that of Mavioglu, Boomsma, & Bartels (2015), this study found men reporting higher levels of optimism and females reporting higher pessimism.

The Worry Domain Questionnaire Short Form (WDQ-SF) was revalidated in this study. TheWDQ-SF, like its long version, measures non-pathological form of worry (Stober & Joorman, 2001). However, unlike the unidimensional factor structure found in the present study, Stober and Joorman (2001) and Nuevo, Losada, Marquez-Gonzalez and Penacoba (2009) found five dimensions contrary to only one dimension found in the present study. The importance of the WDQ-SF apart from being a short version of the WDQ is that it will be a quick tool to assess worry among people in Nigeria whether they are clinical or nonclinical participants. This is because worry has been found to manifest in some form in both clinical and nonclinical samples (Dupuy, Beaudoin, Rheaume, Ladouceur & Dugas, 2005).

It is generally reported that women tend to manifest more worry (even if it is in the different dimensions of worry) than men (Robichaud, Dugas & Conway, 2003). Even adolescent girls tend to report more worry than boys (Barahmand, 2008). The present study shows a somewhat difference in manifestation between genders with women (mean = 10.63, SD = 9.50) manifesting less worry that men (mean = 12.26, SD = 9.28). This could be as a result of the country being more masculine than feminine with males culturally expected to take on roles of providing for their families and charting the course of action for them. Similar to this study, the reliability and validity of the WDQ was established in Germany with good outcome (Stober, 1998).

In conclusion, this study has revalidated PGIS, GQ-6, MILQ, SWLS, LOT-R, and WDQ-SF for use in Nigeria. However, the study has some limitations which include the small community sample size and not applying Structural Equation Modelling (SEM) for data analysis. Future studies may consider using larger and more diverse samples and adopt a more robust statistical procedure for analysis.

REFERENCES

Adegoke, T. G. (2014). Occupational stress on psychological well-being of Police employees in Ibadan metropolis, Nigeria. *African Research Review*, *8* (1), 302-320.

Adeyemo, D.A. & Adeleye, A.T. (2008). Emotional intelligence, religiosity and self-efficacy as predictors of psychological well-being among secondary school adolescents in Ogbomoso, Nigeria. *Europe's Journal of Psychology*, 4 (1). Retrieved from: http://www.ejop.psychopen.eu/article/view/423/html.

Ajiboye, O. E. (2011). Gender differentials in residential choices, living arrangement and social wellbeing of older persons in Lagos, Nigeria. *British Journal of Arts and Social Sciences*, 3 (1), 1-22.

Algoe, S. B. Haidt, J. & Gable, S. L. (2008). Beyond reciprocity: Gratitude and relationships in everyday life. *Emotion*, 8 (3), 425–429.

Asiyanbola, R. A. (2012). Psychological wellbeing, urban household crowding and gender in developing countries: Nigeria. *Developing Country Studies*, 2 (11), 127-134.

Atienza, F. L., Balaguer, I. & Garcia-Merita, M. L. (2003). Satisfaction with life scale: Analysis of factorial invariance across sexes. *Personality and Individual Differences, 35, 1255-1260.*

Balogun, A. G. (2014). Dispositional factors, perceived social support and happiness among prison inmates in Nigeria: A new look. *Journal of Happiness and Wellbeing*, 2 (1), 16 – 33.

Barahmand, U. (2008). Age and gender differences in adolescent worry. *Personality and Individual Differences*, 45 (8), 778–783.

Bastianello, M. R., Pacco, J. C. & Hutz, C. S. (2014). Optimism, self-esteem and personality: Adaptation and validation of the Brazilian Version of the Revised Life Orientation Test (LOT-R).*Psico-USF*, 19 (3), **http://dx.doi.org/10.1590/1413-827120140190030**

Blackie, L.E. R., Jayawickreme, E., Forgeard, M. J. C. & Jayawickreme, N. (2015). The protective function of personal growth initiative among a genocide-affected population in Rwanda. *Psychological Trauma: Theory, Research, Practice, and Policy*, 7 (4):333-339.

Chan, W. C. H. (2014). Factor structure of the Chinese version of the Meaning in Life Questionnaire among Hong Kong Chinese Caregivers. *Health and Social Work*, 39 (3), 135- 143.

Chen, L. H., Chen, M. Y., Kee, Y. H. & Tsai, Y. M. (2009). Validation of the Gratitude Questionnaire (GQ) in Taiwanese undergraduate students. *Journal of Happiness Studies*. 10, 655–664. Retrieved from: http://link.springer.com/article/10.1007%2Fs10902-008-9112-7#/page-1

Chiesi, F., Galli, S., Primi, C., Innocenti Borqi, P. & Bonacchi, A. (2013). The accuracy of the Life Orientation Test-Revised (LOT-R) in measuring dispositional optimism: evidence from item response theory analyses. *Journal of Personality Assessment*, 95(5), 523-529.

Creed, P. A., Patton, W. & D. Bartum (2002). Multidimensional properties of the LOT-R: Effects of optimism and pessimism on career and well-being related variables in adolescents. *Journal of Career Assessment*, *10* (1), 42-61.

de Sousa, E. M. *P.*, Santos, W. S., Lopes, G. S., da Costa, T. M. & Cristino, E. V. (2015). Satisfaction with life scale: Evidence of validity and reliability in the Brazilian context. *Social Inquiry into Well-Being*, 1(2), 41–50.

Diener, E., Emmons, R.A., Larsen, R.J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment,* 49, 1-5.

Diener, E., Suh, E. M., Lucas, R. E. & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, *125* (2), 276 – 302.

Dupuy, J. B., Beaudoin, S., Rheaume, J., Ladouceur, R. & Dugas, M. J. (2005). Worry: daily self-report in clinical and non-clinical populations. *Behaviour Research and Therapy*, 39 (10), 1249 – 1255.

Elgbadon, E. G. & Adejuwon, A. G. (2015), Psychodemographic factors predicting internet fraud tendency among youths in South Western, Nigeria. *Journal of Educational and Social Research*, *5* (2), 159 – 164.

Emmons, R. A., & Mishra, A. (2012). Why gratitude enhances well-being: What we know, what we need to know. In K. Sheldon, T. Kashdan, & M. F. Steger (Eds.), *Designing the future of positive psychology: Taking stock and moving forward.* New York, NY: Oxford University Press.

Froh, J. J., Fan, J., Emmons, R. A., Bono, G., Huebner, E. S., & Watkins, P. (2011). Measuring gratitude in youth: Assessing the psychometric properties of adult gratitude scales in children and adolescents. *Psychological Assessment*, *23* (2), 311-324.

Glaesmer, H., Rief, W., Martin, A., Mewes, R., Brahler, E., Zenger, M. & Hinz, A. (2011). Psychometric properties and population-based norms of the Life Orientation Test Revised (LOT-R). *British Journal of Health Psychology*, 17(2), 432–445. *International Journal of Psychology*, *33* (1), 45-56.

Gouveia, V. V., Milfont, T. L., da Fonseca, P. N. & Coelho, J. A. P. M. (2009). Life Satisfaction in Brazil: Testing the psychometric properties of the satisfaction with life scale (SWLS) in five Brazilian samples. *Social Indicators Research*, *90* (2): 267-277.

Helliwell, J. F., Huang, H. & Wang, S. (2015). Setting the stage. In J. F. Helliwell, R. Layard & J. Sachs (Eds). *World happiness report 2015*. Retrieved from: http://worldhappiness.report/wp-content/uploads/sites/2/2015/04/WHR15.pdf pp. 12 – 41.

Joshanloo, M. & Ghaedi, G. (2009). Psychometric characteristics of "Personal Growth Initiative" scale in university students. *Journal of Behavioral Sciences*, 3 (2): 121-125.

Kaiser, H. (1970). A second generation Little Jiffy. *Psychometrika*, 35 (4): 401–15. Retrieved from: http://link.springer.com/article/10.1007%2FBF02291817#page-1

Kashdan, T. B., Mishra, A., Breen, W. E. & Froh, J. J. (2009). Gender differences in gratitude: Examining appraisals, narratives, the willingness to express emotions, and changes in psychological needs. *Journal of Personality*, *77* (3), 691–730.

Lai, J. C. L., Cheung, H., Lee, W. & Yu, H. (1998). The Utility of the Revised Life Orientation Test to measure optimism among Hong Kong Chinese Life Orientation Test. *Journal of Personality and Social Psychology*, 67, 1063−1078.

Lewis, C. A., Bunting, P. B., Shevlin, M. E. & Joseph, S. (1995). Confirmatory factor analysis of the satisfaction with life scale: replication and methodological refinement. *Perceptual and Motor Skills*, 80, 304-306.

Mavioglu, R. N., Boomsma, D. I. & Bartels (2015). Causes of individual differences in adolescent optimism: a study in Dutch twins and their siblings. *European Child and Adolescent Psychiatry*, *24* (11), 1381–1388.

McCullough, M. E., Emmons, R. A. & Tsang, J. A. (2002). The grateful disposition: A conceptual and empirical topography. *Journal of Personality and Social Psychology*, *82* (1), 112–127.

Meyer, T.J., Miller, M.L., Metzger, R.L., & Borkovec, T.D. (1990). Development and validation of the Penn State Worry Questionnaire. *Behaviour Research and Therapy*, *28*, 487-495.

Nigeria Zip Codes (2017). Sango Ota Town Area Zip Codes. Retrieved from: http://nigeriazipcodes.com/3397/sango-ota-town-area-zip-codes/

Nuevo, R., Losada, A., Marquez-Gonzalez, M. & Penacoba, C. (2009). Confirmatory Factor Analysis of the long and short forms of the Worry Domains Questionnaire. *European Journal of Psychological Assessment*, *25* (4), 239–243.

Ogunyemi, A. O. & Mabekoje, S.O. (2007). Self-efficacy, risk-taking behavior and mental health as predictors of personal growth initiative among university undergraduates. *Electronic Journal of Research in Educational Psychology*, *5* (2), 349-362.

Oxford Poverty and Human Development Initiative (2015). Global multidimensional poverty

index databank. OPHI, University of Oxford. Retrieved from: http://www.dataforall.org/dashboard/ophi/index.php/mpi/country_briefings

Pavot, W. & Diener, E. (1993). Review of the satisfaction with life scale. *Psychological Assessment*, 5 (2), 164–172.

Polak, E. L. & McCullough, M. E (2006). Is gratitude an alternative to materialism? *Journal of Happiness Studies*, 7, 343–360.

Rigon, A., Abah, S., Dangoji, S., Walker, J., Fredian, A. A., Ogunleye, O. & Hirst, L. (2015). Well-being and citizenship in urban Nigeria. Urbanisation Research Nigeria (URN) Research Report. London: ICF International. Creative Commons Attribution-Non-Commercial-Share Alike CC BY-NC-SA. Retrieved from: http://r4d.dfid.gov.uk/pdf/outputs/urbanisation/61250-URN_Theme_C_Well-being_Report2015_FINAL.pdf

Robichaud, M., Dugas, M. J. & Conway, M. (2003). Gender differences in worry and associated cognitive-behavioral variables. *Journal of Anxiety*, *17* (5), 501–516.

Robitschek, C. (1998). Personal growth initiative: The construct and its measure. *Measurement and Evaluation in Counseling and Evaluation, 30*, 183-198.

Robitschek, C. (1999). Further validation of the Personal Growth Initiative Scale. *Measurement and Evaluation in Counseling and Evaluation*, *31*, 197-210.

Robitschek, C., Ashton, M. W., Spering, C. C., Geiger, N., Byers, D., Schotts, G. C. & Thoen, M. A. (2012). Development and psychometric evaluation of the Personal Growth Initiative Scale–II. *Journal of Counseling Psychology*, *59* (2): 247–287.

Rosengren, L., Jonasson, S. B., Brogardh, C. & Lexell, J. (2015). Psychometric properties of the Satisfaction With Life Scale in Parkinson's disease. *Acta Neurologica Scandinavica,132* (3), 164-170.

Ryff, C. D. & Keyes, C. L. M. (1995). The structure of Psychological wellbeing revisited. *Journal of Personality and Social Psychology, 69* (4), 719–727. Sachs, J. (2003). Validation of the satisfaction with life scale in a sample of Hong Kong university students. *Psychologia, 46* (4), 225–234.

Salami, S. O. (2010). Emotional intelligence, self-efficacy, psychological well-Being and students' attitudes: Implications for quality education. *European Journal of Educational Studies*, *2* (3): 247–257.

Sansone, R. A. & Sansone, L. A. (2010). Gratitude and wellbeing: The benefits of appreciation. *Psychiatry*, *7* (11), 18-21.

Scheier M, Carver C, Bridges M. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A reevaluation of the life orientation test. *Journal ofPersonality and Social Psychology*, 67, 1063-1078.

Scheier, M. F. & Carver, C. S. (1992). Effects of optimism on psychological and physical well-being: Theoretical overview and empirical update. *Cognitive Therapy and Research, 16,* 201-228.

Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A re-evaluation of the

Schulenberg, S. E., Strack,K. M. & Buchanan, E. M. (2011). The meaning in life questionnaire: psychometric properties with individuals with serious mental illness in an inpatient setting. *Journal of Clinical Psychology*, *67* (12), 1210-1219.

Shevlin M. E. & Bunting, B. P. (1994). Confirmatory factor analysis of the satisfaction with life scale. *Perceptual and Motor Skills, 79* (3), 1316-1318.

Silva, A. D., Taveira, M. C., Marques, C. & Gouveia, V. V. (2014). Satisfaction with life scale among adolescentsand young adults in Portugal: extending evidence of construct validity. *Social Indicators Research*, *120* (1), 309–318.

Steger, F. M. & Samman, E. (2012). Assessing meaning in life on an international scale: Psychometric evidence for the meaning in life questionnaire-short form among Chilean households. *International Journal of Wellbeing*, *2* (3), 182–195.

Steger, M. F. & Kashdan, T. B. (2006). Stability and specificity of meaning in life and life satisfaction over one year. *Journal of Happiness Studies*, *8*,161–179.

Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (2006). The Meaning in Life Questionnaire: Assessing the presence of and search for meaning in life. *Journal of Counseling Psychology, 53,* 80-93.

Steger, M. F., Kashdan, T. B., Sullivan, B. A. & Lorentz, D. (2008). Understanding the search for meaning in life: Personality, cognitive style, and the dynamic between seeking and experiencing meaning. *Journal of Personality*, *76* (2), 199-228.

Steger, M. F., Kawabata, Y., Shimai, S. & Otake, K. (2008). The meaningful life in Japan and the United States: Levels and correlates of meaning in life. *Journal of Research in Personality,* 42, 660–678.

Stober, J. (1998). Reliability and validity of two widely-used worry questionnaires: Self- report and self-peer convergence. *Personality and Individual Differences, 24,* 887-890.

Stöber, J., & Joormann, J. (2001). A short form of the Worry Domains Questionnaire: Construction and factorial validation. *Personality and Individual Differences, 31,* 119-126.

Tallis, F., Eysenck, M. & Matthews, A. (1992). A questionnaire for the measurement of non pathological worry. *Personality and*

Individual Differences, 13 (2), 161-168.

Vázquez, C., Duque, A. & Hervás, G. (2013). Satisfaction with Life Scale in a Representative Sample of Spanish Adults: Validation and normative data. *Spanish Journal of Psychology*,16, (e82), 1–15.