

Psychometric properties of the Meaning in Life Questionnaire – Hausa version among internally displaced persons in Nigeria

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Abstract

Valid measurement of meaning in life (MIL) is crucial for cross-cultural understanding of the construct. The Meaning in Life Questionnaire (MLQ), a widely used measure of MIL, has yet to be translated into any indigenous African language. The current study presents a preliminary report of a Hausa language translation of the MLQ, the MLQ-Hausa version (MLQ-H), and its reliability and validity in a Nigerian sample. Participants were 809 internally displaced persons (IDPs) (50.7% males) in Kabusa IDP Centre in Abuja Municipal Area Council of the Federal Capital Territory of Nigeria. They completed Hausa versions of the MLQ, the Brief Personal Meaning Profile (PMP-B), and scales of the Symptoms Distress Checklist (SCL-90). Results of a confirmatory factor analysis supported the original two-factor model of the MLQ comprising *presence of meaning* (5 items) and *search for meaning* (5 items). The two factors had adequate reliability. Responses to the MLQ-H did not differ by sociodemographic factors. Concurrent

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validity of MLQ-H was suggested by significant correlations between MLQ-H and psychopathology symptom scales. Importantly, we found convergent validity through positive correlations of MLQ-H with the PMP-B. Results indicate that the MLQ-H is a psychometrically sound measure of MIL among Hausa IDPs and may be applied in research on meaning in life among other Hausa-speaking populations.

Keywords

Hausa, internal displacement, meaning in life, psychopathology, translation

Introduction

The number of internally displaced persons (IDPs) globally stands at 27.8 million people (Internal Displacement Monitoring Centre, 2016), with the majority of the world's IDPs living in low- and middle-income countries (Roberts et al., 2010; Thapa & Hauff, 2012). In Africa, most newly displaced persons are found in Central Africa, West Africa and East Africa (Norwegian Refugee Council & Internal Displacement Monitoring Centre, 2015). Five countries, Democratic Republic of Congo, Iraq, Nigeria, South Sudan and Syria, accounted for 60% of new displacement worldwide in 2016 (United Nations High Commission for Refugees, 2017). Terrorism by the Boko Haram sect, officially recognized as *Jama-atu Ahlis-sunnah Lid-Da-wat wal Jihad* ('The Group of the People of the Sunnah for Preaching and Jihad'), is the leading cause of displacement among Nigeria's IDP population of about 2,093,030 persons (Central Intelligence Agency, 2016). From 2009 to date, the Boko Haram sect have engaged in arson, bombing, shooting, stabbing, and impunity targeting important national events, public institutions, markets and places of religious worship (Babatunde, Uwana-obong, & Olanrewaju, 2014), leading to a massive displacement of persons as well as loss of lives and property. The crisis has led to an estimated 11,100 violence-related deaths (Allen, Lewis, & Matfess, 2014).

Internal displacement resulting from conflicts can cause problems with mental health and wellbeing (Getanda, Papadopoulos, & Evans, 2015; Singh, Jajkhaia, Amonashvili, & Winch, 2016). In particular, internal displacement may have implications for people's sense of meaning in life (MIL), and if growth in the aftermath of such adversity is to be fostered, the restoration of sense of meaning and reconnection to sources of meaning among the affected persons is essential. Wong (2012) observed that 'traumas can serve the purpose of the crystallization of discontent that Baumeister (1991) described as provoking changes in meaning' (p. 36). Thus, meaning-based interventions may be useful to IDPs in developing a better understanding of themselves and in their construction of new selves, thereby imbuing them with hope and encouraging positive action (e.g., Maree, 2015).

Steger and colleagues (2006) defined meaning as 'the sense made of, and significance felt regarding the nature of one's being and existence' (p. 81). Meaning is the extent to which people comprehend and see significance in their lives, as well as the

degree to which they perceive themselves to have a purpose or overarching aim in life (Steger, 2009). The construct has become central to an important line of work in psychiatry and psychology (Leonitev, 2013). Those who feel their lives are meaningful not only report greater wellbeing and fewer symptoms of psychopathology (e.g., Steger et al., 2006; Yanez, et al., 2009), but also report better post-trauma adjustment (Steger et al., 2008), better health (Steger, Mann, Michels, & Cooper, 2009) or health-related quality of life (Aziz et al., 2014; Ho, Cheung, & Cheung, 2010; Park, 2015; The WHO Quality of Life Group, 1995), higher self-esteem (Schlegel, Hicks, King, & Arndt, 2011), hope (Mascaro & Rosen, 2005), optimism (Ho et al., 2010), self-efficacy (DeWitz, Woolsey, & Walsh, 2009), positive emotions (Pezirkianidis et al., 2016), resilient processes (Damásioa & Kollerb, 2015), constructive coping (Dezutter et al., 2013), and health-promoting behaviours (Piko & Brassai, 2016).

In 2014, a special issue of *Journal of Psychology in Africa* discussed meta-theoretical, theoretical and empirical facets of meaning from around the world, calling for more research on MIL in Africa (See Wissing, 2014). There is evidence that culture and context are relevant to the creation of coherent and consistent global and appraised meanings (Slattery & Park, 2012). More importantly, investigation into the construct of MIL is an important focus area of mental health research (de Klerk et al., 2009; Glaw et al., 2017), which requires proper instrumentation for valid assessment. Specifically, sound instruments for assessing MIL are crucial for the rigorous study of the construct, to understand its associations with psychological well-being and psychopathology, and to assess the impact of interventions targeting MIL (Schutte et al., 2016). Presently, measures of MIL or closely related constructs abound in the literature (See Steger et al., 2004; Temane et al., 2014, for reviews), but the Meaning in Life Questionnaire (MLQ) (Steger et al., 2004), since its development over a decade ago, has become the most widely utilized measure of MIL in a variety of populations.

Currently, there are over 32 translations of the MLQ according to the Laboratory for the study of Meaning and Quality of Life (Steger, n.d.). The MLQ has been translated for use in Brazilian (Damásioa & Kollerb, 2015), Turkish (Dursun, 2012), Argentinian (Góngora & Solano, 2011), Chinese (Zhang & Xu, 2013), and Japanese (Steger, Kawabata, Shimai, & Otake, 2008) populations, among others. The popularity of the MLQ is attributable to its important strengths. The MLQ is very brief, does not have any item overlap with related measures, has a stable factor structure and has better discriminant validity ‘as a measure of meaning in life, as opposed to other forms of well-being’ (Steger et al., 2006: 86). In addition, the MLQ’s ability to differentiate between the degree to which an individual reports life meaning and the degree to which they are seeking it allows for explorations of how having meaning and searching for it separately and concurrently influence mental health and well-being (Rose, Zask, & Burton, 2016).

However, most studies of the MLQ, including the normative study (Steger et al., 2006), have been conducted using college or university student populations. Evidence of the psychometric properties of the scale in community samples is

limited (e.g., Boyraz et al., 2013). A comprehensive review of 15 extant studies using the MLQ showed that 11 used college student populations (including American, Indian and Japanese), two used adult populations, and two used clinical populations (mentally ill patients and a smoking cessation sample) (Schulenberg, Strack, & Buchanan, 2011). In general, investigations of MIL for populations in contexts of trauma or hardship appear to be scant, though two studies are of potential relevance: (i) Zhang and Xu's (2011) comparison of MIL among Chinese high school students from earthquake-stricken and non-stricken areas; and (ii) Chan's (2014) research on MIL among Hong Kong Chinese caregivers of patients with chronic illnesses. We could not find any empirical evaluation of the MLQ among IDPs.

If MIL can be validly assessed across different populations and different contexts, it may be useful for research on populations in Africa with protracted experiences of internal displacement. Accordingly, we need information on the reliability and validity of the MLQ for use in this type of population, and to further clarify the utility of the two-dimensional model for understanding MIL, to provide additional information on the extent to which dimensions of MLQ may be related to mental health outcomes commonly associated with displacement, and to shed light on the concurrent and construct validity of the MLQ in IDP populations. Furthermore, widening the focus in MIL research on populations in industrialised and stable economies of the world to the historically tribal societies in developing countries of the world can contribute to the scientific understanding of what makes life meaningful in different cultures and during experiences of different life events.

In the first study to address the psychometric properties of the MLQ in an African context, Temane and colleagues (2014) recommended that further studies be conducted with specific African language groups, as well as more heterogeneous cultural and multicultural language groups in Africa. It was suggested that future research should also investigate the measurement equivalence of the MLQ among various translations to different African languages given that measurement equivalence studies may provide evidence on whether there are cross-cultural and language differences in how participants interpret and respond to the MLQ items (Temane et al., 2014). Therefore, the current study aimed at investigating the psychometric properties of a Hausa version of the Meaning in Life Questionnaire (MLQ-H) in a sample of Hausa-speaking IDPs in Nigeria.

The Hausas, numbering more than 68 million, are the largest ethnic group in West Africa. They are widely distributed geographically and have intermingled with many different peoples. They are found in West African countries like Cameroon, Togo, Chad, Sudan, Benin Republic, Burkina Faso, Gabon, Cote d'Ivoire, Senegal, Niger, Nigeria and Ghana. Hausa appears to be the most widely spoken indigenous language in West Africa. Some Hausa people in Nigeria and Ghana can speak English but many of them have limited English language literacy. Non-school attendance is highest among states in the Hausa-dominated Nigerian Northeast and Northwest zones with a large number of out-of-school children and young adults having limited English language literacy. In Borno, which is the state most affected by Boko Haram

terror attacks, 72% of primary school-age children never attended school (United States Embassy in Nigeria, 2012).

Hausa native speakers constitute an estimated 29% of Nigeria's over 180 million citizens (Central Intelligence Agency, 2016). Another 17 million people speak Hausa as a second language. Hausa is an Afro-Asiatic language, written in Arabic characters, and about one-fourth of Hausa words come from Arabic (Parkvall, 2007). Some related ethnic groups which have close linguistic and cultural affinity with the Hausa people include Azna, Bole, Fula, Fulani, Gur, Gwandara, Igala, Kabba, Kanuri, Maguzawa, Mawri, Ngezzim, Nupe, Shuwa, Tivs, and Tuaregs (Ezebuoro, 2016). Presently, Hausa language is one of the four indigenous African languages that has programmes on the British Broadcasting Corporation (BBC) world news.

Requiring persons who use Hausa as their primary language to respond to a measure of MIL in English would present similar problems to those that have been reported for assessment of persons in a secondary, non-preferred language (Bravo, 2003; Padilla & Medina, 1996). The lack of psychosocial instruments that have been translated and validated for use in native African languages compromises mental health research on this population, as it restricts people's participation in research studies or leads to potential misrepresentation of those who participate, limiting the reliability and generalizability of findings. Without the ability to consistently administer a standardized psychosocial instrument in indigenous African languages, researchers cannot have confidence in the accuracy of the instrument's results in populations speaking these languages, and it becomes difficult to validate the instrument.

Prior to this research, there was no translated version of the MLQ in Hausa language. A culturally sensitive and valid measurement tool was needed to examine this construct among the majority of Hausa IDPs who do not understand English, improve the sensitivity of assessments of these IDPs' capacity for meaning-seeking and meaning-making, and guide effective formulation of interventions. Thus, the purpose of the present study was to translate the MLQ into Hausa language and determine its reliability and validity among Hausa IDPs in Nigeria. We examined the confirmatory factor analysis (CFA) and reliability of the MLQ-H, as well as the influence of demographic variables on self-reported MIL among the participants. We also sought to determine the convergent and divergent validity of MLQ by means of correlations between MLQ-H and measures of other constructs that are correlates of MIL in existing literature. It was hypothesised that: (1) The dimensions of MLQ would be positively related to another meaning in life scale. (2) Presence of meaning would have negative correlations with measures of psychopathology, while search for meaning would correlate positively with measures of psychopathology.

Method

Participants

Participants were 809 internally displaced persons (IDPs) (50.7% males; 49.3% females) in Kabusa IDP Centre in Abuja Municipal Area Council of the Federal

Capital Territory of Nigeria. They had a mean age of 33.69 years ($SD = 13.18$) with an age range of 12-96 years. With regard to religion, the sample consisted of Christians (40.4%), Moslems (56.9%) and adherents of African Traditional Religion (2.7%). Educational status of the participants was as follows: no formal education (8.5%), primary education (24.4%), secondary education (48.9%) and higher education (18.2%). Many respondents were married (68%), but some were single (27.3%), divorced (.5%) or widowed/separated (4.2%). The majority of the IDPs (80.8%) had lost relatives in the insurgency.

Instrument

Data for the study was collected by means of a questionnaire comprising relevant demographic information, the MLQ-H, the Brief Personal Meaning Profile (PMP-B) and scales of the Symptom Checklist (SCL-90) in Hausa language.

Meaning in Life Questionnaire (MLQ). The MLQ, developed by Steger and colleagues (2006), assesses the extent to which respondents feel their lives are meaningful (MLQ-presence subscale) and the extent to which they are actively seeking meaning in their lives (MLQ-search subscale). Each dimension of meaning is measured by five items rated on a 7-point Likert scale response format. However, in this study, a simplified 4-point response format was considered to be more appropriate and valuable. MLQ items were thus scored on a scale of 1 (Not at all true) to 4 (Completely true). Such modification of the rating format in measurement of meaning was warranted in order to enhance comprehensibility of the translated version. As argued by Steger and Samman (2012), the relatively low levels of education in some developing countries and evidence that people in different cultural contexts may not perceive such scales to be linear with equi-distant intervals may necessitate a reduced set of options with labels attached to each interval. Notably, the short form of MLQ (Steger & Samman, 2012) is formatted on a 4-point scale and it is internationally reliable and valid. There is substantial evidence for the two-factor structure of the MLQ as replicated via confirmatory factor analyses in multiple samples (Steger, Frazier, & Zacchanini, 2008; Steger, Kawabata, Shimai, & Otake, 2008). In the normative sample, both subscales had Cronbach's alphas between 0.82 and 0.88, and one-month test-retest stability of .70 (MLQ-P) and .73 (MLQ-S) (Steger et al., 2006).

Brief Personal Meaning Profile (PMP-B). The PMP-B (Macdonald, Wong, & Gingras, 2012) is a 21-item instrument which has much utility for research involving personal meaning. It was developed from the longer 54-item PMP (Wong, 1998). The seven subscales of PMP-B are as follows: achievement (5, 6, 16), relationship (7, 8, 13), religion (4, 9, 18), self-transcendence (1, 3, 17), self-acceptance (11, 15, 21), intimacy (2, 12, 14), and fair treatment (10, 19, 20). Sample items from the scale include: *I believe I can make a difference in the world; I accept what cannot be changed; I have learned to live with suffering and make the best of it;* and so forth.

The items are arranged in a 7-point Likert scale format, with responses ranging from not at all (1) to a great deal (7). The internal consistency (Cronbach's alpha) for the 21-item PMP-B reported by the developers was .84. Test-retest reliability for a five-week period showed stability for the PMP-B ($r = .73$). The correlation between the PMP and PMP-B total scores was .95. In the present study, a Cronbach's alpha of .87 was obtained. Since the PMP-B has not been validated in Nigeria among the Hausas, we conducted a Confirmatory Factor Analysis in this study for PMP-B. The seven-factor model for the items of the scale showed a poor fit for the data. However, there was a marginally acceptable fit for the unifactorial structure of PMP-B in this study (RMSEA = .08). The standardized regression weights for most items were above .4. Overall, the one-factor model for the PMP-B Hausa version was more parsimonious in the present dataset as validity evidence for the measure (See Appendix 1).

Symptom Checklist-Revised (SCL-90R). The SCL-90R (Derogatis, Lipman, & Covi, 1977) measures 10 primary categories of symptoms associated with psychological distress due to problems of living. Seven of the categories were selected in the present study: somatisation, obsessive compulsive, interpersonal sensitivity, depression, anxiety, hostility, and phobic anxiety. Responses to the items are anchored on a 5-point Likert scale format. Previous research in Nigeria has shown that the instrument has good reliability and validity (e.g., Owoeye, Aina, Omoluabi, & Olumide, 2009). In the current study, the reliability coefficients of the Hausa versions (Cronbach's alpha) were as follows: somatisation .82, obsessive compulsive .78, interpersonal sensitivity .89, depression .86, anxiety .84, hostility .90, and phobic anxiety .72.

Procedure

The questionnaire comprising the instruments for this study was translated from English into Hausa by an expert translator and Lecturer in Linguistics (specialised in Hausa) at Bayero University, Kano, in north-west Nigeria. The translated Hausa version of the questionnaire was back-translated into English by an English language teacher in a secondary school who speaks Hausa as a native language. The standardized back translation method adopted in the present study was based on recommendations by Vroman and colleagues (2012) for researchers examining the psychometric properties of instruments in refugee research. The back-translated version was compared with the original English version and any discrepancies in semantic and syntactic equivalence of both versions were resolved through discussions between the second translator and five habitual Hausa speakers who were IDPs in Kabusa Centre in Abuja FCT. Suggested adjustments were checked for semantic and conceptual equivalence by two translators who were proficient in both languages and checked back with the native Hausa speakers. In the event of ambiguities, discussions yielded the final version of the questionnaire. Mostly, adjustments of items were made if they were found to be difficult to endorse or were difficult to understand.

To collect the data for this study, formal approval was obtained from the National Emergency Management Agency (NEMA) officials at the FCT Abuja Operational Office and the leadership of the Kabusa Centre. A standardized informed consent script in Hausa language was read to the participants explaining the purpose of the study, possible risks and benefits of participation, and their right to refuse participation without consequences. They were also informed that their personal information would remain confidential. Six interviewers who were proficient in Hausa language were recruited and trained as research assistants to administer the instrument in the IDP Centre. Literate participants were given the questionnaire form for completion and it was collected by the research assistants when completed. For participants who were illiterate, the research assistants read out the questions to them and indicated the participants' responses appropriately. The research assistants examined the completed questionnaires and encouraged participants to respond to all the items to obtain complete data. There was no time limit for completing the questionnaire, but the average amount of time taken was approximately 30 minutes. After completing the questionnaire, participants were thanked for their participation and co-operation in the study. They were requested not to discuss the study with other IDPs who were eligible to participate until after such persons might have had the opportunity to participate, because prior knowledge of questions asked during the study could invalidate the results. Participants were also provided with contacts of the researchers in case they had any questions regarding the study or felt psychologically distressed by their participation in the study. Attrition rate was 0%. The study was conducted in accordance with existing legal and ethical regulations in the country and approved by the Psychology Research Committee of the University of Nigeria, Nsukka.

Statistical analysis

Confirmatory Factor Analysis (CFA) was conducted using AMOS[®] version 24.0. Due to the limitations of the Chi square (χ^2) likelihood ratio test (e.g., Byrne, 2005; Tanaka, 1993), the Root Mean Square Error of Approximation (RMSEA) and Goodness of Fit Index (GFI) were used as indicators of model quality (see Byrne, 2006; Hu & Bentler, 1995). RMSEA values below 0.08 have been recommended as demonstrating a good model fit, while GFI values of 1.0 are the rule of the thumb for a perfect model fit (Browne & Cudeck, 1993). Internal consistency, reliability and homogeneity were assessed by inter-item correlation, Cronbach's alpha, and intraclass correlation coefficients, respectively. MANOVA was utilised to examine the influence of demographic variables on MIL. Concurrent validity was tested using Pearson's product-moment correlation coefficient between the MLQ-H, PMP-B and the scales of SCL-90. The statistical analyses were performed using IBM SPSS Statistics version 21.

Results

We used both absolute and relative fit indices to examine the suitability of the 2-factor structure of the MLQ-H: $\chi^2=498.3$ ($df=57$), $p < .001$; Goodness of Fit Index = .91; Adjusted Goodness of Fit Index = .88; Root Mean Square Error of Approximation = .07; Comparative Fit Index = .94; Normed Fit Index = .93; Tucker-Lewis Index = .93; Incremental Fit Index = .94, Root Mean Square Residual = .07.

Overall, the theoretical two-factor model for the MLQ was confirmed using the present dataset. The RMSEA was below the maximum 0.08 acceptable RMSEA value. Thus the goodness of fit using RMSEA shows a marginally acceptable fit for the model. The GFI of .91 is also close to one (1.0), indicating a marginally acceptable fit using the GFI rule of thumb. The obtained confidence intervals were .05 (lower limit) and .14 (upper limit). The standardized regression weights for each item are also above .5 except for the problematic item 9 (.41). Previous studies (e.g., Hallford et al., 2016; Schutte et al., 2016) have suggested the removal of this item from the MLQ. The path diagram of the model appears in Figure 1. The loading of items on the respective factors were .41 and above. It was concluded that the data fit the preferred original two-factor model reasonably well.

The item statistics as provided in Table 1 for the 10 items were adequate. Mean scores were 11.90 ($SD=3.96$) and 12.15 ($SD=4.14$) on the MLQ-H Presence

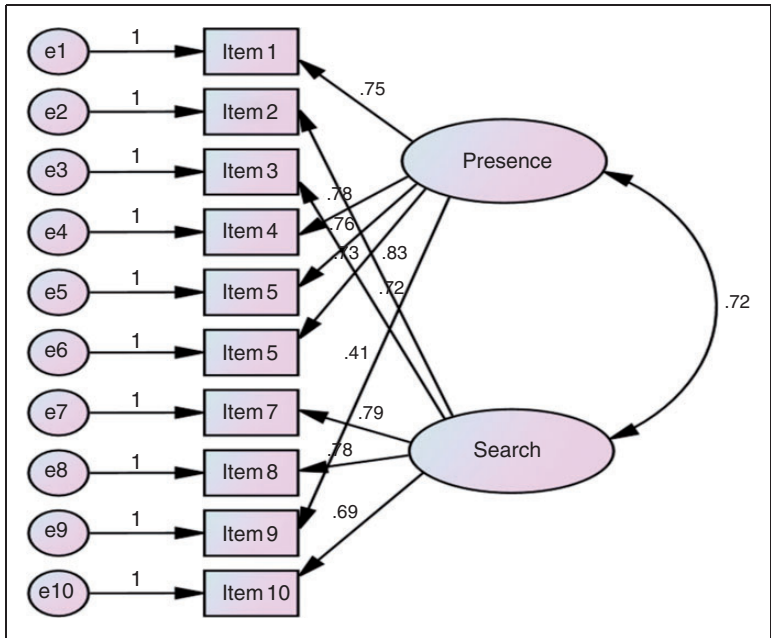


Figure 1. Path diagram of the two-factor model of MLQ-H.

Table 1. Descriptive statistics for items of MLQ-H.

Subscale	Item mean (SD)	Corrected item scale	Item squared correlation
Presence			
MLQ-H 1	2.26 (1.03)	.64	.45
MLQ-H 4	2.39 (1.02)	.69	.53
MLQ-H 5	2.43 (1.04)	.73	.57
MLQ-H 6	2.41 (1.07)	.68	.49
MLQ-H 9	2.43 (1.07)	.33	.11
Search			
MLQ-H 2	2.39 (1.01)	.68	.50
MLQ-H 3	2.44 (.99)	.66	.47
MLQ-H 7	2.43 (1.08)	.71	.55
MLQ-H 8	2.44 (1.01)	.72	.56
MLQ-H 10	2.46 (1.09)	.61	.38

MLQ-H = Meaning in Life Questionnaire-Hausa version

(MLQ-H-P) and Search (MLQ-H-S) subscales, respectively. Paired samples t-test indicated that there was a significant difference in the mean scores of the MLQ scales, $t(808) = -2.15$, $p = .032$, 95% CI = $[-.47, -.02]$. Internal consistency was calculated for both the MLQ-H-P and MLQ-H-S. For the MLQ-H-P, the Cronbach's alpha (.82), inter-item correlation (ranged from .25-.66), and interclass correlation coefficient (single = .47, $p < .001$; average = .82, $p < .001$) indicated a high degree of reliability, consistency, and homogeneity. The high Cronbach's alpha (.86), inter-item correlation (range .47-.69), and interclass correlation coefficient (single = .55, $p < .001$; average = .88, $p < .001$) of the MLQ-H-S also indicated an optimal degree of reliability, consistency, and homogeneity.

Scores on the MLQ-H-P and MLQ-H-S did not differ according to gender, Wilks' Lambda = 1.00, $F(2, 716) = 1.74$, $p = .176$; religion, Wilks' Lambda = .99, $F(4, 1432) = 1.16$, $p = .33$; education, Wilks' Lambda = .99, $F(6, 1432) = .78$, $p = .58$; marital status, Wilks' Lambda = .99, $F(8, 1432) = .72$, $p = .67$; or bereavement due to terror attack, Wilks' Lambda = 1.00, $F(2, 716) = .01$, $p = .99$.

Pearson's correlations among the MLQ-H subscales and other variables were calculated and are presented in Table 2.

Expectedly, the presence and search subscales positively correlated with personal meaning (PMP-B). For the SCL-90 scales, presence of meaning was negatively associated with interpersonal sensitivity, depression, hostility and phobic anxiety. The search for meaning had a negative association with somatisation, obsessive compulsive, interpersonal sensitivity, depression, hostility and phobic anxiety scales. The pattern of association with the indicators of psychopathology demonstrates the discriminant validity of MLQ-H. The presence of meaning was

Table 2. Correlations of MLQ-H-P and MLQ-H-S with PMP-B, SCL-90 scales and age.

Variables	MLQ-H-P		MLQ-H-S	
	R	p-value	r	p-value
PMP-B total	.22	.002	.23	.001
Somatisation	-.11	.119	-.16	.020
Obsessive compulsive	-.11	.119	-.16	.020
Interpersonal sensitivity	-.29	<.001	-.22	.001
Depression	-.15	.033	-.18	.012
Hostility	-.36	<.001	.29	<.001
Phobic anxiety	-.19	.008	-.14	.041
Age	.11	.041	.04	.219

MLQ-H-P = Meaning in Life Questionnaire – Hausa version Presence of meaning subscale; MLQ-H-S = Meaning in Life Questionnaire – Hausa version Search for meaning subscale; PMP-B = Brief Personal Meaning Profile; SCL-90 = Symptoms Distress Checklist –90.

correlated with age while search for meaning did not have a significant relationship with age. There was a high positive association between presence and search subscales ($r = .72, p < .001$).

Discussion

The major aim of this study was to determine the psychometric properties of a Hausa version of the Meaning in Life Questionnaire (MLQ-H) among IDPs in Nigeria. The factor structure, the reliability, and the concurrent validity of the measure were examined. To answer the question as to whether the MLQ-H has construct validity, a CFA was conducted to test its factor structure. The results of the CFA of the MLQ-H supported the original two-factor model, namely, presence of meaning and search for meaning, which is consistent with previous findings on other versions of the MLQ (e.g., Damásioa & Kollerb, 2015). Despite the suggestion to remove item 9 by some authors (Hallford et al., 2016; Schutte et al., 2016), it should be noted that this is the only reverse-coded item in the MLQ-P. This difference in the scoring may explain the lower value obtained in this study. Even without the removal of this item, the MLQ items in our study had marginally acceptable model fit. Among scholars recommending removal, Schutte and colleagues (2016) had adopted the Rasch rating scale model while participants in Hallford and colleagues' (2016) study were older adults. Moreover, Steger and colleagues (2006) suggested that having five items per subscale was desired to maintain internal consistency. Therefore, we decided to retain this item in the present study, but poor performance of item 9 in subsequent research using the MLQ-H among IDPs may warrant its removal.

We found that the IDPs participating in this study reported a significantly higher average score on search for compared to presence of meaning. When individuals experience highly disruptive life events, they may have more cognitive and behavioural manifestations of search for meaning in life (see Thompson & Janigian, 1988). In some cases, the transformations may be existentially empowering, and mark a positive outcome from trauma (Ifeagwazi & Chukwuorji, 2014; Tedeschi & Calhoun, 2004). Among other populations that have completed the MLQ, mean scores on the presence subscale ranged between 21.15 ($SD = 6.05$), in Spanish college students, and 28.16 ($SD = 6.93$), in mentally ill patients. For the Search subscale, the mean score was 17.95 ($SD = 6.95$) in the Spanish student population and 26.6 ($SD = 6.97$) in the mentally ill patient population (Rose et al., 2016). The mean scores obtained in the present study are thus lower than what has been previously reported for both subscales. We believe that the distinctive experiences of the IDPs may be an explanatory factor for these differences in average scores.

There was evidence of adequate internal consistency and appropriate item-total correlations for the MLQ-H. In addition to factorial structure and internal consistency, the convergent and divergent (discriminant) validity of MLQ-H was tested by exploring its association with other variables. The presence and search subscales were positively related to each other in our study. Previous studies have mostly reported a low negative correlation between the MLQ scales (e.g., Steger et al., 2006; Temane et al., 2014). However, some explanations can be advanced for the high correlations between the search for meaning and presence of meaning subscales in the current population. The unique aspects of the challenging life situations of Hausa IDPs may partially explain the different pattern of results obtained in this study when compared to findings in the more conventional samples explored in previous literature. Generally, internally displaced persons have some characteristics that make their situation unique, including an overwhelming level of destitution, disintegration of social and familial ties, and limited access to the resources they need for survival (see Chukwuorji, Ifeagwazi, & Eze, 2017). In the present study, the Hausa IDPs were displaced by human-inflicted danger. Although they have been forced from their homes due to terrorist attacks, they have not crossed an international border and so they are frequently in a situation of ongoing danger. It is possible that their search for meaning serves as an adaptive coping strategy as they seek to cognitively integrate traumatic memories and improve their functioning. Thus, while engaging in the search, they may also find meaning. It is also possible that IDPs who had high presence of meaning before the displacement occurred may seek greater meaning in life due to the trauma they have experienced.

Theoretically, a sense that one's life is meaningful is not at odds with the human tendency toward searching for more meaning in one's life. It is possible that participants could report that they currently enjoy a meaningful life even while searching for deeper significance (McDonald et al., 2012; Rose, Zask, & Burton, 2017). We believe that finding meaning is a continuous process across the lifespan. Thus, people who perceive themselves as having a sense of meaning can be motivated to

continue to seek avenues for making sense of life. Moreover, people who have high scores on both Presence and Search for meaning, also report high levels of psychological well-being (Cohen & Cairns, 2010; Steger, Oishi, & Kashdan, 2009).

The convergent relationship between the MLQ-H subscales and personal meaning as measured by PMP-B indicates that they are assessing a similar latent construct of MIL. However, the correlations between the MLQ scales and PMB-B were quite small. This could be attributed to variation in the forms of meaning measured by the two instruments. The MLQ assesses subjective presence of or search for meaning without reference to content, while the PMP-B is a measure of meaning from specific sources (see McDonald et al., 2012). Thus, the nature of MIL as measured in each instrument is similar but not exactly the same. The major factors of the PMP-B, such as Religion, Relationship, Achievement, and Self-transcendence, have been identified by prior research (see Wong, 2015). These are fundamental sources of meaning making which are vital components of psychological well-being. Religion and personal relationships may be used to ameliorate the trauma of negative life events. Interestingly, presence of meaning was positively associated with Fair treatment in the present study, which buttresses notions of society's responsibility to promote justice, fairness, and social equity for all (Wong, 2015). There is need to work against pervasive injustice, oppression, and marginalisation to create the conditions for people to have a fulfilled meaningful existence.

Presence of meaning had a negative association with measures of psychopathology, providing some evidence of discriminant validity in consonance with previous research (e.g., Hedayatia & Khazaei, 2014; Pezirkianidis, Stalikasa, Efstathioua, & Karakasidou, 2016; Steger et al., 2006; Temane et al., 2014). Contrary to our expectation, search for meaning correlated negatively to measures of psychopathology. It has been reported previously that as search scores increase, the number of psychopathology symptoms also increase (Schulenberg et al., 2011). However, as discussed above, there are situations in which the search for meaning can be adaptive. For example, one study on MIL distinguished between adaptive and maladaptive searching for MIL by identifying different patterns in psychosocial functioning for different MIL profiles (Dezutter et al., 2013).

The mental health indicators assessed in the present study, especially depression, anxiety, and hostility, were reported as not having high correlations with the MLQ subscales by Steger and colleagues (2006). The correlations reported for the present Hausa version with such measures in our study are lower in comparison to this previous study. Findings showed that the MLQ-H met relevant reliability and validity criteria.

We also examined the influence of socio-demographic variables on MIL scores. There were no significant differences in presence of meaning or search for meaning based on gender, religion, education, marital status, or bereavement due to terror attack. This finding is consistent with previous research (Steger et al., 2006) showing that scores on the MLQ Presence and Search subscales did not differ across gender or religion. Although education may contribute to changes in world view, it appears not to translate directly into more or less of a search for or presence of

meaning. Our findings contradict previous reports of influence of marital status on MIL in a non-clinical Brazilian population (Damásioa & Kollerb, 2015). It is possible that the lack of a difference in MIL with marital status in this study reflects the impact of the shared experience of displacement, which may have affected the IDPs such that their needs and dispositions differ from those of community samples or the general population.

We found a positive relationship between age and presence of meaning while age was not associated with search for meaning. Erickson (1963) believed that there is a gradual developmental progression throughout a person's life cycle, such that the meanings attached to experience in one's earlier years are elaborated into higher more intricate meanings in later life. The search for meaning may be important across the lifespan. Both younger and older persons dynamically engage in the persistent search for 'a deeper or more gratifying understanding of what makes one's life meaningful' (Steger et al., 2006: 85). Indeed, Maddi (1970) contended that the search for MIL is a fundamental human motivation across the lifespan.

This study has important limitations. First, the study is cross-sectional in nature and we used only self-report data, which may result in a common-method bias (Mann, 2012). Generalisability of the findings to the general Hausa population is uncertain because the sample comprised IDPs who were likely experiencing high levels of displacement-related stress. Future research on the MLQ-H is needed to validate the instrument with other sources of data, such as clinical ratings or informant reports, to enhance understanding of what constitutes meaning among the broader Hausa population in Africa. We did not document the method of administration (verbal vs. written) and hence, could not test whether there was any difference between literate and illiterate participants. While we obtained convergent validity of the MLQ-H, there was limited discriminant validity. Finally, we did not collect any information on idioms of distress in this study, which would have allowed analysis of culturally distinctive modes of expressing of distress (Nichter, 1981).

Conclusion

The present study provides preliminary evidence of the reliability and validity of a measure of Meaning in the Life, the MLQ-H, among a Hausa-speaking population of IDPs. We suggest continued investigation of the psychometric properties and predictive validity of the MLQ-H larger samples of IDPs as well as other Hausa populations. Longitudinal research is also recommended to elucidate how MIL unfolds over time in Hausa cultural contexts.

This study lays a foundation for future research and intervention among populations facing adverse life situations such as IDPs. The MLQ-H also may be applied as an assessment tool in provision of mental health care for IDPs with the goal of enhancing quality of life and wellbeing of affected persons. Mental health workers may be better able to help clients work through their traumatic experiences and improve their post-displacement well-being by attending to their sense of meaning and search for meaning.

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