Title:

Predicting attitudes towards seeking medical care among Nigerian immigrants in the UK

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Abstract

This study investigates the relationships between acculturation, religion, and coping styles; as well as their predictive potentials in relation to socio-demographic factors, on access to medical help among Nigerians in the UK. This is a cross-sectional study using questionnaires for data collection (N = 297). Results revealed negative correlations between assimilative behaviours and religious behaviours and between religious behaviours, denial and religious coping. High levels of religiosity and coping through behavioural disengagement and self-blame predicted poor attitudes to medical help; but those who used instrumental support, emotional support,

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and active coping showed more positive attitudes to medical help-seeking. No gender differences in medical help-seeking were found, but older people sought medical help more than those who were younger; while affiliation to the Christian religion predicted positive attitudes towards medical help seeking. These findings have implications for policy development towards tailored interventions that can enhance healthcare utilization among immigrants.

Keywords: Acculturation, religion, coping, immigration, Nigeria, Health-seeking

Word count: 4,542

Introduction

Migration is a term used to describe the movement of people from one place or country to another, which usually occurs because people want to escape the effects of war, religious or civil crisis, or simply for economic or political reasons (Enegho, 2005). This phenomenon raises new challenges for immigrants whose health conditions and health behaviours are influenced by their previous circumstances ranging from the trauma of war, experiences of religio-political conflicts, persecutions from cultural practices, as well as poverty (Malmusi, Borrell, & Benach, 2010). Immigration involves cross-cultural interchanges, with additional

acclimatisation challenges that impact immigrants' health and wellbeing, especially as they do not always understand to what extent they should or need to adapt to the host culture (Organista, Marin, & Chun, 2010). Moreover, the consequences of adjusting to a new environment are associated with perceived and experienced stress, frustration, depression, and anxiety which individual migrants may view as beyond their coping resources (Lazarus & Folkman, 1984; Phillimore, 2011). This is particularly important where religio-cultural differences are marked between the old and new cultures.

To add to the challenges faced by immigrants, is the racialised legal status which they occupy as individuals or as members of the minority ethnic group associated with such devalued social status (Asad & Clair, 2017). Racialised legal status (RLS) is a "discredited social position based on an ostensibly race-neutral legal classification that disproportionately impacts racial/ethnic minority groups" (Asad & Clair, 2017, p2). These classifications are based on criminal status (discriminatory criminal justice system) and immigration status; which can result in deprivation of social and political rights, stigmatization, and overall discrimination that culminate in poor access to medical health care among minority immigrant populations. As the consequences of immigration have continued to increase, adjustment issues associated with it are now widely recognised as important indices in health, education, and government policy (Castles, de Haas, & Miller, 2014).

Individuals experiencing adversity due to immigration try to avoid stress and regain health and well-being by relying on different acculturation strategies, religious beliefs/behaviours and different coping styles. For instance, in the United States of America (USA), research shows that immigrants who keep to their heritage, cultural and religious values in preference to the host cultural values, are more likely to adopt health-seeking behaviours consistent with their cultural heritage (Chang & Subramaniam, 2008). Previous studies show that contrasting influences from religious and secular values on people's opinion cut across

cultures and contexts (Furnham & Pereira, 2008; Ikwuka, Galbraith, & Nyatanga, 2014). Hence, this study focused on the roles of acculturation, religion, and coping styles on the attitudes towards seeking medical help among Nigerians living in a different socio-cultural context in the United Kingdom (UK). This includes, how they navigate their identity in relation to their religion/culture, and how they relate to the challenges of immigration through various means (acculturation strategies, religious beliefs/behaviours and different coping styles); which might influence their attitudes towards seeking medical care.

Nigeria is composed of three major ethnic groups - The Yoruba, Hausa and Igbo; with three main religions - Christianity (45%), Islam (50%), and animists or followers of indigenous religions (5%) ([COIR], 2013). Considering the religio-cultural diversity in Nigeria, and the historical antecedents that shaped them (mainly from colonisation and Christian evangelisation), as well as the increase in preferences for alternative methods of cure against conventional health methods (Rudell, Bhui, & Priebe, 2008), it is important to consider the potential influence of religious beliefs and practices on health decisions, which can compound the challenges of immigration among Nigerians immigrants. The immigrant identity among post-colonial migrants in the UK and USA cultures, including political positions based on "negotiation, dislocation and conflict" (Bhatia & Ram, 2001, p.143), has necessitated interest in the Nigerian population in the UK. Nigerians form the largest African nationality living in Britain, with about 191,000 of first-generation immigrants in 2011; such that one of every five black Africans in Britain is a Nigerian (Imoagene, 2017). Besides, Nigeria is a reference point among other African nations, when it comes to how "ethnoracial systems and identities" are negotiated, both within the continent and in the diaspora (Imoagene, 2017, p.5). Therefore, to better understand contextual differences regarding seeking medical care among Nigerians in the UK, it is important to investigate such factors as acculturation, religious beliefs/behaviours, and coping styles; as well as important socio-demographic factors such as religious affiliation,

length of stay in the UK, gender, and age differences. Findings can potentially contribute to future policy on health interventions that can address observable health inequalities in the UK.

Study Aims

The aim is to investigate if there is a significant relationship between acculturation, religion, coping styles and attitudes towards seeking medical help; if participants differ on acculturation, religious beliefs, coping styles, and attitudes to medical help-seeking based on gender, age, and religious affiliation; and if acculturation, religious beliefs and coping styles can predict attitudes towards medical help-seeking among Nigerians over and above gender, age, religious affiliation, and length of residence in the UK.

Method

Participants

The sample size consisted of 297 participants drawn from Nigerian adult immigrants in the UK, irrespective of gender, religion, or tribe. A convenience sample approach was adopted as the target population could be legally vulnerable due to prevailing immigration status, which can discourage participation. Participants were included if they were first-generation Nigerian immigrants. This is because existing research shows that adult immigrants are more likely to retain the memories of their pre-migration cultural life and values (Portes & Rumbaut, 2006), which can impact on their experiences of integrating into the host culture. Exclusion criteria included all second-generation Nigerian immigrants, those under the age of eighteen, those born in Nigeria but migrated to the UK as minors, as well as institutionalised Nigerian immigrants.

Materials

The questionnaires package included items on socio-demographic information - gender, age, length of residence in the UK, and religious affiliation. Three self-report measures were also included, the Measurement of Acculturation Strategies for People of African Decent, the Brief COPE Inventory and the Attitudes Toward Seeking Medical Care Scale.

Measurement of Acculturation Strategies for People of African Decent (MASPAD) (modified). The original MASPAD is a forty-five-item measure used among people of African descent in the United States of America (USA), to investigate the four different acculturation categories (traditionalist, integrationist, assimilationist, and marginalist) (Obasi & Leong, 2010). Permission to adapt this scale to the purpose of the present study was obtained. Hence, it was modified to a thirty-item version by selecting fifteen items each from the two sub-scales of the original measure (N = 30), that could most appropriately reflect both heritage and mainstream responses, as well as religious beliefs and behaviours. These were checked for validity and reliability. Some wordings of the scale were slightly modified to accommodate people of African descent in Europe; such as the word 'American' being replaced with 'British'.

The thirty items of the modified MASPAD Scale were subjected to principal component analyses (PCA), which revealed the presence of six factors with eigenvalues exceeding one (Table 1). The Monte Carlos approach was used for further analysis, and an acceptable Cronbach's alpha for a six-factor solution was considered an improvement on the multidimensional scoring of the MASPAD (Table2). (see authors, 2018). The MASPAD was scored as a multi-dimensional scale, with possible overall total scores ranging between 0 – 180. Participants rated each of the thirty items according to their preference for maintaining their African/Nigerian religious and cultural values compared to their preference for participating in and adopting the British way of life on a six-point Likert scale; (1 = 'strongly disagree' to 6 =

'strongly agree'). Individual items scored between one to three were regarded as low and four to six as medium/high scores. Cronbach's alpha of each subscale demonstrated acceptable reliability in each of the six factors from .59 to .78.

TABLE 1 here

The Brief COPE Scale (modified) (Carver, 1997), is a widely used and validated scale to obtain information on various coping strategies prevalent among people of diverse backgrounds. With the author's permission, sixteen out of the original twenty-eight items were used, after checking for reliability. Participants were asked to respond to the questions on how they have tried to deal with the challenges of living in the UK as immigrants, and the items selected were all direct questions (no reverse items), scored one to four following the Likert response format (1 = 'I haven't been doing this at all' to 4 = 'I've been doing this a lot'); with possible total score range of zero to sixty-four. The Cronbach's alpha of each of the fourteen subscales demonstrated reliabilities ranging from .34 to .80 (Table 2).

TABLE 2 here

Finally, the 12-item action/intention measure of attitudes toward seeking medical care subscale (ATSMC), (DiLorenzo, Dornelas, & Fischer, 2015) was used in its original format. This is one of four subscales in a 35-items scale developed by Fischer et al., (2013). The Action/intention subscale on its own has been successfully used to validate the association between attitudes and behaviours and is shown to be internally consistent (r = .82), with an acceptable Cronbach's alpha (.67) (DiLorenzo, Dornelas, & Fischer, 2015). Hence, the present

study used it to obtain information on willingness among participants to seek professional medical help or not, with total scores ranging between zero to thirty-six on a four-point Likert scale (agree, partly agree, partly disagree, and disagree). Scores on individual questions ranged from three to zero for straight items and zero to three for reversed items. Low scores were from zero to one and high scores from two to three. Low scores indicated negative attitudes towards medical help-seeking and high scores showed positive attitudes to seeking professional medical help.

The principal independent variables were acculturation, religion, and coping styles as contained in the MASPAD and Brief COPE measures. As part of the questionnaires, respondents indicated their preferences for heritage or mainstream attitudes/behaviours, their religious beliefs and behaviours, and the coping styles they adopted more in the face difficulties; the dependent variable was attitudes for seeking medical care, as measured by the 12-item ATSMC. Finally, a number of demographic variables were also controlled for in the analyses, including gender, age (grouped in three: young, middle and old age ranges), religious affiliation (grouped into Pentecostal Christians, Mainline Christians, Other Christians, Muslims, and No-Religion) and length of residence in the UK.

Procedure

The study was approved by a North London University Ethics Committee. Data collection took place between August and September 2015, via self-administered questionnaires distributed through the snowball process by fifteen contact-persons living in four major cities of England: London, Manchester, Birmingham, and Leeds. These major cities were chosen based on research evidence in the UK that, its inner cities are the most likely places for immigrants to settle (Hatch et al., 2011). Questionnaires were distributed to first-generation Nigerians living in these cities (N= 560), along with the information sheets and debriefing forms; while

informed consent was implied by participants' acceptance to complete the questionnaires. Self-addressed and stamped envelopes in which to seal and return their questionnaires were provided to each participant; and a total of 311 questionnaires were returned (55.5% overall response rate), of which fourteen were rejected for missing more than four items; thereby leaving a total of 297 completed questionnaires for analysis (53% response rate). (see authors, 2018)

Data Analysis

Correlation analysis was used to examine the relationships between acculturation, religion, coping styles, and attitudes towards medical help-seeking; while the ANOVA, MANOVA, and t-tests were used to investigate group differences. A hierarchical multiple regression was conducted to assess the ability of acculturation, religion (measured by the MASPAD Scale), and coping styles (measured by the Brief COPE Scale) to predict attitudes towards seeking medical care (ATSMC) after controlling for age, gender, religious affiliation, and length of residence.

Results

Sample Description

The demographics of the sample (Table 3), show that slightly more females (53.9%) than males (46.1%), and more middle-aged persons (48%) were shown to have been involved in the survey than other age groups (see authors, 2018). The years of residence varied from one to fifty-three years ($M = 13.49$, $SD = 10.13$). More participants with Christian religious beliefs (Pentecostals, mainline Christians, and others) were recruited, accounting for 88 per cent, compared to Muslims (3.2%) and those with no religion (8.8%). Within the Christian denominational

affiliations, mainline Christians (Catholics, Anglicans, Baptists) accounted for more Christian participants (48%) than the Pentecostals (34.3%) and others (Jehovah Witness & Adventists (3.2%).

Table 3 here

Correlations between scales: MASPAD, BCOPE, & ATSMC

The association between attitudes towards seeking medical care, acculturative patterns (traditionalist behaviours, traditionalist beliefs, assimilationist behaviours, integrationist behaviours), religion (religious beliefs and religious behaviours), and coping methods (active coping, denial, emotional support, instrumental support, behavioural disengagement, venting, religious cope, and self-blame), showed a negative correlation between attitudes to medical help-seeking and religious behaviours (r = - .16, n = 297, p < .05), behavioural disengagement (r = - .24, n = 297, p < .05) and self-blame (r = - .24, 297, p < .05), with high levels of religiosity (exhibiting religious behaviours) associated with lower levels of medical help-seeking; and increased use of behavioural disengagement and self-blame also associated with lower levels of medical help-seeking. There were also a number of positive correlations between attitudes towards medical help-seeking and instrumental support (r = .15, n = 297, p < .05), emotional support (r = .12, n = 297, p < .05) and active coping (r = 0.12, n= 297, p < .05), showing that greater use of instrumental support, emotional support, and active coping was associated with more positive attitudes to medical help seeking (see Table 4).

Table 4 here

Group differences and the outcomes of ATSMC

No significant differences in attitudes towards seeking medical care (ATSMC) scores for males (M = 28.71, SD = 4.68) and females (M = 29.53, SD = 4.95; t (295) = -1.46, p< .05,) were found, but there was an effect for age and attitudes towards seeking medical care for the three groups (young, middle, and older age groups): *F* (2, 293) = 5.4, *p*< .01. Post-hoc comparison using the Turkey HSD test indicated that the mean score for the Young group (*M* = 28.2, *SD* = 4.73) was significantly different from the Older group (*M* = 30.5, *SD* = 4.61). The mean score for the middle-aged group (*M* = 28.6, *SD* = 4.9) was significantly different from the older group, but the young group did not differ significantly from the middle-aged group. Therefore, older people had more positive attitudes towards seeking medical help than the young/middle aged groups.

A one-way between-groups ANOVA was conducted to investigate religious affiliation (Christian, Other Religions, No Religion) and medical help seeking. There was a significant difference in attitudes towards medical help-seeking between the three groups: *F* (3, 293) = 8.3, *p*< .01. Post-hoc comparison indicated that the mean score for the Christian group (*M* = 29.7, *SD* = 4.44,) was significantly different from the No Religion group (*M* = 25, *SD* = 3.77). Other Religions (*M* = 27.9, *SD* = 7.52) did not differ significantly from either Christian or No-religion group, suggesting that those with Christian religious affiliation had more positive attitudes towards using medical care than those without any religious affiliations.

Factors predicting ATSMC

To investigate whether acculturation, religion and coping styles predicted attitudes towards seeking medical care (ATSMC) over and above religious affiliation, age and length of residence, a hierarchical multiple regression analyses (HMRA) was conducted. The variables selected for entry into the regression were age, gender, religious affiliation, length of residence; traditionalist behaviours, assimilationist behaviours, religious behaviors, active coping,

emotional support, instrumental support, behavioural disengagement, and self-blame. The selection was based on Hosmer and Lemeshow's criteria of including *p* values < .25 (Alan 2012; Hosmer & Lemeshow 2013).

A total of 273 cases were included in the analysis and the model significantly predicted attitudes towards seeking medical care, F (14, 258) = 5.81, *p* < .01. Age, gender, religious affiliation, and length of residence were entered at Step 1, and it made a significant contribution to the model (F (5, 266) = 7.11, p <.01) explaining 35.2% of the variance in attitudes towards medical help-seeking. When traditionalist behaviours, assimilationist behaviours, religious behaviors, active coping, emotional support, instrumental support, behavioural disengagement, and self-blame were entered at Step 2, they made a significant contribution to the model, F (14, 258) = 5.81, *p* < .01 and explained 48.9% of the variance. These variables explained an additional 12 per cent of the variance in attitude towards seeking medical care, after controlling for age, gender, religious affiliation, and length of stay in the UK, *R* square change = 0.12, *F* change (6, 258) = 4.91, *p* = < .01. In Step 2, only four variables made a significant contribution to the model (age, Christian religious affiliation, behavioural disengagement, and self-blame), with affiliation to the Christian religion recording the highest value (β= .271, *p* < .01) than age (β = -.182, *p* < .01), self-blame (β = -.208, *p* < .01), and behavioural disengagement (β= -.212, *p* < .01). The β values therefore, showed that belonging to the Christian religious group and old age predicted increased (positive) attitudes towards seeking medical care, while young age, self-blame and behavioural disengagement predicted less positive attitudes towards medical help-seeking among Nigerian immigrants in the UK (Table 5)

Table 5 here

Discussion

The results of the present study were derived from first-generation Nigerian immigrants in London, Manchester, Birmingham and Leeds. Participant characteristics indicated they were of various religious persuasions who have lived in the UK for a reasonable length of time. The results of the correlations confirm findings reported in previous studies, that immigrants' values and behaviours undergo changes due to influences exerted from the host culture (Berry, 1980, 2006; Schwartz, Pantin, Sullivan, Prado, & Szapocznik, 2006). Before migration, most Nigerian immigrants are known to hold religious and cultural beliefs based on three dominant religions – Christianity, Islam, and Traditional Religion. Muslims constituted about 50.4% of the population in 2011, dropping to 50% in 2014; while the Christian population increased from about 40% of the total population in 2001 to 48.2% in 2011 and 50% in 2014; showing a significant growth rate compared to the Muslim population, while animists or followers of traditional religions constituted 5%, a drop from 10% in 2001 ([COIR], 2013). The overall increase in the population of Christians is of considerable interest, especially with reference to the dominant influence of the Pentecostal groups, offering spiritual healing as an alternative to medical care (Ayuk, 2002). Hence, the type of acculturation strategy adopted by immigrants are known to be influenced by personal factors related to pre-migration and post-migration experiences. Other contributing factors include age, gender, and socio-economic status and cultural distance before migration, as well as prejudice, discrimination, coping strategies, available resources and social support (Phillimore, 2011). Ager and Strang (2004) have also recognized social capital as one of the positive factors that can impact on the process of integration among others, such as access to education, training, housing, and employment. They also identified some negative factors such as poor integration policy, negative attitudes from the host community, and high rate of racism/discrimination, among others.

Exploring relationships between acculturation, religion, and coping styles, and seeking medical help, our results revealed negative correlations between attitudes to medical help-

seeking and religious behaviours, behavioural disengagement, and self-blame; implying that high levels of exhibiting religious behaviours were related to lower levels of medical help-seeking, while increased use of behavioural disengagement and self-blame indicated lower levels of medical help-seeking. Understandably, both 'self-blame' (turning blame on self, criticising self) and 'behavioural disengagement' (giving up efforts to cope) are regarded as avoidance approaches, that can become barriers to healthcare utilization (Cooper, Katona, & Livingston, 2008). This new information on the negative impact of avoidance coping methods on health care utilization among Nigerian immigrants supports findings from existing studies among other immigrants of non-Western origin (Nap et al., 2015; Yoon, Langrehr, & Ong, 2011). It is possible that arriving from a socio-cultural background based on communalism, with great dependence on families and religious groups for support, into a culture based on individualism such as the UK, African immigrants can face frustration and resort to 'denial' when family support becomes unavailable, which can compound the feelings of loss regarding the country of origin (Mooren et al., 2001). However, this result is contrary to an existing study on mental health (Kamperman, Komproe, & de Jong, 2007), among immigrants of non-Western (African and Asian) backgrounds, where no association was found between avoidance coping methods and utilization of mental health care facilities.

In addition to the socio-cultural conditions implicated above, recourse to religion and avoidance coping methods found among Nigerian immigrants could be perceived as important responses/reactions to stigmatization and discrimination based on racialised status associated with black minority ethnic groups; such as criminal offending rates (usually high among blacks) and immigration documentation process, which results in fear of deportation (Asad & Clair, 2017). This finding can be linked to the potential impact of racialised legal status as a social determinant of poor healthcare utilization (Asad & Clair, 2017). For instance, policies aimed at deporting undocumented immigrants discouraged medical help-seeking (Watson,

2014), even among well documented immigrants for fear of mistaken identity and deportation/punishment (Derose et al., 2007). Therefore, there is need for further research on the relationship between the use of avoidance coping styles and differential treatments associated with certain legal statuses among immigrants; as research shows that these statuses hold negative health consequences, both physical and mental, for immigrants and their ethnic groups (Asad & Clair, 2017). Furthermore, the use of other coping styles, such as instrumental support, emotional support, and active coping were associated, but not predictive of, increases in medical help-seeking. These results support some existing research on the interrelationships between the processes of acculturation and factors related to immigration and coping with its challenges, such as positive migration history, non-discriminatory policies/regulations within the host-country, length of stay, religion, employment, and health issues (Nap et al., 2015).

The results of group differences and socio-demographic characteristics on participant responses, showed no gender difference in attitudes towards seeking medical care; which is contrary to existing studies (Kamperman et al., 2001) where females were found to seek more medical help than men for mental health conditions. Findings on gender difference in medical help-seeking cuts across African and non-African populations (Rickwood & Braithwaite, 1994; Verhaak, 1995); with some differences when associated with other social variables that positively influence help-seeking attitudes, such as marital status (divorced or widowed women) (Kamperman et al., 2001; Verhaak 1995).

When comparing attitudes towards medical help-seeking and age, we found that older people sought medical help more than the young/middle aged persons; a result that can be attributed to greater health needs among the ageing population, as consistent with existing studies (Giacco, Matanov, & Priebe, 2014; Nguyen, 2011). Other studies have established the effects of the health need factor on health care consumption, both among immigrant and non-immigrant populations (Kamperman et al., 2001; Verhaak, 1995). Also, this finding is

consistent with existing studies on mental health, reporting that young immigrants, though they seemed to experience more psychological conditions, underutilise outpatient mental health services compared to their native counterparts (Verhulp, Stevens, van de Schoot, & Vollebergh, 2013).

The results obtained in relation to the association between medical help-seeking and religious affiliations indicated that Christians had more positive attitudes towards using medical care than those without any religious affiliations, which implies that, contrary to popular speculations, religion was not a barrier to seeking medical help among this group. This finding has important implications for a broader understanding of the roles of religion, such as its social functions that can enhance integration, and is consistent with existing studies showing a close link between religion/spirituality and social support (Hill, 2010). For instance, in a study on the benefits of religious faith among diverse races, Thompson and colleagues (2012) found a link between faith and higher self-esteem among both whites and blacks (African Americans); and Myers (2000) also reported that churchgoers from different racial backgrounds expressed more optimism about life than non-churchgoers. The present study showed that those affiliated to religious groups used more active coping, emotional support, instrumental support, (all of which can enhance access to medical services) than those with no religious affiliations at all.

In summary, using the models in this study to predict attitudes towards medical help-seeking among Nigerians in the UK, it was found that some socio-demographic variables (Age and Christian religious affiliation) and coping styles (behavioural disengagement and self-blame) significantly contributed to the model, with the Christian religion being the highest predictor of positive attitudes towards medical help-seeking. This result implies that, the variables of interest (acculturation strategies, religion, and coping styles) within the MSAPAD and Brief COPE Scales explained an important percentage (12%) of the variance in attitudes towards medical help-seeking after controlling for age, gender, religious affiliation, and length

of stay in the UK. Although heritage cultural and religious beliefs have been shown to be barriers to seeking medical help among some migrant communities (Chang & Subramaniam, 2008), the positive role of religious affiliation among Nigerian immigrants confirms that it can also provide some important advantages in coping with the consequences of poor health conditions during migration (Mazumdar & Mazumdar, 2009). Moreover, this is an important finding considering that Nigerian immigrants come from a highly religious country, which has relevance to previous studies showing that happiness and life satisfaction are higher in countries where high values are placed on religion (Stavrova, Fetchenhauer, & Schlosser, 2013).

Limitations

This study acknowledges some limitations that may have impacted its findings, such as the issue of representativeness of the sample. The under-representation of some religious groups within the sample was partly due to the sensitive nature of the study, with more Christians (88%) involved compared to Muslims (3.2%). Therefore, the findings may not be used for generalizations regarding all religious practices among Nigerians. Also, the snowball process of recruitment and distribution of the questionnaires may have led to the sample not being truly representative of the population and that could have affected the results. Further, the questionnaires were designed to measure intentions rather than actual behaviours. Therefore, it is important to acknowledge that this study only measured intentions to act and not actual behaviours; as real threats are known to elicit different responses compared to perceived or virtual threats. This aspect provides opportunity for improvements in future research. Moreover, there were some variables with low factor loadings, that could have affected the results, such as 'venting' and 'denial' (.34 and .45 respectively). These low Cronbach's alphas could be due to these subscales having only two items, as internal

consistency for measures are known to increase as scales are lengthened (Cronbach, 1951). Despite these limitations this study ensured that robust statistical computations were employed to ensure valid and reliable results.

Conclusion

Religious beliefs and behaviours have been identified as relevant determinants to how immigrants cope, and the health-seeking approaches adopted in response to ill health. The overall findings underscore the need for integrative and culture-sensitive policies and a healthcare system that can understand the potentially important individual differences that contribute to healthcare seeking behaviours so that caring for its multi-cultural patient population is targeted appropriately.

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Table 1:
The Matrix Pattern for PCA – MASPAD

MASPAD Items	Components

	1 Traditionalist behaviours	2 Traditionalist beliefs	3 Assimilationist behaviours	4 Integrationist behaviours	5 Religious beliefs	6 Religious behaviours
2. African naming ceremony	**.698**					
11. African ancestry	**.549**					-.307
25. Black businesses	**-.510**	.310		.389		
5. African cultural practices	**.475**			.307		
3. African heritage	**-.455**		.381	-.345		
10. I maintain my cultural beliefs	**.376**			.358		-.345
26. marrying someone non-Black		**.753**				
29. injustices on Africans		**.727**				
30. different cultural values to fit in	.559	**.569**				
17. Modify values to fit in...		**.510**				
22. African rich history		**-.429**		.350		
4. British first…		**.417**				
9. putting on the *mask* to fit in			**.671**			
21. assimilating into other cultures			**.549**		.316	
7. People from different races…			**.542**			
15. people that are not black			**.518**	-.450		
16. Black owned businesses			**.465**		.301	
6. Ideas held by Blacks…			**.452**			.353
19. Festivals				**.742**		
13. spiritual person				**.699**		
18. My religious beliefs				**.698**		
14. religious person				**.599**	-.409	
23. African spiritual system					**.834**	
20. rituals and departed ancestors					**.781**	
24. I use African language					**.711**	
27. African art						**-.761**
8. Treating elders with respect						**-.579**
1. pride in being an African						**-.571**
28. events that impact my people						**-.570**
12. the way I behave at home	-.368		.418		.301	**-.467**

Note: Six major loadings for each item are bolded

Table 2

Modified Subscales and their Cronbach's Alpha

MASPAD	Cronbach's Alpha	Brief COPE	Cronbach's Alpha
Traditionalist-Behaviours	.60	Active Coping	.52
Traditionalist-Beliefs	.63	Denial	.34
Assimilationist-Behaviours	.67	Emotional Support	.67
Integrationist-Behaviours	.58	Instrumental Support	.80
Religious Beliefs	.78,	Behavioural Disengagement	.67
Religious Behaviours	.77	Venting	.45
		Religion	.71
		Self-blame	.56.

Table 3

Participant socio-demographic characteristics

Variables	Totals (N=297)	Missing items
Gender, n (%)		
Female	160 (53.9%)	-
Male	137 (46.1%)	
Age-range, n (%)		
Young (18-40)	118 (39.8%)	1 (.3%)
Middle Age (41-60)	142 (48%)	
Older Age (61-80)	36 (12.2%).	
Residency, n (%)	M = 13.49	
	SD = 10.13	9 (3.0%).
Religion, n (%)		
Pentecostal Christians	97 (34.3%)	
Mainline Christians	136 (48%)	
Other Christians	16 (5.7%).	14 (4.7%)
Muslims	9 (3.2%)	
No-religion	25 (8.8%)	

Table 4

Pearson Product-moment Correlation Between Measures (MASPAD, BCOPE & ATMHS)

Scales	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.Traditionalist Beliefs		0.45**	0.15*	0.19**	0.57**	0.22**	0.20**	0.07	0.11	0.08	0.11	0.08	0.06	0.05	0.0
2. Traditionalist Behaviours			0.20**	0.19**	0.54**	0.33**	0.08	0.25**	0.21**	0.28**	0.18**	0.22**	0.15**	0.13*	0.0
3. Assimilationist Behaviours				0.32**	0.07	0.10	0.09	-0.12*	0.03	-0.06	0.21**	0.09	-0.05	0.07	0.0
4. Integrationist Behaviours					0.09	-0.10	-0.07	0.16**	-0.09	-0.04	-0.01	-0.10	-0.11	-0.01	-0.0
5. Religious beliefs						0.44**	0.17**	0.02	0.19**	0.33**	0.14*	0.20**	0.21**	0.24**	0.0
6. Religious coping							0.21**	-0.18**	0.44**	0.40**	0.05	0.35**	0.41**	0.32**	0.0
7. Self-blame coping								0.03	0.22**	0.05	0.43**	0.30**	0.14*	0.45**	-0.2
8. Religious behaviours									0.04	-0.02	0.09	-0.13*	-0.02	-0.00	-0.0
9. Emotional support										0.51**	0.07	0.25**	0.63**	0.30**	0.1
10. Active coping											-0.05	0.17**	0.76**	0.26**	0.1
11. Behavioural Disengagement												0.35**	0.02	0.19**	-0.2
12. Denial													0.17**	0.29**	-0.0
13. Instrumental support														0.34**	0.1
14. Venting															-0.0
15. Seeking Medical care															

Note: significant correlations = ** $p < 0.01$ (2-tailed), * $p < 0.05$ (2-tailed).

Table 5

HMRA predicting attitudes towards seeking medical care

Predictor	R-square (Adjusted)	R	F	P	Beta value	P	Part correlation
Step 1:	0.1	0.35	6.26	0.001			
Gender					0.08	0.16	0.08
Young Age group					-0.08	0.24	-0.07
Middle Age group					-0.16	**0.02**	-0.14
Length of Residence					0.16	**0.01**	0.14
Christian Religion					0.3	**0.01**	0.21
Other Religions					0.07	0.46	0.04
Step 2.	0.19	0.49	5.81	0.001			
Gender					0.1	0.09	0.09
Young Age Group					-0.08	0.24	-0.06
Middle Age Group					-0.18	**0.01***	-0.15
Length of Residence					0.11	0.1	0.09
Christian Religion					0.27	**0.01***	0.14
Other Religions					0.13	0.2	0.07
Assimilative Behaviours					0.08	0.19	0.07
Religious Behaviours					-0.02	0.74	-0.02
Traditionalist Behaviours					0.04	0.59	0.03
Active Coping					-0.16	0.07	-0.1
Emotional Support					0.08	0.3	0.06
Instrumental Support					0.19	0.05	0.11
Behavioural Disengagement					-0.21	**0.01****	-0.18
Self-Blame					-0.21	**0.01****	-0.18

Note: *p < 0.05, **p < 0.01 at 95% confidence limit