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Perceived Health Status of Nigerian Immigrants in New York City

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Research Article

Purpose: Immigration is a stressful life event that could affect the general health and wellbeing of new émigrés. There is a dearth of empirical data on the perceived health of African immigrants as they integrate in developed societies. This study aimed to assess the health related quality of life of Nigerian immigrants in New York City. **Material and methods:** A systematic sample of immigrants (N=177) were surveyed using a questionnaire that elicited information on sociodemographics and on eight dimensions of health related quality of life using the Rand 36-item Health Survey Instrument. **Results:** Nigerian immigrants' perceived health scores were comparable to the US population norm in the life quality variables of physical function, social function, role limitation due to physical health, role limitation due to emotional health, energy and vitality, and emotional wellbeing. These immigrants' perceived general health and bodily pain scores exceeded those of the American population, while their social function score is positively associated with their income and highest education. **Conclusion:** Life in the new society could impact differently on the perceived health and wellbeing of the male and female Nigerian immigrants and warrants further investigation.

Key words: Immigrants; Nigerian, Quality of life, Health status.

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New York'ta yaşayan Nijeryalı göçmenlerin sağlık algı durumları

Amaç: Göçmenlik, yeni göç eden insanların genel sağlık ve iyilik hallerini etkileyen stresli bir yaşam durumudur. Afrikalı göçmenlerin, gelişmiş toplumlarla bütünleşmeleri sürecinde, sağlık algılamalarına yönelik deneysel verilerde yetersizlik bulunmaktadır. Bu çalışmada, New York'taki Nijeryalı göçmenlerin sağlıkla ilgili yaşam kalitelerini değerlendirmek amaçlandı. **Gereç ve yöntem:** Sistematik bir örneklem ile göçmenlerde (N=177), anket kullanılarak sosyodemografik bilgileri ve Rand 36-item Health Survey Instrument ile sağlıkla ilgili yaşam kalitesinin sekiz boyutu araştırıldı. **Sonuçlar:** Nijeryalı göçmenlerin sağlık algı skorları ABD popülasyonun normu ile yaşam kalitesi değişkenlerinde (fiziksel fonksiyon, sosyal fonksiyon, fiziksel sağlığa ait rol limitasyonu, duygusal sağlığa ait rol limitasyonu, enerji ve canlılık ile duygusal iyilik) benzerlik gösterdi. Bu göçmenlerin genel sağlık algıları ve bedensel ağrı skorları, Amerikan popülasyonundan fazla olduğu belirlendi. Sosyal fonksiyon skorları, gelir düzeyleri ve eğitim seviyeleri ile pozitif ilişkili bulundu. **Tartışma:** Yeni bir toplumda yaşamın, kadın ve erkek Nijeryalı göçmenlerde sağlık algısı ve iyilik durumunu farklı düzeylerde etkilediği belirlendi ve bu konuda daha fazla araştırmaya ihtiyaç olduğunu gösterdi.

Anahtar kelimeler: Nijeryalı göçmenler, Yaşam kalitesi, Sağlık durumu.

It is a general belief that the global economic climate in the past two decades promotes outflow of high-level manpower from the developing countries to the developed countries. Since 1993, the United States (US) government admits up to 50,000 immigrants annually through its Diversity Immigrant Visa Program.[1] The Canadian and British governments initiated similar programs in order to attract highly skilled personnel who met certain educational, health and work experience requirements, into the countries.[2-3] Through these programs, Nigeria with a population of 130 million,[4] constituting a quarter of the people inhabiting the continent of Africa, is believed to have lost more human resources than any country in the continent. It has been speculated that as immigrants strive to achieve life satisfaction in the new society, they tend to compare their experiences in their homeland with what they expect to achieve in the new society, and their actual achievement.

A popular belief among African immigrants is that attaining success in the US involves a two-prong goal of maintaining a good living in the new society, and a high social status in their communities of birth. In order to achieve their goals, immigrants often have to keep two jobs, or work overtime, and may experience difficulty balancing work with leisure, with possible negative impact on their health, well-being and quality of life. It is a general belief that many immigrants of Nigerian descent overextend themselves as they strive to achieve their goals in the US.

Several past studies showed that immigration is a stressful life event that may increase mental health risk,[5-6] and impact the social health of émigrés.[7] Immigrants may face marital strain,[8] and may experience lower subjective quality of life,[9] and lower life satisfaction,[10] than their counterparts born in their new destinations. Past traumatic experience,[11] attainment of adulthood before emigration,[12] female gender,[10,13] recent immigration and language barriers,[12] and living alone,[14] have been reported to have negative influence on immigrants' perceived health status and well-being. In spite of the potential problems that immigrants could face in the new society, previous studies showed newcomers have better overall health, higher life expectancy and lower mortality than their non-immigrant counterparts.[15,16]

Over time as immigrants integrate, the health and mortality advantage enjoyed by immigrants has been found to be eroded by acculturation which played a major role in modifying the social health and behavior characteristics of these immigrants.[16-19] Some unfavorable attributes and characteristics of immigrants have been identified to include lower rates of medical insurance coverage and lower use of medical services than the general population in the US, Canada and Australia.[17-18,20,21] Micro-level societal factors such as racial or ethnic discrimination, social segregation and labor market discrimination each play a role in immigrants' lower medical insurance coverage and use of medical services.[17,20-23] In the US, while they may be better educated than their US born counterparts, immigrants tend to have higher unemployment and poverty rate.[17,21]

An understanding of the major life events, circumstances and experience such as immigration and problems with integrating in a new culture and its effect on perceived health and well-being adds to health providers' knowledge on the relevant questions and approaches to client intake histories. Perceived health could affect a client's health attitude, behavior, and may influence them in setting their priorities on wellness and health promotion. It could also be a reflection of clients' physical and emotional health status, exercise and recreation habit, and their energy levels.

Health professionals' awareness of the perceived health and wellbeing of recent immigrants and how they compare to the general population could enhance an optimum therapeutic relationship required to address the health and wellbeing needs and concerns of immigrant client in a comprehensive manner. With the exception of one study that focused on health and well-being of immigrants from an African Island in France,[7] the extant literature have reported mainly on immigrants from countries in Europe and Asia. Presently, there is paucity of empirical data on sub-Saharan African immigrants' perceived health

status as they integrate in the US. The primary purpose of this study was to assess the perceived health related quality of life status of immigrants of Nigerian descent in New York City.

MATERIAL AND METHODS

Sample

A purposive sample of immigrants of Nigerian descent (N=177) who were present in four Nigerian churches and two mosques in the boroughs of Brooklyn, Queens and Bronx in New York City were surveyed. Houses of worships were utilized to obtain access the Nigerian immigrants in the City of New York. No reliable records of Nigerian immigrants were obtainable in the Nigerian consular office in New York.

Questionnaire

A 2-part questionnaire was designed to survey Nigerian immigrants. Part I elicited sociodemographic information such as age, gender, marital status, education and religious affiliation. Respondents were asked how long they have been in the US, their annual household income, whether they provide financial support family, friends and relatives in Nigeria, and the estimated amount of this support.

Part II elicited information on the respondents' health related quality of life using the Rand 36-item Health Survey (RAND 2003).[24] The 36-item instrument measures eight variables of life quality including physical function (PF, 10 items), social function (SF, two items), role limitation due to physical problems (RLPP, four items) and role limitation due to emotional problems (RLEP, three items). Other variables are mental health (MH, five items), energy and vitality (EV, four items), pain (PA, two items) and general perception of health (GH, five items). All variables were scored on a 0-100 scale, with 100 representing excellent health status.

The health survey instrument has been utilized extensively in assessing health outcomes and related quality of life, and has excellent validity and reliability.[25] The variables making up the scale have been determined to have high internal consistency with Chronbach's alpha ranging from 0.76 to 0.90 for the items.[24,26] Under a 2-factor model of health status, this instrument reflects physical health dimension primarily by measures in PF, PA and RLPP. Mental health dimension is reflected primarily by measures in EWB and RLEP,[27,28] while measures in GH, EV and SF reflect both dimensions.

Procedure

Participants were reached by distributing questionnaires to every third adult seated in rows in churches and mosques on a Sunday morning (Churches) and Friday evening (Mosques) in New York City in the forth week of October in 2006. Based on a listing comprising eight churches and four mosques provided by two Christian and two Moslem priests, four churches and two mosques were randomly selected to reflect the proportion of their total counts.

Each questionnaire was accompanied by a cover letter inviting them to participate. In conformity to the ethical standard of the authors' facility, no name or identification was required of the respondents and anonymity was assured. Respondents were advised to complete only one questionnaire per household, and to return the completed questionnaire in a self-addressed and stamped envelope within six weeks. A total of 257 questionnaires were distributed and 177 usable questionnaires were returned, giving a response rate of 68.9%. This study was approved by the Institutional Review Board of the authors' institution.

Statistical analysis:

Responses on sociodemographics were entered directly for analysis while scores on health related quality of life (SF 36) was computed using the method developed by RAND Corporation.[29] Statistical analysis was performed using Analyze-It Statistical software (Analyse-It Ltd, Leeds, UK). Analysis of variance was utilized to explore differences in variables of life quality such as PF, SF, RLPP, RLEP by demographic characteristics. Associations between life quality variables and demographic characteristics such as age and income were explored using Pearson product moment and Spearman rank correlations, at an alpha level of 0.05.

RESULTS

The mean age of the subject is 41.1±9.9 years. As shown in Table 1, majority of the immigrants are men (71.2%), married (76.3%), with a median of three children (95% CI=2-4). Majority was Christians (64.8%), and most (70.8%) had bachelors or higher degree. The median time the respondents have been in the US was 10 years (95% CI=7-13 years). All respondents were New York City government employees, teachers, health care professionals, home health aides, security guards and janitorial workers and all reported they were employed on a full-time basis.

Nigerians in this study earned median household income of 48 thousand dollars a year (95% CI=40-56 thousand), and support relatives and friends in Nigeria through money remittances of median value of five thousand dollars (95% CI=5-6 thousand) per year. Married subjects were significantly older ($p<0.01$) than their single counterparts (43.8±8.5 vs. 33.3±8.8). Significant difference ($p<0.05$) in mean income was observed between those who did not subscribe to any of the two religions (Christianity and Islam) who regarded themselves to be Free Thinkers (107.0±65.1) and those who professed to Christianity (59.8±36.7) or Islam (49.4±29.1).

Table 2 shows respondents scored highest on pain (83.0±18.4) and lowest on EV (65.2±16.3). A-priori comparison of respondents' scores on health related quality of life was made to the US general population norm,[30] and is presented in Table 2. As shown in Table 3, absolute but insignificant differences ($p>0.05$) by gender were observed in scores on PF (83.3±21.2 for male, 77.8±22.6 for female) and EV (63.9±15.8 for male, 68.3±7.3 for female). Data was also analyzed to determine any link between sociodemographic variables and scores on SF 36. Highest education correlates moderately with income ($r=0.51$, $p<0.01$), and weakly with PF ($r=0.15$, $p<0.05$), RLE ($r=0.17$, $p<0.05$), EWB ($r=0.16$, $p<0.05$), and SF ($r=0.24$, $p<0.01$). Age correlates weakly but significantly with SF ($r=0.18$, $p<0.01$), while it correlates negatively with GH ($r=-0.18$, $p<0.05$). Income also correlates weakly but significantly ($p<0.05$) with PF ($r=0.15$), RLE ($r=0.17$), EWB ($r=0.16$) and SF ($r=0.24$) and the amount of support to friends and relative in Nigeria ($r=0.23$, $p<0.01$).

Table 1. Demographic characteristics of the Nigerian immigrants (N=177).

	n (%)
Gender	
Male	126 (71.2)
Female	51 (28.8)
Marital status	
Married	135 (76.3)
Single	42 (23.7)
Religion	
Islam	57 (32.4)
Christian	114 (64.8)
Free thinkers	6 (2.8)
Highest education	
High school	18 (10.3)
Associate	33 (18.9)
Bachelor	73 (41.7)
Masters	39 (22.3)
Doctorate	12 (6.8)
Income (in thousands of dollars)	
<40	65 (36.8)
40-69	59 (33.1)
70-99	13 (7.3
100 or >	40 (22.8)

Total for Highest Education does not add up to 177 because two respondents did not indicate their highest education.

DISCUSSION

Immigrants are attracted to the developed countries in pursuit of brighter economic opportunities. In order to realize their dream, immigrants often have to take on extra jobs and may not devote time for leisure and recreational activities. Those employed in low-paying jobs could find their jobs too physically demanding and unchallenging. They may also feel reluctant to take time off from work, making them susceptible to

Table 2. Comparison of immigrants' composite score on Health Related Quality of Life scale with the nomogram for the American population.

	Immigrants	US norm
	Mean±SD	Mean±SD
Physical function	81.7±21.7	84.2±23.3
Social function	79.3±24.0	83.3±22.7
Role limitation due to physical problems	77.4±31.4	80.9±34.0
Role limitation due to emotional problem	80.2±30.9	81.3±33.0
Energy/Vitality	65.2±16.3	60.9±20.9
Emotional well-being	78.0±16.5	74.7±18.1
Pain	83.0±18.4	75.2±23.7
General Health	77.1±13.7	71.9±20.3

Norm values are as reported in Ware JE, Snow KK, Kosinski M, Gandek B. SF 36 Health Survey: Manual and Interpretation Guide. The Health Institute of New England Medical Center. Boston MA, 1993 (US norm).

Table 3. Immigrants composite score on health related quality of life scale by gender.

	Male	Female	
	Mean±SD	Mean±SD	p
Physical function	83.3±21.2	77.8±22.6	0.0524
Social function	79.0±23.4	80.0±25.8	0.3158
Role limitation due to physical problems	77.4±31.4	77.0±31.2	0.4121
Role limitation due to emotional problem	80.1±30.8	80.4±31.4	0.6341
Energy/Vitality	63.9±15.8	68.3±17.3	0.0511
Emotional well-being	78.1±16.7	77.6±16.4	0.0952
Pain	83.0±18.3	83.0±18.9	0.3523
General Health	76.9±13.7	77.5±13.9	0.1532

work stress, poor eating habit and may also minimize or deny any health problems. Awareness of the perceived health and wellbeing of client émigrés and how it compared to that of the general population could facilitate an optimum therapeutic relationship between health care providers and these clients.

Immigrants' Health Status

The purpose of this study was to assess the perceived health related quality of life status of Nigerian immigrants in New York City. Nigerian immigrants' health status scores were comparable (less than five point difference) to the US general population norm in PF, RLPH (2 of 3 primary dimensions of physical health), RLEH, EWB (the two primary dimensions of emotional health) and SF and EV (2 of 3 dimensions reflecting both physical and emotional health). There scores were however higher in PA (one of three dimensions of physical health) and GH (1 of 3 dimensions which reflect both physical and emotional health). This shows that overall these immigrants did not report any limitation in the dimensions of physical, emotional and social health, and many of them may actually experience less bodily pain than the US population in general.

Comparable scores in the dimensions of health and life quality between Nigerian immigrants and the US population indirectly affirms previous report,[31] that immigrants seldom experience any health related activity limitations as they adjust in their new destination. Previous studies showed that immigrants' perceived health score is coherent with objective health indicators,[7] and better epidemiological figures have been reported among immigrants compared to those born in the new destination.[15-16,32] Although SF 36 have been utilized in assessing symptoms and intervention outcome in diseases, above findings may not be validly used to make any projections on the morbidity and mortality from diseases or life expectancy of this subgroup of immigrants. Nevertheless, population differences in the perception of bodily pain among population subgroups have implications for pain intervention and outcome of care following health professionals' intervention.

How immigrants from an African country in the present study compared directly with their American born Blacks is difficult in the absence of a nomogram for the US black population subgroup. However, epidemiological data showed lower life expectancy and higher all cause mortality among immigrant blacks compared to their counterparts born in the US.[33] If the lower use of medical services than the general population reported among immigrants in previous studies also exist among this population, findings in this study may be regarded as a warning as to possible higher morbidity and all cause mortality among the immigrant blacks compared to their American born counterparts.[17,18,20,21,34-36] It raises the possibility that a generalization of overall better health, higher life expectancy and lower mortality reported immigrants of other races, compared to their non-immigrant counterparts as found in previous studies,[15,16] may not be extended to this group of African immigrants.

Comparable immigrants' score in the domains of RLEP, SF, and EWB to the US population norm as found in the present study does not indicate these immigrants have symptoms of emotional health problem. Absence of emotional health limitation is possibly an indication that for these immigrants, the benefits of immigration far outweigh the negative impact of culture shock and adjustment problems in the new society. Above findings may also be attributed to the presumption that Nigerian immigrants are not faced with language barriers as other immigrants from Francophone African countries, because English is the official national language of communication in their homeland. These immigrants may not also experience any limitation in emotional health because of available forum for socialization with their kinsmen in New York and environ.

Gender and Perceived Health

Comparable PF and EV scores between the male and female Nigerian immigrants is at variance with previous reports that female immigrants have lower perceived health status and well-being than their male counterparts from the same homeland ([10,13,28]). Parity in PF and EV is inconsistent with established normative values, which showed that men tend to score higher in all physical health domains than their females counterparts.[26,30] Absence of significant difference in physical health domain scores between the sexes and more especially the higher score on EV among the female immigrants compared to their male counterparts may be attributed to stressful life event and that circumstances these immigrants could face,[5,6] as they integrate in the American society.

Above finding may be explained by a scenario that most Nigerian immigrants faces in the new society. These immigrants were brought up in a culture where living expenses is expected to be borne mostly by the husband, while house chores responsibilities including cooking and cleaning tend to fall on the wife. In the new society, matrimonial role could become less tied to that practiced in their homeland. Consequently, role changes such as male participation in household chores and child rearing activities such as babysitting could have disparate impact on the perceived health and well-being among the sexes. It is the general belief among African immigrants that overall, American society offers a more conducive atmosphere for African women to

express social parity with their husbands than Nigeria regarded as a society that is still relatively more male dominated.

Correlates of Immigrants' Health

We found a modest association between income and education, and in agreement with a previous report,[37] also found association albeit tenuously, between income and perceived general health. Weak negative association between age and GH in the present study is in agreement with finding in a previous study.[38] It is generally known that extensive education and training could improve an immigrant's prospect for securing a less physically demanding and higher paying job and could affect their feeling of self worth and enhance immigrants' physical and mental well-being as they integrate in the new society.

Limitations of the Study

As with any surveys of self-reported nature, one limitation of this study is that the result might be reflecting the bias of the respondents. In order to assure anonymity, respondents' return address was not solicited. It is therefore impossible to evaluate the characteristics of non-respondents. Furthermore, although it is difficult to determine how representative of the Nigerian population in New York City and Environ or US in general is the sample, the sampling method represents the best possible at the time. This is because reliable record was unavailable at the Nigerian consulate in New York, or in any of the New York City agencies, as Africans immigrants are grouped together in demographic compilations.[39] As a result, external validity of findings in this study may be limited to immigrants of Nigerian descents in New York City and surrounding areas, or at best major urban centers within the Mid-Atlantic or North East region of the US.

Another limitation of this study is the modest sample size and fewer responses from the females. It is plausible that some absolute yet insignificant differences by subgroups could be attributed to type II error. In addition, although a 68.9% response rate was deemed sufficient, differences found with small subgroup sizes such as between Christians and Moslems versus Freethinkers, should be drawn with caution. In spite of the above limitations, this explorative study provides some insights into health related quality of life of a group of African immigrants, and points at a possible differential impact of the new society on the health and wellbeing of the male and female Nigerian immigrants. Studies that could elucidate on African immigrants' morbidity and all cause mortality, work and recreation habit, and pattern of use of health and medical rehabilitation care of immigrants of African descents compared to other immigrants and non immigrant counterparts warrants investigation.

CONCLUSION

Nigerian immigrants' perceived health scores were comparable to the US population norm in the life quality variables of physical function, social function, role limitation due to physical health, role limitation due to emotional health, energy and vitality, and emotional wellbeing. These immigrants' social function score is modestly but positively linked to their income and highest education. Parity in the perceived health between male and female Nigerian immigrants found in this study is a unique feature and could be an indication that living in the new society impact differently on the health and wellbeing of the sexes among African immigrants and warrants investigation.

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