

Health Literacy as Key to Developing Health Related Welfare in Jigawa State, Nigeria

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English is the official language in Nigeria and all health information are written in English. However, evidence from our health institutions show that there is inadequate knowledge of essential health matters which is evident in the cases of lifestyle related health conditions. This is believed to be related to people's health literacy which largely determines how people understand health and illness. Thus, determining the level of health literacy among all civil servants is an important step towards understanding the link between literacy and health outcomes. This study investigated the level of health comprehension in Jigawa state, Nigeria. Specifically, it identified community's level of comprehension of health information contained in select health materials and further determined the relationship between their levels of comprehension and health perception with a view to providing a framework for designing, implementing and evaluating community health social welfare programmes. Both quantitative and qualitative research methods were used, using a modified Test of Functional Health Literacy among Adults (TOFHLLA) and the analysis involved analysing the results with the findings from the quantitative data analysed. It has been found that health comprehension is low in Jigawa state. It has also been found that individual's ability to read drug labels, interpret dosage instructions, determine health benefits of ingredients in packages of foods and drinks, among others, is determined by their health literacy not withstanding their education. It has been revealed that the respondents do not apply their knowledge of English in comprehending labels on health related products.

Keywords: Education, English, health, health comprehension, literacy, social welfare.

Bahasa Inggris adalah bahasa resmi di Nigeria dan seluruh informasi kesehatan ditulis dalam bahasa Inggris. Namun, bukti dari lembaga kesehatan menunjukkan bahwa pengetahuan masalah kesehatan kurang memadai. Ini berhubungan dengan literasi kesehatan yang menentukan bagaimana warga mengerti masalah kesehatan dan penyakit. Sehingga, menentukan tingkat literasi kesehatan di antara seluruh pegawai negeri sipil merupakan langkah penting untuk mengetahui hubungan antara literasi dan kesehatan. Studi ini melakukan invstigasi terhadap tingkat pemahaman kesehatan di negara bagian Jigawa, Nigeria. Studi ini khususnya mengidentifikasi tingkat pemahaman informasi kesehatan yang dimuat pada material kesehatan yang selanjutnya menentukan hubungan antara tingkat pemahaman dan persepsi kesehatan. Metode kuantitatif dan kualitatif yang menggunakan modifikasi TOFHLLA (Test of Functional Health Literacy among Adults) digunakan. Penelitian ini menemukan bahwa kemampuan individu, antara lain, membaca label obat, menginterpretasikan dosis, menentukan keuntungan mengkonsumsi makanan dan minuman ditentukan oleh literasi kesehatan, bukan pada pendidikan.

INTRODUCTION

Even though English is the official language in Nigeria and one expects civil servants to have at least basic education which entails basic literacy, numeracy and civic education, there is increasing evidence that level of education has no relation to what is called health literacy. Evidence from our health institutions and various communities show that there is inadequate knowledge of essential health matters such as basic hygiene and diet, among others which is evident in the increased cases of lifestyle related health conditions such as diabetes, high blood pressure, depression, dental problems and many similar others. This is believed to be related to people's health literacy which largely determines how people understand health and illness, avoid or indulge in risky health behaviours or make wrong health decisions which eventually impact on their health. Thus, determining the level of health literacy among civil servants is an important step towards understanding the link between literacy and health outcomes.

Literacy has been described as a fundamental human right and a foundation for lifelong learning. It is regarded as fully essential to social and human development because of its ability to transform lives. For individuals, families and societies alike, it is an instrument of empowerment to improve one's health, one's income, and one's relationship with the world (UNESCO, 2016). Studies have highlighted the positive impact of education and literacy on population, health and, in particular, women's health and the health of children in developing countries (Bledsoe *et al.*, 1999; Nussbaum, 2000).

With reference to literacy, health literacy is used to refer to individuals' capacity to obtain, process and understand basic health information needed to make appropriate health decisions. It has been shown that insufficient health literacy is invariably related to increased risk of hospitalization, poor or inaccurate taking of medication, and high mortality rates. To reach its goal, therefore, the research adopts an interdisciplinary approach and thus will use the Social Cognitive Theory to explore both the qualitative and quantitative aspects of health literacy by studying the interplay of people, environment and behaviour as factors determining health perception, health related behaviours and activities. Measurement of health literacy in diverse and vulnerable populations is using SCT is very important because through evaluating behavioural changes emanating from environmental, social and psychological factors, we can explain how people acquire and maintain given behavioural patterns, develop and offer intervention strategies and provide a framework for designing, implementing and evaluating community health programs.

Aim and Objectives

The aim of the study is to investigate the civil servants' ability to read and understand a variety of health related materials written in English and how their level of understanding influences their perception of health matters as well as other health related activities. The objectives of the study are to (1) identify the civil servants' levels of comprehension of health information contained in select health materials, (2) determine the relationship between their levels of comprehension and health perception, and (3) assess the correlation between health behaviour and socio-cognitive tendencies.

METHOD

This is a cross-sectional survey research conducted using a modified Test of Functional Health Literacy among Adults (TOFHLA). This is a functional literacy assessment tool which is designed to evaluate adult literacy in health. It basically consists of a series of comprehension questions in literacy and numeracy directly related to health information that individuals are exposed to in everyday life. It is based on the assumption that one needs more than classroom literacy to be able to comprehend and use health information adequately.

The test was administered to 893 civil servants from six (6) of the most densely populated local government areas (LGA) of Jigawa State. They are categorised as having middle to lower literacy abilities – as determined by their educational backgrounds. In addition, a questionnaire designed to get socio-cognitive information from them was administered. The result of the test plus the questionnaire was triangulated with a structured interview.

893 participants for the research were recruited into this study through stratified sampling based on population sizes of the Local Government Areas. 18 interviewers were used to administer the TOFHLA test were trained and given specific directions on how to administer and score the test. They practice the actual administration and scoring of the test:

- answering any question the participants may have
- reviewing and signing of the informed consent form
- completing a demographic questionnaire

The interviewers administered the background questionnaire and assessment in a more or less private setting. After completing the background questionnaire, respondents were handed the test questions and the respondent were guided through the assessment.

There are several literacy assessment tools such as the Rapid Estimate of Adult Literacy in Medicine (REALM) (Neilsen-Bohlman et al. 2004). In this research, the Test of Functional Health Literacy in Adults (TOFHLA) (Parker et al, 1995) is used. It is a standardized literacy assessment tool widely used to measure literacy skills. It is a timed reading comprehension test that uses real health materials to evaluate reading comprehension and numeracy. Participants are presented with medical information or instructions about various scenarios (using actual health related materials). The Participants review the scenarios and then answer questions that test their understanding of the information in the scenarios. The participant must select a word to fit into the blank spaces from the **4 multiple-choice options** provided for each space.

TOFHLA design uses what is called the modified *Cloze Procedure*, in which every 5th to 7th word in a passage is omitted and replaced with a blank space. The TOFHLA test has 50 questions and takes about 20 minutes to administer and is scored on a scale of 0 to 100 and the categories are *adequate health literacy* – TOFHLA score of 75-100, *marginal health literacy* – TOFHLA score of 60-74 and *inadequate health literacy* – TOFHLA score of 0-59. Its choice is informed by the fact that it is developed specifically to measure patients' health literacy skills and is as well considered valid and reliable in the field of health literacy research. In addition, it can be easily administered while gathering demographic information from research subjects. It is essentially a linguistic based tool in the form of word recognition tests and reading comprehension tests —have been widely used to measure patients' literacy skills.

FINDINGS AND DISCUSSION

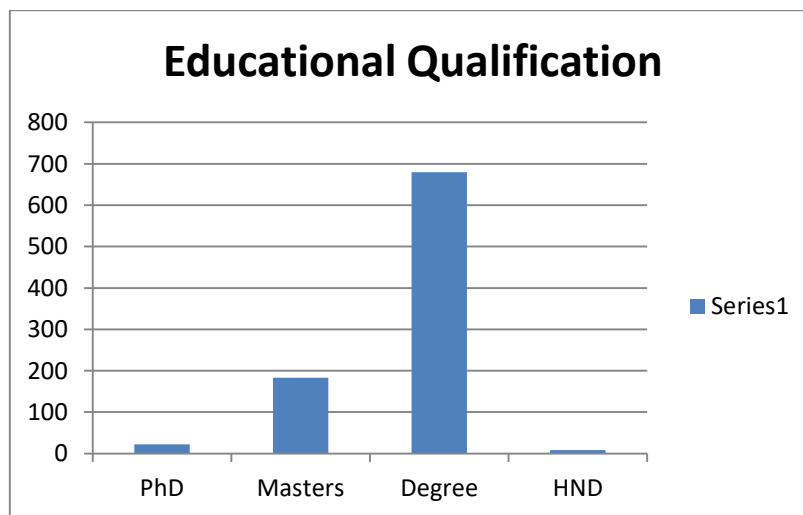
The 893 participants that took part in the research from the six local government areas are categorised demographically as presented below:

Table 1. Local government areas and number of respondents by sex

S/No.	LGA	No. of Participants	Male	Female
1.	Birnin Kudu	182	153	29
2.	Gwaram	156	153	20
3.	Kafin Hausa	154	135	19
4.	Dutse	145	101	44
5.	Jahun	133	122	11
6.	Babura	123	115	08
			779	131

The distribution of the population of the respondents based on educational backgrounds reveals that eight (8) have Higher National Diploma (HND), six hundred and eighty (680) of them have first degrees, 183 have a master's degree while 22 have a Ph.D.

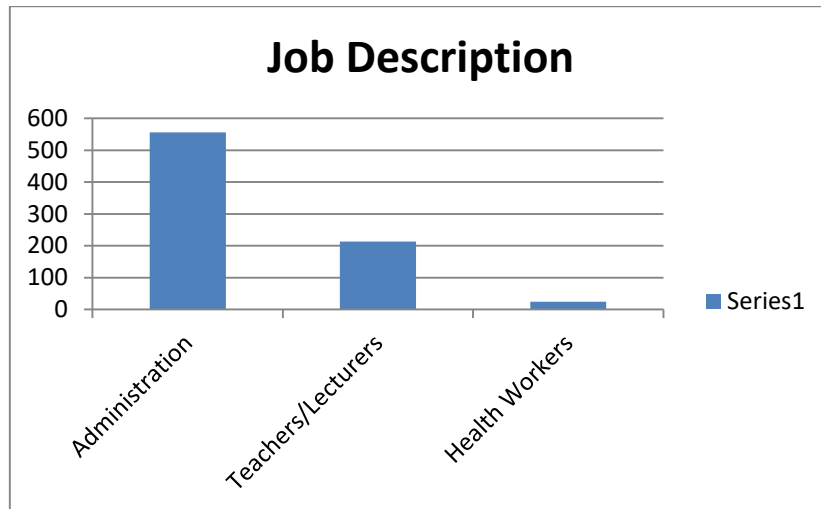
Figure 1. Educational qualifications of respondents



Job Description - Administration, Health Work, Teaching/Lecturing

Out of the 893 respondents, 556 respondents are administrators, 213 are either teachers or lecturers while 24 are health workers.

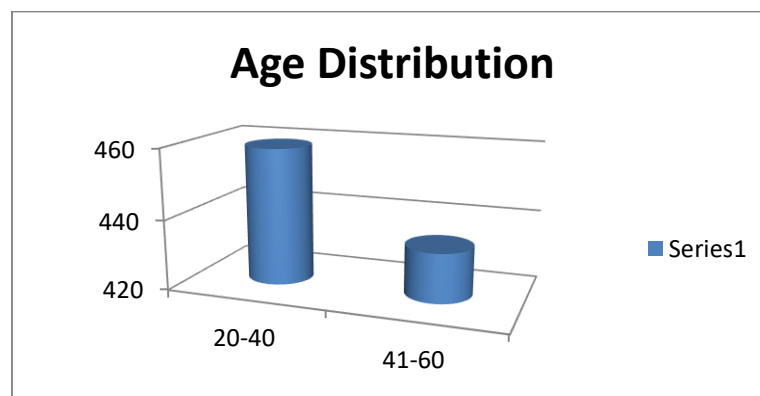
Figure 2. Job descriptions of respondents



Age

The age group of the respondents are divided into two categories: 20 – 40 years and 41 – 60 years. The respondents whose ages fall within 20-40 years are 459 while those who fall in the 41 – 60 age group are 434.

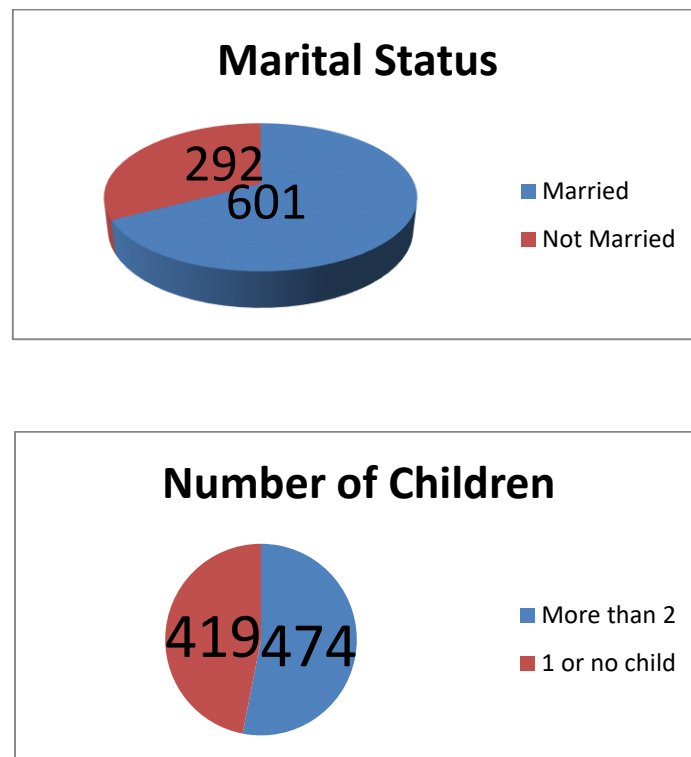
Figure 3. Age distribution of respondents



Marital Status and Number of Children

The responses show that 601 of the respondents are married, while 292 are not married. 474 have more than two children while 419 responders have 1 or no child.

Figure 4. Marital status of respondents and number of respondents with children



Reading and Interpreting Health Labels

Though all the respondents are educated, there are variations in their habits of reading health labels. For example, 351 of the married respondents say that husbands read and interpret health labels to family. In other words, the family is firmly dependent on their husbands' interpretation of health labels.

19 of the married respondents are of the opinion that both husbands and wives read and interpret health labels. This means that there is a complimentary effort between husband and wife on issues relating to reading health labels and interpreting them to the family. 223 of the married respondents say that they do not bother to read health labels while 8 respondents did not respond to the question.

Table 1: Scores of TOFHLA by LGAs

S/NO	LGAs	Total	0-59%score	60-74%score	75-100%score
1.	Birnin Kudu	182	137	29	16
2.	Gwaram	156	132	14	10
3.	Kafin Hausa	154	120	19	15
4.	Dutse	145	94	26	25
5.	Jahun	133	106	15	12
6.	Babura	123	111	10	2

Table 2 shows the TOFHLA score distribution pattern across the LGAs and in range scale. This means that: 137 out of the 182 total respondents from Birnin Kudu scored between 0-59% from the TOFHLA questions. 29 respondents scored between 60 and 74% while sixteen 16 respondents scored between 75-100%. In Gwaram LGA, out of the 156 respondents, 132 respondents scored between 0-40%, 14 respondents scored between 41-70% whereas 10 out of the total 156 respondents scored 71-100%.

In Kafin-Hausa LGA, out of the total 154 respondents, 120 respondents scored between 0 - 40%, 19 scored between 41- 70% while 15 scored between 71 – 100%. In the capital city of Jigawa state, Dutse, out of the total respondents of 145, 94 scored between 0 - 40%, 26 respondents scored between 41-70% while 25 respondents scored between 71-100%. Jahun LGA has 133 respondents out of which 106 scored between 0-40% where as 15 respondents scored between 41-70% and 12 respondents of the 133 from JahunLGA scored between 71-100%. Babura LGA, which is the last LGA in the table, has a total of 123 respondents of which 111 respondents scored between 0-40%, 10 respondents scored between 41-70% while 2 respondents scored between 71-100%.

For the questionnaire, Question 10 asked participants what they would do if within the family no one understands a health label. The responses are summarised thus:

- 70 respondents say they often consult doctor for interpretation.
- 20 respondents say that they usually discuss with only friends.
- 803 respondents do not need the help of any one to read and interpret health labels for them because they believe they understand.

From the scores of the test, the percentages in Table reveal the general trend of the performance:

Table 2: Percentage of TOFHLA scores for the local governments

S/N	LGAs	Total	0-59	%	60-74	%	75-100	%
1.	Birnin Kudu	182	137	75.3 %	29	15.9 %	16	8.8 %
2.	Gwaram	156	132	84.6 %	14	8.9 %	10	6.4 %
3.	Kafin Hausa	154	120	77.9 %	19	12.3 %	15	9.7 %

4.	Dutse	145	94	64.8 %	26	17.9 %	25	17.2 %
5.	Jahun	133	106	79.7 %	15	11.3 %	12	9 %
6.	Babura	123	111	90.2 %	10	8.1 %	2	1.6 %

What this reveals is that a greater percentage of the research participant scored very low marks across the six research areas. As shown below, the mean score for 0 – 59 points is 78.6 while the mean score for the highest point range of 75 – 100 is only 8.8. The low degree of the score is particularly glaring because even when the mean scores of the two ranges (60 – 74 and 75 - 100) are combined, it amounts to merely 21.2.

Table 3: Mean scores for health literacy categories

TOFHLA Score	Category	Mean
75-100	Adequate Health Literacy	8.8
60-74	Marginal Health Literacy	12.4
0-59	Inadequate Health Literacy	78.6

When the questionnaire response of 803 respondents who do not need the help of any one to read and interpret health labels for them because they believe they understand is compared to the general performance in the TOFHLA, it is noted that there is an attitudinal issue with the test participants. For example, a mean test score of 78.6 means that majority of the participants have inadequate health literacy. However, the majority still claim to be the ones guiding their family in reading health materials. It follow from that that they may not necessarily comprehend health related written materials such as medicine labels and similar medical instructions as claimed.

What we can take form this study is that even though the level of one’s education and literacy may be important determinants of health, there are challenges vis a vis the attitudes of people to the very perception of them being literate or not. This is so because what this study suggests is that most of the participants would rather be seen as adequately literate even when such is not the case.

For the case areas studied, it is necessary to develop reliable measures to change attitudes to literacy and illiteracy perception because not acknowledging one’s health illiteracy means that no effort will be made to really be health literate. Such a scenario is disastrous not only to the individual’s health but also to his income – as the health expenditures to be incurred by consequence of that is huge. This is not adding the tremendous catastrophic effect for local

and national health authorities and the general health welfare of the immediate community of such individuals.

CONCLUSIONS

Although health, morbidity and mortality are related to socio-economic status of individuals and socio-economic status is usually related to high level of education, studies have shown that the understanding, interpretation of health related materials written in English does not relate to educational level. Thus, individual's ability to read drug labels, interpret dosage instructions, determine health benefits of ingredients in packages of foods and drinks, among others, is determined by their health literacy notwithstanding their education. These seemingly simple health related activities have a tremendous impact on the health of individuals and their families – especially in the current world of ever growing cases of diet related conditions of modern life such as high blood pressure, cardiovascular diseases etc. A little more understanding of health literacy of individuals can help in developing means of curtailing these preventable health challenges in our society.

World Health Organisation reports (2000, 2001, 2013) have reiterated that one of the desirable objective of any health policy or welfare scheme is to protect people from very high health care costs and make efforts to achieve universal health coverage. By high health care costs is meant health care cost relative to an individual's income such that, for example, even small costs for common illnesses can be financially disastrous on poor households and disadvantaged individuals. In our own case here, for example, it has become a common scene on our local and national television stations to see relatives of patients soliciting for funds to take care of one surgery or another. This is a pointer to a number of things – from inadequate health knowledge that makes people susceptible to otherwise preventable health conditions to the absence of an all-encompassing health welfare package to take care of all categories of individuals. If a health welfare system is in place where health service is provided free or at a subsidised price, or is covered by some kind of insurance, the cost of an operation may not be a problem to families.

REFERENCES

- Bledsoe, C. H., Casterline, J. B., Jonson-Kuhn, J. A. and Haaga, J. G. (eds) (1999) *Critical Perspectives on Schooling and Fertility in the Developing World*. National Academy Press, Washington DC, USA.
- Neilsen-Bohlman L, Panzer AM, Kindig DA, eds. (2004) *Health Literacy: A Prescription to End Confusion*. Washington, DC: National Academies Press.
- Nussbaum, M. C. (2000) *Women and Human Development. The Capabilities Approach*. Press Syndicate of the University of Cambridge, Cambridge, UK.
- UNESCO, (2016) 'Literacy'. <http://www.unesco.org/new/en/education/themes/education-building-blocks/literacy/>. Accessed 04/04/2016.
- World Health Organization: *The world health report 2000 - Health systems: improving performance*.
- World Health Organization: *The world health report 2010 - Health systems financing: the path to universal coverage*

World Health Organization: *World health report 2013: Research for universal health coverage.*