



Short communication

Effect of psychological and other factors on quality of life amongst asthma outpatients in Lagos, Nigeria

Olufunke O. Adeyeye^a, Tomilola A. Adewumi^b, Abiodun O. Adewuya^{a, b, *}^a Lagos State University College of Medicine (LASUCOM), 1-5, Oba Akinjobi Way, Ikeja, Lagos, Nigeria^b Centre for Mental Health Research and Initiative (CEMHRI), Ikeja, Lagos, Nigeria

ARTICLE INFO

Article history:

Received 15 October 2016

Received in revised form

1 December 2016

Accepted 2 December 2016

Available online 5 December 2016

Keywords:

Asthma

Quality of life

Emotional distress

ABSTRACT

Background: This study aimed to assess the effect of psychological and other possible factors associated with poor health related quality of life (HRQOL) in outpatient with asthma in Lagos, Nigeria.

Methods: Patients ($n = 201$) recruited from the adult asthma outpatient clinic were assessed for sociodemographic and asthma related variables. Levels of social support (with Oslo 3-Item Social Support Scale), disability (with WHO Disability Assessment Scale) were assessed. The presence of anxiety and depression was assessed using the Mini International Neuropsychiatric Interview (M.I.N.I.) and asthma related quality of life was assessed with the Mini-Asthma Quality of Life Questionnaire (Mini-AQLQ).

Results: Of the 4 domains of Mini-AQLQ, the “environmental” domain has the lowest weighted mean score of 2.43 ($SD = 1.64$) while the “activity limitation” domain has the highest mean score of 4.74 ($SD = 1.57$). Poor asthma related QOL was independently associated with being unemployed ($p = 0.028$), poor social support ($p = 0.002$), nocturnal asthma ($p = 0.046$), clinically rated “severe asthma” ($p = 0.002$), patients rated “severe asthma” ($p < 0.001$), high level of disability ($p < 0.001$) and presence of Anxiety/Depression ($p < 0.001$).

Conclusion: Our study has shown that psychological variables, disability, patients’ subjective severity rating and social support are the most important factors independently associated with asthma related QOL. These factors should be considered in planning health care services or formulating a predictive intervention model.

© 2016 Elsevier Ltd. All rights reserved.

1. Background

Asthma affects about 335 million people worldwide and is the 14th most important disorder in the world in terms of its disability, burden and negative personal, social and economic impact on individuals, health care facilities, and governments globally [1]. Since the traditional asthma outcome measures like pulmonary functions and respiratory symptoms are not sufficient to express patients’ perception of the limitation due to asthma, the patients’ subjective experience of health related quality of life (HRQOL) is of utmost importance [2]. While asthma on one hand can affect patients’ general satisfaction and HRQOL, a number of factors including psychological functioning contributing to satisfaction and HRQOL

may on the other hand influence the course of the disease.

Several factors have been suggested to be associated with poor patient rated asthma related QOL. Studies have suggested socio-demographic factors like older age, female gender, lower education and unemployment [3–7] and clinical factors like severity of asthma, hospitalization and level of asthma controls [5–9]. Previous studies have shown that psychological factors are most important in asthma with the presence of depression and anxiety diagnosis having large negative effect on HRQOL [3,7–11].

Whereas the global prevalence of doctor-diagnosed asthma in adults was estimated to be 4.3% [12], a recent meta-analysis in Nigeria found a much higher pooled prevalence of 10.2% (95% CI 7.0–13.4%) [13]. Even with this high rate, there is paucity of studies on quality of life of asthma patients in Nigeria. The present study aimed to assess the effect of psychological and other possible factors associated with poor HRQOL in outpatient with asthma in Lagos, Nigeria.

* Corresponding author. Dept of Behavioural Medicine, Lagos State University College of Medicine, 1-5, Oba Akinjobi Way, PMB 21266 Ikeja, Lagos, Nigeria.

E-mail address: biodunwuya@yahoo.com (A.O. Adewuya).

2. Methods

2.1. Participants

Adult patients aged 18–65 were recruited from the asthma outpatient clinic of the Lagos State University Teaching Hospital (LASUTH). Eligible patients must have been diagnosed (based on American Thoracic Society Standards) and receiving treatment for asthma for over 6 months. Only patients with persistent asthma as classified according to the Expert Review Panel's National Guidelines for the Diagnosis and Treatment of Asthma -ERP-3 [14] were recruited for the study. Patients with other comorbid conditions like chronic obstructive pulmonary diseases (COPD) and hypertensive heart diseases were excluded.

2.2. Study instruments

These include

1. *Sociodemographic Profile*: age, sex, marital status, employment status, highest education, and average income/allowance per month. The level of social support was rated using the Oslo 3-Item Social Support Scale OSS-3 [15] which had been validated and used in Nigeria [16].
2. *Asthma related profile*: length of treatment, hospitalisations due to asthma, and asthma attacks per month or year, nocturnal asthma, treatment cost per month, type and dose of current asthma medication. Asthma severity was graded according to the EPR-3 [14] which is based on symptoms, night-time awakening, type of medication use and lung function (FEV). Also the patients' perceived severity of asthma was measured with a question "how severe do you think your asthma is" with options of "mild", "moderate to severe" and "very severe".
3. *Patients' level of disability* was rated with the 12-item version of the WHO Disability Assessment Scale WHODAS-12 [17] which is used all over the world and in Nigeria.
4. *Anxiety and Depression*: The Mini International Neuropsychiatric Interview (M.I.N.I) [18] was used to assess for the diagnosis of Anxiety and Depression. This has been validated and used in Nigeria.
5. *Quality of Life*: The HRQL was measured with the Mini-Asthma Quality of Life Questionnaire (Mini-AQLQ) [19]. This 15 item questionnaire consist of 4 domains; Symptoms (5 items), Emotional (3 items), Environmental (3 items) and Activity limitations (4 items). Scores ranges from 1 to 7 for each item with higher scores indicating better QOL All items are equally weighted and the Overall QOL is the sum of all the 15 items. The Mini-AQLQ has been commonly validated and used in Nigeria [3].

2.3. Testing procedure

Informed consent was obtained from the participants after the aims and objectives of the study were explained to them. The ethical approval was obtained from LASUTH board. The patients were approached individually at the asthma clinic where the assessments were completed. Three trained research assistants who are medical doctors administered the questionnaires and their mean inter-rater reliability was 0.76 measured with Cohen alpha.

2.4. Statistical analysis

The Statistical package for the Social Sciences version 20 (SPSS.20) program was used for statistical analysis. Results were

grouped and calculated as frequencies (%), means, and standard deviations (SD). The *t*-test, analysis of variance (ANOVA) and Spearman's correlation coefficient was used to test associations. Linear regression analysis was used to test for independent associations of the variables with the overall QOL and domain scores. All tests were two-tailed, and significance was set at $p < 0.05$.

3. Results

Sociodemographic, Psychological and asthma related variables: Out of the 210 patients with asthma that participated in the study, 9 had incomplete data so only 201 data was analysed. Table 1 showed that the mean age of the patients was 33.93 (SD 10.16). There were 73 (36.3%) males, 132 (65.7%) were married and 120 (59.7%) presently working. Forty two (20.9%) of the patients had been on asthma treatment for more than 10 years, 82 (40.8%) had at least one attack in past last one month and there were 24 (11.9%) patients on oral corticosteroid. Using EPR-3 guidelines, 34 (16.9%) of the cases were classified as "severe" asthma, but only 17 (8.44%) patients subjectively perceived their asthma to be "severe". The mean WHODAS score was 22.18 (SD 11.23). Using the M.I.N.I, a total of 70 (34.8%) had Anxiety Disorders (ADs), Major Depressive Disorders (MDDs), or a combination of both ADs and MDDs. The rest of the sociodemographic, asthma related and the weighted mean scores of Mini-AQLQ domains are shown in Table 1. The "emotional" domain had significant positive correlation with "symptoms" domain ($r = 0.245$, $p < 0.001$) and the "activity limitation" domain ($r = 0.237$, $p < 0.01$).

Association of variables with Mini-AQLQ: Linear regression analysis was used to determine the variables independently associated with Mini-AQLQ scores. Poor asthma related QOL was independently associated with being unemployed ($p = 0.028$), low scores on OSS-3 ($p = 0.002$), nocturnal asthma ($p = 0.046$), increasing clinical severity of asthma ($p = 0.002$), increasing patients perceived severity of asthma ($p < 0.001$), high scores on WHODAS scale ($p < 0.001$) and presence of Anxiety/Depression ($p < 0.001$). A further analysis (Table 2) showed that while the "Symptoms" domain of Mini-AQLQ was independently associated with nocturnal asthma ($p = 0.008$), increasing clinical asthma severity ($p < 0.001$), increasing patient perceived asthma severity ($p < 0.001$), the "Emotional" domain was associated with presence of anxiety/depression ($p < 0.001$), the "Environmental" domain was associated with low scores on OSS-3 ($p < 0.001$) and the "Activity limitation" domain was associated with high scores on WHODAS ($p < 0.001$).

4. Discussion

Our study set out to evaluate the effect of psychological and other factors on HRQOL in a group of group of adult asthmatic outpatients. Our first finding was that the weighted mean score was lowest for "environmental" domain and highest for "activity limitation" domain. This is in agreement with the earlier studies both in this environment [3] and Malaysia [20] where profound negative effect on the environmental domain of HRQOL was found. This may suggest that patients with asthma are much more bothered about having to avoid possible environmental triggers of their asthma (which they have no direct control on) than activities and exercises which are still under their voluntary control.

We found that the sociodemographic factors independently associated with poor HRQOL in our sample were unemployment and lack of social support. This is agreement with other studies in United States and Malaysia [20,21] that have strongly associated unemployment with poor QOL in asthma. Poor social support is widely believed to facilitate the onset of psychological distress in

Download English Version:

<https://daneshyari.com/en/article/5724919>

Download Persian Version:

<https://daneshyari.com/article/5724919>

[Daneshyari.com](https://daneshyari.com)