

HEALTH RELATED QUALITY OF LIFE IN FEMALE PATIENTS WITH BRONCHIAL ASTHMA AND POST MENOPAUSAL OSTEOPOROSIS: A COMPARATIVE STUDY

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ABSTRACT

OBJECTIVE

To investigate the differences in health related quality of life (HRQOL) in females suffering from Bronchial Asthma and Osteoporosis.

STUDY DESIGN

Cross sectional research design.

PLACE AND DURATION OF STUDY

The study was carried out in outpatient orthopedic department of Government and Private hospitals.

SUBJECTS AND METHOD

A sample of 200 female patients with the age range of 50-60 (M 56.13, SD 3.81) were included in the study. 100 females with post menopausal osteoporosis, and 100 female patients with bronchial asthma, were selected through purposive sampling strategy. The patients were given World Health Organization Quality of Life brief questionnaire (WHOQOL-BRIEF) along with a demographic performa.

RESULTS

The results of the study revealed that HRQOL is affected more in female patients with postmenopausal osteoporosis than females with bronchial asthma. The results of study have implication for health related counselling services.

KEY WORDS

Postmenopausal osteoporosis, Bronchial asthma, Quality of life

INTRODUCTION

WHO defines QOL as an individual's perception of his/her position in relation to context, desired goals, values, belief system, living standards, and worries. It is a broad concept covering different facets such as person's biological, psychological (coping and resilience), emotional functioning, and interpersonal relationships¹.

Among chronic illnesses, osteoporosis and bronchial asthma, are the major source of stress for females affecting their quality of life². Bronchial Asthma is a long term inflammatory disease of the airways of the lungs, characterized by airflow obstruction and bronchospasm³. Symptoms of asthma include: breathlessness, coughing, and tightness of chest⁴. In developed countries the occurrence of asthma has elevated in 30 years, affecting 10-12% of adults and 15% of children⁵. Bronchial asthma reduced physical activity, hamper job performance, interrupts sleep at night, negatively affecting quality of life of patients⁶. Health related quality of life was assessed in 64 young asthmatic females, the results revealed that young females had decreased in HRQOL⁷.

Second most chronic illness and major public health problem is Osteoporotic. Osteoporosis has become a serious public concern because of associated risk of fracture. Types of osteoporotic fractures includes: hip wrist and vertebrae fractures. Worldwide osteoporosis fractures accounts for 0.83% of the global burden⁸. The incidence of osteoporotic fracture is increasing rapidly, affecting more than 40% of elderly females and is expected to increase from 1.7 million to 6.3 million by 2050⁹. Vertebral fractures is the most common type of fracture¹⁰. The study on the impact of HRQOL in female with vertebrae fractures concluded that vertebral fractures had significant inverse relationship with health related quality of life, limiting their social interaction, activities of daily living, and emotional condition¹¹.

Osteoporosis affects QOL, also depends on the extent to which it is affecting domestic and familial life, difficulty in performing everyday tasks, needing assistance in performing house hold chores and such as walking, sitting, dependency on others and performing social¹². The influence of osteoporosis is profound in situations that involves close personal relationship support exchange and can alter health related quality of life¹³.

In Pakistan several studies have been conducted on only prevalence and treatment of asthma^{14,15}. In a study it was reported that 29% of female had osteoporosis¹⁶. Women in Pakistan are facing one of the major health problems in the form of osteoporosis¹⁷.

Assessing HRQOL is important in clinical evaluation of patients with osteoporosis and

Bronchial Asthma. The issue of the quality of life is often overlooked in the clinical practice. The above mentioned studies have studied QOL in patients, paying no heed to the particular domain in which the quality is affected. Secondly, no such study is carried out to give a comparative account of QOL in female patients with asthma and osteoporosis. The aim of the current research is to explore QOL in female patients with bronchial asthma and osteoporosis. Identifying the domain will help in taking preventative measures and timely intervention to prevent the debilitating effect of the illness. The current research would also aim to find out the difference in manifestation of problems related to QOL in female patients with post menopausal osteoporosis, and bronchial asthma. The objectives of the study is to find out difference in manifestation of health related to QOL in female patients with post menopausal osteoporosis, and bronchial asthma and to see the difference in experience of QOL in different type of osteoporotic fractures and severity of bronchial asthma.

SUBJECTS AND METHODS

Participants

200 females participated in the study. Age range of the female patients were 50-60 years (M 56.13, SD 3.81). 100 female's patients of asthma were approached from 3 internal medicine department of government hospitals and 2 private clinics of pulmonologists. Co-existing illnesses e.g., tuberculosis, diabetes, COPD etc. were excluded from the sample. 100 females with post-menopausal osteoporosis were included from 4 outpatient orthopedic department of Government and Private hospitals. Problems related to osteoporosis were further divided into four categories i.e. hip, wrist, vertebrae fractures and body pains. Women who were diagnosed with post-menopausal osteoporosis for 4 years to 12 years were included in the sample. Any other comorbid health condition was excluded.

Instruments

World Health Organization Quality of Life Brief Questionnaire (WHOQOL-BRIEF)¹⁸ and a demographic performa was used for collecting information about the participant's age, marital status, history of fracture and type of fracture, duration and severity of osteoporosis, duration of treatment and quality of life perception. The World Health Organization Quality of Life brief questionnaire in Urdu was used to assess HRQOL in female patients with bronchial asthma and osteoporosis. The scale has four subscales i.e. Physical Health (a=.85), Psychological (a=.67) Social Relationship (a=.75) and Environment (a=.84), contains 26 items. Overall internal consistency of the scale was found to be a=.94.

Procedure

After obtaining approval of the study from the Institute of Clinical Psychology, University of Management and Technology Lahore and official permission from Government and private hospitals, participants were approached for data collection. Participants were ensured about the anonymity, confidentiality and right to withdraw during research. After seeking informed consent participants were given demographic form, and WHOQOL-BRIEF individually. The entire test administration took 25 minutes and participants were

debriefed about their ambiguities and queries. A code was assigned to every protocol for identification and data was entered on SPSS (V 20) and 10% of data was checked for its accuracy of data input.

RESULTS

The sample of post menopausal osteoporosis was categorized into four problems, hip (10%), wrist (12%), vertebrae fractures (5%) and body pains (73%). Duration of having osteoporosis were divided into three categories including less than 5 years (29%), less than 10 years (59%) and 10 years and above (21%). Duration of treatment was also divided into three categories including less than 5 years (58%), less than 10 years (39%) and 10 years and above (3%). There were 56% of female in the sample with the age range of 49-55 and 44% with age range of 56-63. Duration of asthma was divided into two categories 1-10 years (78%) and more than 10 years (22%). There were 46% of female in the sample with the age range of 49-55 and 54% with age range of 56-63.

Inter factor correlation was carried out to find the relation between the factors of quality of physical, social, psychological and environmental quality of life. It was hypothesized that there would be a positive relationship between physical, psychological, social and environmental QOL. Results showed that there is a significant positive association between physical, psychological, social and environmental quality of life. All the above mentioned domains are interrelated, if one area is affected, it will affect the quality of other domain (see table 1).

It was hypothesized that QOL would be affected more in females with post menopausal osteoporosis as compared with the female patients with bronchial asthma. Results of t test indicated that females who were suffering from post menopausal osteoporosis experienced more problems in HRQOL. Osteoporosis affected their physical and psychological health, social roles and environmental functioning more as compared with females with bronchial asthma (see table 2). Figure 1 also showed that QOL was more affected in females with post menopausal osteoporosis than females with bronchial asthma.

Table 1
Inter Factors Correlations, Means, Standard Deviations of Female Patients with Bronchial Asthma and Osteoporosis on WHOQOL- Brief (N=200)

| | Phqol | Psyqol | Socqol | EnvQol |
|-----------|-------|--------|--------|--------|
| Phqol | --- | .80*** | .67*** | .58*** |
| PsyQol | --- | --- | .66*** | .62*** |
| SocQol | --- | --- | --- | .65*** |
| EnvQol | --- | --- | --- | --- |
| <i>M</i> | 22.47 | 24.93 | 7.84 | 28.11 |
| <i>SD</i> | 5.53 | 4.96 | 1.80 | 4.89 |

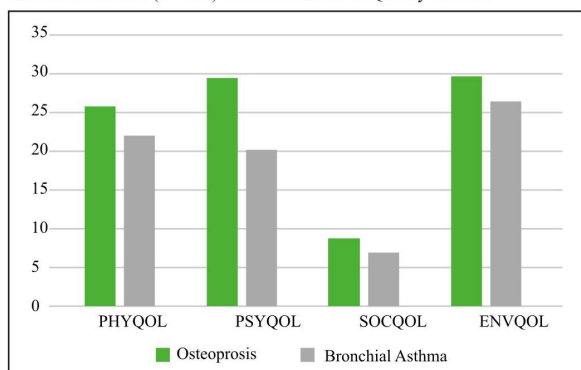
Note. phqol= quality of life physical, psyqol=Psychological, socqol=Social relationships, and envqol=environmental. df=199, ***p<.001

Table 2
Means, Standard Deviations, t and p values of female patients with bronchial asthma and osteoporosis on WHOQOL- Brief (N=200)

| Post Menopausal Bronchial | | | | | | | | |
|---------------------------|-------|------|-------|--------|---------|------|------|-----------|
| Osteoporosis | | | | Asthma | | | | |
| | M | SD | M | SD | t | LL | UL | Cohen's d |
| PHYQOL | 25.83 | 4.53 | 22.12 | 6.93 | 4.52*** | 1.32 | 2.24 | 0.64 |
| PSYQOL | 29.58 | 4.21 | 20.28 | 4.96 | 6.63*** | 3.32 | 4.54 | 0.75 |
| SOCQOL | 8.71 | 2.54 | 6.97 | 1.80 | 1.81* | .65 | 2.34 | 0.79 |
| ENVQOL | 29.71 | 4.92 | 26.51 | 4.92 | 3.24* | 2.24 | 4.57 | 0.67 |

Note. PHQOL= quality of life physical, PSYQOL =Psychological ,SOCQOL= Social relationships, and ENV QOL=enviornmental.df=199, ***p<.001

Fig 1
Comparison of Females with Post Menopausal Osteoporosis and Bronchial Asthma (N=200) on Four Factors of Quality of Life.



Note. PHQOL= quality of life physical, PSYQOL =Psychological , SOCQOL = Social relationships, and ENV QOL =enviornmental.

DISCUSSION

The results of the study revealed that there was a positive association of physical, psychological, social and environmental QOL. All the above mentioned domains are interrelated, if one area is affected it will affect the quality of other domain. Postmenopausal osteoporosis posed more serious threats to the quality of life of females. international data confirmed the findings and suggested that when it comes to chronic illness, the prime important should be given to the quality and various facets of life that go neglected¹⁹. There are number of factors that could be attributed to these findings. As illness progresses it results in hindering women from performing their biological and social roles. she had to face many psychosocial issues like anxiety, depression, fear, worries, social isolation, low -self-esteem and lack of confidence that contribute in altering their HRQOL. Previous research found that women suffering from chronic illness face inability to perform their social roles and responsibilities, hence getting dependent on others becomes a major source of stress for them, this further deteriorates their health related QOL²⁰. A study found that osteoprocess affected physical health, social functioning and emotionalwell-being of women and also contributed as a source of fatigue and stress for older women, as they became dependent on others and become unable to perform their social roles². Although

bronchial asthma is a chronic condition , but as long it doesnot interfere with everyday functioning and daily living causing dependency on others, secondly through medication severity of symptoms could be relieved. It also posed less deterioration in QOL because osteoprotic fractures prone the sufferer to develop a fear of having fractures in future, hence limiting their everyday functioning.

LIMITATIONS & RECOMMENDATIONS

The findings of current research has implication for health counselling for females with post-menopausal osteoporosis. Counselling plan could be devised to manage and improve quality of life of females with chronic illnesses. Family counselling strategies may also be devised. Future research could be carried out to identify interpersonal relationship problems with spouses and other members of family. Coping strategies should be also explored in further research to guide effective counselling plans.

CONCLUSION

This research has helped in providing awareness at Government level, mental health practitioners and medical fraternity to pay heed towards the sufferings of females, identification of the risk factors associated with their illnesses, taking preventative measures and management of problems related to chronic illnesses.

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