

**Assessment Of Physical Functional Status Among Patients With Hip
Osteoarthritis**

تقييم الحالة الوظيفية الجسمانية للمرضى المصابين بالتهاب المفاصل للحوض

By

Naglaa Fathi Abdel Mohsen

(B.Sc. Nursing)

Thesis Proposal

Submitted in Partial Fulfillment of the Requirements of the Master Degree in Medical-Surgical
Nursing

Thesis's Supervisors

Dr. Nagat Elmorsy Ibrahim

Assist.Prof. of Medical-Surgical Nursing

Faculty of Nursing - Cairo University

Dr. Lamia Mohamed-Nabil Ismail

Lecturer of Medical Surgical Nursing

Faculty of Nursing - Cairo University

Dr. Heba Abdel Azeem Mostafa

Lecturer of Medical Surgical Nursing

Faculty of Nursing - Fayoum University

Faculty of nursing

Cairo University

2018

SUMMARY, CONCLUSION AND RECOMMENDATION

Health care team needs resources to prepare for a large increase in the demand for health services to treat hip osteoarthritis. Thus, early detection to prevent or slow down the physical functional difficulties caused by disease process is very important. That thorough nursing understanding and assessment of the underlying functional limitations in osteoarthritis could be a key element for achieving this goal, and specifically seem to be more beneficial for reducing pain and disability (Bieler, Magnusson, Kjaer & Beyer, 2018). This chapter summarizes the findings of the current study as it relates to the research question; professional implications and recommendations for future researches are also suggested.

Summary

Hip osteoarthritis is one of the leading causes of disability globally. It consumes a significant amount of individual resources, and impairs an individual's life and work performance. Although osteoarthritis is traditionally considered an age-related disorder. Besides age, severe body mass index, male sex, lower level of education or socioeconomic status, and occupation were reported to play a role in the development of hip osteoarthritis and associated disability among individuals with heavy manual work for both men and women are strained while performing any task. All of these factors play role in occurrence of great strain on osteoarthritis patient body and leading to physical function deterioration.

Therefore, the aim of the present study is to assess the physical functional status among patients with hip osteoarthritis.

To achieve this aim a convenient purposive sample of 100 adult male and female conscious patients diagnosed with hip osteoarthritis who accept to participate in the study were recruited for the current study. Inclusion criteria: patients diagnosed with hip osteoarthritis for more than six months, age ranged between 20 years to 60 years old and above, the sample was collected over anticipated period of six months.

Exclusion criteria: patients on rehabilitation program and who have medical disorders as: mental deterioration, dementia or delirium, neurovascular disorders, osteoporosis, metabolic disorders as diabetes, hyperthyroidism and parathyroid dysfunction was excluded

from this study and who were treated in Orthopedic outpatient, rheumatoid clinic, and admitted to Orthopedic inpatients ward at Fayoum university hospitals in Fayoum governorate.

To fulfill the aim of this study, the study data were collected by means of the following tools:

The ^{1st} tool named: **Structured Interview Questionnaire** that was developed by the researcher: it was included two parts: (a) Sociodemographic data as age, gender, level of education, marital status, occupation and place of residence; (b) Medical data to assess patient medical condition that will include items such as history of present problem, chief complaint, past medical/surgical history, present treatment and body mass index.

The ^{2nd} tool named: **Western Ontario McMaster Universities Osteoarthritis index (WOMAC)**: Developed by Emeritus Professor Nicholas Bellamy at 1982. It is valid, reliable and responsive measure of outcome and has been used in diverse clinical and interventional environments. The index has been subject to numerous validation studies (Bellamy, 2016). The (WOMAC) consists of 24 items divided into three subscales: (a) Pain (5 items): during walking, upstairs, at night, at rest, and heavy lifting, (b) Stiffness (2 items): stiffness after awakening first time at the morning and later in the same day, (c) Physical Function (17 items): downstairs, upstairs, rising from sitting position, etc.

WOMAC scoring system: Is corresponding to an ordinal scale of 0-4. The scores are summed for items in each subscale, with possible ranges as follows: pain = 0-20, stiffness = 0-8, physical function = 0-68, Total score 96. Finally, the total score of all subscales were recoded to facilitate interpretation.

The main findings of this study were. As regards demographic characteristics, the current study revealed that almost half of patients were mainly male, married (56% and 95 %) respectively with the age between 20 and 60 and over with mean of 50.67 ± 11.14 years. In addition less than half of the study subjects (44%) can read and write. Regarding occupation (43%) were housewives, while (39%) were laborers. Almost three quarter of the sample were living in rural areas (79%).

In relation to medical related data, (82%) of study subjects had gradual disease onset with disease duration, more than 1 year with a mean of 1.88 ± 0.32 among (88%) of study subjects. While (82%) of study subjects had no past history, (8%) of study subjects have rheumatoid arthritis as a past medical history. Average value of the BMI was 28.12 ± 4.04 kg/m² among (71%) of study subjects. In relation to current complain, all subject had more than one complain such as severe pain in hip joint, inability of movements, hip joint stiffness, numbness and hip joint crepitation (95%, 71%, 62%, 51%, 7%) respectively. Regarding to treatment before hospitalization (65%) of the study subjects were treated with medications only while minority of them have different treatments, only (4%) of them have no treatments.

In relation to Western Ontario McMaster Universities Osteoarthritis index (WOMAC) study findings revealed that degree of pain is higher on stair climbing, weight bearing then on walking with mean score of (3.85 ± 0.47 , 3.74 ± 0.71 , 3.64 ± 0.65) respectively, while low on the rest with mean sore (1.94 ± 0.87). In relation to stiffness, mean score of stiffness occurring later on the day more than morning stiffness (2.67 ± 1.23 , 2.44 ± 0.93) respectively.

Regarding physical function scores, high mean score among study subjects during ascending stairs, heavy domestic duties, putting on socks, getting in/out of car, taking off socks, getting in/out toilet, getting in/out of bath, going shopping (3.90 ± 0.36 , 3.86 ± 0.42 , 3.64 ± 0.78 , 3.64 ± 0.81 , 3.57 ± 0.81 , 3.48 ± 0.88 , 3.41 ± 0.69 , and 3.34 ± 0.81) respectively, while mean score was low in light domestic duties (1.91 ± 1.12). Results showed that statistical significance correlation between age and total physical function score with ($r = 0.244$), and between disease onset and total pain score ($r = -0.334$), also, between body mass index of the study subjects and total pain score ($r = 0.200$), between total pain score and total physical function score with ($r = 0.416$) and between total stiffness score and total physical function score with ($r = 0.364$).

Conclusion

Based on results of the current study, it can be concluded that there are different degrees of difficulties in physical functional activities of patients with hip osteoarthritis, which has a significant impact on health status and role in work. Because of these effects, early detection of disease and follow up is required. So, nurses need to increase patient's awareness and provide the patients with teaching measures related risk factors of disease,

exercises, diet and treatment also prevention of effects of osteoarthritis on physical function is required and should be a part of the care that provided for patients with hip osteoarthritis.

Nursing implications and recommendations:

Based on the findings of the present study, the following recommendations are suggested:

1. Implications related to patients: Early visit the orthopedic physician in any complaint especially after age of 20. Follow up at regular time. Establish a center for the patient education programs, especially for hip osteoarthritis complications. Rehabilitation program should become an integrated part of the total management of hip osteoarthritis patient.
- II. Implications for furthers medical team and hospital administrators: (1) Update knowledge of nurses working in orthopedics departments through attending in-service training programs, seminars, workshops and scientific conferences regarding application of evidence based practice while dealing with patients. (2) Nursing curricula should integrate the concept of comprehensive assessment to determine accurate nursing diagnosis and develop nursing care plan, (3) Nurses and doctors must be collaborating in patient assessment and coordinate their efforts in determining patient's needs and problems, prevention and early detection of hip osteoarthritis patients and helping them to prevent and manage difficulties.
- III. Recommendations for furthers researches: Replication of the study on a larger probability sample selected from different geographical areas in Egypt is recommended to obtain more generalizable data.