

A Descriptive Study to Assess the Level of Knowledge on Preventive Measures of Osteoarthritis among Old Age People at Urban Area

Sathiyabama. G¹, Narmadha K², Nivetha. S²

¹Assistant Professor, Department of Obstetrics & Gynaecological Nursing,
Saveetha College of Nursing, SIMATS, Thandalam, Chennai, Tamil Nadu, India

²B.Sc Nursing, Saveetha College of Nursing, SIMATS, Thandalam, Chennai, Tamil Nadu, India

ABSTRACT

The present study aim was a descriptive study to assess the level of knowledge on preventive measures of osteoarthritis among old age people at urban area. A quantitative research approach and quasi experimental research design have adopted for the present study. 50 samples were selected by the who are satisfied with inclusion criteria, they were selected by purposive sampling technique. A structured questionnaire to collect the demographic data and semi structured questionnaire to assess the level of knowledge on preventive measures. Among 50 clients 13(27.08%) had inadequate knowledge and 35(72.92%) had moderate adequate knowledge on preventive measures of osteoarthritis among old age people. The means score of knowledge on preventive measures of osteoarthritis among old age people was 12.48 ± 2.58 . The median score was 12.0 with minimum score of 7.0 and maximum score 19.0.

KEYWORDS: Osteoarthritis, Knowledge, Preventive measures

INTRODUCTION

Bone resorption will be resorption of bone tissue, or at least, the cycle by which osteoclasts separate the tissue in bones and discharge the minerals, bringing about an exchange of calcium from bone tissue to the blood. Joints are the places where two bones meet, such as your elbow or knee. The bone remodeling process regulates the gain and loss of bone mineral density in the adult skeleton and directly influences bone strength (11). Arthritis may be caused by inflammation (in-flah-MAY-shun), of the tissue lining the joints(1).Osteoarthritis is highly prevalent and increasing in frequency. The primary symptom of OA is pain (3).Osteoarthritis (OA) is the single-most common cause of physical disability among adults (18).Knee osteoarthritis (OA) is highly prevalent, especially in the elderly(20).Osteoarthritis (OA) is a chronic, degenerative disorder. It could result in permanent joint damage and a decline in function (14).Osteoarthritis is the most common articular disease of the developed world and a leading cause of

chronic disability, mostly as a consequence of the knee OA and/or hip OA (6).A study reported that obesity and previous knee injury significantly contribute to OA onset, wherein is obesity one of the major risk factors (15).OA indicates the degeneration of articular cartilage together with changes in subchondral bone and mild intraarticular inflammation (8).OA is likely to increase due to the aging of the population and the obesity epidemic. Old age, female gender, overweight and obesity, knee injury, repetitive use of joints, bone density, muscle weakness, and joint laxity all play roles in the development of joint OA (10).clinical disease consisting of subjective symptoms of joint pain on loading and bony swelling, objective physical examination of knee stiffness, and deformity or crepitations, along with supplementary radiographic findings (17). Osteoarthritis (OA) a common disease of aged population and one of the leading causes of disability. Incidence of knee OA is rising by

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increasing average age of general population. Age, weight, trauma to joint due to repetitive movements in particular squatting and kneeling are common risk factors of knee OA. Although age is a strong predictor of osteoarthritis, it is not an inevitable consequence of aging(5). Several factors including cytokines, leptin, and mechanical forces are pathogenic factors of knee OA(4). The economic burden, financial weight of OA is separated into immediate and roundabout expenses, the last substantially more hard to quantify. Osteoarthritis (OA) is the most widely recognized articular infection of the created world and a main source of constant incapacity, generally as an outcome of the knee OA or potentially hip OA. Management of osteoarthritis (OA) is directed primarily towards relief of pain and functional limitation. This a range of nonpharmacologic modalities, including education, social support, weight reduction, and exercise (9). Drug treatment should begin with adequate doses of acetaminophen. The pervalence of OA changes as indicated by the meaning of OA, the particular joint(s) under study, and the qualities of the review populace. The age normalized predominance of radiographic knee OA in grown-ups age ≥ 45 was 19.2% among the members in the Framingham Study and 27.8% in the Johnston County Osteoarthritis Project. In the third National Health and Nutrition Examination Survey, roughly 37% of members age >60 years or more established had radiographic knee OA.

METHODS AND MATERIALS: The study was quantitative research approach and quasi experimental research design with sample size of 50 clients who are selected by purposive sampling technique and who fulfilled the inclusion criteria. The inclusion criteria were who are age above 50yrs, who are willing to participate in this study, who are residing at the urban area in the research setting and the exclusion criteria were people who don't know the tamil and English language, people who are not co-operative. The study was conducted in urban area. A structured questionnaire to collect the demographic data and semi structured questionnaire to assess the level of knowledge on preventive measures. The

sample were assessed for 1 week by using purposive sampling technique and the data collected.

RESULT AND DISCUSSION:

SECTION A: DESCRIPTION OF THE DEMOGRAPHIC OF OLD AGE PEOPLE.

In the present study, the frequency and percentage distribution of the sample based on the demographic variables shows that the older people, 20(41.7%) were aged between 45 to 50 years, 26(54.2%) were female, 20(41.7%) were Hindus and Christians, 22(45.8%) had higher secondary education, 25(52.1%) were unemployed, 37(77.1%) were married, 40(83.3%) were both veg. and non-veg, 23(47.9%) had sedentary lifestyle, 25(52.1%) had diabetes mellitus as co-morbidity disease, 31(64.5%) had above two children, 21(33.3%) had not practiced physical exercise, 23(47.9%) belonged to middle class and 27(56.3%) belonged to joint family.

SECTION B: ASSESSMENT OF LEVEL OF KNOWLEDGE ON PREVENTIVE MEASURES OF OSTEOARTHRITIS AMONG OLD AGE PEOPLE.

Frequency and percentage distribution of knowledge on preventive measures of osteoarthritis among old age people.

In the present study reveals that that 13(27.08%) had inadequate knowledge and 35(72.92%) had moderate adequate knowledge on preventive measures of osteoarthritis among old age people.

The present study was supported by the comparative study conducted by Mohammed S. Mukharrib, Mohammad N. Al-Sharif, demonstrates that 89.2% of the sampled population had good awareness level regarding preventive measures of knee OA. The second highest awareness level was recorded for relieving measures of knee OA as 84.1% of the sampled population recorded good level of knowledge. 73% of the sampled population had good awareness level regarding OA risk factors, while only 8.9% of the participants had good level of awareness regarding consequences and disabilities of having knee OA. In general, 82.6% of the population had good awareness level regarding OA in total.

Table 1: Frequency and percentage distribution of knowledge on preventive measures of osteoarthritis among old age people

Level of Knowledge	Frequency (F)	Percentage (%)
Inadequate (0 – 10)	13	27.08
Moderately Adequate (11 – 20)	35	72.92
Adequate (21 – 30)	0	0

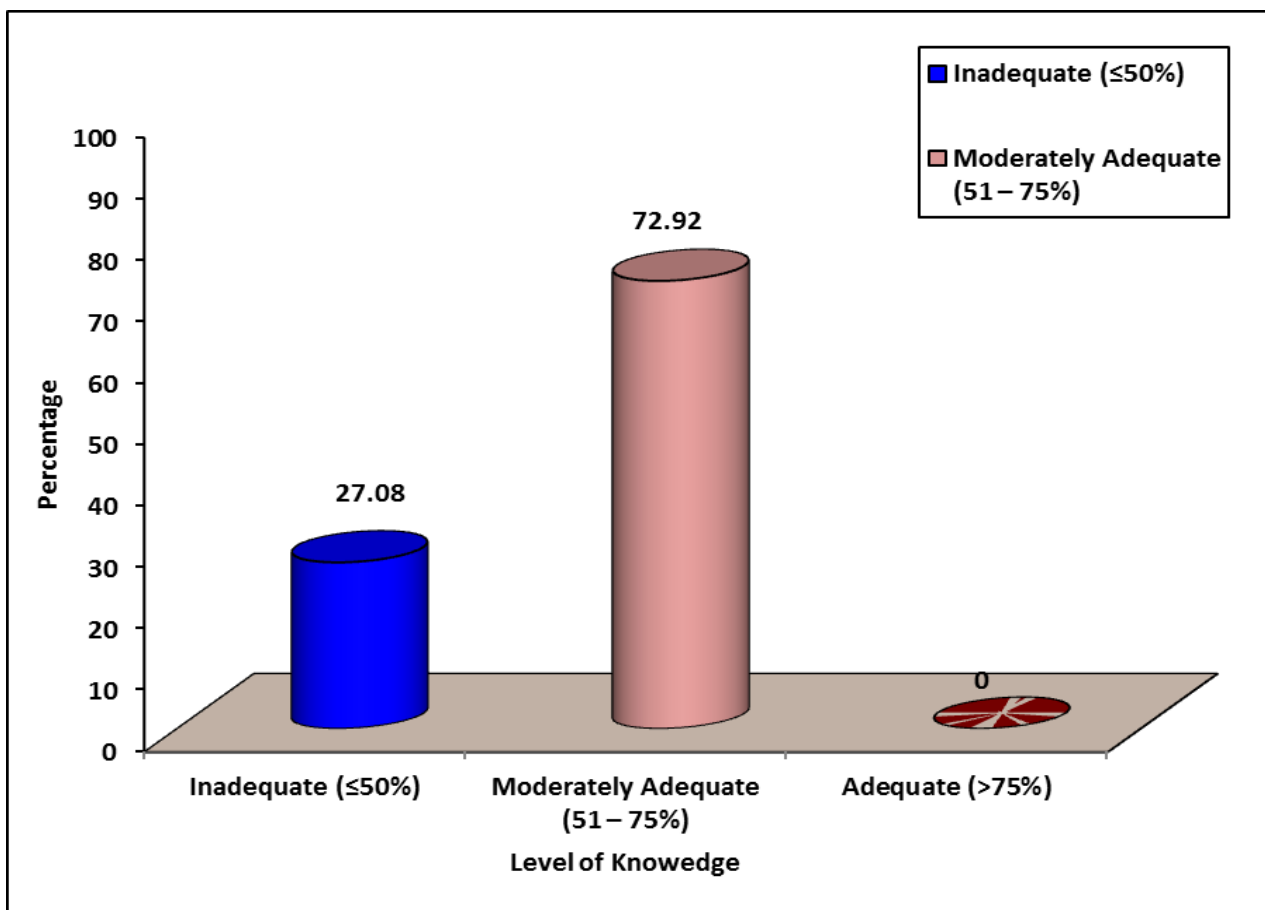


FIGURE 1: Percentage distribution of knowledge on preventive measures of osteoarthritis among old age people

Assessment of knowledge scores on preventive measures of osteoarthritis among old age people.

The present study reveals that the means score of knowledge on preventive measures of osteoarthritis among old age people was 12.48 ± 2.58 . The median score was 12.0 with minimum score of 7.0 and maximum score 19.0.

Table 2: Assessment of knowledge scores on preventive measures of osteoarthritis among old age people

Knowledge	Score
Minimum score	7.00
Maximum score	19.00
Median	12.00
Mean	12.48
S.D	2.58

SECTION C: ASSOCIATION OF LEVEL OF KNOWLEDGE ON PREVENTIVE MEASURES OF OSTEOARTHRITIS AMONG OLD AGE PEOPLE WITH SELECTED DEMOGRAPHIC VARIABLES.

The present study reveals that the demographic variable co-morbidity disease ($\chi^2=6.654, p=0.036$) had shown statistically significant association with level of knowledge on preventive measures of osteoarthritis among old age people at $p < 0.05$ level and the other demographic variables had not shown

statistically significant association with level of knowledge on preventive measures of osteoarthritis among old age people.

CONCLUSION:

The present study assess the level of knowledge on preventive measures of osteoarthritis in old age people at selected area. present study statistical findings revealed that majority of the patients had moderately adequate knowledge on preventive measures of osteoarthritis among old age people.

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AUTHOR’S CONTRIBUTION:

All the authors actively participated in the work of the study. All authors read and approved the final manuscript.

REFERENCE:

[1] Srinivassan K. Effectiveness of structured teaching programme on knowledge of risk factors, complications and prevention of arthritis among the selected population at Kadamalaipudhur Village, Kanchipuram District (Doctoral dissertation, Adhiparasakthi College of Nursing, Melmaruvathur).

- [2] Jordan JM, Helmick CG, Renner JB, Luta G, Dragomir AD, Woodard J, Fang F, Schwartz TA, Abbate LM, Callahan LF, Kalsbeek WD. Prevalence of knee symptoms and radiographic and symptomatic knee osteoarthritis in African Americans and Caucasians: the Johnston County Osteoarthritis Project. *The Journal of rheumatology*. 2007 Jan 1; 34(1): 172-80.
- [3] Altman RD. Early management of osteoarthritis. *Am J Manag Care*. 2010; 16 (Suppl Management): S41-7.
- [4] Heidari B. Knee osteoarthritis prevalence, risk factors, pathogenesis and features: Part I. *Caspian journal of internal medicine*. 2011; 2(2): 205.
- [5] Ashford S, Williard J. Osteoarthritis: A review. *The Nurse Practitioner*. 2014 May 12; 39(5): 1-8.
- [6] Grazio S, Balen D. Obesity: risk factor and predictor of osteoarthritis. *Lijecnickivjesnik*. 2009 Jan 1; 131(1-2): 22-6.
- [7] Einstein, A., B. Podolsky, and N. Rosen, 1935, "Can quantum-mechanical description of physical reality be considered complete?", *Phys. Rev.* 47, 777-780.
- [8] Sarzi-Puttini P, Cimmino MA, Scarpa R, Caporali R, Parazzini F, Zaninelli A, Atzeni F, Canesi B. Osteoarthritis: an overview of the disease and its treatment strategies. In *Seminars in arthritis and rheumatism* 2005 Aug 1 (Vol. 35, No. 1, pp. 1-10). WB Saunders.
- [9] Creamer P, Flores R, Hochberg MC. Management of osteoarthritis in older adults. *Clinics in geriatric medicine*. 1998 Aug
- [10] Riggs BL. The mechanisms of estrogen regulation of bone resorption. *The Journal of clinical investigation*. 2000 Nov 15; 106
- [11] Clarke B. Normal bone anatomy and physiology. *Clinical journal of the American Society of Nephrology*. 2008 Nov 1; 3(Supplement 3)
- [12] Zhang Y, Jordan JM. Epidemiology of osteoarthritis. *Clinics in geriatric medicine*. 2010 Aug
- [13] Neogi T, Zhang Y. Epidemiology of osteoarthritis. *Rheumatic Disease Clinics*. 2013. Feb Zhang Y, Jordan JM. Epidemiology of osteoarthritis. *Rheumatic Disease Clinics of North America*. 2008 Aug 1; 34(3): 515-29.
- [14] Shaban M, Eldin S, Sharaa HM. Assessment Of Knowledge Of Osteoarthritis Among Elderly Patients. *Journal of Cardiovascular Disease Research*. 2021
- [15] Alyami AH, Alswat MM, Omer IA, Ahmed ME, Alshammari SH, Alsaggaf KW, Amoudi JH, Aljafari DA. General population knowledge about osteoarthritis and its related risk factors in Jeddah Saudi Arabia. *Saudi Medical Journal*. 2020 May; 41(5): 516.
- [16] Gupta S, Sehwal J, Srivastava AK, Varshney D. CHRONIC KIDNEY DISEASE AND RISK FACTOR PREVALENCE IN DEHRADUN DISTRICT. *National Journal of Medical Research*. 2016 Jun 30; 6(02): 127-9.
- [17] Ganasegeran K, Menke JM, ChallakereRamaswamy VM, Abdul Manaf R, Alabsi AM, Al-Dubai SA. Level and determinants of knowledge of symptomatic knee osteoarthritis among railway workers in Malaysia. *Biomed research international*. 2014 Feb 19; 2014.
- [18] Saeed F, Humayun A, Fatima SM, Junaid V, Imtiaz H, Zehra M, Zahid A, Channa A, Meherally AI, Shah ZZ, Hoosseney A. The pressing need to raise awareness about osteoarthritis care among elderly females in pakistan: A cross-sectional study. *Cureus*. 2019 Aug 1; 11(8).
- [19] Alyami AH, Alswat MM, Omer IA, Ahmed ME, Alshammari SH, Alsaggaf KW, Amoudi JH, Aljafari DA. General population knowledge about osteoarthritis and its related risk factors in Jeddah Saudi Arabia. *Saudi Medical Journal*. 2020 May; 41(5): 516.
- [20] Felson DT, Zhang Y, Hannan MT, Naimark A, Weissman B, Aliabadi P, Levy D. Risk factors for incident radiographic knee osteoarthritis in the elderly. *The Framingham Study. Arthritis & Rheumatism: Official Journal of the American College of Rheumatology*. 1997 Apr; 40(4): 728-33.