

A Study to Assess the Effectiveness of Mud Therapy Among Clients with Knee Osteoarthritis

E. Finny Moses*

Department of Nursing, Kasturba Gandhi Nursing College, Puducherry, India

ABSTRACT

Osteoarthritis (OA) is the general form of arthritis and the most ubiquitous type among rheumatic diseases. Osteoarthritis is a degenerative joint disorder with minimal signs of inflammation, and it is a progressive disease whose clinical manifestations are joint structure abnormalities (visible by imaging modalities) and a symptom complex characterized by function limitation, pain, disability, and possibly with reduced quality of life. Pain is a sensation that is caused by a stimulus of harmful nature. It is the common and distressing manifestation of arthritis. Pharmacological pain remedies offer pain relief along with many unpleasant side effects. Mud pack therapy allows temporary relief from the pain but also allows the patient's self-healing abilities to be activated along with a cheer and strength in their psychological and emotional level.

Method: A quantitative research approach with quasi experimental pre-test post-test one group design was adopted and study setting was conducted in Kalitheerthalkuppam, Puducherry. Thirty clients with knee osteoarthritis were selected with convenient sampling technique. Modified WOMAC (Western Ontario McMaster University Osteoarthritis Index) Index scale is a 20 item questionnaire with 5 points ranging score was used for assessing the knee joint pain among the study subjects in terms of pain, stiffness, and physical function.

Results: The frequency and percentage wise distribution on level of pain among clients with knee osteoarthritis. In pretest 3 (9.99%) of them had mild level of pain, 17 (56.61%) of them had moderate level of pain whereas, 10(33.3%) of them had severe level of pain. In posttest 21 (69.93%) of the client had mild level of pain and 9 (29.97%) of the patients had moderate level of pain. As on to the association with demographic variables, people with a lower duration of illness (34%), and (60%) of nonvegetarian in diet pattern and around (37%) of moderate workers in life style pattern had influence in reduction of pain and are associated with the mud therapy and shows that highly significant at $p < 0.01$ level. Hence, mud therapy is effective in terms of pain relief and functional improvement among knee osteoarthritis clients.

Keywords: De-Tox therapy, mud therapy, knee osteoarthritis, pain relief and functional improvement

***Corresponding Author**

E-mail: finnymoses07@gmail.com

INTRODUCTION

Osteoarthritis (OA) is the most common form of arthritis and the most prevalent type among rheumatic diseases. Osteoarthritis is a degenerative joint disorder with minimal signs of

inflammation, and it is a progressive disease whose clinical manifestations are joint structure abnormalities (visible by imaging modalities) and a symptom complex characterized by function limitation, pain, disability, and possibly

with reduced quality of life. The etiopathogenetic trigger is an abnormal intra-articular stress that results in progressive failure of the cartilage extracellular matrix, along with changes in the synovium and subchondral bone. Osteoarthritis is most frequently localized at the large and weight-bearing joints of the lower limbs. Radiographic osteoarthritic changes of the knee tibiofemoral compartment occur in 5–15% of the general population aged 35–74 years in the Western world [1]. Symptomatic knee disease occurs in approximately 6% of US adults over 30 years of age [2], with general incidence and prevalence increasing 2–10-fold from age 30 to 65 years [3]. The impact on disability attributable to knee osteoarthritis is similar to that due to cardiovascular disease, and greater than that caused by any other medical condition in the elderly [4].

Given the limitations in terms of efficacy, especially long term, and safety of the available unspecific symptom-relieving drugs, such as pure analgesics and nonsteroidal anti-inflammatory drugs (NSAIDs) [5], there is a growing need for medications that offer acceptable short-term symptom control, but especially have a role in the medium- and long-term symptom management of the disease (symptom-modifying effect), with the possibility of delaying the progression of joint structure changes (structure-modifying effect), thereby modifying the evolution of the disease, and thus preventing clinically significant disease outcomes (disease-modifying effect). These aims might be achieved by other alternative therapies such as mud therapy unlike nonspecific symptomatic agents, might exert specific effects on OA pathogenetic factors.

Pain is a sensation that is caused by a stimulus of harmful nature. It is the common and distressing manifestation of

arthritis. Pharmacological pain remedies offer pain relief along with many unpleasant side effects. Mud pack therapy allows temporary relief from the pain but also allows the patient's self-healing abilities to be activated along with a cheer and strength in their psychological and emotional level.

STATEMENT OF THE PROBLEM

“A Study to Assess the Effectiveness of Mud Therapy Among Clients with Knee Osteoarthritis at Kalitheerthalkuppam, Puducherry.”

OBJECTIVES

- (1) To assess the level of pain before the application of mud therapy among the clients with knee osteoarthritis.
- (2) To assess the effectiveness of mud therapy among patients with knee osteoarthritis.
- (3) To associate the level of pain among patients with knee osteoarthritis with their selected demographic variables.

METHOD

A quantitative research approach with quasi experimental Pre-Test Post-Test One Group Design was adopted and study setting was conducted in Kalitheerthalkuppam, Puducherry. Population for the study includes all clients with knee Osteoarthritis, 30 clients with knee Osteoarthritis were selected with Convenient Sampling Technique. Clients with age group of 45–65 years with osteoarthritis at Knee joint were included in the study and Clients with Musculo-Skeletal Injuries and with Chronic Conditions like Bone Cancer, Septic Arthritis were excluded.

Modified WOMAC (Western Ontario McMaster University Osteoarthritis Index) Index scale is a 20 item questionnaire with 5 points ranging score was used for assessing the knee joint pain among the

study subjects in terms of pain, stiffness, and physical function.

RESULTS AND CONCLUSION

Table 1 reveals that the frequency and percentage wise distribution on level of pain among clients with knee osteoarthritis.

In pre-test 3 (9.99%) of them had mild level of pain, 17 (56.61%) of them had moderate level of pain whereas, 10(33.3%) of them had severe level of Pain. In post-test 21 (69.93%) of the client had mild level of pain and 9 (29.97%) of the patients had moderate level of pain.

In Table 2, the pre-test was assessed by total range score from 1 to 80. Out of that, the overall average score is 55.2 with the standard deviation of 2.36, after

administration of mud therapy the level of pain score was reduced to 36.96 with the standard deviation of 1.36 (Figure 1).

Table 1. Frequency and percentage wise distribution on level of pain in clients with knee osteoarthritis.

Level of pain	Pretest		Posttest	
	f	%	f	%
Mild	3	9.99	21	69.93
Moderate	17	56.61	9	29.97
Severe	10	33.3	–	–

Table 2. Mean and standard deviation of subject level of pain among the clients with knee osteoarthritis.

	Pretest		Posttest	
	Mean	SD	Mean	SD
Better	55.2	2.368	36.96	1.36

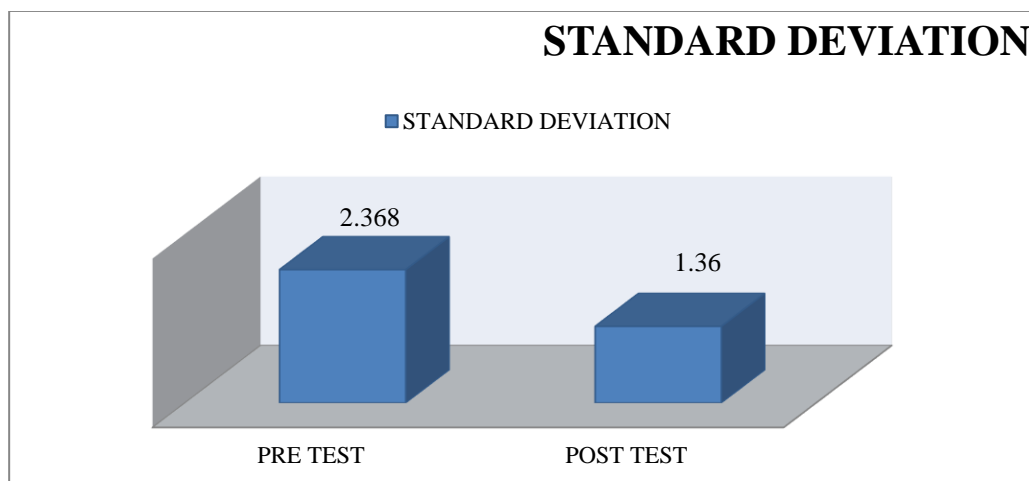


Fig. 1. Standard deviation of subject level of pain among the clients with knee osteoarthritis.

And it was statistically found that people with a lower Duration of Illness, and around 60% of non- vegetarian in diet pattern and around 37% of moderate workers in Life Style Pattern had influence in reduction of Pain and are associated with the Mud Therapy and shows that highly significant at $p < 0.01$ level.

Hence, mud therapy is effective in terms of pain relief and functional improvement among knee osteoarthritis clients (Figure 2).

RECOMMENDATIONS

- Experimental study can be conducted continuously for 5 to 12 days to make the therapy effective.
- Experimental study can be done by having both control group and an experimental group.
- Explorative study can be conducted by comparing balneotherapy and mud therapy, finding the level of effectiveness on both.

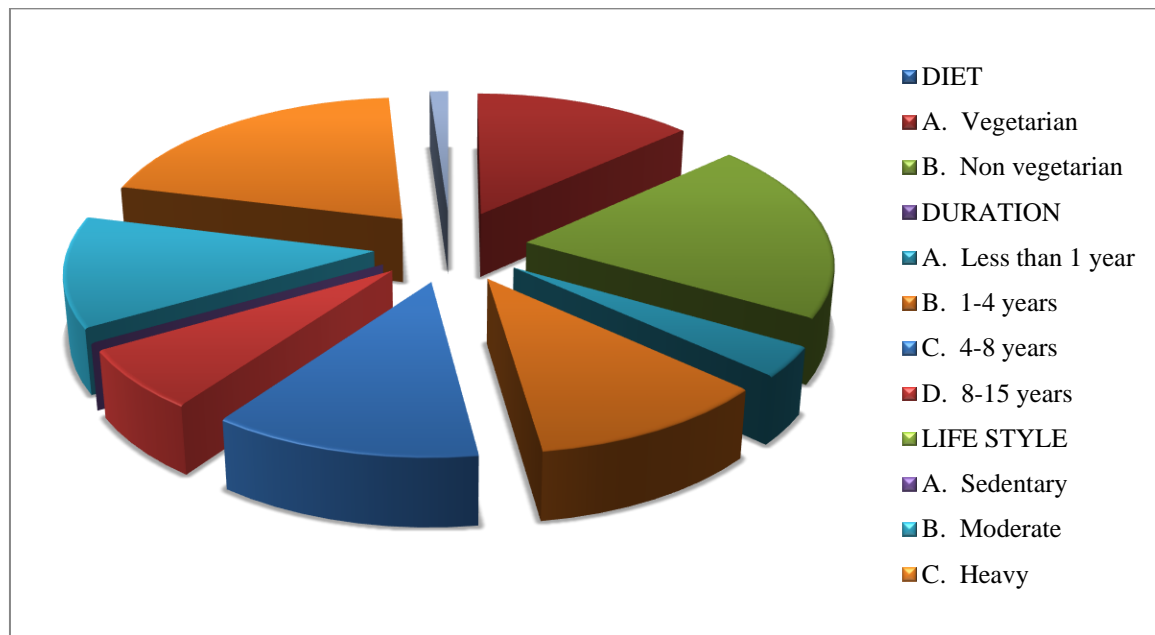


Fig. 2. Frequency and percentage wise distribution of selected demographic variables according to their diet pattern, duration of illness, life style.

REFERENCES

- [1] Pendleton, N. Arden, M. Dougados, M. Doherty, B. Bannwarth, J.W. Bijlsma, et al. EULAR recommendations for the management of knee osteoarthritis: report of a task force of the Standing Committee for International Clinical Studies Including Therapeutic Trials (ESCISIT), *Ann Rheum Dis.* 59: 936–44p.
- [2] D.T. Felson, Y. Zhang. An update on the epidemiology of knee and hip osteoarthritis with a view to prevention, *Arthritis Rheum.* 41: 1343–55p.
- [3] S.A. Oliveira, D.T. Felson, J.I. Reed, P.A. Cirillo, A.M. Walker. Incidence of symptomatic hand, hip and knee osteoarthritis among patients in a health maintenance organisation, *Arthritis Rheum.* 38: 1134–41p.
- [4] A.A. Guccione, D.T. Felson, J.J. Anderson, J.M. Anthony, Y. Zhang, P.W. Wilson, et al. The effects of specific medical conditions on the functional limitations of elders in the Framingham Study, *Am J Public Health.* 84: 351–8p.
- [5] J.M. Bjordal, A.E. Ljunggren, A. Klovning, L. Slørdal. Non-steroidal anti-inflammatory drugs, including cyclo-oxygenase-2 inhibitors, in osteoarthritis knee pain: meta-analysis of randomised placebo controlled trials, *BMJ.* 329: 1317–22p.