Original Research Paper

Nursing

EFFECT OF APITHERAPY ON REDUCTION OF PAIN AMONG PATIENTS WITH ARTHRITIS: AN EXPERIMENTAL STUDY

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ABSTRACT Pain is common for all illness and can last for a long and it may be different types with their characteristics. Apitherapy is an alternative medicine where consist of various features of medical efforts, it can has the healing effect for arthritis, it reduces the pain and inflammation ,thus it increases the activity index and function of daily living. The research design used for the study was a quasi experimental pre test and post test control group design. The study was conducted in Nattalam village, Nagercoil. The population of the village was 11,726. The study samples comprised of 60 patients with arthritis who fulfilled the inclusive criteria of the study. The pre and post assessment level of pain was obtained using functional pain scale. The study findings revealed that patients with arthritis experienced a 28 significant reduction in the level of pain following the application of honey and cinnamon paste (apitherapy). Being this a cost effective, easily available, comfort enduring, has no side effects and due to the absence of the need of a sophisticated technique , its scope of use in home care can also be very much appreciated.

KEYWORDS : Apitherapy, Arthritis, Arthritic Pain, Experimental study.

INTRODUCTION

Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage. It is the feeling common to such experiences as stubbing a toe, burning a finger, putting iodine on a cut, and bumping the "funny bone". Pain motivates to withdraw from potentially damaging situations, protect a damaged body part while it heals, and avoid those situations in the future. It is initiated by stimulation of nociceptors in the peripheral nervous system, or by damage to or malfunction of the peripheral or central nervous systems. Most pain resolves promptly once the painful stimulus is removed and the body has healed, but sometimes pain persists despite removal of the stimulus and apparent healing of the body; and sometimes pain arises in the absence of any detectable stimulus, damage or pathology. Social support, hypnotic suggestion, excitement in sport or war, distraction, and appraisal can all significantly modulate pain's intensity or unpleasantness.

Liebenskind (1989) stated that freedom from pain should be a basic human right, limited only by our knowledge to achieve it. Arthritis is one of the most common ailments today that can cause excruciating pain in the body. It affects the muscles and specifically the place where two or more bones meet it the joint, such as the hip or knee, elbow, etc.

There are now many published results and reports describing the effectiveness of honey in rapidly healing inflammation, cleaning infections with wounds were there are no adverse effects to slow the healing process. Hippocrates the father of medicine recommends honey as an ointment for inflammations and infections which is coated by Vedas. "And your lord revealed to the honey bee: Make hives in the mountains and in the trees and in what they build then eat if all the fruits and walk in the ways of your lord submissively. There comes forth from within it a beverage of many colours, most surely there is a sign in this for a people who reflect" (Surat and Nahal, 2000).

WHO (2004), reports that there were 454,652 total knee replacements performed, primarily for arthritis in India. Urban population survey study in Narayanpeth, Pune under bone and joint decade programme in 2003 showed that almost 6.4% of the community suffered from osteoarthritis. A population survey study in village Bhigwan, near Pune under the WHO COPCORD programme in 1996 showed that almost 29% of community suffering from osteoarthritis. Tamil Nadu government reveals that 18% of all working group are affected with arthritis, 5% of all cases of arthritis are having gout. Be efficiency in putting apitherapy as an effective treatment in curing and treating arthritis, and it enhances to improve daily living activities and improve health status, thus it reduces the severity and prevent complications. This is the reason behind in selection of this topic, which makes interest for investigator.

MATERIALS AND METHODS

The research design adopted for this study was quasi experimental pretest and post test control group design which looks like true experimental design. In this study, the preassessment level of pain was measured by using functional pain assessment scale for both experimental and control group, followed by implementation of apitherapy for the clients in experimental group and routine measures for clients in control group was adapted. The post test level of pain was measured for both groups by using same functional pain assessment scale. The study was conducted at Nattalam village of Kanyakumari District. The population of the study were the arthritis patients above the age group of 36 years from the selected villages of Kanyakumari district. About 8-12 patients with arthritis daily have a visit to PHC for treatment. Almost over 50% complained of one or more symptoms of arthritis.

From this the researcher selected the samples. Arthritis patients above the age group of 36 years were the samples of the study. Researcher selected samples based on the inclusion criteria. The sample size is 60. Thirty subjects each in experimental and control group. A formal permission was obtained from the Principal and research committee of Sri.K.Ramachandran Naidu college of Nursing and the medical officer of PHC, Natalam. Pre assessment level of pain was obtained for clients in both experimental and control group using functional assessment scale followed by which apitherapy was applied to the affected sites for 5-10 minutes for the clients in experimental group for three days and the routine measures were adopted for control group. Treatment effectiveness was measured on the third day. The post assessment level of pain was obtained by using the same scale. This was preceded by brief explanation about the pain scale and its purpose . On an average it took about 15-20 minutes to collect data from each from each study subjects. However, the data was collected with in the stipulated time of four weeks.

RESULTS

Socio demographic data of study subjects

 Among 30 patients with arthritis in the experimental group, 13 out of 30 (43%) were in the age group of 36-40 years, where as in the control group, 11 out of 30(37%) were in the age group of 36-40 years, 11 out of 30(37%) were in the age group of 41-45 years. Regarding the sex of the patients in the experimental group, 12 out of 30(40%) were males and 18 out of 30(60%) were females where as in the control group, 16 out of 30(53%) were males and 14 out of 30(47%) were females.

- With regard to duration of illness in the experimental group, 13 out of 30(43%) of patient's having the illness for less than one year, 9 out of 30(30%) of patient's having the illness between the period of 1-5 years and 8 out of 30(27%) of patient's having the illness for more than 5 years, where as in the control group, 10 out of 30(33%) of patient's having the illness for less than one year ,12 out of 30(40%) of patient's having the illness between the period of 1-5 years and 8 out of 30(27%) of patient's having the illness for more than 5 years.
- In relation to the diagnosis of arthritis in the experimental group, 9 out of 30(30%) were diagnosed as osteoarthritis, 5 out of 30(17%) were diagnosed as rheumatoid arthritis, 5 out of 30(17%) were diagnosed as ankylosis spondolytis, 11 out of 30(36%) were diagnosed as gouty arthritis. where as in the control group, 6 out of 30(20%) were diagnosed as osteoarthritis, 11 out of 80 30(37%) were diagnosed as rheumatoid arthritis, 9 out of 30(30%) were diagnosed as ankylosis spondolytis and 4 out of 30(13%) were diagnosed as gout.

Table 1: Comparison of post test of pain between experimental and control group of arthritis patients

Group	Mean	SD	"t" vαlue
Experimental	0.87	0.78	18.11*
Control	4.13	0.75	

***p<0.001 **p<0.01 *p<0.05 S- Significant

Table 1 reveals the unpaired 't test to compare the post test level of pain between the experimental and control group of arthritis patient. With regard to the post test level of pain between experimental and control group of patients, it was found that 't value was 18.11 indicating that there is an highly significant difference in pre test level of pain between the experimental and control group of arthritis patients at p < 0.05level.

Table 2: Comparison of pre and post test level of arthritic pain of experimental group.

Assessment Characteristics	Mean	Standard	't' Value
Pre test	4.27	0.84	17*
Post test	0.87	0.78	

The paired 't' test to compare the pre and post test level of arthritic pain of experimental group. The mean score (4.27) of pain before intervention was higher than the post mean score (0.87). The standard deviation was 0.84 in pre test and 0.78 in the post test. The calculated 't' value 17 which showed that there was a significant difference between the pre and post test level of pain among experimental group at p<0.05 level of significance. It is inferred that the apitherapy was effectively reducing the pain for patients with arthritis.

Association of level of pain with demographic variables

Data analysis reveals that the association of demographic variables like age, gender, duration of illness, occupation, diagnosis are not having any association for patients with arthritis in the experimental groups (P<0.05). Association of demographic variables like age, gender, duration of illness, occupation, diagnosis are not having any association for patients with arthritis in the control groups (P>0.01).

DISCUSSION

Among experimental group in the post test, majority of the patients 12(40%) were experienced tolerable pain and it does not prevent any activities, where as in the control group majority of the patients 11(36.67%) experienced intolerable pain and it prevents the daily activities. These findings are supported by Richardson .S.(2003). states that honey and

cinnamon was more effective in reducing the pain for arthritis. Patients functional capacity was assessed using functional pain assessment scale, shows that patients can capable to perform the daily activities.

The calculated "t value of the post test level of pain perception between experimental and control group was 18.11 at p < 0.05level of significance which showed that there was a significant difference between the post test level of pain perception among experimental and control group of arthritic patients. These findings are supported by Ghan H.M. et al (2005) stating that the significant difference in the levels of pain existed between subjects who had received apitherapy, indicating that may effectively reduce pain for patients with arthritis.

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