EFFECTIVENESS OF WARM MUSTARD OIL MASSAGE FOR KNEE JOINT PAIN

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ABSTRACT
Healthy population makes healthy nation and fewer burdens to society. The nurse play an important role in making this possible by educating and creating awareness in the community. Knee joint pain is the most frequent complaint among the aging population. The present study has been undertaken to study the effect of 'Warm mustard oil massage' on the intensity of knee joint pain among population (≥ 60 years of age) residing at selected village of Unai Pallathur, Vellore, Tamil Nadu. Out of the total geriatric population surveyed in the present research 73% had severe knee joint pain. The study subject was selected using purposive sampling technique, the sample size consisted of 30 subjects. A quasi experimental design is adopted. Intensity of knee joint pain was assessed on the 1st and 14th day of intervention to the subjects. ‘Warm mustard oil massage’ was done at the knee joint two times a day for the study subjects. The results show that intensity of knee joint pain reduced significantly after the intervention. Hence, the use of warm oil massage is recommended for home base management of knee joint pain.

KEYWORDS: Knee joint Pain, Warm Mustard Oil massage, geriatric population, quasi experimental design, pain numeric rating scale.

INTRODUCTION:
Ageing is quite natural where wear and tear mechanism affect all the system in the body. Various diseases that affects the geriatric population are musculoskeletal pain, heart diseases, hypertension, diabetes, asthma and skin diseases. Knee and low back pain are the most frequent complaints among this population (16th national survey-2010). Knee is a wonderfully complex joint acting as a lever and pulley system with the patella (knee cap) as the fulcrum for leg extension, making this a very unique joint in the human body. Most of geriatric population is troubled by chronic knee pain that has a major effect on their quality of life. To overcome the disability caused by this, home-based management such as adequate nutrition, moderate activity, regular changing of position and massage therapies to be practiced. Moist heat application is non pharmacological, inexpensive and simplest approach which has a useful effect on knee joint pain. It causes dilatation of blood vessels and enters deep into the muscle thus reducing the pain and spasm of the muscle.

NEED FOR THE STUDY:
There has been a remarkable raise in the elderly population globally. There are nearly 104 million elderly persons (aged 60 years or above) in India; in which 53 million are females and 51 million are males (Population census 2011). The population of elderly is expected to increase to 173 million by 2026 says United Nations Population Fund and Help Age India's report. As health care professionals we could help the elderly to carry out the daily activities without much dependence on the care givers. The most commonly affected are knee and hip joints. A study on effect of moist heat as a home remedial measure for relief of knee joint pain revealed that moist heat application on knee had helped to a great extent in reducing the intensity of pain, instead of use of pain-killers. Since non-steroidal anti-inflammatory drugs tend to develop complications in elderly, importance of use of home remedial measures should be considered.

Statement of the Problem:
A study to assess the effectiveness of warm mustard oil massage for knee joint pain among adult aged 60yrs and above in selected areas of Vellore district, Tamil Nadu.

OBJECTIVES OF THE STUDY:
• To assess the pretest level of pain among elderly.
• To compare the levels of pain before and after intervention.
• To associate demographic and clinical variables with post-test levels of pain.

ASSUMPTION & LIMITATIONS:
Assumptions:
There will be an association between the level of pain and treatment (alternative therapy).

Limitations:
• Study is limited to
• Patient who are available at the time of data collection.
• Data collection is limited to two weeks.
• Prolonged effect of mustard oil could not be measured.

METHODOLOGY:
A quasi-experimental study was conducted at Unai Pallathur Vellore district, Tamil Nadu. The investigator developed a procedure for ‘Mustard oil massage Application’ on knee joint pain, Interview Schedule and Pain Numeric Rating Scale according to the objectives. The interview schedule and pain assessment scale were translated into Tamil and again retranslated into English to check the validity of translated tools. The tools were checked in terms of completeness, contents and language clarity during pilot study. For checking the reliability of the tools test retest method was used. Part one included demographic data such as age, sex, education, religion, occupation, education status, socioeconomic background, dietary pattern, diagnosis, duration of knee joint pain, history regarding use of analgesics and part 2 comprised of Numeric pain rating scale. On the first day data was collected through interviewing and pain assessment Perfroma. As part of experimental study warm oil massage was done at the knee joint for 10 minutes twice daily for 14 days. The knee joint pain was assessed on the 14th day of intervention. The data was analyzed as per objectives by applying inferential and descriptive statistics.

RESULTS AND DISCUSSION:
The subjects age group in this study ranged from 60 years to 76 years. Out of the total subjects 85% were females. 98% were married. Nearly three fourth of the subjects 76% were Hindus. Almost 80% of the subjects reported of knee joint pain all the time. The range of duration of knee joint pain was between 6 months to 25 years. More than half of the subjects 62% took pain killer at least once a day. The remaining 38% were in the habit of taking pain medication occasionally. There was Significant association between pain and some of the demographic variables such as history regarding use of analgesics, occupation.

Table 1: Distribution of subjects as per their experience of knee joint Pain (N=30)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration of knee joint pain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 1 year</td>
<td>2</td>
<td>7%</td>
</tr>
<tr>
<td>1-5 years</td>
<td>4</td>
<td>13%</td>
</tr>
<tr>
<td>6-10 years</td>
<td>6</td>
<td>20%</td>
</tr>
<tr>
<td>11-15 years</td>
<td>7</td>
<td>23%</td>
</tr>
<tr>
<td>16-20 years</td>
<td>7</td>
<td>23%</td>
</tr>
<tr>
<td>21-25 years</td>
<td>4</td>
<td>13%</td>
</tr>
</tbody>
</table>

Table 2: Pre-test and Post-test values of pain (N=30)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Pre-test values</th>
<th>Post-test values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>Percentage</td>
<td>Frequency</td>
</tr>
<tr>
<td>No pain</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mild pain</td>
<td>-</td>
<td>12</td>
</tr>
<tr>
<td>Moderate pain</td>
<td>8</td>
<td>27</td>
</tr>
<tr>
<td>Very Severe pain</td>
<td>22</td>
<td>73</td>
</tr>
</tbody>
</table>
CONCLUSIONS:
The findings of the study indicate that mustard oil massage at knee joint decreases the severity of knee joint pain. Results showed statistical significance in favoring the use of oil massage as a safe alternative therapy for relieving joint pain. Hence the use of mustard oil massage can be promoted in community for homebased management of knee joint pain and encourages clinical nurses to apply the research findings. A similar study may be conducted on a larger sample to generalize the findings.

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