A study to assess the knowledge on prevention of lymphatic Filariasis among adults living in Dakkilivaripalem village at Nellore, A.P.

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Abstract

Background: Lymphatic Filariasis is also known as elephantiasis, is a human disease caused by parasitic worms known as filarial worms. Most cases of the disease have no symptoms. Some people, however, develop a syndrome called elephantiasis, which is marked by severe swelling in the arms, legs, breasts, or genitals. The skin may become thicker as well, and the condition may become painful.

Aim: The aim of the study was to assess the knowledge on prevention of lymphatic filariasis among adults.

Objectives: 1. To assess the knowledge on prevention of lymphatic filariasis among adults. 2. To associate the knowledge on prevention of lymphatic filariasis with selected socio demographic variables.

Methodology: 50 adults living in Dakkilivaripalem Village at Nellore were selected by using convenience sampling method.

Results: Based on the level of knowledge, 1(2%) scored A grade, 9(18%) scored B+ grade, 8(16%) scored B grade, 6 (12%) scored C grade and 26 (52%) scored D grade. on prevention of lymphatic filariasis.

Keywords: Knowledge, prevention, lymphatic Filariasis, adults

Introduction

“Prevention is better than cure”

Lymphatic filariasis is also known as elephantiasis, is a human disease caused by parasitic worms known as filarial worms. Most cases of the disease have no symptoms. Some people, however, develop a syndrome called elephantiasis, which is marked by severe swelling in the arms, legs, breasts, or genitals. The skin may become thicker as well, and the condition may become painful. The changes to the body may harm the affected person’s social and economic situation. Elephantiasis occurs in the presence of microscopic, thread-like parasitic worms such as Wuchereria bancrofti (the most common, Brugia malayi, and Brugia timori (also known as B. timori), all of which are transmitted by bites from infected mosquitoes. It is a type of helminth infection. Three types of worm cause the disease and damage the lymphatic system [1].

The prevention in lymphatic filariasis primary prevention is control of vectors, require a broad strategy involving both secondary and tertiary prevention. Secondary prevention includes simple hygiene measures, such as basic skin care and exercise, to prevent ADL and progression of lymphedema to elephantiasis. For management of hydrocele, surgery may be appropriate. Tertiary prevention includes psychological and socioeconomic support for people with disabling conditions to ensure that they have equal access to rehabilitation services and opportunities for health, education and income [2].

Management includes simple hygiene measures – either alone or in combination with antibiotic treatment – play an important role in preventing episodes of acute disease and in the management of lymphoedema. Daily washing of affected limbs with soap and safe water to prevent secondary infection, combined with simple exercises, elevation of the limb, and treatment of cracks and entry points, provides significant relief from acute episodes and slows progression of the disease. Like in the case for lymphatic filariasis, a basic package of care can alleviate suffering and prevent further progression of disease and disability [3].

Since there is no known vaccine or cure for lymphatic filariasis, the most effective method that exists to control the disease is prevention. A parasite such as W. bancrofti,
B. malayi or B. timori can effectively be controlled if either the vector is controlled, or if microfilarial levels in the population are controlled. There are other preventative methods. Controlling the vector with larvicides or insecticide spraying can be effective, depending on the vector population. Insect repellent, screens around houses and bed nets are other protective measures individuals can use to prevent bites from infected mosquito vectors [8].

Need for the Study
The lymphatic filarial cases were estimated 120 million people in tropical and subtropical areas of the world are infected with lymphatic filariasis; of these, almost 25 million men have genital disease (most commonly hydrocele) and almost 15 million, mostly women, have lymphedema or elephantiasis of the leg [6].

A recent estimation of the impact of Model Driven Architecture during the past 13 years suggests >96.71 million cases were prevented or cured, yet as many as 36 million cases of hydrocele and lymphedema remain. Of the total population requiring preventative chemotherapy, 57% live in the South-East Asia Region (9 countries) and 37% live in the African Region (35 countries). As one of the leading causes of global disability, Lymphatic filariasis accounts for at least 2.8 million Disability to Adjusted Life years; this does not include significant co-morbidity of mental illness commonly experienced by patients and their caregivers [6].

Lymphatic filariasis caused by Wuchereria bancrofti and Brugia malayi is an important public health problem in India. The Government of India has accorded a high priority for elimination of this infection through mass chemotherapy programme (annual, single dose of Diethyl carbamazime citrate, i.e. Diethyl carbamazime citrate - 6 mg/kg of bodyweight, plus Albendazole repeated four to six times). This campaign has become a part of the National Vector Borne Disease Control Programme in 2003 under the National Health Policy 2002 and aims to eliminate filariasis by 2015. We discuss here the epidemiology and current control strategy for filariasis; highlighting key issues, challenges and options in the implementation of the programme, and suggesting measures for mid-course corrections in the elimination strategy [8].

In India, states like Andhra Pradesh, Bihar, Gujarat, Kerala, Maharashtra, Orissa, Tamil Nadu, Uttar Pradesh and West Bengal contribute to about 95% of total burden. W. bancrofti is the predominant species accounting for about 98% of the national burden, widely distributed in 17 states and six union territories. Diethylcarbamazine (DEC) is an effective drug acting on the parasite (without report of resistance in past five decades) and mass annual single dose community drug administration with selective vector control could result in effective elimination of infection by interruption of transmission. The WHO has called for targeting filariasis elimination by 2020. India is the largest LF endemic country and has targeted the elimination of LF by 2015. Hence the researcher should conducted awareness programme about prevention of lymphatic filariasis [8].

Statement of the Problem
A study to assess the knowledge on prevention of lymphatic filariasis among adults living in Dakkilivaripalem Village at Nellore, A.P.

Objectives
- To assess the knowledge on prevention of lymphatic filariasis among adults.
- To associate the knowledge on prevention of lymphatic filariasis with selected socio demographic variables.

Delimitations
- Adults living in Dakkilivaripalem Village, Nellore.
- Sample size of 50.

Methodology
Research Approach
A quantitative approach was adopted to determine the research study.

Research Design
The present study was conducted by using descriptive research design.

Setting of The Study
The setting of the study was Dakkilivaripalem Village, Nellore.

Population
Target population
The target population for this present study includes all adults.

Accessible Population
The accessible population for the present study includes adults living Dakkilivaripalem Village, Nellore, and who fulfilled the inclusion criteria.

Sample
The sample for the present study was adults living Dakkilivaripalem Village, Nellore.

Sample Size:
The sample for the present selected from 50 adults aged between 18-55 years.

Sampling Technique
Non-probability convenience sampling technique was adopted for this study.

Criteria for Sampling Selection
Inclusion criteria
- Adults aged between 18-55 years and living in Dakkilivaripalem Village, Nellore.
- Who are available at the time of data collection
- Who are willing to participate in this study

Exclusion criteria
- Persons who are not willing to participate in the study.

Description of Thetool
Part-I: Demographic variables: Age, gender, religion, educational status, occupationplace of residence and source of information.

Part-II: It deals with the structured questionnaire to determine the knowledge among adults on prevention of lymphatic filariasis.
Score Interpretations

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>More than 85%</td>
</tr>
<tr>
<td>A</td>
<td>More than 75%</td>
</tr>
<tr>
<td>B+</td>
<td>More than 65%</td>
</tr>
<tr>
<td>B</td>
<td>More than 55%</td>
</tr>
<tr>
<td>C</td>
<td>More than 50%</td>
</tr>
<tr>
<td>D</td>
<td>Less than 50%</td>
</tr>
</tbody>
</table>

Data Analysis and discussion

Table 1: Frequency and percentage distribution of level of knowledge on prevention of lymphatic filariasis among adults. (N=50)

<table>
<thead>
<tr>
<th>Level of Knowledge</th>
<th>Frequency (F)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>B+</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>B</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>C</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>D</td>
<td>26</td>
<td>52</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100</td>
</tr>
</tbody>
</table>

Fig 1: Percentage distribution based on level knowledge among adults.

Table 2: Mean and Standard Deviation of level knowledge among adults. (N=50)

<table>
<thead>
<tr>
<th>Level of knowledge</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults</td>
<td>13.46</td>
<td>3.15</td>
</tr>
</tbody>
</table>

Table 3: Association between level of knowledge and selected socio-demographic variables among adults. (N=50)

<table>
<thead>
<tr>
<th>S. No</th>
<th>Demographic variables</th>
<th>A+</th>
<th>B</th>
<th>B+</th>
<th>C</th>
<th>D</th>
<th>Chi-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Age in years</td>
<td>F</td>
<td>%</td>
<td>F</td>
<td>%</td>
<td>F</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>a) 18-25 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) 26-35 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>c) 36-45 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>d) 46-55 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Place of residence</td>
<td>F</td>
<td>%</td>
<td>F</td>
<td>%</td>
<td>F</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>a) Urban</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) Rural</td>
<td></td>
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</tr>
</tbody>
</table>

Major findings of the study
- Based on level of knowledge, 1(2%) scored A grade, 9(18%) scored B+ grade, 8(16%) scored B grade, 6 (12%) scored C grade and 26 (52%) scored D grade. on prevention of lymphatic filariasis.
- The mean risk score of diabetic patients’ was 13.46 and standard deviation was 3.15.
- Regarding association between level of risk score and demographic variables, age in years and place of residence had significant association at P<0.001 level.

Conclusion
The study concluded that many numbers of adults (52%) had low grade (D) knowledge on prevention of lymphatic filariasis.

References
