IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

"A DESCRIPTIVE STUDY TO ASSESS THE KNOWLEDGE ON MANAGEMENT OF FILARIASIS AMONG ADULTS IN SELECTED URBAN AREAS AT TUMKUR WITH A VIEW TO DEVELOP HEALTH EDUCATION PAMPHLET"

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Abstract :

Lymphatic filariasis (LF) is the second cause of permanent, long-term disability in the world. It is one of the world's most disabling and disfiguring disease. Filariasis, though not fatal, is an important public health problem. It prevents the afflicted from experiencing a normal working and social life, resulting in matrimonial handicap, inferiority of self, and furthering the cycle of poverty. It affects 750 million every year and in India, 450million people are at risk. Lymphatic filariasis has been identified as one of the only six diseases, which could be targeted for elimination/eradication based on considerations that human beings are the only reservoir of infection. The WHO has now called for targeting filariasis elimination by 2020. India is the largest LF endemic country and has targeted elimination by 2015. non-experimental descriptive design to assess the rural knowledge on their management of filariasis among adults. The sample for the study was 90 adults residing at selected rural communities of Sulekere P.H.C. Then house to house survey was done and found the mothers of toddlers as 8o in Sulekere, 82 in Ramsandra and 86 in Kenchanpura. The sample was selected by using simple random technique. The samples obtained were 23+37+30= 90 from the respective villages. The present study represents the Mean, S.D. and Mean percentage of aspects of

knowledge on their practices of mothers of toddler. It reveals that the subjects had a maximum mean of 5.37 with a standard deviation of 0.97 and the minimum mean of 1.60 with the S.D. of 0.63 and mean percentage of 80.0% for foreign body aspiration, the mean score of 2.13 with a S.D.0.57 and mean percentage of 71% regarding cut and laceration, the mean score of 3.82 with S.D of 1.02 and mean percentage of 76.4% regarding burns, scalds and the mean of 2.52 with S.D. of 0.64 and mean parentage of 84.0% regarding drowning., the mean score of 3.24 with a S.D. of 0.78 and mean percentage of .81% regarding stings and bites, the mean score of 2.44 with a S.D. of 0.67 and mean percentage of 81.3% regarding electric shock.

Key word : Knowledge, management, Filariasis, Adults, Eductational Media, and Urban area

Introduction :

Lymphatic filariasis is one of the major health problems since 1907. It is estimated that more than 140 million people are infected worldwide and over 40 million of these are seriously incapacitated. The WHO estimates that 1.2 billion people are at risk in about 80 countries and 750 million people are exposed every year. WHO states that filariasis is a disease of the poor and it is a cause and effect of poverty, so WHO has called for targeting filariasis elimination by 2020. Since India is the largest filariasis endemic country in the world, the prospects of global elimination of filariasis will depend on mass drug administration (MDA) and awareness programme[1]. Nearly 50% of the world's LF exists in Indian subcontinent. In India 450 million people are at risk of LF. World Health organization Mediterranean Centre for Vulnerability, Reduction (WMC) is fighting LF in six countries. LF is one of seven diseases targeted for elimination by WHO. COMBI plans were designed for India, Kenya, Nepal, Philippines, Sri Lanka and Zanzibar. In India, 553 million people live in areas endemic to LF, 21 million with symptoms, 27 million have asymptomatic, 40 million people are at risk, and currently about 50 million people at risk in India. Thus, the need for assessing the knowledge regarding this disease is of importance[2]. Lymphatic filariasis is more prevalent in the coastal region; about 1602 cases were detected in Tumkur till October 2007; in that Tumkur urban had 1,154, Tumkur rural-301, cases. So the need has arrived to assess the knowledge of the people to prevent further spread[3].

Filariasis will cause problems like inability to care for self, isolation from the community, loss of social support and family stress. This disease hampers the marriage prospects of the young, especially females. Other social problems among young patients include feeling of shame, embarrassment, and frequent absence from school or even discontinuation of studies. In the light of this knowledge, it is important to prevent this disease in people living in countries where filariasis is prevalent so that the next generation can be free of this horrid malady[4]. A descriptive study examined direct and indirect costs due to acute form of LF caused by Wucheriabancrofti to the households in rural communities in Tamil Nadu state. For nearly acute adenolymphangitis episodes, affected did not seek treatment and 27% consulted and underwent treatment. The cost of treatment and loss in economic activities, combined with high incidence in the study communities indicated the economic burden imposed by the neglected acute form of LF and the necessity to control it[5]. A descriptive, comparative, cross-sectional randomised community-based study was conducted

to determine the factors influencing drug compliance in the MDA programme against filariasis in selected rural and urban population within the western province of Sri Lanka. The belief of total 2319 people aged between 10-90 years that MDA programme was beneficial was the most important factor affecting drug compliance, as revealed by multivariate analysis of the combined population ($p<0.00$). Therefore, it is essential for awareness programmes to highlight the dangers (complications) of the disease and to influence the community to perceive the benefits of a filariasis free community[6]. A one-year long longitudinal prospective surveillance of acute adenolymphangitis (ADL) was carried out in rural population of Orissa to assess the epidemiological knowledge. The annual incidence of ADL per 1000 individuals was 85.0, and was slightly higher ($P > 0.05$) in males (92.0) than in females (77.6). The disability and loss caused by chronic forms of filariasis was higher, and the additional incapacity caused by the ADL episode, majority of which occur among chronic filariasis patients, further posed the burden on individuals and their families. Hence, morbidity management measures to prevent ADL episodes among endemic communities were to be implemented[7]. Qualitative and quantitative data was collected to know the knowledge and beliefs about filarial elephantiasis and hydrocoele from 12 villages, sampled from four blocks in the Khurda district of Orissa. A high proportion of people knew that mosquitoes were the reason for the spread of elephantiasis, but less people were aware of the cause of hydrocoele and the association between elephantiasis and hydrocoele. Age, gender, educational level and caste affiliation were identified as factors influencing awareness and knowledge. These findings may be used in health education programme to change health behaviour and to achieve higher involvement of the community in annual mass drug administration to eliminate lymphatic filariasis[8].A study on social and economic impact of lymphatic filariasis was studied in Northern Ghana. Men with hydrocoele suffered a greater psychosocial burden. Out of frustration men with small hydrocoele sought healthcare from a wider range of places than men with larger ones. The pain associated with adenolymphangitis (ADL) rendered them inactive for up to 5 days. Unmarried men in particular found it difficult to find a spouse with their condition, and various degrees of sexual dysfunction were reported amongst married men. So there is a need to assess the level of knowledge to prevent the burden on forth coming generation[9].

Methods and Materials :

The investigator selected non-experimental descriptive design to assess the rural knowledge on their management of filariasis among adults. The sample for the study was 90 adults residing at selected rural communities of Sulekere P.H.C. Then house to house survey was done and found the mothers of toddlers as 8o in Sulekere, 82 in Ramsandra and 86 in Kenchanpura. The sample was selected by using simple random technique. The samples obtained were 23+37+30= 90 from the respective villages. The sample selection was based on the inclusion and exclusion criteria.

Result :

Section- A: Data on demographic variables of adults are given in Table 1.1 to 1.2.

Table – 1.1: Distribution of adults according to demographic variables (age, religion, education, occupation, income).

n= 90

Sl.No.	Demographic variables	Number = 90	Percentage
1.	Age		
	a. 21-25	26	28.9
	b. 26-30	41	45.6
	c. 31-35	20	22.2
	d. 36-40	03	3.3
2.	Religion		
	a. Hindu	56	62.2
	b. Non- Hindu	34	37.8
3.	Educational		
	a. Illiterate	13	14.4
	b. Primary education	27	30
	c. Secondary education	25	27.8
	d. PUC	16	17.8
	e. UG and PG	09	10
4.	Occupation		
	a. Own farm	74	82.2
	b. Daily wages	01	1.1
	c. Private services	13	14.4
	d. Government services	02	2.2
5	Income of the family per month	10	11.1
	a. ≤ 3000/-	57	63.3
	b. 3001-4000/-	23	25.6
	c. > 4000/-		

The table 1.1 revealed that out of 90 adults of rural with regard to age of adults 41(45.6%) belongs to age group of 26-30, 26(28.9%) belong to age group of 21-25, 20(22.2%) belong to the age group of 31-35 and 3(3.3%) adults belongs to age group of 36-40 years. With regard to religion of adults 56(62.2%) belongs to Hindu and 34(37.8%) belongs to Non- Hindu. In relation to educational status of adults 27(30%) belongs to

primary education, 25(27.5%) had secondary education, 16(17.8%) had PUC. 13(14.4%) were illiterate and remaining 9(10%) had done degree. In relation to occupation of adults 74(82.2%) were Own farm, 13(14.4%) were private services and remaining 3(3.3%) were daily wages, Govt. services.When assessing the monthly income status of the family majority 57(63.3%) belongs to 3001-4000/month, 23 (25.6%) of family belongs to above 4000/month and 10(11.1%) of family belongs to less than or equal to 3000/ months.

Table – 1.2: Distribution of adults according to demographic variables (type of family, size of family, number of adults, type of house and Source of knowledge).

n= 90

SI. No	Demographic Variables	Number(90)	Percentage
1.	Type of family		
	a. Nuclear	40	44.4
	b. Joint	50	55.6
2.	Size of the family		
	a. <4	25	27.8
	b. 5-7	29	32.2
	c. 8-10	34	37.8
	d. >10	02	2.2
3.	Number of adults in family		
	a. One	74	82.2
	b. Two	15	16.7
	c. ≥Three	01	1.1
4.	Type of house		
	a. Pucca	68	75.6
	b. Semi pucca	22	24.4
5.	Source of knowledge		
	a. News and Magazine	16	17.8
	b. TV and Radio	50	55.6
	c. Witnessed home accident	24	26.4

Table 1.2 represents that majority 50(55.6%) belongs to joint and remaining 40(44.4%) family belongs to nuclear. In relation to size of family 34 (37.8%) belongs to 8-10 members, 29(32.2%) belong to 5-7 members, 25(27.8%) belongs to less than four members and 2(2.2%) belongs to more than 10 members in family. In relation to number of adults in the family majority 74(82.2%) belongs to one, 15(16.7%) families have two and remaining 1(1.1%) belongs to three or more than three adults in family Similarly in relation to type of house majority 68(75.6%) were Pucca, 22(24.4%) were semi Pucca houses. In view of source of

knowledge 50(55.6%) adults obtained knowledge from T.V and Radio, 24(26.4%) by witnessed home accidents and remaining16 (17.8%) obtained the knowledge from news and magazines.

Section-B

Adult's knowledge on management of filariasis among Adults.

The level of Adults knowledge on their practices was divided into three categories:

< 50% - inadequate knowledge

50-74%- moderate adequate knowledge

≥ 75% -an adequate knowledge

Level of knowledge adults on filariasis

Table –2: Frequency and percentage of level of knowledge on management of filariasis among adults.

n=90

Level of knowledge	Knowledge Score	Frequency	Percentage
>75%(Adequate)	23-30	60	66.7%
50-75%(Moderately adequate)	15-22	30	33.33%
<50% (Inadequate)	1-14	00	00
Total	30	90	100%

The present study depicts that majority of adults 60(66.77%) had adequate knowledge, 30(33.33%) adults had moderately adequate knowledge on practices in prevention of home accidents. There were no adults with inadequate knowledge.

Table- 3: Mean, SD and Mean percentage of knowledge of mothers in prevention of home accidents among toddlers. **n=90**

Sl. no	Knowledge on Practice	No of items	Max Score	Range	Mean	S.D	Mean %
A.	General information	07	07	3-7	5.37	0.97	76.7
B.	Cuts and laceration	03	03	0-3	2.13	0.57	71.0
C.	Burns and scalds and	05	05	1-5	3.82	1.02	76.4
D.	Drowning	03	03	1-3	2.52	0.64	84.0
E.	Poisoning	03	03	1-3	2.32	0.67	77.3
F.	Stings and Bites	04	04	1-4	3.24	0.78	81.0
G.	Foreign body aspiration	02	02	0-2	1.60	.63	80.0
H.	Electric shock	03	03	1-3	2.44	0.67	81.3
Overall knowledge		30	30	16-29	23.46	2.57	78.2

The present study represents the Mean, S.D. and Mean percentage of aspects of knowledge on their practices of mothers of toddler. It reveals that the subjects had a maximum mean of 5.37 with a standard deviation of 0.97 and the minimum mean of 1.60 with the S.D. of 0.63 and mean

percentage of 80.0% for foreign body aspiration, the mean score of 2.13 with a S.D.0.57 and mean percentage of 71% regarding cut and laceration, the mean score of 3.82 with S.D of 1.02 and mean percentage of 76.4% regarding burns, scalds and the mean of 2.52 with S.D. of 0.64 and mean parentage of 84.0% regarding drowning., the mean score of 3.24 with a S.D. of 0.78 and mean percentage of .81% regarding stings and bites, the mean score of 2.44 with a S.D. of 0.67 and mean percentage of 81.3% regarding electric shock.

Table- 4.1: Association between knowledge of the adults in management of filariasis with the demographic variables (age, religion, education, occupation, income).

Sl.No	**Demographic Variables**	**n=90**	**Levels of knowledge**				**Test of significance**		
			Moderately Adequate		**Adequate**				
			No	**%**	**No**	**%**			
1	**Age in years**								
	a. 21-25	26	8	8.8	18	20	Fisher's exact probability=0.310 NS		
	b. 26-30	41	11	12.2	30	33.3			
	c. 31-35	20	10	11.1	10	11.1			
	d. 36-40	3	1	1.1	2	2.2			
2	**Religion**								
	a. Hindu	56	14	15.5	42	46.6	χ^2 =4.63	df =1	P=0.031*
	b. Non-Hindu	34	16	17.7	18	20			
3	**Educational status**								
	a. Illiterate	13	8	8.8	5	5.5	Fisher's exact probability=0.005*		
	b. Primary education	27	13	14.4	14	15.5			
	c. Secondary education	25	5	5.5	20	22.2			
	d. PUC	16	4	4.4	12	13.3			
	e. UG or PG	9	0	0	9	10			
4	**Occupation**								
	a.Own farm	74	28	31.1	46	51.1	Fisher's exact probability=0.303 NS		
	b. Daily wages	1	0	0	1	1.1			

	c. Private services	13	2	2.2	11	12.2			
	d. Government services	2	0	0	2	2.2			
5	**Income of the family(Monthly)**								
	a. 2001-3000/-	10	5	5.5	5	5.5	χ^2 =4.63	df=2	P=0.031*
	b. 3001-4000/-	57	17	18.8	40	44.4			
	c. >4000/-	23	8	8.8	15	16.6			

Note: * =Significant 0.01<P≤ 0.05 NS = Non Significant

Fisher's exact probabilities are computed for those cells where expected frequency is < 5.

The above table 4.1 depicts the results of association between knowledge and demographic characters of adults. The Chi-square test was carried out to determine association between knowledge on management of filariasis and demographic variables of adults. Out of the variables accountant for association, the variables as religion (χ^2 =4.63, d f = 1), income (χ^2 = 4.63, d f= 2), the variable as educational status of adults by Fisher's exact test was found statistically significant at P<0.05

Table- 4.2:

Association between knowledge of the adults in management of filariasis and the demographic variables (type of family, size of family, number of adults, type of house and Source of knowledge).

Sl.No	**Demographic Variables**	**n=90**	**Levels of knowledge**				**Test of significance**		
			Moderately Adequate		**Adequate**				
			No	**%**	**No**	**%**			
1.	**Type of family**								
	a. Nuclear	40	9	10	31	34.4	χ^2 =3.8	df =1	p=0.51*
	b. Joint	50	21	23.3	29	32.2			
2.	**Size of the family**								
	a. <5	25	7	7.7	18	20	Fisher's exact probability=0.292 NS		
	b. 5 -7	29	7	7.7	22	24.4			
	c. 8-10	34	15	16.6	19	21.3			
	d. >10	2	1	1.1	1	1.1			
3.	**Number of adults in a family**								
	a. One	74	21	23.3	53	58.8	Fisher's exact probability=0.032*		
	b. Two	15	9	10	6	6.6			
	c. ≥Three	1	0	0	1	1.1			
4.	**Type of house**								

	a. Puucca	68	17	18.8	51	56.8	Fisher's exact probability= 0.005*
	b. Semi pucca	22	13	14.4	9	10	
	c. Kaccha	0	0	0	0	0	
5.	**Source of knowledge**						
	a. News and Magazine	16	3	3.3	13	14.4	Fisher's exact probability=0.420 NS
	b. TV & Radio	50	18	20	32	35.5	
	c. Witnessed home accidents	24	9	10	15	16.6	

Note: * =Significant $0.01<P\leq 0.05$ NS = Non Significant

Fisher's exact probabilities are computed for those cells where expected frequency is < 5.

The above table 4.2 represents the results of association between knowledge and demographic variables of adults. The Chi-square test was carried out to determine association between knowledge on management of filariasis and demographic variables type of family ($\chi^2 = 3.8$, df= 1). The variable as number of adults, type of houses was associated by Fisher's exact probability test to find statistically significant at $P<0.05$ level. The variable size of family, sources of knowledge were no statistically significant at $P<0.05$ level.

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