



Awareness, Acceptance and Attitude of Public Towards Mass Drug Administration Programme for the Elimination of Lymphatic Filariasis- A Descriptive Study

Mrs. Joice Ann Chacko

MSc (N), Lecturer, Dept. of Community Health Nursing, Cooperative College of Nursing, Trivandrum

Mrs. Lija R Nath

MSc (N), Associate Professor, Dept. of Community Health Nursing, Sree Gokulam Nursing College, Trivandrum 695607

ABSTRACT

Lymphatic filariasis is a major public health problem in India. The research study was aimed to assess the awareness, acceptance and attitude of public towards mass drug administration programme for the elimination of lymphatic filariasis. The design used was descriptive comparative design. The study was conducted in one urban and one rural setting of Trivandrum district with a sample size of 300 (150 each) who were identified by simple random sampling method. Data collection was done by structured questionnaire and a 3 point attitude scale. According to the results of the study rural population had significantly higher awareness regarding mass drug administration programme compared to urban population ($p < 0.05$). Acceptance and attitude towards the programme was significantly higher in rural population compared to urban population ($p < 0.01$). If we consider the overall coverage of the programme only 14.7% of urban population and 48.7% of the rural population had consumed the drugs ($p < 0.001$). The effective coverage was only 31.7% i.e., out of the 300 subjects studied only 95 had taken the drugs. It is concluded that the programme might have implemented more effectively in rural areas compared to urban areas and the overall acceptance of the programme was very low. The study findings can be used for planning targeted nursing interventions in urban and rural areas to improve the acceptance and attitude of public towards mass drug administration programme for the elimination of lymphatic filariasis.

KEYWORDS : Mass drug administration programme; Lymphatic filariasis; Awareness, Acceptance; Attitude; Elimination

Introduction

Lymphatic Filariasis known as elephantiasis has been a major public health problem in India. The disease was recorded in India as early as 6th century B.C by the famous Indian physician Susruta in his book 'SusrutaSamhita'.

National Filarial Control Programme (NFCP) was launched in the country in 1955 with the objective of delimiting the problem and to undertake control measures in endemic areas. The manifold increase in filariasis during last four decades reflects failure of filariasis control programs. Currently there may be up to 31 million microfilaraemics, 23 million cases of symptomatic filariasis, and about 473 million individuals potentially at risk of infection in the country. Over 120 million people are currently infected, with about 40 million disfigured and incapacitated by the disease.

Lymphatic filariasis is a neglected tropical disease. Infection occurs when filarial parasites are transmitted to humans through mosquitoes. When a mosquito with infective stage larvae bites a person, the parasites are deposited on the person's skin from where they enter the body. The larvae then migrate to the lymphatic vessels where they develop into adult worms in the human lymphatic system. Infection is usually acquired in childhood but the painful and profoundly disfiguring visible manifestations of the disease occur later in life. Whereas acute episodes of the disease cause temporary disability, later leads to permanent disability.

Review of literature

According to WHO (2014) nearly 1.4 billion people in 73 countries worldwide are threatened by lymphatic filariasis, a parasitic infection that leads to a disease. Over 120 million people are currently infected, with about 40 million disfigured and incapacitated by the disease. In response, WHO launched its Global Programme to Eliminate Lymphatic Filariasis (GPELF) in 2000 with the aim of eliminating the disease as a public-health problem. In 2012, the WHO NTD Roadmap reconfirmed the target date for achieving elimination by 2020.

Mass Drug Distribution for lymphatic filariasis is a public health programme being conducted across the country, endorsed by the World Health Organisation for eliminating filariasis. The administration of two doses of preventive medicines helped the persons facing the threat of the disease. The scheme was carried out in every five years,

with 80 percent of the population consuming the drugs, ensuring a break in the transmission cycle of the filarial parasite. Health workers would distribute the tablets through home visits.

Regu K et al (2006) conducted a study on Mass drug administration against lymphatic filariasis: experiences from Kozhikode district of Kerala State. The aim of the study was to assess the drug distribution coverage, compliance, reasons for non-compliance, side reactions, prevalence and intensity, infection and infectivity rates in the vector. The drug distribution coverage and compliance were much below the required level. "No disease so not necessary" (42.5%) and "fear of side reactions" (25.2%) were the two major reasons for non-compliance. For the successful implementation of the MDA programme, proper planning, intense and timely efforts to motivate the community and innovative drug delivery strategies were required.

Objectives of the study

1. To determine the awareness regarding mass drug administration programme among urban and rural population.
2. To determine the acceptance and factors contributing non-acceptance towards mass drug administration programme among the urban and rural population.
3. To determine the attitude of urban and rural population towards mass drug administration programme.
4. To determine the association between acceptance and awareness towards mass drug administration programme.

Research methodology

Research approach : Quantitative

Design : Descriptive comparative design

Setting : Ward 4 of Kallara Panchayat was the rural setting and Ward 17 of Trivandrum Corporation was the urban setting.

Population : Adult population in the age group of 18-60 years from Trivandrum district.

Sample : The sample of the present study consisted of 300 male and female adult people between the age group of 18-60 years. The sample size was 300 i.e. 150 sample from urban setting and 150 sample from rural setting.

Sampling technique : Simple random sampling technique

Inclusion criteria:

- Male and female adults in the age group of 18- 60 years.
- People who were available during the time of data collection.

Exclusion criteria:

- People who were not able to comprehend.
- Pregnant and lactating mothers.
- Seriously ill people.

Tools/ Instrument

1. Structured questionnaire to assess the awareness and acceptance of the public regarding mass drug administration programme and lymphatic filariasis.
2. Attitude of the public towards the programme was assessed by a 3 point rating scale.

Validity and reliability:

The tools were validated by nine experts. The reliability for the knowledge questionnaire was established by using the Kuder Richardson formula. The reliability was found to be 0.82. The reliability for attitude scale was measured by test re test method. The reliability coefficient was obtained as 0.84.

Ethical consideration:

Ethical Clearance was obtained from the ethical committee of Sree Gokulam Medical College and Research Foundation. Informed consent was taken from study participants.

Data collection procedure

The study was conducted among male and female adult population in the age group of 18-60years at selected urban and rural communities in Trivandrum district. Based on inclusion criteria 150 samples from rural setting and 150 samples from urban setting were selected by multi stage random sampling. List of houses from ward 17 of Trivandrum Corporation and ward 4 of Kallara Panchayath was collected and sampling frame was prepared for the two wards. Then 150 houses were randomly selected from each ward by lottery method.

Results:

Figure 1: Percentage distribution of subjects according to awareness score regarding lymphatic filariasis and MDA programme.(n=300)

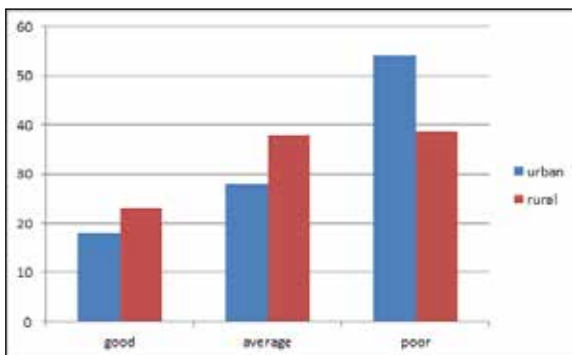


Figure 1 depicts that majority of the subjects from the urban population had low awareness (54.0%), while in rural area only 38.7% of subjects had low score. In urban area only 18% of the subjects had high awareness score but in rural area 23.3% of subjects had high awareness score. Rural population had significantly higher awareness compared to urban subjects (p < 0.05).

Table 1: Frequency and Percentage distribution of consumption rate of MDA drugs.

Consumption of drugs	Urban		Rural		Total	
	frequency	percentage	frequency	percentage	frequency	percentage
consumed	22	14.7	73	48.7	95	31.7

Not consumed the drugs	128	85.3	77	51.3	205	68.3
total	150	100	150	100	300	100

Chisquare=40.065*** ***Significant at .0001 level

Table 1 shows that acceptance of the programme was only 14.7 % among urban population and 48.7% among the rural population (p<0.001). The effective coverage was only 31.7 % i.e., out of the 300 subjects studied only 95 had consumed the drugs.

Table 2: Frequency and percentage distribution of attitude of urban and rural population towards mass drug administration programme. (n=300)

attitude	urban		rural		Chisquare
	frequency	percentage	frequency	percentage	
Favourable	53	35%	83	55%	12.105**
Unfavourable	97	65%	67	45%	
total	150	100	150	100	

Table 2 shows that (35%) of urban population and (55%) of rural population had favourable attitude towards the programme. Rural people had significantly higher attitude towards the programme compared to urban people (p < 0.001).

Table 3: Association between acceptance and awareness towards mass drug administration programme among urban and rural population (n=300)

Acceptance (consumed drugs)	chisquare	df	p value
Urban	10.774	2	0.049*
Rural	5.072	2	0.79

According to table 3 urban population showed significant association between acceptance and awareness score. Acceptance towards mass drug administration programme increased as the awareness score increased in urban setting (p < 0.05).

Discussion

Present study shows that in urban area only 18% of the subjects had high awareness score but in rural area 23.3% of subjects had high awareness score. Rural population had significantly higher score compared to urban subjects (P<0.05). This may be due to the fact that the lymphatic filariasis elimination programme and health education campaigns might have implemented more effectively in rural areas compared to urban areas.

The study was supported by a study conducted by Ramaiah KD (2010), a programme to eliminate lymphatic filariasis in Tamil Nadu state, India: compliance with annual single-dose DEC mass treatment. The result shows that awareness regarding filariasis control was much higher (82.5%) in rural than in urban areas (58%) (P < 0.01).

In the present study the drug compliance was only 28% among urban population. But in rural areas, 62% of the subjects who received the drugs had consumed it. Acceptance towards the programme was significantly higher in rural population compared to urban population (P<0.01). If we consider the overall coverage of the programme only 14.7 % of urban population and 48.7% of the rural population had consumed the drugs (P < 0.001). The effective coverage was only 31.7 %. The reason for noncompliance for majority of the subjects was cited as they don't have lymphatic filariasis and because of the fear of side effects of the drugs.

The findings are supported by a study conducted by Babu B V et al (2004) to assess the coverage, compliance and some operational issues of mass drug administration during the programme to eliminate lymphatic filariasis in Orissa. The result shows that the compliance rate in rural area was 49.12 % and that in urban it was 23.11%.

Alva J et al (2011) conducted a study to assess the knowledge and attitude of adults on filariasis and mass drug administration (MDA) in selected villages of Udupi District, Karnataka with 400 participants. The data was collected using a knowledge questionnaire and attitude scale on filariasis and MDA, respectively. It was identified among the participants, that 87.2% had favourable attitude.

According to the results of the present study the attitude was comparatively less. Only 35% of the urban population and 55% of the rural population showed favourable attitude towards mass drug administration programme ($p < 0.001$). It may be due to the existing misconceptions about the quality of drugs.

In the present study urban population showed significant association between awareness score and acceptance towards MDA Programme . The study showed that acceptance towards mass drug administration programme increased as the awareness score increased in urban setting ($p < 0.05$).

The study was supported by the study conducted by Ghosh S et al (2013) on mass drug administration programme for elimination of lymphatic filariasis on a district of West Bengal. Around 66.9 % of studied population had heard about lymphatic filariasis, and 60.2% were aware of the MDA programme. The results showed that there was a direct association between awareness and acceptance towards MDA programme

Conclusion

According to the results rural population had significantly higher awareness regarding mass drug administration programme compared to urban population ($p < 0.05$). Acceptance towards the programme was significantly higher in rural population compared to urban population ($p < 0.01$). If we consider the overall coverage of the programme only 14.7 % of urban population and 48.7% of the rural population had consumed the drugs. ($p < 0.0001$). The effective coverage was only 31.7 % . Attitude towards the mass drug administration programme was high in rural population compared to urban population ($p < 0.001$). It is concluded that the programme might have implemented more effectively in rural areas compared to urban areas.

REFERENCES

1. Agrawal VK, Sashindran VK. Lymphatic Filariasis in India: Problems, Challenges and New Initiatives. Department of Medicine. AFMC, Pune [Internet] 2006. [Cited 2013 April] Available from: <http://medind.nic.in/maa/t06/i4/maat06i4p359.pdf?pagewanted=all>
2. WHO Lymphatic filariasis [Internet] 2014[cited 2013 May] Available from: <http://www.who.int/mediacentre/factsheets/fs102/en/>
3. Regu K, Show Kath Ali MK. Regional filarial Training & Research Centre, Kozhikode district [internet] 2006 [cited 2014 July] Available from: https://www.academia.edu/5760878/Coverage_and_compliance_to_mass_drug_administration_for_lymphatic_filariasis_elimination_in_a_district_of_Kerala_India
4. Anti-filariasis drive begins in Kerala. April 26, 2012 21:01 [NDTV Broadcast]
5. [Cited 2014 June] Available from: <http://www.ndtv.com/article/south/anti-filariasis-drive-begins-in-kerala-202939>
6. Babu BV, Kar SK. Coverage, compliance and some operational issues of
7. Mass drug administration during the programme to eliminate lymphatic filariasis in Orissa, India. Tropical Medicine and International Health [internet] 2014 [cited 2013 April]; 9 (6), 702–709 [Internet].
8. Alva J, Chakraborty J, Castelino F. A study to assess the knowledge and attitude of adults on filariasis and mass drug administration of filariasis in selected villages of Udupi district, Karnataka. International journal of nursing education, [internet] 2011 [cited 2014 March]; 3(2):48-51.