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A study to assess the knowledge on transmission of disease from open drainage system among the community people

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Abstract
Introduction: Open drainage system may be major and indispensable problems to be solved today. System and its role in sanitation connected outbreaks evident. Sanitation is outlined by the in keeping with the globe health organization as: sanitation usually refers to the availability of facilities and services for the safe disposal of human excrement and faeces.
Aim: The aim of the study is assess the knowledge on transmission of disease from open drainage system among the community people.
Method: A quantitative approach with descriptive research design was adopted for the present study. A non-equivalent pre-test post-test control quasi experimental research design was used. Purposive sampling techniques were used and sample size is 100. A self – structured questionnaire was used to collect the demographic data and the existing level of knowledge on transmission of disease from open drainage among community people.
Result: This study finding shows that there was a statistically significant association observed between the demographic variable of age of samples, sex, education, occupation, monthly income, socio-economic status, type of family, marital status, availability of toilet facilities, With the level of knowledge at $p< 0.05$ level.
Conclusion: Vector borne disease being the major health problem in community people are unaware about its first aid at home management and leads to complications. The study was done to assess the knowledge and prevention of vector borne disease among community people.

Keywords: Knowledge, transmission of disease, open drainage system

Introduction
Inadequate sanitation is a major cause of disease worldwide and improving sanitation beneficial impact on health both in households and across communities. The word sanitation refers to ''the maintenance of hygiene conditions, through services such as garbage collection and waste water disposal''.
An open drain is an open channel, mostly found in urbanized areas and used for the discharge of rainwater. Rainwater collected by the channels is often directed to rivers or other water sources. Drains serve a good purpose in preventing flooding, but when they lack covers, as it is the case for open drain, solids and domestic wastes collect in them and may lead to blockage. As a result, they become a threat to the people living in the surrounding areas. According to the information about the international distribution of open drains, the majority of them are found in middle and low income countries. If the open drains are left unchecked, they become a health hazard to the neighboring population as they become a breeding ground for disease causing parasites and other microorganism. And when the rainy season begins, the open drains can rapidly spread water borne and vector borne disease and infection. Vector borne diseases are infections transmitted by the bite of infected arthropod species, such as mosquitoes, ticks, triato mine bugs, sand flies, black flies. Arthropod vectors are coldblooded and thus especially sensitive to climatic factors. Weather influences survival and reproduction rates of vectors, in turns influencing habit at suitability, distribution and abundance, intensity and temporal pattern of year, and rates of development, survival.
Other viral diseases transmitted by vectors include chikungunya fever, zika virus fever, yellow fever, west Nile fever, Japanese encephalitis etc. In chikungunya fever is a viral infection transmitted by mosquitoes. Its an RNA virus that belongs to the alphavirus genus of the family to gaviridae.

Other vector borne diseases such as chagas disease, Leishmaniasis and schistosomiasis affect hundreds of million of people world wide. Many of vector borne disease are preventable, through protective measures and community mobilization.

Methods and Material

A quantitative research approach with quasi experimental research design was used to conduct the study. After obtaining ethical clearance the formal permission was obtained from the village panchayat officer. 100 samples were recruited by using purposive sampling technique. The criteria for sample selection was community people in rural area in thirumalisai and The exclusion criteria for the study participants were all the rural people who are not able to write and read like children and older adult. A self-structured questionnaire was used to assess the knowledge on transmission of disease and reassessed after intervention and the data was analyzed using descriptive and inferential statistics.

Result and Discussion

The first objective of this study was to assess the knowledge about open drainage vector borne diseases among selected community people.

Section I

Table 1: Frequency and percentage of demographic variables of rural people who participated in the study.

S. No	Demographic variable	Frequency	Percentage
1	**AGE(in years)**		
	10-17years	2	2%
	18-25years	8	8%
	25-50years	22	22%
	Above 50years	68	68%
2	**Gender**		
	Male	72	72%
	Female	28	28%
	Transgender	0	0%
3	**Education level**		
	No formal education	18	18%
	Nursery	42	42%
	Primary and secondary	25	25%
	Degree	15	15%
4	**Occupation**		
	Housewife	61	61%
	Employee	28	28%
	Un-employee	2	2%
	Private worker	9	9%
5	**Monthly income**		
	1000-3000	12	12%
	3001-6000	21	21%
	6001-10000	15	15%
	>10000	52	52%
6	**Social-economic status**		
	Upper class	25	25%
	Low class	20	20%
	Middleclass	55	55%
7	Type of family		
	Nuclear family	62	62%
	Joint family	23	23%
	Single parent family	15	15%
8	Marital status		
	Married	72	72%
	Un-married	20	20%
	Widow	8	8%
	Divorce	0	0%
9	**Availability of toilet facilities**		
	Present	22	22%
	Common toilet	15	15%
	Grass field area	52	52%
	Others	11	11%

The study shows regarding age out of 100 samples 2(2%) samples comes under the age group of 10 –17 years, 8(8%) were under the age group of 18 -25 years, 22(22%) were under the age group 25 - 50 years, 68(68%) were the age group above 50 years. Regarding Gender out of 100 samples 72(72%) were males and 28(28%) were females and 0(0%) were transgender. Regarding education level out of 100 samples 18(18%) were had no formal education, 42(42%)

were studied nursery level, 25(25%) were studied primary and secondary level, 15(15%) were degree holder. Regarding occupation out of 100 samples 61(61%) were house wife, 28(28%) were employee, 2(2%) were unemployed, 9(9%) were private worker. Regarding monthly income status out of 100 sample 12(12%) were earning 1000-3000, 21(21%) were earning 3000-6000, 15(15%) were earning 6000-8000 and 52(52%) were earning >10000. Regarding socio – economic status out of 100 samples 25(25%) were upper class, 2020%) were low class and 55(55%) were middle class. Regarding type of family 62(62%) were belongs to nuclear family, 23(23%) were belongs to joint family, 15(15%) were lives with single parent family. Regarding marital status 72(72%) were single, 20(20%) were married, 8(8%) were widow and 0(0%) were divorced. Regarding availability of toilet facilities, In 22(22%) of houses toilet is present, 15(15%) of people were using common toilet, 52(52%) were using grass field area and 11(11%) were using others.

The second objective of the study was to find out association between the levels of knowledge with selected demographic variables

This study finding shows that there was a statistically significant association observed between the demographic variable of age of samples, sex, education, occupation, monthly income, socio-economic status, type of family, marital status, availability of toilet facilities, With the level of knowledge at $p< 0.05$ level.

Table 2: Shows that out of 100 samples 15(15%) have inadequate knowledge, 75(75%) have moderate knowledge and 10(10%) have adequate.

Level of knowledge	Frequency	Percentage
Inadequate knowledge	65	65%
Moderate knowledge	15	15%
Adequate knowledge	20	20%

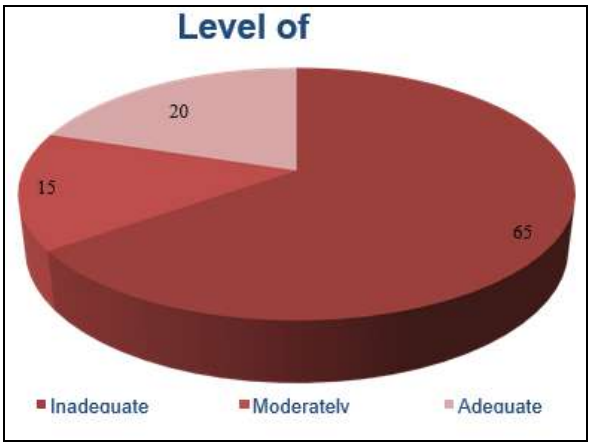

Fig 1: Represents the level of knowledge about transmission of disease from open drainage system (vector borne disease) among rural people, 65% of people have inadequate knowledge, 15% of people have moderately knowledge, and 20% of people have adequate knowledge

Conclusion

Vector borne disease being the major health problem in community people is unaware about its first aid at home management and leads to complications. The study was done to assess the knowledge and prevention of vector borne disease among community people.

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