SEXUAL PRACTICE, PREVENTIVE TOOLS AND PSYCHOLOGICAL PROBLEMS OF PLHA IN PALAKKAD DISTRICT, KERALA STATE

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ABSTRACT

Public health is increasingly becoming a multi-sector and multilevel responsibility, and there is a need for a comprehensive community and spatial planning to integrate health considerations and develop a sustainable public health policy. In the present situation a large number of people living with HIV/AIDS in Palakkad, so a suitable multivariate analysis is required to simplify the dimensional relationship among the variables and to identify the major determinant factors, spatial disparity of the People living with HIV/AIDS infection. The present study aims to analyze the spatial distribution people living with HIV/AIDS and their relationship between social ,cultural, psychological and health condition .Which are altogether considered as the very important aspects for the development and planning for the study area. Nearly 12.31 % of the total variance is significantly loaded with 22 variables .The factor loading positive values of 11 variables lies between (0.93 to 0.45)eigen values in both the directions. MLHA Partner prevent condom usage with sexual intercourse (0.93), MLHA got Moral support from NGO (0.76),HIV /AIDS transferred to Mother to Child (0.62), FLHA separated from family (0.59),MLHA Married (0.59), High school level of education (0.59) MLHA suffered fever(0.56) MLHA reveal test to partner(0.56) FLHA got HIV/AIDS through Sexual contact (0.48) MLHA suffered TB (0.45) FLHA in the age group of 30-39 (0.45) .The 11 variables with negative loadings are added with Partner prevents condom usage (-0.94) MLHA protect HIV themselves-0.93, MLHA receiving nutritious food-0.82, MLHA got HIV through Drug Abuse-0.68, FLHA isolated-0.61, FLHA have anal intercourse-0.55, MLHA have the age group of 30-39(-0.49), FLHA got HIV from Mother to Child transmission-0.48, No of Beds in the hospitals-0.45 MLHA collect the sex knowledge from Friends-0.45 MLHA living as single-0.44. Hence it is premised that PLHA and their sexual knowledge and awareness is the major route of the HIV/AIDS infection in Palakkad district in Kerala.

Key words- Eigen value, FLHA, Health , , MLHA, Spatial planning.

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1.INTRODUCTION

Health maps have become widespread. The increased availability of local health data, the development of software solutions, progress in computer capabilities, and a growing interest in health inequalities have promoted the rising profile of health mapping. There are now so many health atlases allow, at national, regional, or local level, the study of health disparities. Multivariate techniques permit us to classify areas according to their similarities on various health indicators. Statistical approaches like simple or multiple linear regressions agree us to look at relationships between variables. Mapping the residuals from these analyses enables us to identify particular places that do not conform to general trends . This analytical approach to mapping can reveal additional variables for study or combinations of factors specific to particular places. Residuals from multilevel analyses allow the analysis of these matters at various scales.

1.1Study area

Palakkad is the largest district in Kerala State. It is situated almost at the centre of the State, sprawling over the midland plains and mountain highlands, has no coastal line. The district opens the State to the rest of the country through the Palakkad gap. This 32 to 42 km. wide natural gap in the 960 km. long Western Ghats is perhaps the most influential factor for the unique characteristics of the district such as climate, commercial as well as cultural exchanges between the State and the rest of the country. Bharathapuzha, the longest river in Kerala, originates from the highlands and flows through the entire district. Forests, abundant streams, several dams and the gardens have made-this-district-tourist-paradise. The Palakkad district has extensive paddy fields and is aptly known as the **granary** of Kerala.

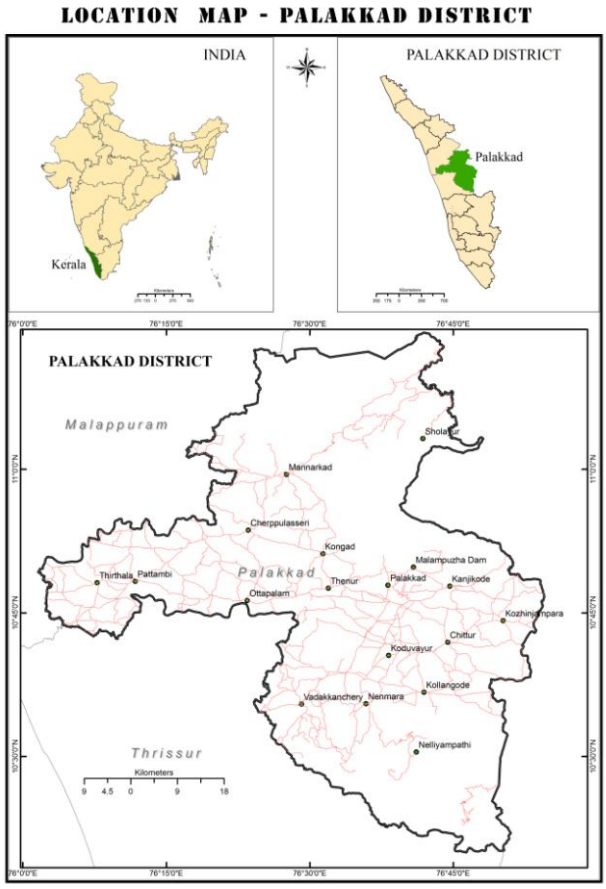
1.2 Location

Palakkad district is Situated at the foot of Westernghats, this is the gateway of Kerala from north. Palakkad district is placed between 10°20' N to 11°14' N latitude and 76°20' E to 76°54' E longitude. The district shares borders with Malappuram district in the North and Northwest, Thrissur in the South and Southwest and Coimbatore district of Tamil Nadu in the East. Out of the 14 districts of Kerala, Palakkad is one of the five districts which does not have a coastline. Its geographical position, historical background, rural nature, educational status, tourist attractions and above all, the developmental activities are wide and varied.

1.3Administrative divisions

Palakkad district consists of two Revenue divisions – Ottappalam and Palakkad. Of five taluks, Palakkad, Alathur and Chittur taluks form the Palakkad Revenue division and

Figure 1.1



Ottappalam and Mannarkkad taluks form Ottappalam Revenue division. These five taluks altogether contain 163 villages. There are thirteen Development blocks and four Municipalities in the district. Ninety one Panchayats are grouped to form the thirteen blocks. Alathur block is consist of Alathur and Kuzhalmannam Blocks. Mannarkkad and Attappady blocks come under Mannarkkad taluk. Chittur, Kollengode and Nenmara are the Blocks under Chittur taluk and Ottappalam taluk comprised Ottappalam, Pattambi, Srikrishnapuram and Thrithala blocks. Palakkad and Malampuzha come under Palakkad taluk.

2.METHODS

Given the spacious distribution of HIV/AIDS and the statistical errors connected with cross sectional analysis of data within 13 blocks, it is essential to take a fairly a large sample size. It is decided to take a reasonably large sample size of (180) HIV/AIDS cases. This number corresponds to approximately 20 per cent of the total HIV/AIDS cases in Palakkad district in the year 2012-13.

Table 1.1 Palakkad district: People living with HIV/AIDS reported cases in the Pratyasa and Council of people living with HIV/AIDS centre and samples

Blocks	HIV/AIDS cases in 2011			Number of samples (20%)		
	Male	Female	Total	Male	Female	Total
Alathur	32	30	62	6	6	12
Attapadi	30	28	58	6	6	12
Chittur	55	50	105	11	10	21
Kollamgode	30	25	55	6	5	11
Kuzhalmannam	36	28	64	7	6	13
Malampuzha	38	30	68	8	6	13
Mannarkkad	39	35	74	8	7	14
Nenmara	35	28	63	7	5	12
Ottapalam	38	35	73	8	6	13
Palakkad	40	45	85	8	9	17
Pattambi	38	30	68	8	6	13
Sreekrishnapuram	38	31	69	8	6	13
Thrithala	29	28	57	6	5	11
Palakkad district	478	423	901	97	83	180

Source: Pratyasa and Council of people living with HIV/AIDS centre in Palakkad

To allocate the sample among the strata, proportionate stratification was used. That is, for making the strata sample sizes proportional to the strata HIV/AIDS infected population size, a uniform sampling fraction was used. If Ni and ni are the population size and sample size for the i^{th} stratum, the uniform fraction (f) is given by

$$f = n/Ni = n/N \text{ ..... } 2.1$$

Where $n = \sum i\ ni$ is the whole sample size; and $N = \sum i\ ni$ is the total population in all strata .From the above equation the i^{th} stratum sample size (ni) is given by,

$$ni = (Ni/N)\ n \text{ ..... } 2.2$$

Where n/N is approximately 20% and hence the size of each stratum sample is also approximately 20% of the size of the HIV/AIDS cases in the stratum.

2.1 Sample Selection

Based on the analysis of the People living with HIV/AIDS in the thirteen blocks, the sample size for the primary survey is finalized. Sample size is based on the variation in the People

living with HIV/AIDS in both male and female between 2012 and 2013.Random sampling method are applied for primary data collection from the Pratyasa centres Palakkad. In this intention total reported cases up to 2012 year are considered for the present study .In this random sampling 20 percent of the reported cases in Pratyasa Centres Palakkad district are well thought-out. Here 180 samples are collected for the investigation by using elaborate questionnaire.

To collect the information required for the study a structured interview schedule was prepared. Before structuring the interview schedule discussions were held with a few People living with HIV/AIDS. In the preparation of the interview schedule, Health survey schedules used earlier, were consulted. Before the final survey, a pilot survey was carried out. Along with the interview schedule an instruction manual was also prepared to assure the accuracy of the data collected.

Primary data collected from the Council of People Living with HIV/ AIDS (CPK^{+}) and Prathiasa Centers in the Palakkad District . A structured pre tested questionnaire is used to collect reliable information from the HIV/AIDS persons. The finalized questionnaire is translated into the regional languages. The questionnaire was retranslated in English to ensure that the implications of the questions did not lose while translating in to regional languages. The bilingual questionnaires were also used for collecting information. This questionnaire consist of 45 questions , take account of eight (8) variables i.e. 1)Personal status and Living environmental conditions, 2) Awareness of HIV/AIDS and Source of infection 3) Knowledge about sex practices 4) Usage of Preventive tools 5) Social and Psychological problems HIV infected persons. 6) Availability, accessibility and affordability of health care facilities to infected persons 7) Role of Non Govt Organizations and Government towards HIV/AIDS prevention 8) Common health problems among the HIV/AIDS persons.

The survey , along with participant observation and interviews with key informants, was carried out during the year 1 st march ,2012 to 28 th June 2013.During the survey special attention was given to establish good rapport with the AIDS patients by explaining to them the purpose of the study and assured them to protect their personal identity without dissimilation of the data .This step was very important to obtain reliable information because some AIDS patients might tend to provide incorrect information if they felt that the interviewers were not helpful.

The collected data has been analysed both descriptively and inferentially. The following specific statistical techniques have been adopted for the study. Simple statistical technique

are used to the data analysis .Percentage analysis are used to ascertain the perception of the people living with HIV/AIDS .Statistical Packages for Social Science (SPSS 16.0) are used to find out the problems of people living with HIV/AIDS. The multivariate statistical technique of factor analysis is applied to study the multi dimensional inter related variables included in the research study for this purpose principal component analysis rotation method varimax with Kaiser normalization are adopted .Based on the analysis tables and maps were prepared and conclusion s drawn.

2.3 Results and discussion

Based on the principal component analysis rotation method varimax with Kaiser normalization the first component which explains 12.31 % of the total variance is significantly loaded with 22 variables .Table 1.2 shows the factor loading positive Eigen values of 11 variables lies between (0.93 to 0.45) in both the directions. These variables are clustered into MLHA Partner prevent condom usage with sexual intercourse (0.93), MLHA got Moral support from NGO (0.76),HIV /AIDS transferred to Mother to Child (0.62), FLHA separated from family (0.59),MLHA Married (0.59), High School level of education (0.59) MLHA suffered fever(0.56) MLHA reveal test to partner(0.56) FLHA got HIV/AIDS through Sexual contact (0.48) MLHA suffered TB (0.45) FLHA age group of 30-39 (0.45). Table 1.2 shows the negative variables are also come together with the condom use practices among the FLHA and MLHA and their living condition in the society in Palakkad district.

Table 1.2 Dimension of the Variation of PLHA and their awareness , Sexual practice, Preventive tools and Psychological Problems

Sl no	Variable no	Name of the Variables	Eigen value
I			
1	38	MLHA Partner prevent condom usage with sexual intercourse	0.93
2	60	MLHA got Moral support from NGO	0.76
3	25	MLHA HIV /AIDS transferred from Mother to Child	0.62
4	44	FLHA separated from family	0.59
5	6	MLHA Married	0.59
6	11	High school level of education	0.59
7	50	MLHA suffered fever	0.56
8	28	MLHA reveal test to partner	0.56

9	22	FLHA got HIV/AIDS through Sexual contact	0.48
10	54	MLHA suffered TB	0.45
11	4	FLHA age group of 30-39	0.45
12	37	FLHA Partner prevents condom usage	-0.94
13	39	MLHA protect HIV themselves by using condoms	-0.93
14	58	MLHA receiving nutritious food	-0.82
15	23	MLHA got HIV through Drug Abuse	-0.68
16	45	FLHA isolated from the society	-0.61
17	35	FLHA have anal intercourse	-0.55
18	4	MLHA have the age group of 30-39	-0.49
19	25	FLHA got HIV from Mother to Child transmission	-0.48
20	66	No of Beds in the hospitals	-0.45
21	30	MLHA collect the sex knowledge from Friends	-0.45
22	5	MLHA living as single	-0.44

Source :Principal component analysis. rotation method: varimax with Kaiser normalization

2.4 Spatial distribution of factorial scores of the People Living with HIV/AIDS:

The component scores derived for each observation areal unit of the Palakkad districts in the Kerala State shows the spatial variation in the respective factor score. Table 1.1 shows the positive and negative scores pertaining to each component shows the problems related to People Living with HIV/AIDS in the blocks of Palakkad district. The score value above1 in positive side denotes high problems related to HIV/AIDS. Whereas the value of 0 to 1 denotes medium level problems of HIV/AIDS. The negative value of -1 to 0 indicates low range of problems HIV/AIDS and index score below- 1 denotes very low prevalence of problems in HIV/AIDS in the spatial context.

Table 1.3 Palakkad: Block wise distribution of the Factors and their Index values

Blocks	Factor I
Alathur	-1.96
Attapadi	0.60
Chittur	0.05
Kollamgode	0.07
Kuzhalmannam	0.22
Malampuzha	0.87
Mannarkkad	-1.72
Nenmara	-0.08

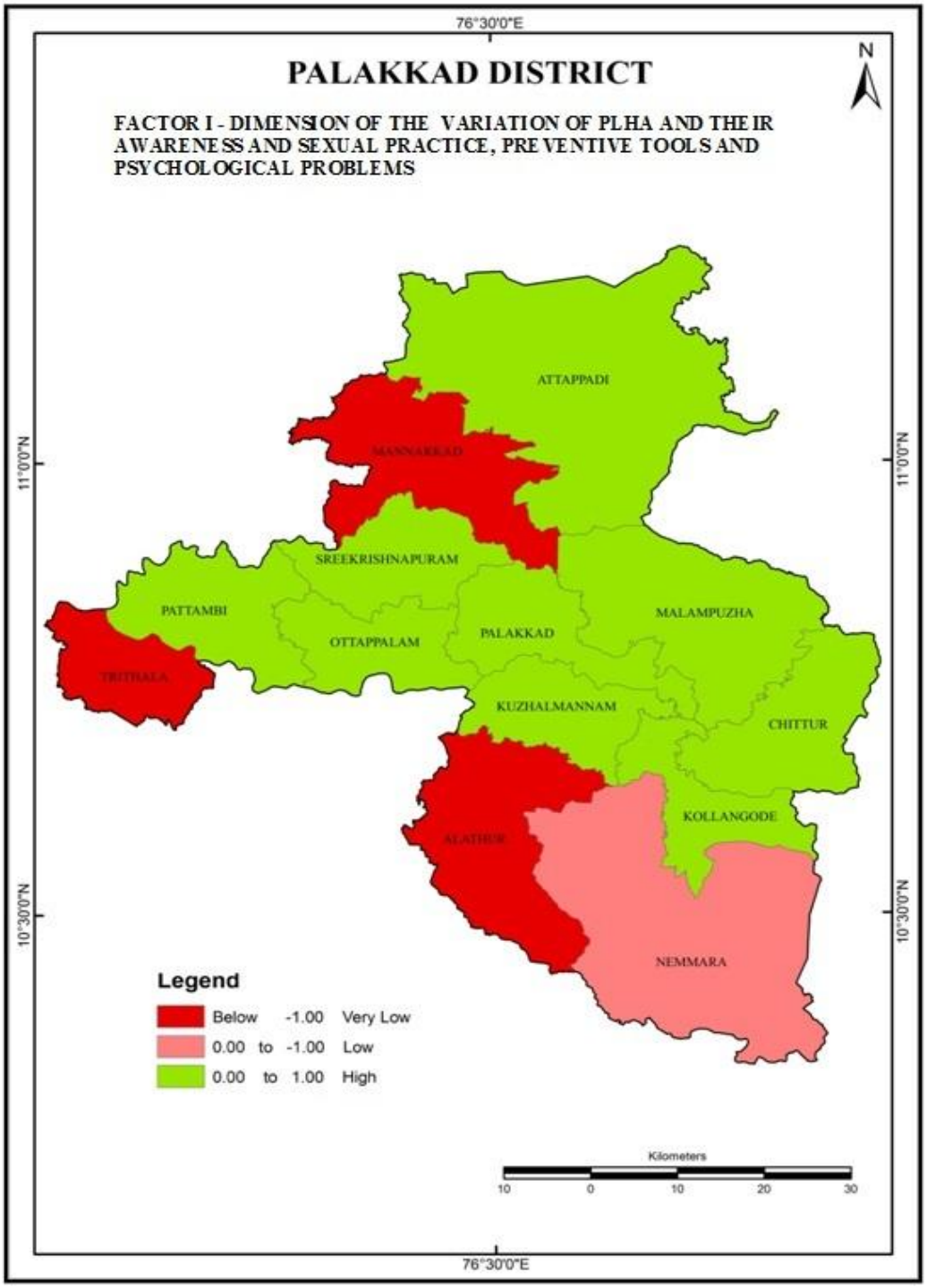
Ottapalam	0.64
Palakkad	0.69
Pattambi	0.86
Sreekrishnapuram	0.96
Thrithala	-1.20

2.5 Dimension of Personal Status of the Living condition of HIV/AIDS Infected Persons sexual practice preventive tools and psychological problems

In this group Personal status of the Living condition of HIV/AIDS infected persons Sexual Knowledge, Awareness and role of Govt &NGO dimension represent the various nature of the infected people in Palakkad district, Dimension of Variation of the PLHA and their awareness and Sexual practice, Preventive tools and Psychological Problems are analysed

Table1.3 and figure1.2 shows High factor score represented in Sreekrishnapuram 0.96 , Malampuzha 0.87 Pattambi 0.86 , Palakkad 0.69 , Ottapalam 0.64 , Attapadi 0.60 , Kuzhalmannam 0.22 , Kollamgode 0.07 , Chittur 0.05 next with medium positive factor score(0 to+1) in this dimension. Low negative score identified from Nenmara blocks-0.08 ranks third order with low negative score (less than 1). The blocks of Thrithala -1.20 , Mannarkkad -1.72 , Alathur -1.96 register high negative factor score .

Figure 1.2 **Spatial Disparity in the Dimension of Personal Status of the HIV/AIDS Infected Persons awareness , sexual practice, preventive tools and psychological problems in Palakkad district in Kerala**



3.CONCLUSION

Health maps are used to detecting the present status of the people living with HIV/AIDS. Now the health map is one of the tool to analysing the present scenario of the PLHA in Palakkad district in Kerala. Based on the available information and related issues of the PLHA are analysed and concluded the variation in the blocks in Palakkad district. In the

present analysis Spatial Disparity in the Dimension of Personal Status of the Living condition of HIV/AIDS Infected Persons Sexual Knowledge, Awareness and role of Govt &NGO are analysed in detail and detected that the problematic blocks of Sreekrishnapuram, Malampuzha Pattambi, Palakkad, Ottapalam, Attapadi, Kuzhalmannam, Kollamgode and Chittur .

Safe sexual inter course (condom usage)and miss concept regarding the infection of the HIV/AIDS is very limited among the people. Due to the illiteracy , the people are migrated from their native place for job and other business purpose engaged unsafe sex with out any safer practices .Due to this unsafe sexual intercourse is the main reason for the spread of the disease among the common people especially the house wife . Majority of the infected persons are married and their children are also the victim of the deadly virus. But NGO and the social workers provided moral and financial support to the infected people. FLHA separated from family due to the infection and they bothered about the family members for the further spread of the infection .While majority of the MLHA and FLHA suffered fever and TB infection. This indicate a need based health education and awareness is required in the grassroots level to tackle the issue in Palakkad district.

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