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- Mohanan (2003) finds that the much publicized Kerala model
- Kerala society is widely considered as a matrilineal one (Mohanan, 2003)
- "It is widely bellieved that the legal status of Kerala women is higher status of Kerala women is higher status, since they could share the benefits of education" (Mohanan, 2003, p.84).

Two or more authors

- Same as single author with the surnames of all the authors.
- (Pillai & Joshy, 2010)
- Pillai and Joshy (2010)argue that ...
- Strategic autonomy issue has been raised by several authors (e.g., Pillai, Parija, Menon & Josukutty, 2015)
- Pillai, Josukutty, Joshy and Parija (2015) support

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Josukutty, C.A., (2013). Af-Pak Policy: Implications for India. In Mohanan B Pillai (Ed.) *India's National Security: Concerns and Strategies.* New Delhi: New Century Publication..

Zubin, J. (1975). Problem of attention in schizophrenia. In M.I. Kietzman, S. Sutton and J. Zubin (Eds.) *Experimental approaches to psychopathology.* New York: Academic Press.

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HEALTH AND LIVELIHOOD CHALLENGES OF ENDOSULFAN VICTIMS IN KASARAGOD DISTRICT

Smitha Pillai*

Abstract

Though green revolution succeeded to bring in high yield in the Indian agricultural sector, increased use of pesticides, environmental deterioration and related health issues are its important consequences. The continuous and widespread usage of the pesticide, endosulfan resulted in many health and ecological issues in various regions of Kasaragod. The disaster that happened in Kasaragod district of Kerala is considered as one of the worst pesticide disasters in the world. In this context an empirical study of endosulfan effects on life of the people in Kasaragod is very significant. This study is an attempt to examine the wrecked irreparable damages to the lives of the people and the environment of Kasaragod due to endosulfan. Controversy is still going on regarding the use of this deadly chemical. This study emphasise on the life endosulfan victims, their present health and livelihood condition and the problems they face in their later stages of life.

Keywords: *Endosulfan victims, livelihood challenges, marginalization, healthcare, rehabilitation.*

Decades of transformation of human being on earth has been attained with the stimulation of Science and Technology. We have achieved the power to mould our surroundings into innumerable ways; sensible use of our environment will enhance quality of life on earth. But nowadays human harm due to the highly polluted environment is not a new phenomenon. Alarming level of pollution in air, water and land causes destruction and irreplaceable damage to life forms and resources. Disturbances are continuing in the protective layers of the earth resulting in uneven climatic conditions.

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Complications due to the excess use of harmful chemicals is making our earth an unbearable place to live in. (Kothari and Patel, 2006).

The green revolution in India made revolutionary progress in food grains production and contributed to self-dependency in food. Though this revolution succeeded in bringing in high yield in the agricultural sector but faced criticism for its role in misuse and overuse of chemical and pesticides in farming. The continuous and widespread usage of the pesticides resulted in many health and ecological issues. Today endosulfan has evolved tragic stimulacre of human victims especially children born with numerous disabilities cerebral plasy, protruding tongues, epilepsies, respiratory disorders, blindness, deformation in limbs, mental disabilities, memory loss, impairment of visual motor coordination, infertility, young mothers facing with repeated abortion instead of giving birth to malformed children. This is experiencing in the 11 panchayats of Kasaragod which is studied as one of the worst pesticide disasters in India.

The study is an attempt to examine the wrecked irreparable damages to the lives of the people and the environment of Kasaragod district in Kerala due to endosulfan. Controversy is still going on regarding the use of this deadly chemical. This study emphasis on the life endosulfan victims, their present health and livelihood condition and the problems they face in their later stages of life.

Kasaragod Tragedy

The district of Kasaragod is known as the land of seven languages and also known for its natural beauty, especially its beautiful forts, rivers and sandy beaches. However, from 1976 onwards, the landscape of Kasaragod district has been deeply affected by aerial spraying of the toxic pesticide endosulfan on the cashew plantations, owned by Plantation Corporation of Kerala[1] for controlling tea mosquito bug until 2000. Endosulfan a highly toxic chemical, which causes long-term complications to the nature as well as to the human being. The cashew plantations in Kasaragod district of Kerala have been

using this for over 20 years and the villagers living near it have been living proof of death to this disaster. Large number of neurological disorders, cancer patients, and psychological, mental and physical problems are the common site in these areas. The deadly chemical has taken more than 250 lives till now.

It was in 1977, PCK started growing cashew on nearly 4600hct, of land in Kasaragod district. Ever since then, endosulfan had been sprayed through in the area, aerially 2-3 times a day in the cashew plantation to prohibit tea-mosquitoes attack on the cashew floweret which do not allowed the successful growth of cashew. It also helps in saving labour cost since it is established that 500 men on daily basis are needed to protect the cashew growth. The people living nearby were supposed to cover all the water sources to avoid contamination of this deadly chemical with water. Soon after spraying it gets mix with the surface water and may not reach the bottom level. It thus mixes to the soil particles and continuous in soil for a long time causing harmful pollutants in it. The ignorant villagers were continuously exposed to the chemical, sprayed using helicopters. The villagers excitedly stood looking at it without using protective materials. From the very beginning there were alarming signs like the disappearance of butterfly, deaths of insects, birds, fishes, foxes and frogs. The local people suspected the cause of these deaths is related with supernatural curse of Jaladhari the guardian spirit (Theyyam) of the area is angry with them. Almost all the families living in the nearby areas were having some or the other problems related with spraying of this poison. The worst hit area was 4 square kilometer in the 6th and 7th wards of the panchayat. (Krishnakumar, 2010).

In December 25, 1981 a weekly magazine first published an article by Srikrishna 'Shree' Padre, a farmer citing a cow give birth to a calf with deformed limbs the result of endosulfan spraying in Enmakaje Grama Panchayath. The villagers nearby also suffered various congenital diseases, cancer, deformity etc, thereafter places

like Cheemeni, Bovikanam, Periye, Padre, Rajapuram and Bellure also got affected. The problem soon came to limelight and several organizations started coming with aid and cure. Activist started raising their voice against this inhuman violence and agitation started for justice. Numerous health related studies both national and international level concluded the main reason of these problems in Kasaragod were due to spraying of endosulfan. Medical camps conducted by the Kerala State Health Department certified the problem resulting in banding the sale and use of endosulfan in Kerala by the Kerala High Court in 2002 following a ban order was issued in 2003[2].

Methodology

The continuous and widespread usage of pesticide endosulfan resulted in many health and ecological issues in various regions of Kasaragod. This disaster is considered as one of the worst pesticide disasters in the world. In this context an understanding of the effect of endosulfan on the life of people in Kasaragod district of Kerala is more significant. The main objective of the study is to understand the challenges faced by the victims of endosulfan spraying in Kasaragod. Enlisting the health conditions of the victims and their living condition, especially social support from their family and government aids if any being given. Quantitative as well as qualitative research strategy and descriptive research design is used. The case study of the victims is used to give a clear vision of the livelihood challenges faced by them. Since it is difficult to find almost the whole victims of endosulfan, the researcher selected Enmakaje Grama Panchayat for the study. Interviewed 150 victims using structured questionnaire as the tool for data collection. Beside primary data, secondary data from books, articles, newspapers and journals are also included.

General background of the respondents

The profile of the victims is classified into different categories: gender, religion, marital status, occupation and income. In terms of gender there are more male victims (63.3%) than female (36.7%). According to religious classification Hindus forms the majority (69.3%) followed by 20% Muslims and 4.7% Christians. More than half of the victims are unmarried (60.8%) which reveals the fact that family life of the victim is in pathetic conditions, most of them have to relay on other person for help, and the caretakers are the parents. They need physical support (78%) of the family members for their daily chorus. Occupation is an accepted fact of one's self satisfaction, self reliance, status and self evaluation which helps a person to become more independent in life. But a survey with the employed victims is not possible because majority of them are not able to walk or do any work (53.3%) they also reveals that they do not have any basic amenities and are homeless with no jobs and income. These all problems add fire to the pain and these have been mitigated. Financial crisis yet another major problem as most of the victims needed huge amount of money for their treatment. In Kasaragod, agriculture is the most important occupation but though victims are bedridden any person of the family will be the breadwinner of the family. Hence the income of the most of the family of the victims is below Rs.1000/- (72%).

Health and Livelihood Challenges

Health problem among people living in Kasaragod is the result of endosulfan spray. Studies have been conducted on animals certified the abnormalities spread in this area is due to the use of this deadly chemical. The effect of the chemical is determined by the duration, dose and the time of exposure. It was observed that lower dosages result in organic disorders and malfunctioning of the body of the animal and heavy doses created sudden death a close similarity

was found between the health effects observed in animals with those of the human population exposed to endosulfan in Kasaragod. (Thanal, 2001).

The Environmental Protection Agency of America (USEPA) has classified endosulfan, used widely in food crops and other crops as a pesticide, as 'highly hazardous' in future. German Federal Environment Agency (GFEA) in 2007 classified it as a highly dangerous substance poisonous to living beings and also the ecology. It was developed as pesticide worldwide in 1950's but it was manufactured and used in India since 1996 yet by 2004. Since 1978 -2001 aerial spraying of endosulfan was done in the cashew plantation of Kasaragod district to protect the cashew seeds from various insects the spraying was continuously performed for about 23 years. People living in the nearby areas were badly affected by this aerial spraying especially children's with neurological disorders, epilepsy, deformalities, cancer and different kinds of mental and physical impairment were the common site in this area.

The growth of congenital anomalies, abortion, delayed puberty, mental retardation and cancer is a phenomena in the last two decades of the 20th century. The affected areas were studied and observations were documented by Dr. Mohan Kumar. His observations were very much discussed in the media during the mid 1990. Along with Dr. Mohan Kumar documentations Dr. Sripathi Kajampady's notes on the illness and disorders of women and children were also noticed. The spraying and the related contamination of water and air by endosulfan affected badly the people of Kasaragod. Apart from the studies of Dr. Mohan Kumar and Dr. Sripathi Kajampady a lot of works of several others came out which later revealed the connection between endosulfan and various disorders. These activists have clear idea about the scenario due to their sincere efforts in understanding the life of the people of Kasaragod. Their conclusions became more evident after the report came out about the status of the disease once

the spray has been stopped. There has been tremendous difference in the illness profile of the people after the endosulfan spray has been stopped. There are no serious cases of congenital anomalies, neurobehavioral abnormality and abortions in the last few years. This is evident from the responses of the new generation Primary Health Care (PHC) medical officers. Majority of physicians working in the area commended that the cancer cases and other Endocrine problems are also low. The existing cases are patients whose diseases are identified 5 or 10 years ago. These new trends can be validated with the medical record at the PHC. There has been no new entry in the PHC disease register at Vaninagar, which is a surprising effect of the affected area. No new cases of gynaecological issues are registered. The PHCs has no new cases of cancer patients too in the last one decade.

The toxic effect of endosulfan is classified into three levels such as actual toxicity, intermediate toxicity and chronic toxicity. Actual toxicity is determined in relation to the presence of the pesticide at 100mg/kg body weight. The toxic effect caused, as found common in developing nation is determined as per this classification. Actual toxicity may lead to brain edema, convulsion, lung congestion, respiratory paralysis and the like, which can even lead to death. The case of Seelabathi of Kasaragod is telling example of this. On her way back from school, Seelabathi became direct victim of the aerial spraying of endosulfan, which led to total paralysis of the body. The presence of endosulfan at the rate of 25mg/kg bodyweight is considered as intermediate toxicity and causes neurosis of liver, hyper glycemia, congestion of kidney tubules, neurotoxicity, cancer etc. (ATSDR, 2000). In Kasaragod the maximum cases reported comes under the third level, i.e. chronic toxicity. In such case, toxicity gradually affects the body over years through air and water. According to the authentic opinion of the experts, the aerial spraying was done during 1978-2001 led to widespread of chronic toxicity in the 11

panchayat of Kasaragod as well as the surrounding areas. It affects the five crucial system of the body. It weakens the immunity power, reducing the level of immunoglobulin and antibodies. Studies have proved that it affects the functioning of immune chromosomes like Leukocyte and macrophage will also cause allergy, asthma and the like (ATSDR 2000/Pistl et.al 2003. Abadin et.al 2006).

Studies also reveal that Endosulfan affects the reproductive capacity of both men and women. Endosulfan acts against the male hormones, resulting in weakening the production of hormones considerably, nullifying the reproductive capacity (Dalsenter et.al. 1999, ATSDR 2000, Sinha et.al. 2001). On examining the details of the patients who participated in the various medical camps held in Kasaragod, we could see that around 40% of them have been affected by neuro behavioral and cognitive disorders. In such a situation it can be rightly assumed that the continuous and wide use of Endosulfan might have resulted in various kinds of health issues in the area.

Table No. Victims in the Official List

Sl. No.	Category	No. of Victims
1.	Patients with diseases that can be associated with exposure to endosulfan identified from specialist medical camps from 25-08-2013 to 29-08-2013	337
2.	Endosulfan victims for monthly pension (August 7 December medical camp, 2011)	607
3.	Bed Ridden Patients	203
4.	Physically Handicapped Patients	797
5.	Differently abled patients (MR)	916
6.	Cancer patients	324
	Total	**3184**

Source: Data Compiled by the Researcher

Table No. Categorization of 3184 Victim Patients (Panchayat wise)

Sl. No.	Panchayat	Cancer Patients	MR Patients	PH Patients	Bed Ridden Patients	Pension Patients	Specialist Medical Camps
1.	Ajanur	40	162	64	24	88	51
2.	Pullur-Periya	34	94	98	18	76	26
3.	Panathadi	36	82	69	16	77	22
4.	Enmakaje	25	87	78	19	61	24
5.	Kayyur-Cheemeni	55	67	67	15	60	29
6.	Badiadukka	15	97	78	26	35	30
7.	Karadukka	21	76	71	27	51	25
8.	Kallar	44	73	64	15	54	14
9.	Muliyar	24	70	77	18	44	30
10.	Kumbadaje	15	40	53	5	24	11
11.	Bellur	15	40	53	5	24	11
12.	Other panchayts		28	25	15	13	54
	Total (3184)	**324**	**916**	**797**	**203**	**607**	**337**

MR= Mentally Retarded, PH=Physically Handicapped

Source: Data Compiled by the Researcher

Various types of Cancer have been identified among the people in Kasargodu area, particularly in the 11 panchayats where Endosulfan was aerially sprayed, widely. (Kannan et.al. 2000, Anderson et.al.2002, Dorgan et.al. 1996).

Living Dead- Endosulfan affected Victims

The life of the Endosulfan-affected cannot be seen as one pertaining to mere individuals. On the other hand, it is a problem faced by families as a whole. Let us take the case of Ayishath Shahana, who was affected by an unknown disease at the age of six. Her hands and legs started shivering and she was unable to move alone, i.e. she always needs the support of her mother. Hence her mother has

to be around her always she cannot leave Ayishath alone. Sainabha, though she is no more, figure of her weeping, unshakable, huge head remains as a disturbing reminder to the society as a whole. The life of Unnikrishnan, second son of K. Babu is miserable. Babu is a labourer who has to look after his family with his daily wages. Unnikrishnan is deaf and dumb, always in a disturbed state and attention of atleast two persons is always required for him. Hence Babu is not able to go for work daily. Faiz the only child of his parents was born blind and without anus. Though the defect of anus was rectified through surgery, the blind Faiz is unable to hear or speak. His father left him and his mother in this miserable condition. Faiz does not get sleep during the night and he sleep during the day.

Sumathi and her husband Narayan Bhatt have no children of their own. They take care of his two nephews and a niece. The mother of these children died due to illness after her last delivery. Her husband left place as soon as he realized all children born to him are disabled. The families are staying here from many years and there has been no history of ill health in their family until now. The boys 20 years and 16 are physically and mentally challenged. And the girl who is 14 years old is a patient of epilepsy. Having no child of his own Bhatt and his wife Sumathi take great care of these children but unfortunately the cost of medicine for the disease is expensive. Monthly visit to the hospital is also unaffordable by them. Being a labourer Bhatt can only give them food, clothing and shelter. His wife is always busy with the care of these children, she cannot go out anywhere. They both are very worried about the children's future.

Sasikala the only healthy child in her family. Her father died of heart attack years back, followed by her mother's death due to tuberculosis placed the responsibility of the family consisting of two younger siblings on her shoulders. She has a sister who is mentally retarded and a brother suffering from cerebral palsy wishes to do and say many things, but his body does not allow him to do anything.

Kavitha, one among the eight children of farmer Venkappa Naik and Parvathy was destined to live with protruded tongue till she breathed her last at Kasaragod general hospital. She didn't receive a single pie as benefit from the government during her lifetime. (Mathrubhumi Weekly, 2010). Yet another case is of Mamatha who is now having two children. The first two kids born to her are having physical and mental deformities. The wish to have a healthy child has not been fulfilled in her third and fourth deliveries as the children born to her where without hands, legs and eyes. The unusual children died soon after their birth leaving behind certain crucial questions. She is now in a state of psychological stress and anxiety which is yet another social problem haunting the womenfolk of Kasaragod in general. Most of the pregnant women live in a state of anxiety as they are afraid about the children yet to be born can be a victim of the Endosulfan spraying. There are 100 children who are either mentally or physically retarded in these villages coming under Nejamparambu, Kaithodu, Manjambara, Thottathumala, Patiyathatukka, Kundar, Erikulam, Marattimoola, Chirithotti, Mangalthoni etc. the birth rate of children with such deformities is very high in Nejamparambu compared to that in other panchayats. (Rajagopal, 2011). Umaibath Tharia, Pushparaj, Abdul Afid, Zakkaria, Aabid…goes on the list of the victims. It has to be particularly noted that all these are children below the age of 15. Health issues of the people are the major problem leading to the pathetic condition of the family. It becomes the main responsibility of the caretakers to overcome all the livelihood problems. Majority of the caretakers are the parents. Their socio- economic status is very poor to treat the victims. Majority of them are mothers who spent their whole time and energy for the victims (Misra and Joshi, 2018).

The tribal people are yet another section in Kasaragod who got displaced due to Endosulfan. The various tribal sections such as

Koragas, Mogors, Bakuters, Malakkudiers, Koppalus are under the grip of various diseases. (Mangad, 2009).

Though the governmental aid or benefits are restricted to the 11 affected panchayats in Kasaragod, claims have been raised by the neighboring panchayats and also by the neighboring districts, for financial aid and other benefits to the affected persons living in their areas too.

There are a lot of Badushas and Ajmals living in different parts of Kasaragod district without getting any aid from the government. Even though they regularly attend the medical camps they are not getting a single rupee as aid and this matter calls for serious and immediate consideration by the government. Apart from the medical camps concentrated on the 11 affected panchayats, what Kasaragod immediately needs is a detailed scientific health survey covering the whole district.

The healthcare infrastructure in Kasaragod is inadequate even in normal circumstances, according to senior officials. Improving it is essential, but Endosulfan victims are unlikely to benefit because of accessibility issues and the lack of capacity of the system to address the needs of people with disabilities. For specialized health services, cards were issued by the state government to victims so that they could avail themselves of treatment from the hospitals in the neighbouring district. Only 63 victims have so far used their cards, and 50 of them sought medical care from the closest hospital, district hospital in Kanhangad.

Rehabilitation of the Victims

Apart from the Endosulfan issue, Kasaragod remains very backward socially, economically as well as educationally. They are the victims of an industrial policy and social and economic marginalization. Almost all studies mention the externalities of Endosulfan, but the state, political parties, and the general public, to some extent, still

believe in tackling the problem on a case-by-case basis. Political parties have expressed their grievance and sympathy but have remained silent on what has to be done to address the root cause. All efforts meaningfully reach out to the victims have been distorted for political gain this further marginalizing them.

From 2012 onwards the focus of anti-endosulfan protests turned towards the effective implementation of various projects and financial aid declared by the Government for the treatment and rehabilitation of the victims. The 36 day long hunger strike in 2013 by Endosulfan Peeditha Janakeeya Munnani[3] (EPJM) and Kanjiveppu samaram in front of the Chief Minister's residence from January 26-28, 2014 was unique in the history of anti-endosulfan protests. Noted social activist Daya Bai joined hands with Endosulfan victims for an indefinite fasting in front of the secretariat demanding speedy disbursal of compensation and rehabilitation. Though various concerns related to the issue are yet to find solution, it is highly optimistic that the news coming from Kasaragod recently is one regarding reduced presence of fatal pesticides. Another important landmark in the history of anti-endosulfan protests is related to the rehabilitation of the victims. It is a fact that the state and the central Governments, Courts, Governmental and non-governmental agencies are all concerned about rehabilitation of victims. All the major completed and ongoing rehabilitation projects in Kasaragod share a common history of relentless pressure and continuous agitations. Though various complaints still persist, it is through the Medical camps that the patients were identified and initial treatment given. Various health plans are implemented centered on various panchayats with increased presence of Endosulfan victims. Fifteen hospitals have been identified in Kerala and neighboring Karnataka for expert treatment.

Several security schemes are implemented for the welfare of endosulfan victims in Kasaragod. Financial aid as recommended

by NHRC, monthly pension, free ration, education scholarship, Aaswasakiran, buds schools in major Endosulfan affected panchayats, special cell in District Panchayats, housing schemes etc. were implemented (Special Cell for Rehabilitation of Endosulfan Victims, 2015). The Government has also decided to write off debts of the victims. Another important project proposal is a comprehensive rehabilitation village in Muliyar panchayat of Kasaragod district. Meanwhile though the foundation stone was laid for the medical college by Chief Minister Oommen Chandy on 13th November 2013 in Ukkanadukka in Kasaragod, its construction is yet to start. Compared to other districts in Kerala, Kasaragod is extremely backward as far as facility for healthcare is concerned. Though many districts in Kerala have more than one medical college and government medical colleges announced along with that of Kasaragod in Idukki, Pathanamthitta and Palakkad districts have already started functioning the construction of medical college in Kasaragod is yet to begin which is a serious lapse from the part of the Government of Kerala. Another problem still existing in the region is the widespread use of other pesticides. The soil which has successfully led the anti Endosulfan protests has to resist the use of other pesticides as well. Anti-endosulfan Joint Action Committee was formed in 2015 to ensure the effective implementation of the various schemes announced for the victims. In 2016, EPJM's Pattinisamaram in front of the Secretariat, Thiruvananthapuram also attracted a large number of supporters to this issue.

The stand of the media in and outside Kerala is commendable in this issue. It is a fact that media through various reports brought the issue to public notice and thus succeeded in creating an anti Endosulfan awareness among the general public. Several documentaries, films and literary works came out on the Endosulfan issue, as part of the struggle against it.

The anti-endosulfan protests of Kasaragod enlightened the entire world about the misuse of pesticides. But in government records even today the disaster in Kasaragod is a 'simple pesticide tragedy'. Anti Endosulfan protest in Kasaragod was a warning for the corporate culture of farming solely based on profit-motive without considering even the basic principles of pesticide use.

Notes

[1] *Plantation Corporation of Kerala (PCK) which comes under the department of Agriculture is one of the largest plantation companies in Kerala in the public sector. It was formed in 1962 by the Government of Kerala. It was established mainly for the purpose of accelerating agricultural development.*

[2] *Case in the High Court of Kerala: India- Thiruvamkulam Nature Lovers Movement Vs Plantation Corporation of Kerala, 8-12-2002, O.P Nos., 20716/2002, 17026/2002.*

[3] *Endosulfan Peeditha Janakeeya Munnani (Endosulfan Affected Peoples Front(EPJM)) which for the first time took initiative to assure the active participation of the victims and their mothers in the anti-endosulfan agitations, on May 8, 2011. EPJM has organized several agitations by now, including the agitation of the mothers, hunger strikes, the rice-soup preparing strike before the official residence of the Chief Minister, hunger strike in front of the secretariat etc. as part of the rehabilitation measures, EPJM is conducting a special school -Snehaveedu- for the affected children. EPJM functions under the leadership of Ambalathara Kunjikrishnan, Ambika Suthan Mangad and Muneesa Ambalathara.*

References

Abadin HG, Chou C-HSJ, F.T. (2007). Health Effects Classification and Its Role in the Derivation of Minimal Risk Levels: Immunological Effects, *Regulatory Toxicology and Pharmacology*, 47.

Anderson HR, Vinggaard AM, Rasmussen TH, Gjermandsen IM, Bonefeld-Jorgensen EC. (2002). Effects of Currently used Pesticides in Assays for Estrogenicity, Androgenicity and Aromatase Activity in Vitro, *Toxicology and Applied Pharmacology*, 179(1).

ATSDR. (2000). *Toxicological Profile for Endosulfan, Agency of Toxic Substances and Disease Registry*, Atlanta, USA.

Dalsenter PR, Dallegrave E, Mello JR, Langeloh A, Oliveira TR, Faqi AS. (1999). *Reproductive Effects of Endosulfan on Male Offspring of Rats Exposed During Pregnancy and Lactation, Human and Experimental Toxicology*, 18(9).

John, Babu. (2011). *Endosulfan Bheekaratha*, Thiruvananthapuram: Chintha Publishers.

Joshi, Sopan. (2015). Children of Endosulfan, *Down To Earth,* June 7.

Kannan K, Holcombe RF, Jain SK, Alvarez- Hernandez X, Chervenak R, Wolf RE, Glass J. (2000). Evidence for the Induction of Apoptosis by Endosulfan in a Human T-Cell Leukemic Line, *Molecular and Cellular Biochemistry*, 205(1-2).

Kothari Ashish, Patel Anuprita (2006). *Environment and Human Rights:* An *Introductory Essay and Essential Readings,* New Delhi: National Human Rights Commission.

Krishnakumar R. (2010). Lethal Impact, *Frontline,* Dec.17, 2010, p.31.

Mathrubhumi Weekly. (2010). Jeevanasini- Special Issue, *Mathrubhumi Weekly*, December 26-1, January, 2010.

Mangad, Ambikasuthan. (2009). *Enmakaje*, Kottayam: DC Books.

Misra, Savya Soumya and Joshi,Sopan. (2018). Tracking decades-Long Endosulfan Tragedy in Kerala, *Down To Earth,* August 16.

Pistl J Kovalkovicova N, Holovska V, Legath J, Mikula I. (2003). Determination of the Immunotoxic Potential of Pesticides on Functional Activity of Sheep Leukocytes in Vitro, *Toxicology*, 188(1).

Sinha N, Adhikari N, Saxena DK. (2001). Effect of Endosulfan During Gonadal Diferentiation on Spermatogenisis in Rats, *Environmental Toxicol Pharmacol*, 10.

Thanal Conservation Action and Information Network. (2001). Preliminary findings of the survey on the impact of aerial spraying on the people and the ecosystem: *Long Term Monitoring- The Impact of Pesticides on the People and Ecosystem (LMIPPE)*, Thiruvananthapuram.

Yadav, Kushal P.S. (2005). What Dubey Did, *Down To Earth,* August 31.

Yadav, Kushal P.S. (2004). Lies, Damn Lies and Endosulfan, *Down To Earth, April 14.*

Yadav, Kushal P.S. (2002). Endosulfan Conspiracy, *Down to Earth,* July 15.

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RESEARCHING DIABETIC CONDITION IN KERALA: A CALL FOR SHIFT FROM BIO-MEDICAL UNDERSTANDING TO SOCIO- CULTURAL PERSPECTIVE

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Abstract

Studies on Diabetics are of paramount significance especially in societies in economic transition. Diabetes is a global health problem and now emerging as a pandemic. According to WHO report of 2003, The number of cases of diabetes around the world, i.e. 150 million, is expected to double by the first quarter of 20th century and the highest number of cases being expected from two Asian giants, India and China. This estimated figure of growth in the diabetic population in the future entrust the sociologist with tremendous amount of scholarly responsibility along with the scientists of medicine in the task of accommodating with the situation and to find a way out of the resultant risks. Though several researches are available on the medical and physiological aspects of a disease, no exhaustive study has been done to analyse the sociological aspects of the disease in Kerala. Therefore, this article intends to point out the importance of socio cultural understanding of Diabetes and accommodative as well as adaptive process of Diabetics to the disease.

Key Words: *Diabetes, Diabetics, Prevalence, Adaptation, Socio-cultural perspective*

Diabetes Mellitus-popularly known as diabetes is an ever increasing, common chronic disease. For a long period the disease is considered of having minor significance, is now being viewed as one of the main threats to human health in the 21st century. Around the world, the health complications of diabetes is the major reason for the

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increased mortality rate. For example,diabetes was the direct cause of 1.5 million deaths across the globe in a single year, 2012 (WHO, 2012). Several epidemiological studies confirm that diabetes is one of the most common non-communicable diseases globally, and it is the fourth or fifth cause of death in most developed countries. The majority of diabetes deaths happen in developing countries. The prevalence (i.e., a measurement of all individuals affected by the disease at a particular time in a given area)of diabetes varies from nearly zero percent in New Guinea to 50 percent in the Pima Indians (Disdier *et al.,* 2001). India has nearly 33 million patients suffering from diabetes today and mostly contributed by the urban population (Ramachandran, 2005).

The past two decades have seen a dangerous increase in the number of diabetics around the world (King, Aubert & Herman, 1998). As of 2000, the number of diabetic cases was estimated at 2.8 percent of the global population, or 171 million people. This number is predicted to be more than double by 2030, upto 366 million (Wild *et al.,* 2004). The financial burden of the diabetic is also significant. A recent study by the Lewin Group estimated the cost of the disease in the United States of America in 2007 at $174 billion including $58 billion in reduced national productivity (Dall *et al*., 2009). Great efforts have been undertaken by developed countries to control infectious diseases, but non-communicable diseases like Diabetes have not received much attention.

Diabetes accounts for largest number of cases of blindness; over half of all lower limb amputations also occur in diabetics (Reiber *et al.,* 1995). Dibetics are four times more likely to die from heart disease (Huxley *et al*., 2006), two to five times more likely to suffer stroke (Kothari *et al*., 2002), and fifteen times more likely to develop end -stage kidney disease (Brancati *et al.,* 1997). Seventy percent of diabetics are also hypersensitive, and between thirty and seventy percent suffer from nervous system damage. Diabetes is the highest

cause of death for females. Life expectancy for diabetics is one third less than for persons without diabetes. Diabetes is an important cause of impotence also. Pregnant women suffering from diabetes experience greater morbidity as compared to normal pregnant women. Diabetes is responsible for neonatal morbidity (i.e., Morbidity manifested within four weeks after the birth of an infant) and mortality. This in turn affects the health of the neo-natal infant.

Diabetes affects internal as well as external organs of the body. Foot ulcer is a common disabling complication found among people with diabetes mellitus. Foot ulcers due to diabetes may lead to loss of an organ or its parts, and consequently immobility which in turn affects the entire social life. The incidence of foot ulcer ranges from eight to 17 percent in the cohort studies, with varying length of follow ups and cause severe disability and possible hospitalisation to patients and considerable economic burden to families. There is a risk of amputation of the foot especially for people from the lower socio economic strata and for those living in rural areas (Liese *et al.,* 2006). Another clinching evidence demonstrated that diabetes is a cause for gum disease and possibly oral cancer. An appraisal of scientific literature throws sufficient evidence regarding the association of diabetes mellitus and periodontitis (Acharya *et al*., 2010).

Diabetes is a condition in which the body no longer have sufficient insulin for using the sugar to nourish the organism. Insulin provided by the beta cells of Langerhans in the pancreas facilitates the movement of glucose. In a diabetic patient, either because the pancreas does not produce sufficient insulin, or because the body could not use properly the insulin that is produced, or because the pancreas is degenerated or calcified, the transfer of glucose molecules to the various cell membranes fails to take place resulting in the hyper concentration of sugar in the blood raising the blood sugar level. Some of the extra sugar spills into urine. Thus, a diabetic will generally show excess of sugar in the blood as well as in urine.

Diabetes is easy to identify. When its symptoms are discernible, it is always characterised by excessive hunger, thirst and urination, physical wasting, elevated levels of sugar in blood and sugar in the urine. Despite this uniformity, according to current diagnostic criteria, diabetes takes several distinct forms: Type1 diabetes, also known as juvenile onset diabetes, Type 2 diabetes, or maturity onset diabetes; pre diabetes, characterised by abnormal blood sugar readings; gestational diabetes, which is associated with the onset of diabetic symptoms during pregnancy; and several other diabetic manifestations related to other medical conditions (Kahn *et al.*, 2004).

Diabetes is a heterogeneous metabolic disease caused by many different reasons. It is a disease developing insidiously and portrayed by chronic hyperglycaemia resulting from an assortment of environmental and genetic risk factors (Park, 2012). Other correlates are population explosion, increasing geriatric population, cost of industrial growth, urban trend, liking of high fat containing junk food, inactive living and obesity. Environmental and lifestyle changes resulting from industrialisation and migration to urban environment from rural settings may be responsible for the increasing incidence of diabetes to a large extent. Availability of improved modes of transport has resulted in decreased physical activities. Better economic conditions have produced changes in dietary habits. The conditions are more favourable for expression of diabetes in the population, which already has a racial and genetic susceptibility to the disease (Mohan, 2004).

History of Diabetes

The earliest accounts of diabetes were documented in the East as well as in the West in the writings of scholars as long back as in 1500 BC (Poretsky, 2002). Indian scholars of 1500 BC described diabetes as a mysterious disease causing thirst, enormous urine output, and wasting away of the body with flies and ants attracted to the urine

of the people. Indian physicians termed the identified disease as "Madhumedha" or honey urine to which ants are attracted. An Egyptian manuscript from BC 1500 also mentioned this disease as "too great emptying of the urine." The first labelled cases are supposed to be of type 1 diabetes. The term "Diabetes" or "Pass through" was first coined by Apollonius of Memphis, Greece around 250BC. He identified this as the disease of draining more fluid than a person could consume. The term "mellitus" was added by Thomas Willis in the 1600s in order to differentiate with a condition known as "Diabetes Insipidus" which is characterized by large quantities of dilute urine and increased thirst. (Mac Cracken & Hoel, 1997). So then, and now the scientific name of the disease is Diabetic mellitus.

Types of Diabetes

The history of diabetes is distinct with its fundamental tension between the polarities of disease. Medical practitioners have often struggled to maintain its basic unity, while recognising that the underlying risk factors and physiological causes of diabetes may vary. Several classification systems have thus been introduced over time to make sense of this- Diabetemaigre (lean diabetes) versus diabetegras (fat diabetes), sthenic (strong) diabete versus asthenic (weak) diabete, true versus intermittent diabetes, severe versus mild diabetes, childhood versus adult diabetes, insulin dependent diabetes versus non-insulin dependent diabetes, and finally Type 1 versus Type 2 diabetes (Mauck, 2010)

The Indian Scenario

For the last few years, India has witnessed the rapidly exploding epidemic of diabetes (Ramachandran *et al.,* 1997). World Health Organisation has estimated that the maximum increase in the number of diabetics would occur in India. True to the predictions, India indeed today leads the world with its largest number of

Diabetic subjects in any given country (Pradeepa, Deepa & Mohan, 2002). The burden of diabetes in India mainly contributed by the increasing prevalence of diabetes mellitus of nearly 33 million diabetic subjects. (Ramachandran *et al* 2001). The Indian population faces a higher risk of diabetes due to a high genetic predisposition and high vulnerability to environmental impacts, (Ramachandran, 2005). Statistics of 1995 shows that 19.4 million Indians were affected by diabetes and these numbers are expected to increase to 57.2 million within 35 years (King, Aubert & Herman, 1998). Untreated and under treated diabetes have serious consequences for individuals with diabetes and is indeed a growing concern for the country.

The total number of Diabetics is projected to rise from 171 million in 2000 to 366 million in 2030. India was ranked number one as the country with the highest number of diabetics in 1995, at 31.7 million in 2000, with a projected 57.2 million in 2025 and 79.4 million in 2030, retaining its top position (Pradeepa & Mohan, 2002). Diabetes mellitus has acquired a pandemic status in India. International Diabetes Federation prepared a Diabetes Atlas in the year 2013 which indicated the top ten countries with the maximum of number of people with diabetes. China stood first (98.4 million) and India happened to be the second with 65.1 million people with diabetes. (IDF, 2013).

Due to lack of an efficient Non-Communicable Disease (NCD) monitoring system in India, the only reliable method of obtaining disease estimates is field studies. Hence, Epidemiological studies are vital in each region of India to have a reference line against which assessment and preventive strategies can be planned and executed

One of the earliest studies in the area, the Indian Council of Medical Research (ICMR) report of 1970s indicates a prevalence of 2.3 percent in the urban and 1.5 percent in rural areas (Ahuja, 1979). Another study at Kudremukh (Ramachandran *et al.,* 1988) suggested a prevalence rate of 5 percent. A Chennai urban-based

study of 1996 (Ramachandran *et al*., 1997) showed a prevalence rate of 11.6 percent. In a research on Diabetes conducted among the rural and urban populations of north India, the prevalence of diabetes was predicted as 2.8 and 6.0 per cent respectively (Sing *et al*., 1998). A cross-sectional population survey conducted in Kashmir valley, was observed that 1.89 percent of the population have been diagnosed with diabetes. (Zargar *et al*., 2000). Whereas in 2000, a study conducted in Thiruvananthapram city (Kutty *et al*, 2000) of Kerala state showed a high prevalence rate of diabetes, i.e. 12.4 percent.

It is better to compare five studies conducted on different settings in India in 2001 to understand the geographical distribution of prevalence rate of diabetes across the country. Another study conducted at Dombivili (Iyer *et al*., 2001) of Maharashtra state recorded a prevalence rate of 7.5 percent. A study in Kashmir valley (Zargar *et al*., 2000) indicated a diabetic prevalence rate of 6.1 percent. A Chennai urban population survey (Mohan *et al*., 2001) reported diabetes prevalence rate of 12.0 percent. A national urban based diabetes survey conducted in six cities across India (Ramachandran *et al.,* 2001) showed a diabetes prevalence rate of 12.1 percent. But in New Delhi, a study (Misra *et al*., 2001) recorded diabetic prevalence rate of only 10.3 percent.

The lowest prevalence of self-reported diabetes was recorded in rural areas (3.1%), followed by semi-urban/slum (3.2%) and the highest prevalence of self-reported diabetes was in urban areas (7.3%) (Mohan *et al.,* 2008).Surveys of 1938 and 1959, shows that the large Indian cities that are today diabetes strongholds, yielded prevalence of just one percent or less. Only in the 1980s did those numbers start to rise, then slowly and now explosively (Mohan, Venkatraman & Pradeepa, 2010). In 2010, the average age-adjusted prevalence of diabetes in India was 8 percent, higher than that in most European countries (Shaw *et al*., 2010). Prevalence is only 0.7% for non-obese,

physically active, rural Indians. It reaches 11% for obese, sedentary, urban Indian; and it peaks at 20% in the Ernakulum district of Kerala (Mohan *et al*., 2008).

About lifestyle factors predicting the incidence of diabetes in India, as in the West, diabetes in India is associated with obesity, high blood pressure and sedentariness and unlikely in the west, the prevalence of the disease is India is higher among affluent, educated, urban Indians than among poor, uneducated, rural people. (Mohan *et al*., 2008). Although poor Indians are at present among lower risk than affluent Indians, the rapid spread of fast food exposes even urban Indian slum dwellers to the risk of diabetes. Sandeep and colleagues point out that "diabetes in India is no longer a disease of the affluent or a rich man's disease. It is becoming a problem even among the middle income and poorer sections of the society"... (Sandeep, Ganesan& Mohan, 2010).

Prevalence of Diabetes in Kerala

Various behavioural risk factors like smoking, unhealthy diet, over consumption of alcohol, sedentary or idle life style, stress at home and work place are known to be the risk factors for various non-communicable lifestyle diseases. All these risk factors are overwhelming in Kerala and make Kerala the capital of Diabetic India. Most of these risk factors are modifiable one. Actually, this is the scope of behavioural sciences in the research of diabetes.

Studies on the prevalence of risk factors are regularly being carried out in the developed nations. Only a few such studies have been carried out in India, most of them are purely localised studies. Kesavadev (2006) reported the prevalence of diabetes in Kerala is more than 17 percent. Majority of diabetic patients in Kerala are above the age of 60 years. In the region of Kerala, diabetes evolves as a major cause of disability in old age. Here the newly diagnosed patients are mostly between the age group of 35 and 40 years.

Studies conducted by 'Diabscreen Kerala' (a project of P. Kesavadev Trust) also revealed a surprising prevalence of more than 21 per cent among the urban and rural parts of Kerala. The prevalence of pre-diabetes in Kerala is 2 to 3 times more than the prevalence of diabetes (Kesavadev, 2007).

The crude prevalence rate of Type 2 diabetes in Thiruvananthapuram district of Kerala was reported to be 5.9%. The crude prevalence rate of Type 2 diabetes was the highest in urban (12.4%) followed by midland (8.1%), high land (5.8%) and coastal area (2.5%) (Kutty *et al.,* 2000). Similarly, another community based cross-sectional survey reported prevalence of known diabetes as 9.0% (Menon *et al*., 2006). The prevalence of self-reported diabetes mellitus in the rural population of Kerala was found to be 13.1% (Tiwari *et al.,* 2008). In a study among urban sedentary obese population, it was found that prevalence rate peaked at 20% in the Ernakulam district of Kerala (Mohan *et al.,* 2008). In another study (Mohan, Mathur, Deepa et al., 2008) the lowest prevalence of self-reported diabetes was recorded in rural (3.1%), followed by semi-urban/slum (3.2%) and highest in urban areas (7.3%).

It is clear that both in urban and rural India, prevalence rates of diabetes are rising rapidly with a rough urban - rural ratio of 2:1 or 3:1, being maintained through the last 2-3 decades with the exception of Kerala, where rural prevalence rates have caught up with, or even overtaken urban prevalence rates (Mohan, Mathur, Deepa, *et al*., 2008).

The need for Socio-Cultural Perspective in Diabetes Studies

Diabetes is a disease embedded in everyday life. As a disease of great inconvenience, diabetic patients find difficulties for adequately controlling the disease and are always under the fear of diabetic complications. Diabetes is a complex condition, not simply because it is hard to treat clinically, but because it is rooted in behaviours that

are hard to anticipate. Diabetes among adolescents and young adults need special attention especially because it is so serious a disease that may leave the growing age, the transitional phase and the reproductive age progressively unhealthy. It is important to know how it affects the growth of perceptual, emotional, intellectual, behavioural capabilities and functioning of the individual during childhood, and how its complications extend to his/her adulthood. It is equally important to look into the problem of diabetic adolescents as they belong to a period that is generally regarded as emotionally intense and stressful. Studies to be conducted to recognise how diabetes affects the efforts of a young adult to construct a defined role in society. To be more specific, detailed studies are necessary to work out the role that economic status, education and gender, play in the treatment and social adjustment of adolescents and young adults ailing from diabetes.

As all the existing studies in Diabetic situation in Kerala focus solely on the biomedical perspective of the Diabetic situation, there is a wide gap in knowledge from the social and cultural aspects of the situation. This necessitates academic endeavours that bridge the existing biomedical understanding with socio-cultural and behavioural understanding of the diabetic situation. Socio cultural studies on the adaptation to diabetes, with regard to the nature of diabetes, the effect on mental and emotional health, the perception and knowledge of diabetics, the effect on social life and relationships, work life, academic performance, religious life to be carried out. These studies can also enquire the quality of life and the economic aspects including financial burden and treatment satisfaction of diabetics.

Conclusion

Access to the implications of socio cultural studies on Diabetes may be useful to the diabetics and medical practitioners to make introspection and to set up goals and strategies in their treatment

modalities. Also, planners and policy makers would be benefited from these while formulating future health care policies and strategies. As a region with high prevalence of diabetics and pre-diabetic condition, and in a state of effective infrastructural and functional aspects of medical care and preventive system, and a society where personal and community based support system prevails, studies on these regard may be useful to the community as a whole.

References

Acharya, A.B., Aparna Satyanarayan, & Thakur, S.L. (2010). Status of association studies linking diabetes mellitus and periodontal disease in India. *Int J Diabetes Dev Ctries,* 30(2), 69-74.

Ahuja, M.M.S. (1979). Epidemiology studies on diabetes mellitus in India. In Ahuja M.M.S, (Eds.), *Epidemiology of diabetes in developing countries* (29-38), New Delhi: Interprint.

Brancati, F.L., Whelton, P.K., Randall, B.L., Neaton, J.D., Stamler, J., & Klaq, M.J. (1997). Risk of end - stage renal disease in diabetes mellitus: a prospective cohort study of men screened for MRFIT. Multiple Risk factor Intervention Trial. *JAMA,* 278(23), 2069-2074.

Dall, Timothy et al. (2009). Distinguishing The Economic Costs associated with Type 1 and Type 2 Diabetes. *Population Health Management,* 12(2), 103-109.

Disdier-Flores, O.M., Rodriguez-Lugo, L.A., Perez-Perdomo, R., & Perez-Cardona, C,M. (2001). The Public health burden of diabetes: A comprehensive review. *PR Health ScJ*, 220, 123-130.

Huxley, Rachel- Barzi, Frederica &Woodward,Robert. (2006). Excess Risk of Fatal Coronary Heart Disease Associated with Diabetes in Men and Women: A Meta-Analysis of 37 Prospective Cohort Studies. *British Medical Journal*, 332, 73-78.

International Diabetes Federation, (2013). www.diabetesatlas.org

Iyer, S.R., Iyer, R.R., Upasani, S.V. et al. (2001). Diabetes mellitus in Dombivli-an urban population study. *J Assoc Physicians India*, 49, 713-716.

Kahn, Ronald, C., Weir, Gordon, C., King, George, L., Moses, Alan, C., Smith, Robert,J., & Jacobson, Alan, M. (2004). *Joslin's Diabetes Mellitus*. 14th Edition, New York: Lippincott, Williams &Wilkins.

Kesavadev, J. (2007). Beat the Diabetes. *Kerala Calling*, 10-11.

King, H., Aubert, R. E., &Herman,W. H. (1998). Global burden of diabetes, 1995-2025: prevalence, numerical estimates and projections. *Diabetes Care*, 21(9), 1414-1431.

Kothari,V., Stevens, R.J., Adler, A.I., Stratton, I.M., Manley, S..E, Neil, H..A et al. (2002). UKPDS 60: Risk of Stroke in Type 2 Diabetes Estimated by the UK Prospective Diabetes Study Risk Engine, Stroke 33, 1776-1781.

Kutty, V.R., Soman, C.R,. Joseph, A., Pisharody, R., & Vijayakumar, K. (2000). Type2 diabetes in southern Kerala: variation in prevalence among geographic divisions within a region. *Natl Med J India,* 13(6), 287-292.

Liese, A.D., Agostino, R.B., et al. (2006). The burden of Diabetes Mellitus among US Youth: Prevalence Estimates from the SEARCH for Diabetes in Youth Study. *Pediatrics*, 118(4), 1510-1518.

Mac Cracken, J., &Hoel, D. (1997). From ants to analogues. Puzzles and promises in diabetes management. *Postgrad Med*., 101(4), 138-40, 143-145, 149-150.

Mauck, Aaron Pascal. (2010). *Managing care: The history of diabetes management in twentieth century America*, PhD thesis, Harward University. Pro Quest Dissertations Publishing.

Menon,V.U., Kumar, K.V., Gilchrist, A., Sugathan, T.N., Sundaram, K.R., Nair, V., Kumar, H. (2006). Prevalence of known and undetected diabetes and associated risk factors in central Kerala- ADEPS. *Diabetes Res ClinPract,* 74(3), 289-294.

Misra, A., Pandey, R. M., Rama Devi, J., Sharma R, Vikram, N.K., & Nidhi Khanna. (2001). High prevalence of diabetes, obesity and dyslipidaemia in urban slum population in northern India. *Inter J of Obesity,* 25, 1-8.

Mohan, V. (2004). Why are Indians more prone to diabetes? *J Assoc Physicians India,* 52, 468-474

Mohan, V., Deepa, M., Anjana, R.M., Lanthorn, H., & Deepa, R. (2008). Incidence of diabetes and pre-diabetes in a selected urban south Indian population (CUPS-19). *J assoc Physicians India*, 56, 152-157.

Mohan, V., Mathur, P., Deepa, R., Deepa, M., Shukla, D.K., Menon, G.R., Anand, K., Desai, N.G., Joshi, P.P., Mahanta, J., Thankappan, K.R., & Shah, B. (2008). Urban rural differences in prevalence of self reported diabetes in India--the WHO-ICMR Indian NCD risk factor surveillance. *Diabetes research and clinical practice*, 80, 159-168.

Mohan, V., Shanthirani, S., Deepa, R., Premalatha, G., Sastry, N. G., & Saroja, R. (2001). Chennai Urban Population Study (CUPS No. 4). Intra-urban differences in the prevalence of the metabolic syndrome in southern India - the Chennai Urban Population Study (CUPS No. 4). *Diabet Med*, 18, 280-287.

Mohan, V., Venkatraman, J. V., & Pradeepa, R. (2010). Epidemiology of cardiovascular disease in type 2 diabetes: the Indian scenario. J. Diabetes Sci. Technol., 4, 158–170.

Park, K. (2012). *Epidemiology of chronic non-communicable disease and conditions in Park's Text book of Preventive and Social Medicine*. (341), Jaipur: Banarsidas Bhanot Publishers.

Poretsky, Leonid (Ed). (2002). *Principles of Diabetes Mellitus*. New York: Springer.

Pradeepa, R., Deepa, R., & Mohan, V. (2002). Epidemiology of diabetes in India-current perspective and future projections. *J Indian Med Assoc*, 100(3), 144-148.

Ramachandran, A. (2005). Epidemiology of Diabetes in India: Three decades of research. *J Assoc Physicians India*, 53, 34-38.

Ramachandran, A., Snehalatha, C., Kapur, A., Vijay, V., Mohan, V., Das, A.K., Rao. P.V., Yajnik, C.S., Prasanna Kumar. K.M., & Nair, J.D. (2001). Diabetes Epidemiology Study Group in India (DESI), High prevalence of diabetes and impaired glucose tolerance in India: National Urban Diabetes Survey. *Diabetologia*, 44(9), 1094–1101.

Ramachandran, A., Snehalatha, C., Latha, E., Vijay, V., & Viswanathan, M.

(1997). Rising prevalence of NIDDM in an urban population in India. *Diabetologia*, 40(2), 232-237.

Reiber, G.E., Boyko, E.J., & Smith, D.G. (1995). Lower extremity foot ulcers and amputations in diabetes. In: Harris, M.I., Cowie, C.C., Stern, M.P., et al. (Eds). Diabetes in America. 2nd ed. Washington, DC: US Department of Health and Human Services, Public Health Service, National Institutes of Health, DHHS publication no.(NIH)95-1468, 409-428.

Sandeep, S., Ganesan, A., Mohan, V. (2010). *Development and updation of the Diabetes Atlas of India*. Madras Diabetes Research Foundation.

Shaw, J.E., Sicree, R.A., & Zimmet, P.Z. (2010). Global estimates of the prevalence of diabetes for 2010 and 2030. *Diabetes Res Clin Practice,* 87(1): 4-14.

Singh, R.B., Bajaj, S., Niaz, M.A., Rastogi, S.S., &Moshiri, M. (1998). Prevalence of Type 2 diabetes mellitus and risk of hypertension and coronary artery disease in rural and urban population with low rates of obesity. *Intl J Cardiol*, 66(1), 65-72.

Tiwari, R.R., Deb, P.K., Debbarma, A., Chaudhury, R., Chakraborthy, R., Lepacha. M., & Chakrabrthy, G. (2008). Risk factor analysis in self-reported diabetes in a rural Kerala population. *Intl J Diab DevCtries*, 28(3), 91-94.

WHO.(2012).Diabetesfactsheet.http://www.who.int/mediacentre/factsheets/fs312/en/

Wild, S., Roglic, G., Green, A., Sicree, R., & King, H. (2004). Global prevalence of Diabetes:estimates from the year 2000 and Projections for 2030. *Diabetes Care*, 27(5), 1047-1053.

Zargar, A.H., Khan, A.K., Masoodi, S.R., Laway, B.A., Wani, A.I., Bashir, M.I., & Dar, F.A. (2000). Prevalence of type 2 diabetes mellitus and impaired glucose tolerance in the Kashmir valley of the Indian Subcontinent. *Diabetes Res ClinPract*, 47(2), 135-146.

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COMMUNITY POLICING IN KERALA: AN ASSESSMENT

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Abstract

Maintenance of law and order has become very challenging in the contemporary globalized society. Democratic governments are committed to safeguard the life, liberty and property of its citizens. But many of the problems the world faces today are beyond the capacity of police to tackle them effectively. People who benefit from the actions of police have to co-operate with them for the prevention of crimes and to ensure peace and tranquillity in the neighbourhood. Community policing is based on the idea that if police and people co-operate each other in a meaningful way, many of the law and order and crime related issues can be handled effectively. The paper attempts to study the community policing experiment of Kerala-the Janamaithri Suraksha Project-its structure, functions and the impact it has made on policing in Kerala.

Key Words: *Janamythri Suraksha Project, Janamytri policing*

Police and development are interconnected. Sustainable development is not possible in society which is prone to frequent conflicts and absence of order. Thus, the improvement of policing standards is an integral part of the developmental process in any society. Developments in the field of information and communication technology have brought in radical changes in the socio-political settings of the contemporary world. Globalization has not only brought in integration of markets but also internationalization of crimes. The growing threats of terrorism and emergence of new generation crimes are compelling the world nations to chalk out programs for effectively controlling them rather than relying solely

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on the traditional style of policing. It is in this background that community policing has been introduced in several countries. The idea behind this concept is simple; ensuring peoples' participation in maintaining law and order and investigation of crimes.

Police is one of the main agencies of law enforcement. The primary responsibility of police is to protect the life and property of its citizens. It is an agency involved in maintaining and ensuring the normal pace of life in every society. While doing so, the police should act in tender with people. But there is general belief that police used to behave in rude and autocratic way and often people used to look at police not as their friends and service providers, but as enemies who unnecessarily curb their freedom.

In many cases, the high handedness of the police has been proved also. This could be attributed as the continuation of the colonial legacy in the style and functioning of the police. The police in India is the product of the British Rule. They conceived and crafted it as an agency to be feared by the people, rather than loved and respected. Even after independence, there is not much change in the structure and attitude of the police towards people. The various Commissions which were appointed to study and report on police reforms have realized and suggested that for effective policing, participation of the people is inevitable. This led to the adoption of a new system of policing called community policing.

Community policing is a new philosophy of policing based on the principle of proactive policing through people-friendly policing practices, participation of the community and problem-solving leading to prevention of crime, maintenance of law and order and improvement in the overall quality of life in their neighbourhood. Here, in the social engineering experiment, police act as a catalyst. In other words, community policing is a holistic, useful and proactive concept and a tool to transform the image of police, strengthen its force and to create change in the attitude of both the police and the

policed. (Mohanthy and Mohanthy, 2014). Community policing provides personalized and decentralized service to the community. Here, police cannot impose order from outside, instead people are encouraged to use police in solving contemporary social issues. It is not something to be applied and then abandoned. But it should be integrated into the organizational set up.(Emmanuel, 2014). The basic idea is that the public and police have to co-operate in a creative way to solve the multitude of problems which affect the safety and security of the society. According to Sparrow, the prime consideration of the law enforcement machinery in community policing is to provide a safe and crime free environment to the people (Malcom, 1999). Here, the community should act as an agent and partner in promoting security rather than a passive audience. At the same time, the police have to assume new roles to carry out their functions and responsibilities quite distinct from the traditional model of policing. They also have to play the role of advisors, facilitators and supporters in the new community-based initiatives, apart from performing law enforcement functions. They should develop a feeling among themselves that they are also part and parcel of the society, not separate from it. (Trojanowicz, Kappeler and Gains, 2002). They should continuously interact with the citizens so that they can find solutions to their problems making the citizens supporters and volunteers. The community police officer should act as a community ombudsman between the public and private agencies to solve various issues facing the society.

The Janamaithri Suraksha Project

A pilot study is conducted to assess the impact of the *Janamaithri Suraksha Project* on Kerala society. Nineteen police stations across the state, one each from every police district, was selected for the study. The findings of the study are based on extensive field research carried out by the author with a structured questionnaire. Besides eliciting data from eminent personalities and retired senior police

officers through interviews and personal discussions, the observation method was used to get a realistic picture of the functioning of community contact committees. All the stakeholders of the project viz beat officers, assistant beat officers, middle-level police officers, community-relations officers, District Nodal Officers, District Police Chiefs, State Nodal Officer and senior police officers were consulted and interviewed to prepare this article. Crime details from police stations, District Crime Record Bureaus (DCRB) and State Crime Record Bureau (SCRB) were collected to analyse crime trends before and after the implementation of the project.

The basic ethos of Indian police was shaped by the British to maintain their hegemony in India through the Police Act of 1861 enacted by the British Parliament (Singhvi,1978). The image of the police created by the British as an instrument of oppression and suppression and a strong arm of the government to implement their designs continued even after independence (Sankar Sen, 1994). The police were looked upon as an agency to be feared and the political class used it to suit their designs (Madan, 1980). As a result, the police became unpopular and anti-people. In Kerala also the situation is not different from other parts of the country. But Keralais unique in many respects. It is the first State in the world to elect a communist Government through the secret ballot. It tops in the list of states with high literacy rates. It experimented coalition government as early as 1957. The life expectancy of the people is very high and it is on par with European countries. Infant mortality is very low and the service sector is well – developed. The uniqueness of the State can be seen in policing also. The state has got the reputation of appointing the first Police Reforms Commission in 1959 (Alexander, 2003), much before the appointment of the National Commission on Police Reforms in India[1]. Several attempts have been made during the last decades to reform our police and to enable the personnel to march in tune with developments taking place in the society.

Despite of these, participation of people in policing remained very low and people looked upon police as a long arm of the ruling party.

It is in this background that the Government of Kerala appointed the Police Performance and Accountability Commission in 2003, popularly known as Justice K.T. Thomas Commission, to study and report about the performance of police and to suggest changes or reforms[2]that are inevitable. The K.T. Thomas Commission which submitted its report in 2006 strongly recommended to adopt community policing in Kerala (Police Report, 2006). The Government accepted the Commission's recommendation and instructed the Police Department to prepare a project. The proposed project christened as '*Janamaithri Suraksha Project'* was started in 20 selected police stations across the State in 2008, with the intention of making all the police stations '*Janamaithri stations*' in a phased manner.(Annual. 2017). Accordingly, the project was extended to 23 police stations in 2009, 105 in 2010 and 100 in 2013. It was implemented in all the 527 police stations on 22nd February 2017 (Janamaithri Annual, 2017). Today, in Kerala, all police stations are *Janamaithri* police stations. Kerala encoded the philosophy of community policing in its Police Act which came into existence in 2011.

The *Janamaithri Suraksha Project*of Kerala is implemented with a three – fold objective. They are (i) prevention of crime, (ii) building healthy rapport between the public and the police and (iii) ensuring better co-operation among the members of the locality on security matters (Sandhya, 2015). It is a new style of policing in which co-operation of the public is enlisted in policing activities such as collection of information, nabbing of offenders, prevention of anti-social activities etc. But it is not intended to transfer police functions to the public. The basic idea behind the *Janamaithri Suraksha Project* is that with the co-operation and support of well-meaning people in

the society, many of the social evils of a locality could be managed effectively (Handbook, 2014).

The community policing model of Kerala has a three-tier structure with the District Advisory *Samithi* at the top, Community Contact Committee in the middle and the Beat Officer at the bottom (Ponnoose, 2009). There is also a District Nodal Officer in each District and a State Nodal Officer to co-ordinate the activities of community policing.

Beat Officers

The *Janamaithri Suraksha Project* is being implemented through a group of community policing officers, such as beat officers, assistant beat officers and community relations officers. They work in co-ordination with the secretary and convenor of *Janamaithri Samithies*/ Community Contact Committees. But the most crucial role is played by the beat officer. A beat is a geographical area covering 500 to 1000 houses (Circular, 2009). Each beat is put under the charge of a beat officer. Beat officers are, generally, Civil Police Officers, Senior Civil Police Officers or Assistant Sub-Inspectors. The District Police Chief appoints beat officers on the recommendation of the Station House Officer. Each beat officer is assisted by a woman Civil Police Officer designated as assistant beat officer. To have an idea of the beat area, the beat officer undertakes a tour, after assuming its charge. He visits each and every house, shops, business establishments, public offices, etc. for collecting the details of persons, problems faced by the locality, anti-socials in the area etc. The beat officers is expected to complete the survey within three months of assuming charge of the beat. The idea behind this is that the beat officer should have the details of persons whom he is going to serve and by frequent interaction, he is able to know at least one member of every family coming under his beat (Handbook, 2014). The beat officer is required to visit his beat at fixed intervals and should convene meetings in different locations of the beat area. He frequents the

houses of the residents of his beat and by continuous interaction, he is able to get information relating to crimes and criminals in the locality. He passes all such information to his superior officers and they are expected to take immediate remedial measures, keeping in mind, the safety and security of the area. The beat officer acts as a link between the public and superior police officers.

The traditional duties assigned to the beat officer include service of summons, passport verification, petition enquiry, service of notices, collection of intelligence, handling of complaint boxes etc. (Kannan and Ramdoss, 2014). He visits his beat area, interact with the public and educate them about community policing. It is his responsibility to find out appropriate project for his beat, collect and pass all kinds of information relating to the movement of strangers and communal and political unrest to the superiors. He should undertake periodical visits to internet cafes, telephone booths, cinema theatres, etc. to find out illegal activities, if any, in these places. He should always be in touch with the service providers such as post men, line men, milk men, gas agencies, etc, who always frequent the area and have connection with the people of the area. He should also maintain a 'beat register', showing the details of day to day activities undertaken by him.

An examination of the powers and duties of the beat officer will show that he wields vast powers. The beat officer is, in fact, the station house officer of the beat in the eyes of the public. He should be a friend who should be approached by the public at any time. Studies revealed that people used to bring to the notice of the police even those matters which are not directly related to police. In some places, the beat officers gained more social acceptance than the Sub-Inspectors and Inspectors. It has raised their self-esteem. Balakrishnan, a beat officer from Perinthalmanna police station said that he was the chief guest during the retirement function of the Head Master of AM UP School, Eravimangalam. To promote peace

and order in the locality and to prevent crimes, the beat officer must be able to work with the people (Sandhya, 2010). The main criticism against the beat process is that the beat officers lack effective powers to settle even minor disputes in the locality. The study revealed that there is some substance in this criticism.

Community Contact Committee

In order to give democratic character to *Janamaithri Suraksha Project*, community contact committees/*Janamaithri Suraksha Samithies* are being constituted at the police station level, representing all major social segments and stakeholders (Sen Kumar, 2017). The Station House Officer prepares a list of persons who are fit to be included in the *Janamaithri Suraksha Samithi*. He then submits the same to the District Police Chief through the proper channel. The District Police Chief sanctions the formation the *Samithi.* A *Samithi* consists of 10 to 25 persons appointed for a period of two years. It is a miniature of the society and should have representation from all sections of population, including women, SC/STs, senior citizens, retired government servants, members of local self-government, representatives of residence associations, non-governmental organizations, merchant associations, auto-taxi drivers, etc. Representatives of political parties and caste and communal organizations should not be represented in the *Samithi.* People with criminal background are also kept out of the committee. The *Samithi* is so structured to give the members of the public an opportunity to contribute to the better safety of the neighbourhood.

The committee meets once in a month, at a public place within the jurisdiction of the police station. The Inspector of Police convenes the meetings and the Sub-Inspector participates in it as the Secretary. An officer of the rank of Additional Sub-Inspector is designated as the Community Relation Officer who co-ordinates all the activities connected with community policing and also assists the Station House Officer to implement the project effectively.

There is no permanent chairman for the committee and one of the members presides over its meetings when it meets. Decisions are usually taken on consensus and contentious issues are avoided. The *Samithi* cannot discuss any criminal cases - under investigation or trial. Similarly, arrests and other statutory functions of the police are not subjected to discussion in the *Samithi.* The Community Contact Committee is an advisory body without any statutory powers.

The most important responsibility of the committee is to undertake and implement the community policing project within the limits of the police station. It formulates and implements various programs for ensuring the safety and security of the people of the locality (Circular. 2009). The programs include, conducting joint patrolling with members of the community, identification of strangers and migrants, stepping up security arrangements like installing CCTV cameras, identifying the needs of vulnerable sections of the society and devising plans for their security, development and implementation of traffic regulation including co-ordination and management of traffic wardens, formation of vigilant committees for women and children, setting up of special programmes for security of taxi drivers and others involving victims of road traffic accidents, establishing victim support cells and the like. The committee can select any program which is suitable for the area and is aimed at the general welfare and safety of the public (Mohanty, 2013). Even though the committee is being constituted to give a democratic orientation to the project, democratic principles are not followed while selecting the members of the committee. The police constitute the committee and, in most cases, experience shows that, the police has an upper hand in taking decisions.

District Community Contact Committee

To ensure the proper implementation of the project at the district level, an advisory committee headed by the District Police Chief is constituted (Ashok Kumar, 2017). The committee consists

of Members of Parliament, Members of Legislative Assemblies, representatives of local self-government, selected members of community contact committees at the police station level and some eminent personalities of the district, nominated by the District Police Chief. The committee is constituted for a period of two years and it consists of 10 to 20 members. The meetings of the Committee is to be convened once in three months. It reviews the working of the project in the district, the performance of Community Contact Committees at the police station level and gives necessary instructions, suggestions, etc. for improvement of their performances. Though it is an important body to monitor the implementation of community-oriented policing at the district level, practice revealed that the committee seldom meets. In most of the police districts, this committee is not even constituted.

The *Janamaithri Suraksha Project* has flattered the hierarchical layers in the organization and field level functionaries are given some sort of autonomy. It is at the field level that, most of the initiatives/ strategies for maintenance of law and order, and crime prevention are evolved. The beat officers, who work at the cutting-edge level, provide valuable contribution to this project. The field level functionaries often bring to the notice of the higher-level officials, the constraints faced in the implementation of the project. The senior officers used to intervene to resolve the difficulties experienced by them (Behra and Behra, 2014).

The project provides for a hierarchy of officers for the effective implementation of the scheme. The beat officer is the most important functionary in the implementation of the scheme. The success of the project depends mainly upon the sincerity and hard work shown by the beat officers (Sen Kumar, 2017). Above the beat officers, there is a Community Relation Officer (CRO) in each police station. He is usually an additional Sub-Inspector who is responsible for supervising the work of the beat officers. It is his duty to see that

the beat officers perform their duties efficiently and effectively. If any laxity is noticed from the part of any Station House Officer, the Deputy Superintendent of Police or the District Police Chief should report this fact to the superior officers. There is a District Nodal Officer for the project who co-ordinates the community policing activities at the district level. He is an officer of the rank of Deputy Superintendent of Police. It is the duty of the District Nodal Officer to see that the beat officers visit their beats regularly, beat meetings are held in time, meetings of community contact committees are convened as per guidelines, the Station House Officers and Sub – divisional Police Officers attend beat meetings and committee meetings, etc. The District Nodal Officer can inspect any record being maintained in the police station at any time. The District Police Chief is the head of the project at the district level. As the head of the project, he performs a number of functions including appointment of the people's committees at the police station and District levels, presides over the meetings of the District Community Contact Committee and sends periodical reports to the higher ups. At the apex, there is the State Nodal Officer, usually, an officer of the rank of Inspector General of Police. He prepares broad guidelines for the field level officers and also drafts directives which are issued by the State Police Chief, as circulars. He often brings to the notice of the concerned, the difficulties faced by the hierarchy of officers in the implementation of the project and tries to remove those difficulties. It is his responsibility to see that the project moves in the desired direction.

Assessment of the scheme

Community policing is much more than just a change of tactics or public interest in police operations. Rather, it is a total philosophy of policing which ensures total involvement of the community in the police functions of the state. The project is able to make some positive changes in the attitude of people towards police and vice

versa. For the first time in the history of Kerala, police visited the houses of people with a smile on their faces, enquiring and solving their problems. People began to look the police as a friend who can be approached during emergencies. Many of the social ills were detected with active public support and police was able to find solutions to most of them. There were instances in which timely intervention by community police officers helped to prevent communal and political tensions. Even though many of the social ills, the society is facing today is beyond the control of the police, many a police man took the initiative to co-ordinate various agencies of government and disinterested citizens to find out solutions to those evils. It has opened a new chapter in public – police relations and confrontation gave way to co-operation. The presence of police has increased in the neighbourhood and people began to feel a sense of security.

The study revealed that 87% of the people are aware of the existence of community-oriented policing in Kerala. The majority of the respondents from all categories believed that community policing can strengthen the relationship between police and public. The project has got social acceptance as 71% of them like it. It has reduced the reporting of serious offenses especially violent crimes and enhanced crime clearance rate. People's fear of crime has been reduced and it has almost alleviated police–public conflict. Information flow from public to the police has risen considerably and more and more people are co-operating with the police as witnesses to cases, helping to nab offenders, etc. More than 80% of the respondents believed that it is an effective method to prevent corruption among police ranks. An optimistic transformation can be seen in the attitude of people and 78% of the general public said that they will visit police station without the help of middle men, if needed. Eighty-two percent of the people felt that the behaviour of police personnel underwent a radical change after the implementation of the project. It has contributed to better law and order situation in the State.

Almost all stakeholders of the community policing system believed that *Janamaithri policing* can be effectively used to prevent the activities of radical elements and religious fundamentalists[4].

The *Janamaithri Suraksha Project* is not without faults. Many and varied are the constraints faced by police officers while implementing the scheme. Seventy-four percent of the community police officers responded that they face a number of problems while implementing the project. Community policing is a man-power intensive program. In order to run the program, additional manpower is required. It is not usually given and the strength of the police stations were fixed years back. Eighty-five percent of the beat officers indicated that *Janamaithri Suraksha Project* had increased their work load. The project guideline stipulates a beat officer to manage 500 to 1000 houses. But in some places/beats, the number of houses is more than 5000. There is acute shortage of woman police officers. The study revealed that the Station House Officers, the kingpin in the implementation of the scheme, hardly get six months in one police station. They are frequently transferred on political and other considerations. Beat visits are not regular. More than 70% of the field level officers reported that they are not getting the required support from their superior officers. Some of the superior officers are hostile to the very concept of community policing. In 90% of the police stations, the house – hold survey is not completed even after a lapse of twelve years. Lack of funds, apathy of a section of the people, lack of effective powers for the beat officers to settle even minor disputes, inadequate training, suppression of reverse opinion, unsuitable projects, intrusion of the members of community contact committees into basic police functions, absence of appreciation and rewards to beat officers, poor documentation, absence of effective monitoring mechanisms and absence of a community policing directorate to plan broad policy guidelines and model community

policing programs hamper the effective implementation of *Janamaithri Suraksha Project* in the state.

Despite of all these, the *Janamaithri Suraksha Project* has made a positive impact on the police and the policed in Kerala. If citizen satisfaction is a yardstick to measure the effectiveness of a program, the *Janamaithri Suraksha Project* has succeeded in transforming the police from its colonial style of functioning to a people–friendly organization. It has improved the quality of interaction between the public and the police and reduced the barriers which separated police from the citizens. It may be concluded that the project has a sound future as long as it is based on mutual co-operation and trust between the police and the policed.

Notes

1. *The National Police Commission was appointed by the Government of India on November 15, 1977. It was popularly known as the Dharam Vira Commission. The Commission consisted of Sri. Dharam Vira (retired Governor) as Chairman, Mr. N.K. Reddy (Retired Judge, Madras High Court), Mr. K.F. Rustarjee (Ex Director General of Police, BSF), N.S. Saxena (Ex Director General of CRPF and Member of UPSC), M.S. Gore (Professor, Tata Institute of Financial Services, Bombay) and C.V. Narasimhan (The Director, Central Bureau of Investigation as a Member Secretary).*
2. *The Government of Kerala under Sri. A.K. Antony gave some autonomy to the police in its functioning. But the act of the Chief Minister was widely criticized by the opposition as well as the ruling party. It is in this background that the Government appointed the Police Performance and Accountability Commission to study and report the effectiveness of autonomy given to the police, its merits and demerits and make recommendations for further improving the functioning and accountability of the police. The Chairman of the Commission was Sri. K T Thomas, a retired Judge of the Supreme Court of India. The other members were Sri. Rajagopalan Nair, former Director General of Police and Sri. T.N. Jayachandran, former Additional Chief Secretary, Kerala.*
3. *The project guidelines stipulated that the Circle Inspector convenes the meetings of Janamaithri Suraksha Samithi. Even though the post of Circle Inspector was abolished by the Government of Kerala in the year 2018,amendments were not made in the project guidelines so far.*
4. *The findings are based on a study conducted by the author.*

References

Satyajith Mohanty and Rabindra K Mohanty (2014). *Community Policing as a Public Policy: Challenges and recommendations*. New castle upon Tyne, Cambridge Scholars publishing, p 1.

Amadi Emmanuel, N (2014). A Quantitative Analysis of Community Policing in United States, *American International Journal of Contemporary Research*, 4, p 19.

Sparrow, Malcom. K. (1999). Implementing Community Policing in Stojkovic, Stan, John Klofas and David Kalinich (Eds) *The Administrations and Management of Criminal Justice Organizations: A Book of Readings*, Prospect Heights, Wave land Press, p 397.

Trojanowiz, Robert, Kappeler, Victor E and Gains, Larry K (2002). *Community Policing: A Contemporary Perspective*. Anderson Publishing company, pp 1-2.

Singhvi, GC (1978). To Whom Should the Police be Responsible? *Indian Journal of Police Administration*, 4, p 113.

Sankar Sen (1994*). Indian Police Today*, New Delhi, Ashish Publishing House, pp 141-142.

Madan, J C (1980). *Indian Police: Its Development up to 1905: An Historical Analysis*, New Delhi, Uppal Publishing House, pp 301-302.

Alexander, K (2003) Police Reforms in Kerala: A Critical Evaluation, *Unpublished PhD Thesis*, Thiruvananthapuram, University of Kerala, pp 125-126.

Government of Kerala (2006) *Report of the Police Performance and Accountability Commission*. Thiruvananthapuram, Government of Kerala.

Janamaithri Suraksha Project (2017), Annual (Malayalam), Thiruvananthapuram, Police Headquarters, p.15.

Celine Sunny (2010). Impact study on the Community Policing Initiative of Kerala. The Janamaithri Suraksha Project: Cherthala Municipality, Alappuzha District in Sandhya B (Ed) Global Community Policing Conclave 2010: Compendium, Thiruvananthapuram, Police Head Quarters, pp 167-174.

Sandhya, B (2015). Community Policing Project of Government of Kerala in Aravind Varma, Dileep K Das and Manoj Abraham (Eds), *Global Community Policing: Problems and Challenges*, Boca – Raton, CRP Press. Taylor and Francis, pp 119-120.

Janamaithri Suraksha Project: *A Handbook (2014)*, (Malayalam), Thiruvananthapuram, Police Head Quarters.

Jacob Ponnoose (2009). What is Community policing, Janamaithri Suraksha Project: Commemorative issue 2009, Thiruvananthapuram, Police Heads Quarters, pp 12-16.

Government of Kerala (2009). *Police Department* Circular No. 35, Thiruvananthapuram, Police Head Quarters.

Janamaithri Suraksha Project: *A Handbook (2014)*op.cit.

Kannan B and Ramdoss S (2014). TheEmergence of Community Policing Initiative: An Overview of Janamaithri Policing in Kerala, *The Indian Police Journal*, 59, pp 249.

Sandhya, B (2010), Community Policing in Kerala: Methodology of Implementation in Sadhya, B (ed) *Global Community Policing Conclave 2010*, op.cit, p 29.

Sen Kumar, TP (2017), *A Structured Model of Community Policing for India: Based on the Janamaithri Suraksha Project of Kerala*, Thiruvananthapuram, Police Head Quarters, p 8-9.

Government of Kerala (2009). *Police Department Circular No. 34*, Thiruvananthapuram, Police Head Quarters.

Satyajith Mohanty (2013) Community Policing as a Public Policy: A Study of Janamaithri Suraksha Project of Kerala Police, *Janamaithri Almanac 2013*, Thiruvananthapuram, Police Head Quarters, pp 5-9.

Asok Kumar, P (2017). The Inevitability of JanamaithriSuraksha Project *Annual Report 2017*, Thiruvananthapuram, Police Head Quarters, pp 28-30.

Debesh Kumar Behra and Uma Behra (2014), Janamaithri Police: The Spiritual Conqueror of People, *JanamaithriSuraksha Project Almanac 2014*, Thiruvananthapuram, Police Head Quarters, pp 26-31.

Sen Kumar, TP (2017) op.cit, pp 1-27.

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PERSONALITY CORRELATES OF GERIATRIC DEPRESSION

Athira Sreekumar* & Raakhee A.S. **

Abstract

The study aimed to explore the relationship between personality and diagnosis of geriatric depression. A case control retrospective study was conducted among 304 individuals belonged to the age category of 60 yrs to 80 yrs and above. The study group comprised of 152 diagnosed depression patients who attended the psychiatry outpatient department of general hospitals in and around Alappuzha. The comparison group comprised of 152 individuals who were screened as not having depression. All participants were interviewed with Socio demographic pro forma, Eysenck Personality Questionnaire – Revised version (EPQ –R), DSM 5 criteria for major depression and Geriatric Depression Scale (GDS) to collect information regarding socio-demographic profile, personality characteristics and depressive psychopathology respectively. The results of rank bi-serial correlation indicated that personality dimensions such as extraversion and psychoticism were negatively related with geriatric depression. The results of Mann Whitney U test indicated that scores of extroversion and psychoticism scores were lower among the individuals without depression.

Keywords: *geriatric depression, personality, psychoticism, extraversion*

Aging is an inevitable process which continues throughout life. Aging is the dominant theme of twenty first century. Several authentic investigations indicated that nearly 6.1% of the individuals aged over 60 suffer from organic disorders and 27.6% of the geriatric group suffers from functional disorders like depression. The modern era of geriatric psychology highlights the differentiation between

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the organic and functional disorders of old age and their different causes, courses and outcomes were highlighted. Population aging is a major achievement regarding the modernization of societies. The emphasis given to nutrition, sanitation, medicine, healthcare, education, knowledge and economic well being possibly resulted in population aging. The decreasing trend of fertility rates and mortality rates resulted in increased proportion of elderly people in society. These factors contribute to the increased share of older people in the total population in the developed world, and even more rapidly in many developing countries. The demographic scenario of India is dynamic. India has the large proportion of elderly people comparing with other parts of the world. India is passing through a phase of a rapid demographic shift. An alarming issue is the rendering of services to the grey segment of the population.

The depression is a most prevalent psychological disorder independent of age, particularly an organic illness. It is a serious disorder of mood that affects the mind and the body at the same time. It's an illness caused by chemical changes in the brain. It is not a personal weakness and nothing to be ashamed of. It is more than the transient human feelings often called as "blues". It is a treatable illness. It mainly affects thoughts; mood and actions. The physical symptoms are more prominent among geriatric patients. Somatic symptoms and frequent doctor visits are common in geriatric depressives. The older adults usually don't complain about being sad or feeling empty. They constantly worry about aggravating pains and aches. They even have subjective complaints of pseudo memory loss and have a negative attitude about life. A survivor of depression who is about 73 years old reflected about the time he was depressed was literally the days of darkness. He said that when he desperately tried to form a breakthrough, it ended up felt like stepping on super glue. Every step pulled him back strongly. Extreme workout was given for completing even a light task. Even the persons who are around them

aren't aware of how critical their situation is. The geriatric people are generally less willing to speak out about their problems. Depression among older adults may be a common problem. Studies have found that about 15% of individuals over age 65 experience symptoms of depression that cause functional disability. The illness will have strong impact on appetite, sleep, levels of energy and fatigue, interest in relationships, work, hobbies and social activities. There are several causal factors for depression. Causal factors can either be precipitating or predisposing. The personality of an individual serves as a prominent predisposing factor in causing and sustaining depression. Hence studies on the relationship between personality and geriatric depression can be considered as a major contribution to the field of geriatric depression.

Camus, Lima, Gailard, Simeone & Wertheimer (1997) conducted a pilot study which investigated the prevalence of personality disorders in a sample of 37 elderly people recovered from depression and they were non-demented patients. The data was collected using the French version of the Questionnaire on Personality Traits. The prevalence of personality disorder was 65% with the predominance of Cluster C characteristics and particularly dependent and avoidant personality disorder. The incidence of personality disorders was higher in the early onset geriatric depression (73%) than in late onset (45%) geriatric depression.

Seldon, Pfeifer, Mahrou, Pospisil, King & Golden (2000) stated that depression will become the major reason of deaths in elderly population over the world. This was a cross sectional study intended to analyze the correlates and prevalence of depression in urban south Indian elders. The study was in urban community which included one hundred elders, aged 60 years and older. A questionnaire based interview was followed. Information on chronic health conditions, height, weight, hip and waist circumference, blood pressure, socio

demographic history, changes in vision and cognition, medication and addictions were collected using the questionnaire method. Identification of depression was defined using Geriatric Depression Scale (GDS) scores. Logistic regression was employed to identify predictors of geriatric depression were identified. The results indicated that 15.4% men and 31.2% women had the depression and overall prevalence of geriatric depression was 23% in study population. Logistic regression revealed that living single, poor self-rated health, bedridden status and osteoarthritis were the independent predictors.

Kim, Choe & Chae (2009) examined the relationship between depression and physical, social and environmental variables of elderly persons. This community based study was a cross-sectional descriptive survey. The setting was two elderly welfare centers and two public health centers in Korea. The total sample size was 295 participants. The Geriatric Depression Scale (the Korean version), Tokyo Metropolitan Institute of the Gerontology Index of Competence of activities of daily living and a socio-demographic questionnaire were the test materials of data collection. Hand-grip strength was also measured with a hand dynamo meter. The prevalence of depression was found 63% in the study population. In the sample 21% had severe depressive symptoms. Depression scores were higher among women. As per results of regression analysis, perceived health status, Tokyo Metropolitan Institute of the Gerontology Index of Competence of activities of daily living, hand-grip strength and social activities are found to be the significant predictors of geriatric depression in Korean population.

The term personality originated from the Latin word 'persona' which refers to the theatrical mask actors worn during a drama. Personality is a hypothetical construct which helps to make inferences about a person. There are several theoretical perspectives regarding personality. Some of the major theories in psychology were Sigmund

Freud's psychoanalytic theories, Jung's analytical theories, social psychological theories, behavioral /social learning theories, biological theories, etc. Most viewpoints distinguish enduring personality traits from more transient affective states. For example, an occasional angry outburst by an individual would not brand him as a hostile person. The relationship between personality and psychopathology is an area of interest among psychologists. Recent studies that address this relationship suggest that a variety of personality or trait attributes may predispose individuals to mood disorders or may be altered as the result of the experience of a major mood disturbance. Personality is a multidimensional concept. It includes genetics, behavioral components and learning aspects. Many theorists had contributed to the field of personality. Sigmund Freud, Allport, Cattell, Hans Eysenck, William Sheldon, etc. were some of them.

The most famous proponent of the questionnaire based approach to personality description was ''Hans Eysenck. He is best known among psychologists for developing a two factor model of personality ie, Extroversion – Introversion. In subsequent work, Eysenck found a need for a third factor, which he labelled as 'psychoticism'. The factor of psychoticism included aggressiveness, coldness, egocentricity, antisocial tendencies, creativity, lack of empathy and tough mindedness. In the present study, the PEN model of Hans Eysenck is the grounded theory. Hans Eysenck vigorously pursued the link between inheritance and personality. Eysenck emphasized personality as the result of interaction of both genetics and learning. He concentrated only on the three traits – psychoticism, extroversion and neuroticism. Psychoticism is an independent dimension of personality. The individuals who scores high on psychoticism dimension will be solitary, troublesome, hostile to others, sensation seeking, and engages in odd and unusual things. Neuroticism refers to the general emotional variability of a person.

Neurotic people are generally moody and anxious. Extraversion as opposed to introversion refers to the outgoing, uninhibited, social proclivities of a person. Eysenck Personality Questionnaire - Revised version also assesses the lie scale which is the social desirability factor which assesses the deliberate faking of the subject.

Objectives

1. To find out the relationship between personality and geriatric depression.
2. To find out whether there are significant differences of personality between the diagnosed group and the non-diagnosed group in the diagnosis of geriatric depression.

Hypothesis

1. There is a significant relationship between personality and geriatric depression.
2. There is a significant difference between the diagnosed group and the non diagnosed group on the basis of personality.

Method

Sample and Procedure of Study

The sample for the study was collected on the basis of purposive sampling. People belonged to the age category 60 yrs to 80 yrs and above were included in the study. The sample for the present study included two groups: study group and comparison group. The sample for the study group was taken from outpatient departments of psychiatry in various general hospitals in and around Alappuzha. The individuals who were attending the particular psychiatry OPD for the first time was included in the study group. The sample for comparison group was collected mainly from persons accompanying the patients and who were aged above 60years. Individuals without depression were chosen with the case control approach closely

matched for age and sex. The inclusion criteria and exclusion criteria were strictly followed in the selection of participants for both study group and comparison group. Those who suffers following medical illnesses – Parkinson's disease, stroke, heart attack, vitamin B12 deficiency, hyper or hypothyroidism, multiple sclerosis, systemic lupus erythematosus, certain kinds of cancers, vascular dementia and Alzheimer's disease and those who takes anti – ulcer medications, medications for Parkinson's disease, and steroids were excluded from the study**.** Those who had a history of other psychiatric disorders were also excluded.

The age category of both the groups was 60 years to above 80 years. The study group and comparison group consisted of 76 males and 76 females respectively. Thus, the study group and comparison group were matched on the basis of age and sex.

The total sample size was 304 individuals viz, 152 individuals in the study group and 152 individual in the comparison group.

Research Design

Ex-post facto research design was followed for the study.

Tools

All participants who participated in the study signed a consent form that gives a brief explanation of the research project, describes benefits and risks of participation and explains their rights to confidentiality. Keeping in view the objectives of the present study the following tools were administered on the selected sample.

1. Socio Demographic Proforma

Relevant socio demographic details were collected.

2. DSM 5 Criteria for Major Depression

The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) is the 2013 update to the Diagnostic and Statistic

Manual of Mental Disorders, the taxonomic and diagnostic tool published by the American Psychiatric Association (APA).

1. Geriatric Depression Scale – Short Form (GDS-SF)

Sheik & Yesavage (1986) formulated a short form of the GDS (GDS-SF), which contained 15 items. It was designed particularly for the aged, as a screening instrument for depression. It was easy to administer (self-administered or observer). It was a simple scale to complete (yes/no responses), especially for older adults. It is useful in a variety of settings; nursing homes and the community, with medical inpatients, medical outpatients, and day-treatment clients. The scale has a high degree of **internal consistency**, with a Cronbach's alpha coefficient of .94, and split-half reliability score of .94.

2. Eysenck Personality Questionnaire (EPQ-R)

The Eysenck Personality Questionnaire-Revised (EPQ-R) measures three major dimensions of personality: Extraversion/Introversion, Neuroticism, and Psychoticism or Tough-mindedness. The scale is useful for adults. It usually takes 20 to 35 minutes to complete. Hand-scoring with overlay keys and web-based with immediate scoring are scoring options. EPQ-R is a 90 item scale. Yes/No questions were included in this questionnaire. It provides four scores per subject. Extraversion (0=extreme introvert, 21= extreme extravert), Neuroticism (0= non neurotic, 21= very neurotic), Psychoticism (0= low psychoticism, > 10= high on psychoticism) and lie (0=low lie score, > 10= signs of social desirability factor). The lie scale was assessing a social desirability factor.

EPQ-R has test-retest reliability ranged from .80 to .90. Internal consistency reliability has been found to be ranging from .71 to .88. Prasad et al.,(1974) presented that test is reliable to use among the Indian population.

Statistical Analysis

The statistical analysis was done with SPSS 20.0 version.

Results

The data was analyzed by rank bi-serial correlation and Mann Whitney U test to assess the relationship between personality and geriatric depression and to find out differences between the diagnosed group and the non diagnosed group based on the scores of Eysenck Personality Questionnaire – Revised Version.

Table 1 shows the results of rank bi-serial correlation which depicts the relationship between personality and geriatric depression.

Variables	1	2	3	4
Group (1)				
Extraversion (2)	-.223**			
Neuroticism (3)	.043	.037		
Psychoticism (4)	-.464**	.171**	.018	
Social desirability [a] (5)	.026	-.035	.075	-.028

[a] Lie score; ** p < .1

Summary of Rank – bi-serial correlation presented in the table 1 indicates that extraversion (r = -.223, P<.1) and psychoticism (r = -.464,P<.1) were negatively correlated to geriatric depression. The relationship between neuroticism and social desirability in the diagnosis of geriatric depression is found to be insignificant.

Table 2 : showing the results of Mann Whitney U test which depicts the differences between diagnosed group and non diagnosed group.

Variable	Depression	N	Mean Rank	U	Sig
EPQ_Extra	Not Diagnosed	152	132.93	8578.00	.000
	Diagnosed	152	172.07		
EPQ_Neuro	Not Diagnosed	152	156.23	10984.50	.458
	Diagnosed	152	148.77		
EPQ_Psych	Not Diagnosed	152	111.94	5387.50	.000
	Diagnosed	152	193.06		
EPQ_Lie	Not Diagnosed	152	154.70	11218.00	.654
	Diagnosed	152	150.30		

Summary of Mann Whitney U test indicate that personality is different among the diagnosed group and non diagnosed group. Extraversion scores (U= 8578, P <.05) and Psychoticism scores (U = 5387.50, P <.05) were higher among diagnosed group.

Discussion

As per results of rank bi-serial correlation and Mann Whitney U test, the personality dimensions, extroversion and psychoticism were significantly related to geriatric depression. The dimension extroversion, is negatively correlated to geriatric depression, which means when scores of extroversion increases, the chances of being diagnosed as depression are low. Similarly, when the scores of psychoticism are high, the chances of being diagnosed as depression are low. As per results of Mann Whitney U test, scores of extroversion and psychoticism were high among the diagnosed group. The results of both the rank bi-serial correlation and Mann Whitney U test implies that personality dimensions – extroversion and psychoticism were found to be the significant risk factors of geriatric depression.

As per Eysenck's theory, those who are high on extra version are sociable, lively, active, sensation seeking etc. Eysenck put forward that extraversion – introversion is due to the process of inhibition

and excitation in the brain. Excitation in the brain wakes brain up, getting into an alert, learning state. Inhibition is the calming down of the brain either in the usual sense of relaxing and going to sleep, or in the sense of protecting itself in the case of overwhelming stimulation. An individual who is an extrovert had strong inhibition. When confronted with a bad event, an extravert's brain inhibits itself. The brain becomes 'numb' during the stage of inhibition. Extraverts have the low base rate level of arousal and so need external stimulation to boost levels. Extraverts are more influenced by rewards rather than punishments. It may be due to this underlying physical mechanism extraverts may feel depressed due to the under stimulating environment they come across during the sunset years.

Psychotic people are aggressive, cold, egocentric and tough minded people. Those who score high on this dimension shows the characteristics like disregard for common sense or conventions, a degree of inappropriate emotional expression and certain recklessness. These features may cultivate a feeling of regret or guilt feelings when they engage in life review. Life review and reminiscence were the common theme of adult personality development. Life review, in which people examine and evaluate their lives, is a major thread running through the work of Erik Erikson, Peck and Levinson and a common theme among personality theorists who focus on late adulthood. Life review rarely leads to decline in psychological functioning. When individuals tries to recover old insults and mistakes that cannot be rectified, they may end up with guilt feelings, depressive thoughts and anger against acquaintances who were deceased.

The relationship between personality and mood disorders are multifaceted. The multi-factorial aspect of the relationship is because of the complexity of the development of both depression and personality. Personality influences are the antecedent influences on depression. Personality can be considered as a risk factor or

a predisposing factor. Another influence of personality is the influence of current mood state. The relationship between stress and depression is bidirectional and is affected by the nature of the stress (eg. interpersonal, non interpersonal). Personality may serve either as diatheses or protective factors. Neuroticism is the propensity to experience negative mood states and extroversion, characterized by talkativeness, sociability, etc. which usually helps in a present situations but later on life review guilt feelings may be instilled. Some prospective studies unveiled that low extroversion predicts the first onset of depression, but other studies did not replicate these findings. Psychotic symptoms are distributed along a continuum that extends from normality to diagnosable psychotic disorders and the presence of psychoticism among individuals in the general population may lead to morbidity and social impairment.

The dimensions of neuroticism and social desirability were insignificant in relation with the diagnosis of geriatric depression. Eysenck's research has proven that perfectly 'normal' people can score high on the neurotic scale. Under optimal conditions, such people are said to possess a lot of drive. The only problem comes about when individuals who score high on the neurotic scales are subjected to a great deal of stress; they are then likely to suffer from a neurotic disorder (Gibson 1981).

Conclusion

All mental disorders of elderly people were due to arteriosclerotic and degenerative changes of brain. However, degenerative changes are underlying causes of most severely chronic disability and intractable diseases of elderly people. The relationship between somatic and psychological disorders is closer in old age than in the early part of life span. Biological, physical and social factors operate respectively as causes, modifying influences and as the effects of mental disorders in old age.

Robert Peck (1968) suggested that personality development in elderly people includes three major developmental tasks. The first task of old age is to find out oneself in different ways that do not relate to work roles or occupations (redefinition of our own self versus preoccupation with work role).When the elderly who stops work and retire from work seems very difficult to adjust just being a grandparent. The second major function is body transcendence versus body preoccupation. In this stage people should cope and should overcome physical disabilities which are usually normal during old age. Otherwise they, may be very much preoccupied with physical weaknesses. The third developmental task in old age is ego transcendence versus ego preoccupation. When thoughts related to death are prominent, the old age people should understand that death is an inevitable reality. At the same time, they should try to acknowledge and accept their contributions which will last in the society even they are passed away. The contributions will range from their off springs to work or civic related activities. The inevitable stages of redefinitions in old age influence the personality features in late adulthood a lot. Reinterpretations leads to several personality changes in late adulthood.

Personality is a more or less stable characteristic which lasts over a lifetime. Personality is the strong psychological construct that forms the foundation of an individual functioning in various levels. Personality remains the strong predisposing or vulnerability factor for causing and sustaining geriatric depression.

References

Aleem,S. (2012). *Theories of Personality*. New Delhi: Pearson.

Beck, A.T. (1967). *Depression: Causes and treatment.* Philadelphia: University of Pennsylvania Press.

Blazer, D.G.,Steffens,D.C., & Busse.E.W. (2007). *Essentials of Geriatric Psychiatry.* American Psychiatric Publishing Inc.

Browne,T.K. (2018). *Depression and the Self Meaning,Control and Authenticity.* United Kingdom: Cambridge University Press.

Camus.V., Lima.C.A., Gailard.M., Simeone.I., & Wertheimer.J. (1997). Are personality disorders more frequent in early onset geriatric depression? In*Journal of Affective Disorders*.46 (3).297-302.Retrieved from https://www.sciencedirect.com/science/article/abs/pii/S0165032797001523.

Help Age India Report. (2018). Elder Abuse in India -Changing Cultural Ethos & Impact of Technology, Retrieved from https://www.helpageindia.org/wp-content/uploads/2018/06/ELDER-ABUSE-IN-INDIA-2018-A-HelpAge-India-report.pdf

Eysenck.H.J (1950).Function and training of the clinical psychologist. *Journal of Medical sciences*., 96,1-16

Feldman,R.S. (2011). *Life Span Development.* Boston : Prentice Hall

Gilbert,P.(2017). *Depression: The evolution of powerlessness.* London & Newyork:Routledge Taylor& Francis Group.

Kim.I.J.,Choe.A.M., & Chae.R.Y. (2009).Prevalence and predictors of geriatric depression and its risk factors in geriatric population : A rural community based study.*Asian Journal of Psychiatry.* 4(4).284-287.Retrieved from https://www.sciencedirect.com/science/article/pii/S1976131709600232

Narayanan.A. (2018).Geriatric Homecare in India : A Perspective. Retrieved www.winage.in/geriatric-homecare-in-India-a-perspective/

Papalia,.D.E.,Olds,S.W., & Feldman,R.D. (2004). *Human Development (9th edition),* New Delhi : Tata McGraw-Hill.

Seldon,J., Pfeifer,P.,Mahrou,M,L.,Pospisil,T.,King,J., & Goldern,C.J. (2000). Correlation between the geriatric depression scale and the Minnesota multiphasic personality inventory. *Archives of Clinical Neuropsychology.* 15, 734-735.

Shaffer,D.R. (1985). *Developmental Psychology Childhood and Adolescence. (4th edition)* USA :Brooks/Cole Publishing Company.

Wong, D.W., Hall, R.K., Justice, C.A., & Hernandez, L.W.(2015). *Counseling Individuals Through the Life Span.* California: Sage Publications.

Thompson,N. (2002). *Loss and Grief: A Guide for Human Services Practitioners.* New York: Palgrave.

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EFFECTIVENESS OF KERALA'S HEALTH CARE SYSTEM IN CONTROLLING COMMUNICABLE DISEASES

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Abstract

Quality of life depends on the disease pattern and the health care facility available in a society. Outbreak of communicable diseases occur every year in Kerala creating severe impacts on various aspects of her community life. Its control requires a co-ordinated functioning of both public as well as private sector hospitals along with disease focused schemes and programmes. This type of coordinated effort is essential for the control, prevention and eradication of any epidemic outbreak in our society. The sustainable and steady growth of the community requires combined efforts of different organisations of that society along with their health system and a visionary leadership. Epidemic outbreaks happen quickly in a society and some of them spread very swiftly causing large number of deaths. The study tries to observe and realise the achievements of the health system of Kerala in facing the sudden challenges and seasonal outbreaks due to various communicable diseases in the society during the last two decades.

Key words: *Health, Communicable disease, Virus*

World Health Organization(1946) defines health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". Health is essential for organized social life and it is a social phenomenon. Health means complete physical, mental and social well being of an individual and it is a state of fitness of human mind and body without ailment. Health

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is the condition of being sound in body, mind or spirit, especially freedom from physical disease or pain (Webster, 1829).

In the sociological purview, attainment of high standards of living and improvement of functional system depends on the standards of individual health of the society. So health is beyond the medical matter and has a social goal. Social and personal behaviour is equally important in the attainment of that goal. Being a public right, it is the responsibility of governments to provide health care to all in equal measure. Health care is largely a governmental function in India. National Health Policy (2002) wished to achieve affordable and sustainable standard of health through effective health system. The policy provides universal immunization to children against vaccine preventable diseases and is one of the major goals.

As per the Indian Constitution,it is everyone's right to get highest attainable standard of physical and mental health. Article 21 guarantees protection of life and personal liberty to every citizen. Hence, Indian Medical Association constituted a task force to work on the concept of right to health and its dimensions. The rights includes: 1. Primary, secondary and tertiary levels of care with universal coverage, access, and equal importance for preventive healthcare. 2. Safe drinking water and sanitation. 3. Basic levels of nutrition. Central, state and local governments are responsible in providing health care to its members. Since health is a state subject, the actual terms of service delivery is more concerned with the states. The central government is developing and monitoring the national health standards and regulations, sponsoring numerous schemes for implementation by state governments.

Kerala is renowned for her social and demographic achievements. As per the health indicators of the state, the mortality rate and life expectancy is comparable to the developed nations. But the morbidity rate of communicable diseases is very high in Kerala

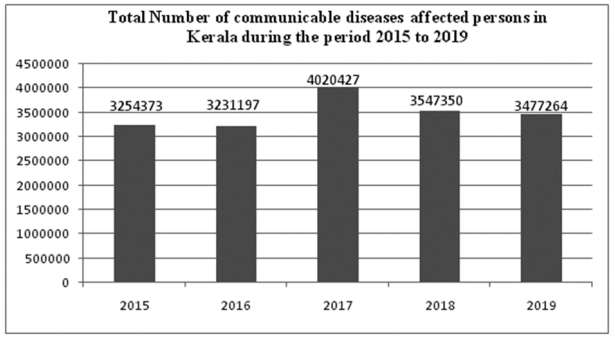
and is far away from the situation of developed countries. The low mortality with high morbidity syndrome in the state causes much damage to its social and economic arena. It is a major concern of the state that the achievements of high literacy level is not contributing much as a positive measure to control the high morbidity due to infectious diseases, as some of them were controlled or eradicated by the developed nations through proper implementation of health programmes.

The Situation of Communicable diseases in Kerala

Medical Definition of Communicable Disease is "an infectious disease transmissible (as from person to person) by direct contact with an affected individual or the individual discharge or by indirect means (as by a vector)", (Webster, 1828). The outbreak of communicable diseases creating major problems includes Vector-borne diseases (Dengue fever, Chikun Gunya, Yellow fever, Malaria, Leptospirosis, Japanese Encephalitis, NIPAH, Lymphatic Filariasis and Typhus),Air-borne diseases (Measles, Pertussis, Tuberculosis, Influenza, Acute Respiratory Infections, Meningitis etc.), Water-related diseases (Typhoid, Diarrhoea, Dysentery, Cholera, Hepatitis), Sexually Transmitted Infections (HIV-AIDS, Gonorrhoea, Syphilis, Viral Hepatitis), and Other Communicable diseases (Tetanus, Scabies, Worms,). Morbidity and mortality also increases in the over crowed pockets of the state causing rapid spread of diseases like measles, tuberculosis, diarrheal diseases, meningococcal diseases, acute respiratory infections, etc. among unvaccinated populations of the locality. High rate of acute viral fevers incidence along with other diseases like Dengue, Chikun gunya, leptospirosis, scrub typhus and outbreaks of water borne diseases like diarrhoea and cholera make monsoon as the "season of epidemics". The increasing rate of presence of migrant labourers from different states might introduce/ reintroduce various infectious diseases.

The following figure shows the morbidity of communicable disease situation of the state during the last five year period from 2015 to 2019as per the Integrated Disease Surveillance Programme report of the state.

Table 1.



Source: IDSP Report from 2015 to 2019, Directorate of Health Service, Kerala

Figure showed that, the total number of communicable disease affected persons during 2015 to 2019 were 3254373, 3231197, 4020427, 3547350 and 3477264 respectively. According to the 2011 census, 3,34,06,061 was the population of Kerala. While analyzing the year wise data of communicable disease affected people in the state with its total population, it can be concluded that, one in every 10 residents of the state in 2015 is affected by at least one communicable disease every year. Not much improvement in its eradication has happened in the following years as it can be noted that, one in every 10 resident is infected in the year 2016, One in 8 residents in 2017, One in 9 residents each was infected in 2018 and 2019. It showed that, the communicable disease infection was severe in 2017 as one in every eight residents of Kerala infected by either of these diseases. Situation may intense if the disease like Nipah or Corona attacks the society due to the out migration and

corresponding frequent mobility of the people and also due to the high density of population in the urban areas of the state.

Table 2.Communicable Disease Table, Kerala 2015 – 2019

Disease	2015		2016		2017		2018		2019	
	C	D	C	D	C	D	C	D	C	D
Dengue	4114	29	7218	21	21993	165	4090	32	4651	14
Malaria	1549	4	1540	3	1194	2	908	0	656	1
Lep	1098	43	1710	35	1408	80	2079	99	1211	57
Hep A	1980	10	1351	10	988	24	1369	5	1620	7
Hep B	1015	16	1085	16	817	7	759	7	828	6
Typhoid	1772	0	1668	2	314	1	109	0	27	0
H1N1	928	76	-	-	1411	76	823	50	853	45
JE	0	0	1	0	1	0	5	2	11	2
AES	29	3	18	6	5	4	28	15	59	5
Diph	-	-	69	2	79	5	23	1	32	2
S.T	1149	15	633	3	340	5	400	6	579	14
Nipah	-	-	-	-	-	-	18	16	1	0
WNF	-	-	-	-	-	-	1	0	11	2
S.C G	175	0	95	0	87	0	-	-	-	-
C.CG	152	0	124	0	54	0	76	0	109	0
Cholera	1	0	10	0	8	1	9	0	9	0
S.Ch	0	0	118	0	10	0	7	0	20	0
ADD	467102	4	493973	14	463368	8	540814	12	544027	6
HFM	176	0	215	0	408	0	222	0	97	0
KFD	102	11	9	0	0	0	0	0	8	2
Fever OP	2676842	26	2641311	18	3417968	76	2935627	63	2862375	51
Fever IP	96189		80049		109974		59983		60080	

Source: Integrated Disease Surveillance Programme Report from 2011 to 2019 Department of Health Service, Kerala

Lep – Leptospirosis, Hep – Hepatitis, SCG – Suspected Chikun Gunya, CCG– Confirmed Chikun Gunya, JE - Japanese Encephalitis, S.C – Suspected Cholera, Dip – Diphtheria, WNF – West Nile Fever, ADD – Acute Diarrhoeal Disease, AES - Acute Encephalitis Syndrome, S.T – Scrub Typhus, HFM – Hand Foot and Mouth Disease, L.D-Lyme Disease, KFD-Kyshanore Forest Disease, Dip – Diphtheria, Blank Columns – Data not availed.

Table 2, revealed that Communicable Diseases like Malaria, Leptospirosis, Hepatitis, Typhoid, Chikun Gunya, Japanese Encephalitis, Cholera, Diphtheria, West Nile Fever, Acute Diarrhoeal Disease, Acute Encephalitis Syndrome, Scrub Typhus, Hand Foot and Mouth Disease, Lyme Disease, Kyshanore Forest Disease, Viral Fever etc. affected Kerala society throughout the years from 2015 to 2019. Though there was considerable decrease in the outbreaks of Aedes Aegypti mosquito spread disease Chikun Gunya, from its severe attack to 70731 people in 2006 to 109 in 2019, variation recorded in diseases like the same Aedes Aegypti mosquito spread Dengue fever as it increased year after year from 1019 cases in 2006 to a mounted 21993 cases in 2017 and then decreased in the following years etc. The highest number of deaths due to Dengue fever was 165 in 2017. The death rate due to Chikun Gunya was low, but the after effects like joint pain affected some people in the succeeding years. The loss in working days due to these infections and the fear invoked on people were high during the outbreaks and had severe impacts in the social and economic aspects of individual life.

Malaria was recorded from all the districts during the decade 2006 to 2015 and it shows a declining trend from 2015 as the cases decreased from 1549 in 2015 to 656 in 2019. Though the number of cases is decreasing, the situation is severe till total eradication, as at any time it can cause a serious outbreak. Besides, if a person infected, it required treatment and rest for several months to the recovery and affects the family economy.

Leptospirosis attack is another severe one in Kerala as the death toll was also very high. In 2006, a total of 1821cases were reported and out of that, 104 deaths recorded with a death rate of 5.7 %. It continued in the following years with minor variations. The situation was not changed in 2015 as it shows 1098 cases with 43 deaths causes a death rate of 4%. In 2016 cases increased to 1710 with a low death of 35 cases. In 2017 cases were decreased to 1408, but death increased to 80 with a death rate of 5.7%. In 2018, the cases increased to 2079 with an increased 99 deaths. 2019 recorded 1211 cases with 57 deaths and the death rate is 4.7%. In almost all of these cases, the infected were manual labourers with very low economic background and the death of the earning members created economic imbalance in their family and which led to extreme poverty and loss of education of children, loss of better community life etc.

In Kerala, the number of cases of both Hepatitis A and Hepatitis B are high. While the cases reported were 6826 in 2006 with a death toll of 13, the number was found very high from 2007 to 2014. In 2015, the cases were 2995 and deaths were 26. Around 2000 cases and 20 deaths were reported till 2019 due to the infection of Hepatitis and death rate is high, which makes serious health problems in Kerala society. Among Typhoid, 5417 cases and 9 deaths were recorded in 2006. The cases showed a decreasing trend after this but reported around 2000 cases every year till 2014. Now it decreased considerably and reported only 1772, 1668,314, 109 and 27 cases each from 2015 to 2019 respectively, which is a positive sign and it seems on the eradication stage.

The infection due to H1N1 is very serious in the state as it showed considerable number of cases and deaths every year. In 2015, a total of 928 cases and 76 deaths were reported with a death rate of 8.1%. The reported cases were 1411, 823 and 853 from 2017 to 2019 with a death toll of 76, 50 and 45 respectively and which cause serious

problem in the heath sector. Acute Encephalitis Syndrome affects only a few but the death rate is high, as 3 deaths were reported out of the total infection of 29 in 2015, which shows 10.3% death rate. Six out of 18 infected died in 2016, four out of 5 in 2017, fifteen out of 28 in 2018 and five out of 59 in 2019 with very high death rate of 33.3%, 80%, 53.6% and 8.4% respectively during the period. Though the infection due to Japanese Encephalitis is very low, the death rate was high till 2011, but decreased thereafter and reported around 11 cases and 2 deaths in 2019.

Acute Diarrhoeal Disease infection is a very important issue of the society. Though the death rate is negligible, it affects around five lakh people every year. Scrub Typhus is another most important disease as it affected 1149 people in 2015 which recorded 15 deaths. The cases were 633, 340, 400 and 579 with death toll of 3, 5, 6 and 14 respectively from 2016 to 2019. Directorate of Health Services, Kerala warned about the West Nile Virus infection, which affected one person in 2018 and 11 people in 2019, which recorded two deaths also. This is a Culex mosquito-borne neuropathogenic zoonosis and incidentally humans and other mammals may become infected,which is endemic in Europe, USA Africa, Middle East, and West Asia. About 80% of WNV infections in humans are asymptomatic and no specific prophylaxis or treatment exists against the disease in humans. Hand Foot and Mouth Diseases, Lyme Diseases, Kyshanore Forest Disease, Measles and Cholera were also reported with different rates.

Diphtheria attained serious concern of the health sector as it showed a comeback to the society. 69 cases were reported in 2016 with 2 deaths and 79 cases and 5 deaths in 2017, twenty three cases and one death in 2018 and 32 cases and 2 deaths in 2019. Viral fever is a very normal phenomenon of the state and the rate of infection is very high during Monsoon season. Table states that from 2015 to

2019, the reported cases of Out Patients were 2676842, 2641311, 3417968, 2935627 and 2862375respectively and Inpatients were 96189, 80049, 109974, 59983 and 60080. The loss of working days leads to the loss of income and which causes severe impact in social life of people.

Besides these described communicable diseases, Chicken Pox infected the population in a very high rate every year, though death rate is negligible. Yellow fever, avian influenza, tuberculosis, filariasis, leprosy, measles and HIV/AIDS infection etc. were also continuous as serious threat to the state.

In addition to all these, the fear invoked by the Nipah virus infection of 2018, which took the life of 16 out of the 18 infected, made panic the society. Though one Nipah case was reported in 2019, the health system could easily conquer it. The 2020 Corona virus infection could also create similar situation, but as on now the society is safe and the health system is high alert and took precaution against this threat. But it exists in the world and is spreads to different countries at an alarming rate and above 70 countries were infected. Professor Gabriel Leung (2020), Dean of Medicine, Hong Kong University and the leading public health epidemiologist claimed that the deadly Corona virus can infect 60% of global population if can't be controlled.

Health Care System in Kerala

Though Kerala is leading other states with her achievements in socio-economic and cultural determinants in healthcare, such as primary and higher education, universal health care facility, personal hygiene, sanitation, availability and accessibility of safe drinking water improved transportation facility etc., is also witnessing the outbreak of a number of infectious and communicable diseases every year. The last two decades witnessed the outbreak of various

communicable diseases like Dengue fever, Leptospirosis, Malaria, Hepatitis, Typhoid, Chikun Gunya, Japanese Encephalitis, Chicken pox, Mumps, H1N1 and widespread viral fever etc. especially during monsoon season. This circumstance invites serious intervention in health sector.

Kerala has properly implemented various health programmes like National Rural Health Mission to fulfill these goals. The state has the lowest rural-urban inequalities in public health status and achieved 'good health at low cost' and often been singled out as a paradox. The easy accessibility and coverage of medical care facilities placed Kerala on top of all the other States in India's first ever Human Development Report published in 2002. Kerala has attained this good health standards through high level of education especially among women and greater health consciousness.

Kerala has better health indicators such as low death rate, infant mortality rate (IMR) and high expectation of life at birth than most of other states in India. Kerala achieved these with social factors such as female education, political and religious mobilization and pro-active intervention by the State. However Kerala society is now facing threats of re-emergence of communicable diseases like Malaria, spread of new communicable diseases such as Nipah, Corona viruses and emergence of risk factors of other chronic life style diseases. High morbidity rate leads to high out of pocket payments for treatment affects the economic well-being of the people. Besides higher suicide rates, death due to increasing road traffic accidents etc. makes situations worse. Changes in lifestyles, dietary habits and increase in alcohol and tobacco use leads to chronic diseases. Now the State tries to find out measures to manage these through the improved health care system.

The Ministry of Health and Family Welfare Kerala, in its Health Evaluation Report 2013 focused for a "society that can afford

healthcare cost; that is healthy, active and vibrant to fight against lifestyle and modern diseases; state actively involving, interfering & regulating the unethical practices and providing a pollution free environment, taking care of the old and weak, thereby establishing a proper healthcare system for the people of the state"

The priority health care areas identified for the improvement are: Control and management of communicable diseases; Prevention and management of lifestyle related diseases; Prevention of accidents, trauma care; Reduction of mortality and morbidity, IMR, MMR; Mental health; State specific treatment protocols, referral systems, Health of the aged; Infrastructure; Medical education training and Health care financing.

Role of Health care system in controlling communicable diseases in Kerala

The Kerala health care system consists of both public and Private sector hospitals. Government and private sector Medical Colleges, Allopathic, Ayurveda and Homeopathy Hospitals are part of the health system. Ayurveda, Yoga, Unani, Siddha, Homeopathy and Naturopathy are incorporated in the AYUSH programme. State has implemented the National Rural Health Mission and achieved universal standards in health delivery. Directorate of Health Service; Directorate of Medical Education; National Rural Health Mission; Sree Chitra Institute of Medical Science & Technology; Regional Cancer Centre; Kerala State AIDS control society; Karunya Benevolent Fund; Comprehensive Health Insurance Agency of Kerala; Oushadhi; NCD Control Programme; Digital Document Filing System; Kerala Medical Service Corporation; Kerala State Blood Transfusion Council; Ayurveda and Homeopathy are functioning under the Ministry of Health and Family Welfare, Kerala.

Table 3. Health Care Infrastructure in Government Sector, Kerala - 2018

Sl. No.	System of Medicine	Institutions	Beds
1	Allopathy (DHS)	1280	38004
2	Allopathy (DME)	11	9732
3	Ayurveda	864	2764
4	Homoeopathy	570	949
	Total	**2723**	**51439**

Source: Ministry of Health and Family Welfare, Kerala

According to the 2018 report, the Health infrastructure of the State consists of 2723 medical/health care institutions with 51439 beds. Besides 5403 sub centers are also functioning. Allopathy system includes 46.87% of the total institutions, 32.01% under Ayurveda and 21.12% under Homoeopathy Departments. Co-operative and Private sector are also active in health care system. There are 65 Hospitals with 6297 beds under the Co-operative sector in the State. Private sector consists of a major part of health system in the state.

Directorate of Health Services, Kerala

In the preface of DHS Kerala mentioned that, state health sector is on par with developed nations on its achievements. Kerala had properly implemented Millennium Development Goals and leads the country in this aspect. The Low birth and death rates, declining growth rate, use of the family planning methods and increased life expectancy show the health standards of the state. Kerala has set up specific targets on the emerging and re-emerging communicable diseases. Preventive and promotive health care services are part of the department. Establishment and maintenance of medical institutions with necessary infrastructure for the control of communicable diseases, rendering of Family welfare services, implementation of National Control/Eradication programmes etc. are going on.

Table 4. Number of Modern Medical Institutions Under Department of Health Services - 2016-17

Sl No.	District	GH	DH	THQH	TH	CHC	24*7 PHC	PHC	DTBC	Others	Specialty Hospitals	**Total**	Sub Centres	Grant Total
1	TVM	2	2	2	5	23	6	63	1	9	5	118	478	596
2	KLM	0	1	4	4	17	6	52	1	1	2	88	421	509
3	PTA	2	1	4	0	12	5	38	1	4	0	67	261	328
4	ALPA	1	2	6	0	16	17	42	1	1	4	90	366	456
5	KTYM	4	0	3	0	20	12	43	1	0	1	84	333	417
6	IDK	0	2	3	1	13	11	30	1	2	0	63	308	371
7	EKLM	2	1	5	6	23	33	42	1	1	1	115	410	525
8	TSR	2	1	3	3	24	11	68	1	3	2	118	472	590
9	PLKD	0	1	4	2	19	11	65	1	9	2	114	504	618
10	MLPM	1	3	3	3	22	19	65	1	6	1	124	589	713
11	KZKD	1	1	1	6	16	6	57	1	0	3	92	401	493
12	WYND	1	1	2	0	9	8	15	1	5	0	42	204	246
13	KNR	1	1	1	8	9	13	70	1	3	1	108	414	522
14	KSGD	1	1	0	2	9	10	30	1	3	0	57	247	304
Total		18	18	41	40	232	168	680	14	47	22	1280	5408	6688

GH – General Hospital, DH- District Hospital, THQH –Taluk Head Quarters Hospital, TH-Taluk Hospital, CHC-Community Health Centre, PHC- Primary Health Centre, DTBC –District TB Centre, Others – Coastal, Fisheries and Tribal Hospitals

Department of Medical Education, Kerala

DME was established with the inauguration of first Medical College at Thiruvananthapuram in 1951 and followed by other Medical Colleges Calicut (1957), Kottayam (1962), Alleppey (1963) and Trissur (1982) respectively. Three new Medical Colleges were started recently at Parippally, Ernakulam and Manjeri. Besides three Dental Colleges and five Nursing colleges are also functioning. The Department of Medical Education is creating medical and paramedical personnel every year to fulfill the health needs of the state. Research activity is also going on.

Schemes and Programmes

Ministry of Health and Family Welfare had implemented various schemes and programmes for the Control, Elimination or Eradication of communicable as well as non-communicable diseases. National Programme for the Control of Blindness, State Mental Health Programme, Department of Physical Medicine and Rehabilitation, National Iodine Deficiency Disorder Control Programme and Family Welfare Programme were implemented. Minimum needs programme and multi purpose workers scheme etc. were started to develop the rural health sector and trained staffs.

Specific Programmes to control communicable Diseases

National TB Control Programme

For the eradication of TB from the state, the 50% centrally sponsored scheme has been launched in 1962. District TB Centres, 7 TB clinics and two Sanatoria were started. With World Bank assistance, Revised National TB Control Programme formed in 1994 in Pathanamthitta district which aimed to achieve 85 % cure rate.

National Filaria Control Programme

Filaria was prevalent in the entire coastal belt of Kerala, and started the control programme during 1955-56. As per the government report, about 6.3 million people were exposed to the risk of Filariasis and through this programme; around 2.8 million people were protected. Now the programme is functioning through 16 NFCP units, 2 Survey Units centered at Cherthala. Mosquito larvicidal spraying operation, pistia removal and anti-parasitic treatment are the main control measures.

National Malaria Eradication Programme

State implemented the programme in 1965 and maintained the Malaria free status till 1968. Small outbreaks of malaria occurred in 1976 through imported vectors and the modified NMEP was launched in 1977. The malaria action programme was started in 1995.

National Leprosy Eradication Programme

Kerala has implemented the NLEP in 1959 with continuous case detection strategy and treatment with dapsone, which also provides health education to the patient's family and the community. With a vision to wipe out Leprosy from the state, it was brought under 20 point programme. Multi-Drug therapy system is following in all endemic areas.

Sexually Transmitted Diseases Control Programme

Programme started in the state to control the diseases like Syphilis and STD and special clinics were attached to district / Taluk hospitals, which are also known as Skin and Venereal Disease departments.

National AIDS Control Programme

It was implemented in 1993 and formulated the State AIDS Committee to oversee the functioning of the programme in prevention and control of HIV/AIDS. The activities includes surveillance, modernisation of blood banks, establishment of Zonal

blood testing centres, component separation unit and incineration, strengthening and establishment of DTD clinics, training to staff, IEC activities including adolescent education through Medias.

Maternal and Child Health Programme

India Government established the Expanded Programme of Immunisation in 1978 on realizing the importance of immunization in the primary health care services. Immunization can use against some specific vaccine preventable diseases and is vital in infectious diseases control. The T.T. immunisation programme for pregnant women, T.T. immunisation for school children, Polio and Typhoid vaccinations, BCG vaccination and Measles vaccination etc. were made a part of the programme in the subsequent years.

Universal Immunisation programme

The Universal Immunisation Programme launched in 1985 under the National Immunisation Mission in Idukki and Palakkad and by 1988 expanded to all other districts. Six killer diseases viz, Diphtheria, Whooping Cough, Tetanus, Child hood TB, Poliomyelitis and Measles were included under this immunization and giving to infants below one year.

Child Survival and Safe Motherhood Programme

The programme was launched in 1992-93 and which provides services such as oral rehydration therapy, universalizing the scheme for control of anemia in pregnant women and control of vitamin A deficiency caused blindness in children and control of acute respiratory infection among children. Sub-centres, anganwadies and other suitable locations were arranged for immunization camps. Educating, motivating and reminding mothers for second and third doses of vaccination was a part of it and Kerala could eliminate neonatal tetanus and polio and reduce other vaccine preventable diseases.

Oral Rehydration Therapy

To prevent under five diarrhoeal deaths Kerala has implemented the national child health programme in 1987 along with Universal Immunisation Programme and remarkable decline in IMR and child morbidity rate has been recorded.

National Rural Health Mission, (Arogya Keralam)

Kerala has launched the NRHM programme in 2005. The aims of NRHM includes: Provision for comprehensive health care services with special focus on rural areas; Reduction in Infant Mortality Rate, Maternal Mortality Rate and Total Fertility Rate; Provision of client cantered, accessible, quality health services to the needy population; Surveillance, Prevention and Control of Communicable and Non Communicable Diseases. Infrastructure development has been done through the up-gradation of selected General/ District/ Taluk/ Block PHCs/ PHCs, and all the Community Health Centres and other Medical institutions. As part of the NRHM, Accredited Social Health Activists (ASHA) workers were appointed for every 1000 population. They are making a link between the community and health care services to ensure the primary health care services to the rural poor. The role of ASHA's is wide as Prevention and Control of Communicable diseases, identification and control of NCD's, Palliative care and community based mental health programme etc.

Health Management Information System

It has been implemented for reporting and analyzing of a variety of data having vital importance in health care.

School Health Programme

The School Health Clinics under NRHM was started in December 2007 in Thiruvananthapuram, in the Cotton hill Girls Higher Secondary School, the largest girl's school in India with a full time Doctor, a staff nurse and an attendant. The programme

is very successful as around 30-40 out students attending the clinic and availing appropriate treatment with either medicines or proper advice.

Tribal Health

Special medical camps were conducted especially in Wayanad, Idukki and Palakkad districts. Camps fulfilled the Primary health care needs such as the immunisation, prevention and control of the communicable diseases and provide health education for the prevention of water borne diseases etc.

Adolescent Reproductive and Sexual Health – ARSH

ARSH programme organized to influence MMR, IMR, reduce incidence of teenage pregnancy, meet the unmet contraceptive needs, reduce the incidence of Sexually Transmitted Infections and reduce the proportion of HIV positive cases.

Rashtrya Swasthya Bima Yojana (RSBY)

Kerala has implemented the RSBY scheme in 2008 as a Comprehensive Health Insurance Scheme for providing protection to the below poverty line households from major health shocks which required hospitalization. BPL families are entitled to more than 700 in-patient procedure with a cost of up to 30,000 rupees per annum for a nominal registration fee of 30 rupees.

Behaviour change Communication/Information Education and Communication

As a suitable means at the time of outbreaks of communicable diseases this programme launched and it provides counselling to the families and community. BCC strategies can implement as a mix of media, message and interpersonal communication. This Mass media campaign uses the electronic, print and other possible media of mass communication for awareness generation and behaviour change (eg: Radio Health programme). Flip charts on prioritised topics are

using by the ASHAs and JPHNs for interpersonal communication at the field level.

AYUSH

Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homeopathy systems of medicine initiated for the revitalization of Local Health Traditions. For example, Homeopathy provides preventive medicines to certain communicable diseases like Chicken Pox.

AARDRAM Mission

Kerala has introduced the AARDRAM mission as a patient friendly hospital initiative. The mission envisages for providing affordable, acceptable and quality health care to all. It includes prevention, control and management of Communicable as well as non- communicable and life style diseases, disaster management, healthy pollution free environment, nurturing a mind-set among the public to identify health needs and utilise health services by implementing various national health programmes.

Local Self Governments takes initiative in ensuring community partnership and participation by using the established social structures like Ayalsabha, Ward sabha, Gramasabha and Kudumbasree. NGO's and other community organizations are also participating. Ongoing missions such as "Harithakeralam", "Life" and "Pothu vidyabhyasa samrakshana yajnam" were converged at the local self-government setting.

The main initiatives of AARDRAM Mission includes Communicable Disease control (Dengue Fever, Leptospirosis, H1N1, Malaria, Scrub Typhus, Tuberculosis, Community Acquired Pneumonia, Reproductive Tract Infections/Sexually Transmitted Infections, Hansans Disease, Lymphatic Filariasis), Management of common symptoms such as Fever, Cough, Joint Pains, Abdominal Pain, Headache, Anemia and Jaundice and Non Communicable Disease

Prevention (Diabetics, Hypertension, Coronary Artery Disease, Stroke, Cancer, Chronic Obstructive Pulmonary Disease, Bronchial Asthma and Mental Illness) etc.

Health care situation in Private sector

Private sector plays an important role in the health care sector of Kerala. As per the Report on Health in Kerala (2014) by the Department of Economics and Statistics, around 37% hospitalisation took place in public hospitals and 63 % in private hospitals in both rural and urban areas and the preference is for Allopathic treatment.

Conclusion

The health sector of Kerala has been advanced to the level of western countries in both the public and private sectors. Better medical treatment is available for all communicable and non-communicable diseases equitably for the entire population irrespective of their income. The 2018 NIPAH virus outbreak in Kerala had drawn immense global attention and the state demonstrated to the world its vigor and the strength in controlling the deadly virus successfully. People became panic and extra-cautious since the outbreak of the Nipah virus was first in the recent history of Kerala. Though the infection claimed 16 lives out of 18 infected cases, the state could identify the type of virus and the sources of infection rapidly. Thus the state became succeeded in taking preventive measures which lead to the control of the virus without much loss of human life in 2019. The Kerala government has already set an example to the rest of the world in 2018, when it showed how to handle the possibility of the outbreak of communicable diseases like Leptospirosis during a flood.

The fast spreading and life sucking Corona virus infection is creating serious health and other socio-economic problems in the world now. The first Corona virus infection in India was reported in Thrissure district of Kerala. The patient was a student who had

returned recently from Wuhan University, China. This made a panic situation similar to Nipah and more than 3000 people are now in isolation and medical surveillance till the end of February 2020. It did not create much damage to the society yet, which again proves the strength of the health sector in Kerala to prevent and control such communicable diseases.

In the last two decades, the state has witnessed the spread of numerous deadly communicable diseases in humans such as Dengue fever, Chikun Gunya, Malaria, Leptospirosis, Hepatitis, Typhoid, H1N1, Acute Encephalitis Syndrome, Japanese Encephalitis, ADD, Viral fever and re-emerging Diphtheria etc. Though the state succeeds in controlling these infectious diseases every year, the community life is under threat particularly during Monsoon which creates severe social and economic hazards to the individual life. Besides the WHO has warned that the state should be alert against the Zika virus attack also as it spreads by another variety of the still existing Aedis Aegypti mosquito which causes dengue fever. So Kerala should be more vigilant and implement the most suitable methods with community participation to prevent, control and eradicate the deadly communicable diseases from the society.

Reference

Barry Anne Marrie and Chris Yuill (2012). *Understanding the Sociology of Health*, New Delhi: SAGE Publication.

Cockerham William, C. (1998). *Medical Sociology*, Seventh edition, Prentice Hall International, Inc

Cockerham Wlliam, C (2013). *Social Cause of Health and Diseases*, United Kingdom: Polity Press.

Diclemente R.J, Crosby R.A, Kegler H.C, (ed), (2002). *Emerging Theories in Health Promotion Practices and Research,* San Francisco: Jossy-Bass

Department of Economics and Statistics (2014). Report on Health in Kerala, Retrieved from http://ecostat.kerala.gov.in/index.php/32-uncategorised/461-all-reports

Integrated Disease Surveillance Programme Report, (2006-2010). Directorate of Health Service, Ministry of Health and Family Welfare, Government of Kerala. Retrieved from http://www.dhs.kerala.gov.in/index.php/publichealth.html

Kerala, Directorate of Medical Education, http://www.dme.kerala.gov.in

Kerala, National Rural Health Mission –http://www.arogyakeralam.gov.in

Ministry of Health and Family Welfare, Govt. of Kerala (2018). Preface page Retrieved from: https://kerala.gov.in/health-family-welfare.

Merriam-Webster (1828) https://www.merriam-webster.com/dictionary/health

Park K, (2019), Retrieved from *"Preventive and Social Medicine"*, Banarasida Bhanot Publishers, Jabalpur, India

World Health Organisation (1946). Preamble to the Constitution of WHO as adopted by the International Health Conference, New York, 19 June - 22 July 1946; (Official Records of WHO, no. 2, p. 100).

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RICH MEDIA AND POOR DEMOCRACY: FACET OF MEDIA IN THE GLOBALISED WORLD

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Abstract

Media play a prominent role in strengthening democracy. Media is at the same time the child and parent of democracy. But in the contemporary world media has turned to be manipulated by vested interests. It has changed its activities according to the market needs. The challenges faced by the contemporary media include ethical and value concerns. In the globalised world, media became an agency to protect the corporate interest. The actual needs and voices of the society are less comprehended by contemporary media works; they are obliged to work with in the parameter of capital interests. The tendency of media now is to endanger the impartiality of media activities and turn to be profit oriented. Money power and unethical professional practices in this field has resulted in weakening of democracy.

Key words: *Democracy, Corporate Media, Globalised world*

Communication sustains social life in all its forms. It is also an expression of political activity integrating knowledge, information and power. Media, both print and electronic, have for long been playing a critical role as the nerves of communication and information. However, as the world has been advancing in to the realm of information flows, the process and the patterns of communication flow have become more complex and subtle.

The advent of Information and Communication Technology (ICT) has further widened the scope of media activity. It can be understood in social media and online platforms. These media

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platforms broadened the scope of mass communication process. These information and communication processes are not free in access to common man. It has been differentiating society and power and taking in to one side views. Most of the time it has been taking state views and protecting state interests. In some other times media happened to take positions of larger corporate interests. Contextually the nexus of political power and corporates forces control the whole sector of media. What the world actually envisions is that right to communication is a fundamental human right and the idea of right to freedom of speech and expression comprehends the right of press. These rights are extending to some groups, nations and international community, and to have important legal, economic and technological implications in the society (Kumar, 2013). This study tries to analyse the facet of media in the Globalised world in protecting democracy and fundamental human rights.

Media enjoys more freedom in democracy and in turn media has the obligation to protect democracy. Thus free media is considered as both the child and parent of democracy. Democracy stands in the ideals of liberty, equality and fraternity. The freedom of the media and right to criticize the policies of the government, all emerged in the context of democratic setup. That is why, society considered media as the child of democracy (Dennis & Robert, 1998). It can flourish and function freely only in a democratic society. Media is called the parent of democracy because, it is the media that protect and preserve the system of democracy and it also nourishes and strengthens the democracy (Dennis & Robert, 1998).

Media is the most important organ of the society, which makes democracy meaningful, the government workable, and help the people to enjoy their rights. In the classical theory of liberal democracy, the news media occupies a key role, as the major source of information that citizens need to arrive at rational political judgments and choices

(Tambini, 1999). To achieve this, three important conditions have to be fulfilled. First, the whole range of relevant information needs to be equally available to everyone. Secondly News organizations need to be independent of both government and big business groups, so that they can deliver disinterested accounts of the key sources of power, which effecting people's daily life. More than that, thirdly, they have a positive duty to act as forth estate; a public watchdog, checking for abuses of corporate and governmental power, on behalf of the wider public interest. It is also its duty to bring the subalterns in to the social inclusion process. Media should speak for the subaltern and committed to work for social and economic justice.

The media has emerged as a pillar of the modern democratic state. The foundation of a modern democratic state lies in its ability to secure fundamental rights promised to its people, to deliver justice and lead its people to economic and social progress. Media must be an embodiment of the rights that define democracy. Dangerous business practices in the field of media will affect the fabric of democracy. Big industrial conglomerates in the business of media have threatened the existence of pluralistic view points. Sometimes the state also brings undeclared regulation on media. In the Post liberalisation period transnational media organisations have spread their wings in the Indian market also with their own global interests. Though media has at times successfully played the role of a watchdog of the government functionaries and has also aided in participatory communication, sometimes it becomes the lapdog (Tambini, 1999).

Kumar observes that, ''As a cultural industry and business, journalism involves publishing on a regular basis for profit, with news considered as the primary product. Hence they need to attract advertisers and readers through marketing strategies that focus on circulation and readership. But the need to attract advertisers often lead to the de-politicisation and localization of news where

'soft stories, take precedence over 'hard stories' and where news is transformed in to infotainment and editorial into, advertorials'. The primary goal therefore of newspaper publishers begins to be the purchase, first of advertisers and then of readers. This converts newspaper into' products' and reading citizens into 'consumers'. When this takes place, the 'public sphere' shrinks and journalism ceases to be the 'fourth Estate" (Kumar, 2013, p.53)

Global Communication System

Freedom of expression is a fundamental human right as stated in Article 19 of the Universal Declaration of Human Rights (UDHR). It says that the right to freedom of opinion and expression includes "freedom to hold opinions without interference and to seek, receive, and impart information and ideas through any media and regardless of frontiers" (UDHR, 1948). Likewise, many other international covenants and treaties underline the importance of freedom of press and free flow of information. However, in many nations the freedom of press and the free flow of communication are not guaranteed and the nexist no international compulsion to implement them properly. It calls for efforts to ensure that the free flow of information and freedom of press are exactly put in place across the World. The United Nations Educational Scientific Cultural Organisations (UNESCO) one of the specialized agencies of the UN, is entrusted with this task to promote all these. The UNESCO, over years, widened its activities in the domain of communication and information, in addition to cultural, educational and scientific matters. The communication and information sector was established under UNESCO in 1990. The ultimate aim of this wing is to promote the free flow of ideas by word and image and also by ensuring the universal access of information (Hearan, 2009).

Nevertheless, the freedom of the press and the right of all people to communication are denied to a large section of the world

population. Attacks on journalists are frequently reported. Partial/ based news is very often disseminated through international as well as national news agencies. In many cases, these agencies promoted and propagated western values and interests which amount to neglecting the development scenario of the third world countries. The cultural domination of the West is, by and large, ensured through the existing structures/agencies of the present information order (Tambini, 1999). The agenda of a New International Information Order (NIIO) put in place by UNESCO and other international organizations has been looked upon by countries in the Third World as a way out to overcome the problems of the existing world information order. Yet, NIIO remains as a dead letter. Even the UNESCO seems to have passed over the agenda, apparently due to the pressures from within the existing order (UNESCO, 1980).

Moreover, the free flow of information is still a dream. Major News Agencies in the world are controlled by the big powers. Associate Press (A.P.) an American agency, Reuters from Britain and Agency France Press (AFP) from France are example (Mc Nelly. J.T, 1959). The remaining two powers are Russia and China. There is more state control on Media in these countries. So the Third world countries cannot depend upon those News Agencies. Therefore, mainly they have been depending the Western News Agencies which protect the interest of the western countries and propagate western culture throughout the world. In a democracy, what the people desire is a mighty and privately owned decentralised press, which is totally free from business interests. In India we have both the public and private media systems. However, most of the media in private sector have their own business or vested interests. It is these groups who decide the media Agenda (Paterson, 2005).

Media Globalization

Globalization has changed the face of the media. Globalisation is

the catch phrase being used to describe the increased transnational flows of finance, goods, services and people, a phenomenon which has gained particular momentum since the 1990s. The capital accumulation process on a global scale commoditised the information and communication sectors as well and made it as a branch of industrial activity for the sake of maximum profit (Ambirajan, 2000). Centralisation and concentration of media industry, leading to the emergence of giant globally operating media conglomerates and increased transnational flows of media products, a consequent spread and intensification of the commercialization of media output, these are considered some of the features of media globalization (Machin. D., 2007).

Almost the entire international communication and media industry is owned and controlled by giant, western, mainly US-based transnational corporations (Machin. D., 2007). Since the early 1980s, there has been a dramatic restructuring of national media industries along with the emergence of a genuinely global commercial media market (Stevenson, 2014). The newly developing global media system is dominated by three or four dozen large transnational corporations with fewer than ten US based media conglomerates towering over the global market.

In addition to the centralization of media power, the major features of global media order is its thorough going commercialism and associated marked decline in the relative importance of public broadcasting and the applicability of public service standards (Ambirajan, 2000). Such a concentration of media power in organizations dependent on advertiser support and responsible primarily to shareholders is serious threat to citizens' participation in public affairs, understanding of public issues, and ultimately dangerous to the effective working of democracy.

However from the beginning of the modern news system in the last century, these ideals have been steadily eroded and undermined by the political and economic realities of the environment in which newspaper operate. Moreover news organizations themselves became major business enterprises. They became the news and information industries. There is also the corporate control over the public information (Machin. D., 2007). Media have largely become vehicles of advertisers rather than public forum for opinion formation. Freedom of the press is confined only to those who owned a Press.

Corporate media and FDI in media

According to Noam Chomsky, “The media serve the interests of state and corporate power, which are closely interlinked, framing their reporting and analysis in a manner supportive of established privilege and limiting debate and discussion accordingly." Generally corporate media keeps correct information away from the general public (Bagdikian, 2007).

Ownership pattern of media across the globe and in India is a cause for concern. There are big corporate houses who own newspapers and television networks. A higher concentration of ownership increases the risk of captured media (Corneo, 2006). Media independence in such a scenario gives way to safeguarding the interest of the owners who may not serve social responsibilities. The space for plurality of ideas is eroded sending ominous signals for democracy. Bogart opines that in many democratic countries media ownership has reached dangerous levels of concentration. He has cited the examples of News Corporation's (owned by Rupert Murdoch) 37 % share in United Kingdom's national newspaper circulation and Silvio Berlusconi's ownership of top three commercial television channels, three pay TV channels and various newspapers and magazine in Italy which act as his political mouthpieces (Dennis

& Robert, 1998). Transnational powerful media organizations are in operation in India post liberalisation. These are big multinational corporations who own a chunk of the mass media market ranging from newspapers, television, radio, book publishing to music industry. Six of world's largest media conglomerates include Walt Disney, News Corporation, Time Warner, Viacom, Sony and Bertelsmann. In India there are big players like Reliance Communications (Rcom), The Times Group (BCCL), Zee Network, DB Corp Ltd and ABP (Dennis & Robert, 1998).

In a bid to open up the Indian market 26% foreign direct investment has been allowed in news publication and 74% has been allowed in non- news segments by the Government. 100% foreign direct investment is available in the film industry. 100% FDI is also allowed in television software production subject to certain government norms. Cable networks and FM Radio networks have FDI limits of 49% and 20% respectively 26% FDI has been allowed in the Digital Media in 2019 (Despande, 2019).

Journalism nothing, market important

Now the greater concentration of the corporate ownership of the news media is cutting newsroom budget and undermining journalists integrity, giving advertisers and sponsors unwanted influence over news agenda. Now the media organisations need no editors (M.K, 2012). They want only the news managers. That means managing the news according the interest of the owners. Now majority of the journalists (a few highly paid) in India are paid less salary and they have been denied the wage board recommendations. They have even lost the capability to protect even to protest against it. Contract journalists are more in many news organizations. Most of the reporters are working in contract level, without getting adequate wages. The working journalist act of 1955 proposed for the wage board to provide fair wage and service conditions to

the journalists and thus protect the freedom of the press in India (Rao S., 2008). Now the freedom of the press in India is for those who own a press. The association of the newspaper owners, (INS) is against the wage board system and they have denying the wage board recommended salary to the journalists (M.K, 2012).

Marketing section is more important in the media industry than the Editorial section. The space for news is that the space getting after display of advertisements. The advertisement managers demands to give advertisement items in the form of news items. That is what is known as Advertorial, which really confusing the readers. It is also the marketing section decides what programmes to be telecasted or published. And it is mainly considered on the basis of the chance for getting the advertisement (Rao S. , 2009).

Media is the fourth pillar of Democracy. Other three pillars have legitimate power. But media have the power which derives from the society because the people believe that media doing its social responsibility. Of course some media persons still believe in the social responsibility theory. Media is considered as the Fourth Estate in democracy. Now the media owners consider the media as the First Estate to nourish their other Estates i.e. Industrial estates, rubber estates, tea estates, real estates, coal mines etc. (Rao S. , 2009).

Fast food Journalism

Now we have fast food journalism or instant journalism. In the world of journalism, reputations are destroyed and privacies trivially invaded in the time it takes to switch the TV channels. Fast food may be convenient and taste OK at the first bite, but its popularity raises longer term questions in public health. Same in case of the journalism (Hermida, 2010). Today television journalists shoot pictures in desert, warzones and beam them via satellite for transmission around the world. These stories get more prominence,

if the shots are visually exciting; violence is desirable death a bonus. But more important stories about education, health diplomacy, community relations, problem of the subaltern, get less coverage. Now more people vote or send SMS in the reality show than in the general elections (Pavlik, 1999). If the journalist is secretly the tool of some invisible public relations machinery or vested commercial interest, it is the public whose interest is betrayed (Hermida, 2010). This is the existing situation in journalism.

Paid News

Periodical election is an important process in democracy. The modern tendency is that during election time, the profit motivated media sacrifice all their ethics and sell their slots for mere financial gains. It was firstly used in 1914 Lok Sabha election in north India. Paid news is the practice of publishing a news item for money, which cannot publish otherwise, as in the case advertisement (Ashraf, 2017). News slots and columns were sold for money. For example if a man wants to boost his image, he can do that by bribing the journalist or the media organization. The media will create a fabricated image to the candidate during election time.

Media give undue importance to the sensational news. They are not concerned about the serious discussions on the democracy or the parliamentary institutions. They make even the hard news as sensational news. Even the important information is passing in an entertainment manner. This practice is known as Infotainment (Ranganathan, 2015). The electronic media concentrates on visually important news. If a news item is visually good, they shall make it as an important news item. The print media also sensationalizing the news story (Ranganathan, 2015).

Unhealthy competition

Competition spurs innovation, but unhealthy competition can

lead to pandering. The rush for eyeballs in a crush of problems leads to extremes being aired rather than the moderate being heard. In such a situation, the responsibility of the media to the larger society gets diluted. It is not fair to impose govt. regulation on media. It is for the media to ponder and find solutions for itself. All media are trying to make the breaking news. Two create breaking news, sometimes the journalists do unethical things. Media is one of the major agency which formulate the public opinion. Media discussions are focused on a particular agenda. It is not unbiased. The anchor may try to impose his argument upon others. Therefore the public opinion originating out of it may not be a good public opinion. Over the past decade, the media has become much too powerful at a very fast pace. It is only natural for the Indian political parties, religious organisations and corporates to acknowledge the power as a powerful propaganda machine (Despande, 2019).

More urban oriented

In the contemporary period, society is witnessing more political participation in the rural area and also the percentage of votes in the election are high in the rural than in the urban area. But no newspaper or other electronic media give due concentration on the problems of the rural people. Particularly the electronic media is mostly concentrated in the urban area. The exceptional case is that the Hindu Newspaper has appointed a Rural Editor to report the rural problems. Thus the Rural Editor of Hindu, Sai Nath brought a lot of rural issues into light (Machin. D., 2007). Another interesting story is that the urban elites or the bureaucrats are never worried on the issue of their names are omitted in the voters list. But the ordinary villagers and peasants consider it as an important civic duty and they are ready to sacrifice their one day wage for casting their valuable votes. The elites or bureaucrats may not use their

voting rights even if they get government holiday to cast vote (Ambirajan, 2000).

Media and Social Responsibility

The normative view of the press argues that the conduct of the media has to take into account public interests. The main public interest criterions that the media need to consider include freedom of publication, plurality in media ownership, diversity in information, culture and opinion, support for the democratic political system, support for public order and security of the state, universal reach, quality of information and culture disseminated to the public, respect for human rights and avoiding harm to individuals and the society (Mc Quil, 2005).

The social responsibilities expected from media in the public sphere were deeply grounded with the acceptance of media as the fourth estate, a term coined by Edmund Burke in England. With the formation of the 1947 Commission on the Freedom of the Press the social responsibility of media became a strong debating point. It was formed in the wake of rampant commercialization and sensationalism in the American press and its dangerous trend towards monopolistic practices.

The report of the Hutchins Commission, as it was called, was path breaking on its take on social responsibility and the expected journalistic standards on the part of the press. The theory of social responsibility which came out of this commission was backed by certain principles which included media ownership is a public trust and media has certain obligations to society; news media should be fair, objective, relevant and truthful; there should be freedom of the press but there is also a need for self-regulation; it should adhere to the professional code of conduct and ethics and government may have a role to play if under certain circumstances public interest is hampered (Mc Quil, 2005).

Some hope instill there

However all is not lost. Some hope is still there because at least a few journalists are there who work with professional ethics and social responsibility. For example in Neera Radia controversy, still there are some ethical media groups that are fearless in their journalists duty and exposed the unhealthy relations of the politicians and the business groups. The 2G spectrom scam was also brought to light by the ethical journalists although the court verdict was not favourable to them. The management see such investigative stories are a hot selling item of the newspaper which can promote their circulation. However, the investigative reports in print and television media have helped in exposing large scale corruptions that have which have robbed the national wealth in the recent past. The Commonwealth Games Scam, the Adarsh Housing Society Scam, Cash for Vote Scam and the Bofors Scam are the high points of the Indian media. Across newspapers and television channels voices have been raised when the bureaucracy, judiciary or other public functionary have crossed the laxmanrekha.

There have also been initiatives to promote community media for the citizens to air their concerns. This is a significant leap towards alternative media usage which is distant from the dominant structure. Here the importance lies more in participatory communication right from the grass roots rather than communication which flows top down. Various television channels have also given the space for ordinary citizens to air their views in the form of citizen journalists thereby promoting democratic participation.

Social media popularised

More hope remains in the working of the social media or new media, which stands at the side of the public to propagate the concept of social justice and to fight against the social injustice. It

gives momentum to movements, struggles and the resistances of the people. Social interactions have exploded as never before, aided by the connecting power of the internet. The ability of thoughts to converge and congregate have multiplied manifold. These interactions have led to questioning of the present order and the search for a better world through the social media (Rottier, 2014). The outpourings of protests all over the world "from Occupy Wall Street" to the "Arab Spring", from the "Lokpal agitation" to the "million mutinies" erupting across the globe –are the examples for the power of social media (Rottier, 2014).

Street dissent in Democracies has become prevalent. Simultaneously, we are witnessing the overthrow of Dictatorships. Thoughts and deeds, actions and reactions jump across the globe to reach the mind-space of people in the twinkling of an eye. The internet today is the public square of the Grecian city-state democracies. Media is slowly ceding space to the internet as the harbinger of news and views. Internet, a relatively newer entrant in the field of mass media, has proved to be more democratic than newspaper and television (Corneo, 2006)

Internet has provided the opportunity for citizens who are conversant with the medium to express their views about a number of issues. In many cases groups have been formed by like minded people who discuss and debate over a number of decisions on the part of the government and seek new ideas for way ahead. The power of the internet can be easily judged from the developments in Egypt in recent times. Social networking sites like Facebook and Twitter were used to garner support against the regime of President Hosni Mubarak (Rottier, 2014).

Internet has been used by various public service organizations and N.G.Os to inform people about their objectives and also to

make them aware of various initiatives on the part of the government as well as non-government organisations for social upliftment. In internet the barrier to communication is minimal which helps in the formation of a participative environment. There is also greater empowerment of the users through higher level of interactivity and flexibility in choice of media outlets. The potential of the medium lies in its ability to be more personalized by offering user-created content (Flew, 2009).

Nevertheless, there is the threat of advertising revenues influencing media outputs. Those who control considerable wealth have the opportunity to sway public opinion in their favour with the help of mass media(Jebaraj, 2010). Developments like these are a threat to democracy and undermine the media fraternity. Advertisements in newspapers, television, radio and at times the internet have become a part of the present election campaigns. Candidates with better funds have the edge over others in being voted to office because they can buy newspaper space and considerable air time (Corneo, 2006). However the government now thinking of to introduce some control over the social media.

Conclusion

Freedom of the Press in a country is the highest blessing for its people. However the blessing goes to be the highest disapproval when there exist a manipulated press. The media should be free but at the same time a self-regulatory mechanism need to be developed across the media organization. Big media conglomerates' are really threats to Democracy. It will lead to monopoly and centralisation in this field. To counter this problem pluralistic media organizations that are financially and ethically viable need to be encouraged.

In the Indian democracy media has a deep responsibility. That is intensely associated with the socio-economic conditions of the

society. The present scenario is not quite encouraging and certain areas need to be addressed. Media organisations, whether in print, audio visual, radio or web have to be more accountable to the general public. It should be monitored that professional integrity and ethical standards are not sacrificed for sensational practices. Community participation is a goal that the media should strive for in a country like India.

Market and technological forces are altering the role of media in public life. The media in democracy must be credible and reliable, lest they loose their influence and authority in the society. It will no longer be the press alone but the public and social media that will function as the nation's powerful fourth estate. It is argued that new media will have significant and positive impact upon the process of democratic communication within the appropriate regulatory and economic context, particularly regarding access to communication technologies. Digital democracy and computer mediated communication system for political purposes are common today.

Media can conceal facts and project distorted ideas to influence the electorate and thereby the voting outcome. Values like objectivity and truthfulness in presentation of news and ideas can be totally done away with. Over the past decade, the media has become much powerful at a very fast pace. It is only natural for the Indian political parties, religious organisations and corporates to acknowledge the power as a powerful propaganda machine. That is why they pour huge amount of money in this field. Wherever huge money is invested, there corruption is an unavoidable part. And with the support of the media they conceal such corruptions. The 'moral conditioning' has become 'opinion building' which is largely influenced by the individual journalist's interpretations.

References

Ambirajan, S. (2000). Globalisation, media and culture. *Economic and Political Weekly*, 2141-2147.

Ashraf, P. (2017). The role of media in good governance: Paid news culture of media and the challenges to Indian democracy. *International Research Journal of Social Sciences*, 41-43.

Bagdikian, B. H. (2007). *Media monopoly : The Blackwell Encyclopedia of Sociology.* London: BlackWell .

Corneo, G. (2006). Media capture in a democracy: The role of wealth concentration. *Journal of Public Economics*, 37-58.

Dennis, E. E., & Robert, S. W. (1998). Media and Democracy. In L. Bogart, *Media and Democracy* (p. 195). New Brunswick USA: Transaction Publishers.

Despande, A. W. (2019). Alternative Media: Choice of Unheard Voices in India. *International Conference on Media Ethics.* New York.

Flew, T. (2009). *Democracy, participation and convergent media: case studies in contemporary online news.* Chicago: Universal Publications.

Hearan, G. (2009). *Action research and new media: Concepts, methods and cases.* Hampton Press.

Hermida, A. (2010). Twittering the news: The emergence of ambient journalism. *Journalism practice*, 297-308.

Jebaraj, P. (2010). *Opinion: The spotlight is on the media now.* Chennai: The Hindu.

Jenkins, H. (2004). The cultural logic of media convergence. *International journal of cultural studies*, 33-43.

Kumar, K. J. (2013). *Mass Communication in India.* New Delhi: Jaico Publishing House.

M.K, D. (2012). Changing Face of Indian Journalism-Political Agitations to Economic Alliances. *Media Watch*, 3-8.

Machin. D., &. V. (2007). *Global media discourse: A critical introduction.* New York: Routledge.

McNelly.J.T. (1959). Intermediary communicators in the international flow of news. *Journalism Quarterly*, 23-26.

McQuil, D. (2005). *McQuil's Mass Communication Theory.* London: Vistaar Publications.

Paterson, C. (2005). News agency dominance in international news on the internet. *Converging Media, Diverging Politics*, 145-163.

Pavlik, J. V. (1999). New media and news: Implications for the future of journalism. *New Media & Society*, 54-59.

Ranganathan, M. (2015). Paid news: Cocktail of media, business and politics. *Indian news media: From observer to participant*, 121-147.

Rao, S. (2008). Accountability, democracy, and globalization: A study of broadcast journalism in India. *Asian Journal of Communication*, 193-206.

Rao, S. (2009). Glocalization of Indian journalism. *Journalism Studies*, 474-488.

Rottier, D. &. (2014). *Social media, politics and the state: protests, revolutions, riots, crime and policing in the age of Facebook, Twitter and YouTube.* London: Routledge.

Stevenson, N. (2014). *The Transformation of the Media: globalisation, morality and ethics.* New York : Routledge.

Tambini, D. (1999). New Media and Democracy. *Media and Society,* 305-329. *UDHR(1948).* New York: United Nations Organisations.

UNESCO. (1980). *Many Voices, One world: Mac Bride Report 1980.* Paris: UNESCO.

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COMPARISON OF MENTAL TOUGHNESS AND TASK AND EGO ORIENTATION OF KERALA KABADDI PLAYERS

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Abstract

Purpose of the study is to compare the mental toughness and task and ego orientation of Kerala kabaddi players. The study was delimited to Kerala Kabaddi players (both male and female) who were attending the National Games coaching camp. It is again delimited to selected questionnaire in assessing the demographic parameters, mental toughness and task and ego orientation in sports questionnaire. Two hypotheses developed are (i) there would be significant difference between the scores of mental toughness of Men and women Kabaddi players and (ii) there would be significant difference between the scores of TEO of men and women kabaddi players. The subjects of this study were 50 Kabaddi players of 18 to 30 years old. Tools used in this study are mental toughness Questionnaire and Task and Ego Orientation in sports Questionnaire. Statistical techniques used are Descriptive statistics and T test. Male players exhibited more mental toughness than female players and ego-oriented players as well as task-oriented players. Female players can get more emphasis on the mental toughness aspect. They can formulate their training programs in such a way that they become mentally tougher. Both male and female players may be geared towards improving their task to reduce their ego-orientation.

Key words: *Mental toughness, Task and Ego Orientation in sports.*

Mastering psychological skills allow athletes to use the strength of mind to push their athletic success to new heights. Sports psychology aims to explain the actions of professional sports athletes or sports

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people. Mental toughness and task and ego orientation are two important factors which determine the success. Mental toughness is ''doing whatever is necessary to get the jobs done including handling the demands of a tough workout, withstanding pain, or touching an opponent out at the end of a race'' (Eberst, 2012). Mental toughness is not letting anyone break you (Mitchell, 2012).

When someone defines success in terms of mastering a new skill or demonstrating skill, this is called a task orientation. Task orientation is focusing on learning new skills and on comparing performance with personal standards. People with a task orientation are interested in how well they perform a particular task and compare their performance with their own previous performances. When someone defines success in terms of winning, this is called an ego orientation. People with ego orientation focus on social comparison and they compare themselves to others. Ego orientation is focusing on defeating others and comparing one's performance against that of other people.

Mental toughness is a must in competitive sports. Competition against other athletes can be a stressful process, or even against one's own personal best. In some athletes, competing will, in general, cause anxiety. Enjoying playing basketball on a day off is one thing, but when one plays a basketball game against a rival team and all eyes are on you to succeed, mental toughness is also needed to overcome any stress and anxiety.

Mental toughness is an essential component of sports training; the process of training itself involves mental toughness long before one enters the stage of competition in a sport. There may be occasions when one may not feel like practicing and need to carry on with the tenacity and stamina. He may be dealing at other times with muscle soreness or a mild and irritating injury that does not stop one from playing but distracts one. In this situation one has to work through

the pain mentally and complete training session. He may have doubts about his physical abilities during training. Watching others excel in physical activities one hasn't mastered yet can be another distraction. In all these scenario mental toughness involves staying focused on one's own progress, ignoring distractions and pushing through all the challenging moments.

Recent work has sought to examine more deeply the idea of mental toughness in sport, and it seems that while some people are simply more tough-minded than others, people can be 'toughened-up' with the right approach to training. Athletes are constantly under severe stress and anxiety to be able to perform well. They are fighting for every inch and often putting their bodies through gruesome pain to secure a win. As the pressure to succeed and perform steadily increases over time, athletes are continuously adding both physical and emotional stress to their bodies. Consequently, mental resilience, or the ability to perform at one's best level regardless of conditions, is a critical resource in helping one deal with these challenging situations. An important premise we understand from the sport psychology is that a change in the mental state of an athlete is accompanied consciously or unconsciously by a change in his physical condition.

Mental toughness research in sport and exercise has focused largely on individual differences, where mental toughness is viewed as a relatively stable feature. However, classic earlier animal research has suggested that 'toughening up' can be achieved by exposing to stressful conditions. After exposing animals to cold water swimming, electric shock therapy, or injections over 14-day duration, Weiss and colleagues observed a toughening trend (Crust, runners web, 2005). Specifically, the usual decrease in performance following aversive stimulation after 14-day period was not observed. Apparently the intermittent exposure to aversive stimuli had led the animals to become more tolerant of – and resilient to – such stimuli. While this

result does not automatically move on to human subjects, there are clear similarities with different strategies widely employed in sport and exercise settings as treatments.

Mental toughness is the ability to consistently maintain one's ideal state of performance during competitive adversities. It takes good technique and mental skills to realize one's potential. Psychological ups and downs are also directly traceable to ups and downs in results. Players who create a particular atmosphere within them consistently perform. Learned intellectual endurance, not born. Consistency is the ultimate measure of the mental toughness.

Given widespread consensus on the value and benefits of mental toughness, and demands for champion-creating psychological qualities to be established, high-quality mental toughness research is minimal. Jones, Hanton, and Connaughton (2002) conducted a qualitative analysis of professional athletes, in order to identify mental toughness and to evaluate the necessary qualities required to be a mentally tough actor. The description which emerged from their study concluded:

Mental toughness is having the natural or developed psychological edge that enables you to:

1. Generally, cope better than your opponents with the many demands (competition, training, lifestyle) that sport places on a performer; and,
2. Specifically, be more consistent and better than your opponents in remaining determined, focused, confident, and in control under pressure.

Also, they identified 12 attributes as keys to mental toughness. These included attributes such as self-confidence, unshakeable focus, high levels of desire and determination (especially during times of distress), and overall consistency of effort and technique despite

stresses in life and sport In another qualitative study on mental toughness, Fourie and Potgieter (2001) analyzed written responses from 131 expert coaches and 160 elite athletes. Their research established twelve components of mental toughness including: motivation level, coping skills, confidence-keeping, cognitive capacity, strategic discipline and aim, resilience, possession of pre-required physical and mental needs, team cohesion, planning skills, psychological strength, and ethics. Unlike Jones et al., the researchers did not propose a description. (2002), but suggested instead that more study would be needed to finalize a working definition of mental toughness. Task-oriented athletes in contrast to ego-oriented athletes present a pro social behavior and judgment. These people perceive success differently, make less effort to approach it and are affected by rewards from outside.

The more a person becomes ego-oriented the more he will try to outmatch his/her friends and the more he/she will feel that this attempt to outmatch others will lead to success. The more task-oriented an person is, on the contrary, the more he/she believes achievement depends on commitment, desire, and exploration of new abilities (Treasure & Roberts, 1995). Most of these studies have shown that task orientation is significantly associated with positive moral behaviors, while ego orientation appears to be significantly associated with unsporty behaviors (Dunn & Dunn, 1999; Proios, Athanailidis, 2004).

Ego orientation is defined by individuals who seek to show superior ability by outperforming others, while using a perception of ability based on the standard (Duda, 1992).

A task-involved athlete is proposed to choose more challenging tasks, experience greater intrinsic interest in activities, and exert more effort on difficult tasks. Further, the task-involved athlete continues

to demonstrate these behaviors even though he or she may report low perceived ability levels in the task. However, those athletes with a largely ego-oriented and low perceived ability are prone to task avoidance, reduced effort, increased anxiety, disruption of concentration, and withdrawal from failed activity (Duda 1988, 1989).

Purpose of the study was to compare the mental toughness and task and ego orientation of Kerala kabaddi players. The study was delimited to Kerala Kabaddi players (both male and female) who were attending the National Games coaching camp. The study was delimited to selected questionnaire in assessing the demographic parameters, mental toughness and task and ego orientation in sports questionnaire.

Two hypothesis of this study are there would be significant difference between the scores of mental toughness of Men and women Kabaddi players and there would be significant difference between the scores of TEO of men and women kabaddi players.

The subjects of this study were 50 Kabaddi players of 18 to 30 years old. Tools used in this study are Mental toughness Questionnaire and Task and Ego Orientation in sports Questionnaire. Statistical techniques used are Descriptive statistics and T test. SPSS package 17.0 (SPSS Inc., Chicago, IL.).

The findings show that male and female players do not differ significantly in their roundability scores.

The male and female players differ significantly in their Abl. Hand. Press scores at 1% level. Male players reported higher Abl. Hand. Press scores as compared to female players. Male and female players differ significantly in their concentration scores. No significant difference in confidence scores were obtained for male and female players. Significant differences were observed for motivation scores between male and female players.

TABLE 1. DESCRIPTIVE STATISTICS

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Reboundability	Male	25	2.68	1.282	.256
	Female	25	2.36	1.114	.223
Ability to handle pressure	Male	25	3.92	1.470	.294
	Female	25	2.84	0 .688	.138
Concentration	Male	25	4.08	1.077	.215
	Female	25	2.72	.980	.196
Confidence	Male	25	3.60	1.080	.216
	Female	25	3.72	.843	.169
Motivation	Male	25	4.80	.645	.129
	Female	25	4.44	.768	.154
Total of Ment. Tough.	Male	25	19.24	3.166	.633
	Female	25	15.92	3.174	.635
Ego oriented	Male	25	3.3596	.35886	.07177
	Female	25	2.9248	.42745	.08549
Task oriented	Male	24	4.1600	.29543	.06030
	Female	25	4.1608	.25668	.05134

The total mean score of mental toughness of male players is 19.24 with the standard deviation 3.16 and the total mean score of mental toughness of female players are 15.92 with SD 3.17. The 't' value obtained for the total mental toughness scores is 3.70 and it shows the significant difference. The male players have more mental toughness than the female players.

The male players' mean ego oriented score is 3.35 with SD. 358 and for female players it is 2.92 with SD .427. The 't' value

Independent Samples Test

	F	Sig.	t	df	Sig.(2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
								Lower	Upper	
Reboundability	Equal variances assumed	.279	.600	.942	48	.351	.320	.340	-.363	1.003
	Equal variances not assumed			.942	47.079	.351	.320	.340	-.363	1.003
Ability to handle pressure	Equal variances assumed	10.540	.002	3.328	48	.002	1.080	.325	.427	1.733
	Equal variances not assumed			3.328	34.037	.002	1.080	.325	.420	1.740
Concentration	Equal variances assumed	.006	.940	4.670	48	.000	1.360	.291	.774	1.946
	Equal variances not assumed			4.670	47.577	.000	1.360	.291	.774	1.946
Confidence	Equal variances assumed	2.512	.120	-.438	48	.663	-.120	.274	-.671	.431
	Equal variances not assumed			-.438	45.317	.663	-.120	.274	-.672	.432
Motivation	Equal variances assumed	3.467	.069	1.794	48	.079	.360	.201	-.043	.763
	Equal variances not assumed			1.794	46.618	.079	.360	.201	-.044	.764
Total of Ment. Tough.	Equal variances assumed	.042	.839	3.703	48	.001	3.320	.897	1.517	5.123
	Equal variances not assumed			3.703	48.000	.001	3.320	.897	1.517	5.123
Ego oriented	Equal variances assumed	3.037	.088	3.895	48	.000	.43480	.11162	.21037	.65923
	Equal variances not assumed			3.895	46.603	.000	.43480	.11162	.21019	.65941
Task oriented	Equal variances assumed	.344	.560	-.010	47	.992	-.00080	.07897	-.15966	.15806
	Equal variances not assumed			-.010	45.510	.992	-.00080	.07920	-.16026	.15866

Source: Empirical Survey

obtained in the ego orientation scores is 3.89 at 0.05 level, it shows the significant difference. The task orientation mean scores of male and female players are as 4.16 with SD. 295 and 4.16 with SD. 256 respectively. The 't' value obtained do not show any significant difference in the task orientation scores.

Male players exhibited more mental toughness than female players and ego-oriented players as well as task-oriented players. Female players can get more emphasis on the mental toughness aspect. They can formulate their training programs in such a way that they become mentally tougher. Both male and female players may be geared towards improving their task to reduce their ego-orientation.

References

Crust Lee (2005). *Mental Toughness*. Retrieved from http://www.runnersweb.com/running/news

Duda JL.(1989). Motivation in sport setting: A goal perspective approach. In G. Roberts (Ed), Motivation in Sports and International Journal of Multidisciplinary Research and Development 211 Exercise Champaign, 11: *Human Kinetics*, 1992, 37-91.

Duda JL.(1989). Relationship between Task and Ego Orientation and the Perceived Purpose of Sport among High School Athletes, *Journal of Sport and Exercise Psychology* 1989; 11:318-335.

Dunn, J. G. H., & Causgrove-Dunn, J. C. (1999). Goal orientations, perceptions of aggression,and sportspersonship in elite male ice hockey players. *The Sport Psychologist*, 13,183–200.

Eberst, J (2012). What is mental toughness?.Retrieved on January 1, 2013 from*http://www.clusports.com/cpe/newsletter/09-01-2012.html.*

Fourie S.and Potgieter J.R.(2001). The nature of mental toughness in sport, *South African Journal for Research in Sport, Physical Education and Recreation,* 23 (2): 63-72 retrieved from http://www.mascsa.psu.edu/dave/Mental-Toughness.pdf

Jones, G., Hanton, S. & Connaughton, D. (2002). What is this thing called mental toughness? An investigation of elite sport performers. *Journal of Applied Sport Psychology*, 14, 205 - 218.

Mitchell, J (2012). What is mental toughness?. Retrieved on January 1, 2013, from*http://www.clusports.com/cpe/newsletter/09-01-2012.html.*

Proios, M., Athanailidis, I., & Zarotis, G. (2004). Relation motivation and fair play. *Physical education, Sports, Health*, 16-17, 117-125.

Treasure, D.C. & Roberts G.C. (1998). Relationship between Female Adolescents' Achievement Goal Orientations, Perceptions of the Motivational Climate, Beliefs about Success and Sources of Satisfaction in Basketball. *International Journal of Sport Psychology*, 29, 211-230.