

Life Experiences of Drought Affected Families: Need of Intervention

Dr. K. Suneetha^{1*} R. Prasad²

¹Assistant Professor, Dept. of Social Work, Vikrama Simhapuri University, Nellore-524320

²Research Scholar, Dept. of Social Work, Vikrama Simhapuri University, Nellore-524320

Abstract – Drought is one of the natural disasters in many parts of the world and a normal, recurrent feature of climate. Drought sets off a vicious cycle of socio- economic impacts beginning with crop-yield failure, unemployment, erosion of assets, decrease in income, worsening of living conditions, poor nutrition and subsequently decreased risk of absorptive capacity, thus increasing vulnerability of the poor to another drought and other shocks. The main focus of the study is to know the life experiences of drought affected families with special reference health. Study revealed that drought has significant impact on economic status, psychological (distress) and physical health of the respondents which need well tailored interventions.

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INTRODUCTION

In India occurrence of drought is common in various states: Uttar Pradesh, Madhya Pradesh, Rajasthan, Punjab, Haryana, Delhi, Karnataka, Kerala, Nagaland, Orissa, Chhattisgarh, Himachal Pradesh, Gujarat, Maharashtra, Andhra Pradesh and Tamil Nadu. Occurrence and effects of drought in India during 1900–2002 caused a lot of damage. More than 300,000,000 people were affected and US\$ 910,721,000 assets lost. The mitigation of the impacts of drought has been a key area of focus in India since the 1950s, as evident through programs such as the Drought Prone Areas Programme, National Watershed Management Programme for Rain-Fed Areas, National Calamity Contingency Fund etc. However, the human and social costs of droughts remain devastating.

The lack of monsoons has had a disastrous effect on the state's sizable agriculture sector and on a large share of the population dependent on agriculture for livelihood. Andhra Pradesh government declared 196 mandals in seven districts as drought- affected during the Kharif season 2015. Drought can affect health in a variety of ways, including through threats to food and water security. However, we do not yet know how these impacts may be magnified if we consider droughts themselves as a source of vulnerability. To address this greater emphasis is needed on understanding and supporting communities to effectively prepare for, respond to and recover from the impacts of recurring extreme events. Carla Stanke et.al 2013 the study on Health Effects of Drought: a Systematic Review of the Evidence was carried out in North America, Europe, South America Asia, Africa,

Australia / New Zealand. The people are mainly affected due to drought are nutrition-related effects ; water-related disease ; airborne and dust-related disease; vector borne disease ; mental health effects ; and other health effects etc. The probability of drought-related health impacts varies widely and largely depends upon drought severity, baseline population vulnerability, existing health and sanitation infrastructure and available resources with which to mitigate impacts as they occur. The socio-economic environment in which drought occurs influences the resilience of the affected population. The drought has many impacts on the water shortages, impact on livelihood; loss of crops, livestock, increased food prices, migration and this impacts influences to indirect health problems.

According to Kristie & Kathryn Bowen (2015) study on health risks of climate change arise from the interactions of the hazards associated with a changing climate, the communities exposed to those hazards, the susceptibility of communities to adverse health impacts when exposed and the capacity to prepare for and cope with the hazard. Drought is used as an example of an extreme event that can simultaneously be a current hazard and can directly or indirectly influence future vulnerability.

Gunn et.al (2012) study on a sample of 309 drought-affected South Australian farmers and their spouses revealed that there was no significant difference detected between the levels of distress reported by men and women. Younger farmers (25-54 years) were experiencing significantly higher levels of distress than those in the 55-64 age group but not

those aged 65-74 years. The most commonly employed coping strategies were planning, acceptance and active coping and least used were alcohol/drug use, denial, behavioral disengagement and religion. Gender, age-group and the type of stressor were found to affect farmers' choice of some coping strategies. Francis Opiyo et.al. (2015) study highlights drought characteristics and the many responses to drought stress . The drought impacts observed by the respondents are the drying up of water sources (18 %), declining pasture availability and access (14 %), food shortages (15 %), increasing food prices (12 %), and loss of income (10 %). While the perceived impacts of drought can be numerous and far-reaching, none are more important than the drying up of water sources which include inadequate cash income and capital (46 %), insecurity (50 %), lack of affordable credit facilities and access (42 %) etc. Sally Masendeke & Kampion Shoko (2013) study in Zimbabwe revealed that due to drought 50% of migrations are there for job searching while 40% of the migrations involve women going into neighboring areas such as Zvishavane in search of food. 10% of the migrations involve mostly child headed families visiting relatives in other areas so as to run away from the drought situation and return when conditions improve. 55% of the households keep supplementary feed such as maize stover, grass and groundnut hay obtained in good yield to be used in drought years. Most households are now aware of the agronomic practices to be adopted in their area and as a result they make efficient use of every drop of rain that falls through early planting and staggered planting dates.

METHODOLOGY

To study the impact of drought on socio-economic and health status of affected families some objectives are put-forth.

- To understand the socio-economic and demographic information of the respondents.
- To understand the perception of drought affected families of the impacts on their socio-economic activities
- To know the health vulnerability of drought affected families.
- To identify the scope of social work intervention to develop and suggest suitable intervention measures for drought affected families

Sampling : The Nellore district is situated in the south eastern portion of the state. The Nellore district comprises of 46 revenue mandals Nellore, 27 are drought affected mandals in Nellore district, AP, out this five mandals i.e. Udayagiri, Vinjamuru, Duttaluru, Seetharamapuram,. Varikuntapadu were confined for study. A descriptive and diagnostic research design

was adopted for the study. To identify the sample simple random sampling method was adopted and selected 50 families from the 5 randomly chosen villages from study area i.e. 5 drought effected mandals.

Tools used: Self developed interview schedule & standardized drought impact scale and Kessler's Distress scale used for data collection along with interview method and FGDs.

Analysis : The collected data was tabulated and percentages were calculated, statistical tests were carried out whenever necessary with the help of SPSS 16.0.

RESULTS AND DISCUSSION

Demographic and socio-economic characteristics of the drought effected families are very important to understand their problems, which are presented in Table 1. The study reveals that a majority i.e. 62 percent of the respondents were in the age group of 35-49 years and a majority 90 percent of the respondents are male and 10 percent of the respondents are female. A little above two fifths i.e. 42 of the respondents are not having formal education and the same i.e. 42 percent belong to BC community. Regarding family size the table explains that a majority 71 percent respondents' family size was 4-6 members. The occupation wise of the respondents reveals that 86 percent of respondents main occupation is agriculture and 66percent are having monthly income at present was less than Rs 5000 per month and during worst hit of drought the majority of respondents' family income i.e. 80 percent were with less than Rs2000.

Table 1 : Socio-Economic and Demographic Characteristics of the Respondents

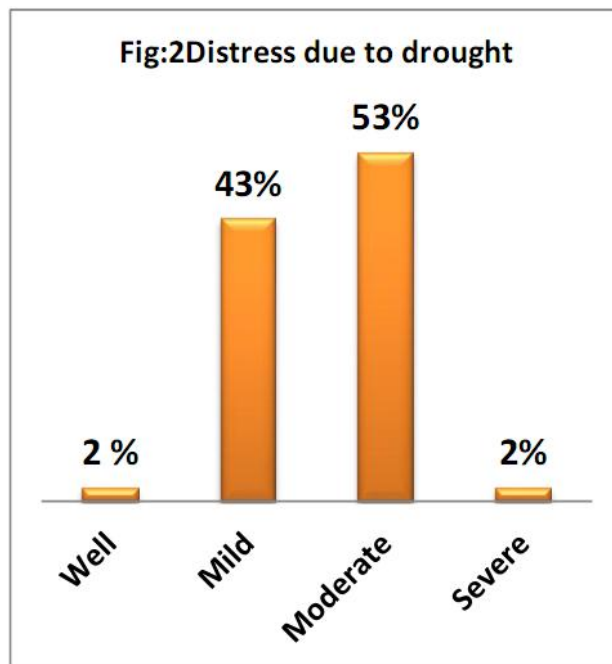
S. No	Characteristics	Majority Percentages
1	Age	62 % (35-49 years)
2	Sex	90 % Male
3	Religion	72% Hindu
4	Caste	42 % BC
5	Family Size	71% families are with 4-6 family size.
6	Occupation	86% were agriculture
7	Education	42% No formal education
8	Income of the respondents	66% are having income less than Rs 5,000 per month
9	At worst hit time of drought	80% less than Rs 2,000

Respondents perception regarding drought & its impact :

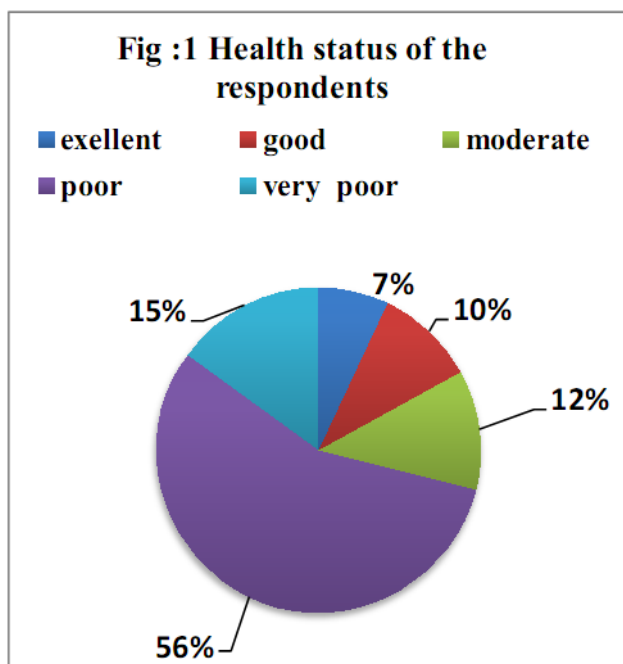
All most all i.e. 100 percent of the respondents are of opinion that drought is a natural disaster and two fifths

i.e. 40 percent of the respondents expressed that the impacts of drought is drying of water sources , famine, crop failure and 20 percentage of the respondents opinioned that the poor health of humans / malnutrition, drying of water resources, crop failure, famine . A little above two fifths i.e. 44 percent of the respondents experienced drought since 5 years except current drought 10 years and 26 percent of the respondents 6 years. Regarding weather forecasts sources 36 percent said the source is word of mouth (friends/neighbours), radio /TV, traditional knowledge sources etc of information

A Majority 68% of the respondents are of opinion that moderately drought threatened household food security and 40% opined that food scarcity due to drought. Nearly three fifths i.e. 58% of the respondents felt that drought caused highly no choice in food preferences and 48% of the respondents felt high drought as cause for malnutrition. 70% of the respondents highly opined that health of public affected due to drought and 88% felt highly that drought caused unemployment as well as reduction in household income. 50% of the respondents expressed that the limited income sources due to drought caused reduction in spending on festivals and occasions. Nearly half i.e. 48% of the respondents highly opined that drought caused population migration and 58% felt less that the drought affected schooling of children .Little above half i.e. 52% of the respondents felt that drought caused less hopefulness and sense of loss among them. Nearly half of the respondents i.e. 46% felt that highly drought caused conflict for water in society and the same percent of respondents highly opined that drought caused farmers suicides.



Regarding health status of the respondents 56 percent are with poor health due to drought followed by very poor (15%) ,moderate (12%), good (10%) and excellent health was processed by 7% of respondents(Fig-1). Among them 50% of the respondents are suffering with gas trouble , malnutrition, weakness, kidney problems, 40% with frequent fevers and lung infections. The study also revealed that 56 percent of respondents are having moderate distress (fig-2).A majority i.e. 60% of the respondents often feel tired , nervous and hopeless. Further 50% respondents often feel restless, fidgety and feel depressed and worthless.



Most of the respondents defined drought as less or no rain over the season resulting in water scarcity for various uses mainly for drinking and agriculture (82.0%), lack of water and fodder for livestock (65.5%), poor cereals and food grain production (72.3%), food scarcity (47.5%), and less agricultural employment (58.2%). Besides this, few respondents have also perceived drought as increased atmospheric temperature, financial weakness, increased commodity prices and no electricity supply. Further 80% of respondents perceived drought as a natural phenomenon while 20% perceived it as a mismanagement of water resources by the responsible authority. It was found that about 85.6% of respondents have experienced drought in the past years and 44% of respondents believed that very severe drought occurred once in every 5–6years.

Table No: 2 Respondent distributions according to the impact of drought affected family's Economic, Health and Distress levels.

Impact	N	Mean	Std. Deviation	F/T value	P
Economic	50	1.080	0.270	4.759	0.04**
Health	50	3.100	0.9741	10.64	0.000*
Distress	50	2.880	0.6280	10.59	0.000*
(* P< 0.01, ** P< 0.05 - Significant)					

Table no 2 revealed that most of the respondents are facing socio- economic and health hardships due to drought. It is observed from the results low mean score i.e. 1.080 was observed in the case of economic impacts and found significant (t = 4.7359, P< 0.05). Distress levels of respondents because of drought is high (3.080) and found significant (t =10.64,P< 0.000) . Further the study revealed that health of the respondents also got affected due to drought 3.100 and found significant(t = 4.8362,P< 0.05).It can be concluded that drought has significant impact on economic status , psychological (distress) and physical health of the respondents . The economic, health and distress levels etc are affected independently by drought or sometimes they may interrelate with each other and accelerate the other.

NEED OF INTERVENTION:

Drought coping strategies which were identified included responses to production, consumption, food storage, income generating assets and livestock management. The concept of food for work played a pivotal role in curbing the dependency syndrome and also in facilitating development in this rural area. External assistance from the Government, NGOs and migration complimented these strategies. From the results it is recommended that there is need to develop effective coping mechanisms based on risk minimization such as utilization of indigenous food sources and growing of drought tolerant crops similar environment and climate. To address the impact of drought on health etc greater emphasis is needed on understanding and supporting communities to effectively prepare for respond to and recover from the impacts of recurring extreme events. Such strategies include assessing vulnerabilities and developing adaptation strategies, capacity development of health professionals and appropriate disaster risk reduction/management programs and support.

CONCLUSION:

Drought can affect health in a variety of ways, including through threats to food and water security. Greater emphasis is needed on understanding and supporting communities to effectively prepare for, respond to and recover from the impacts of recurring

droughts and extreme events. Most of the families are facing socio- economic and health hardships due to drought. The socio, economic, health and distress level impacts may be magnified if we consider drought themselves as a source of vulnerability. The health vulnerability & distress levels found high, indicates need of interventions.

RECOMMENDATIONS:

- ▶ Promotion of Micro and Macro level adaptation strategies to cope with drought.
- ▶ Adopt water harvesting practices and water saving irrigation practices.
- ▶ Introduction of drought resistance crops
- ▶ Health awareness, health care services by GOs, NGOs for victims of drought.
- ▶ Disseminate health care & weather information, drought management strategies etc. through Mass media

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Corresponding Author

Dr. K. Suneetha*

Assistant Professor, Dept. of Social Work, Vikrama
Simhapuri University, Nellore-524320

E-Mail – suneethak.vsu@gmail.com