

EVALUATION OF DIFFICULTIES AND REPRODUCTIVE HEALTH ISSUES FACED BY FLOOD-AFFECTED PREGNANT WOMEN IN REFUGEE CAMPS

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ABSTRACT

Natural disasters jeopardize routine life, including health care system. This cross-sectional study was conducted to determine the difficulties faced by flood-affected pregnant women in refugee camps of the Hyderabad region of Pakistan.

This study was conducted from October 2022 to September 2023. A field survey was done as part of quantitative research to find women affected by catastrophe who were residing in shelter camps. The primary data collection took place close to Jamshoro, Kotri and Hyderabad City in the regions where temporary flood-relief shelters were constructed and flood affected pregnant ladies referred to tertiary care (Countess Lady Duffirin Fund) Hospital with reproductive health issues e.g. high risk pregnancies for antenatal care, correction of anemia, control of blood pressure and diabetes, normal vaginal deliveries and emergency or elective caesarean sections. Eight hundred thirty-two patients were recruited, including 69.2% aged 15 – 25 years old, 44.2% with 2nd trimester of gestational age. All patients complained about unavailability of transportation, complained about the provision of medicine (62%), antenatal care (3.8%) disposable waste (3.8%), clean water supply (3.8%) and provision of food (19.2%). Women in relief camps face multifactorial problems which adversely affect their health including reproductive health.

Key Words: Flood, pregnant women, Sindh, Pakistan, refugee camps.

INTRODUCTION

Natural disasters occur in almost all regions of the world; some are more prone to earthquakes while others face floods more often. Recently, Sindh province of Pakistan was badly hit by floods jeopardizing life in Pakistan in particular Sindh. At least 650,000 pregnant women and girls were among the millions of people who have been seriously affected; 73,000 of them were anticipated to give birth within month's time after floods (1). Many of these mothers, according to the United Nations Population Fund (UNFPA), do not have access to the healthcare resources and assistance they require to deliver their children safely (2). Pakistani women were at high risk of maternal death in South Asia, which was feared to get even worst (3). Furthermore, pregnant women were among the population most severely impacted by the negative effects of climate change (4). Floods had badly destroyed healthcare system, in the province of Sindh, more than 1,000 healthcare facilities either completely or partially damaged (5).

In Baluchistan province, additional 198 medical facilities were destroyed. The massive damage done to the roadways and communication systems made it difficult to access healthcare facilities in less flood affected areas. These obstacles affect pregnant women, young girls, and those looking to receive reproductive health services such as contraception.

The necessities of their families and child care were burden for women in this area of floods. In refugee camps, women discontinued breastfeeding because there was lack of energy and privacy. According to studies, 75% of displaced people experienced these problems as a result of stress, a lack of privacy, and unsanitary environments (6). Tent camps for displaced people provide a shelter, but are not secure settings for expectant mothers to give birth or even to stay for an extended period of time. A large proportion of these women were underage, pregnant, or living with female relatives like sisters, mothers, in-laws, or grandmothers (7).

The temporary shelters are made to provide a roof without taking health of women and girls into account. The pregnant women's needs were also altogether ignored. Which had a disproportionately negative impact on women and girls health. Women's health and safety in Pakistan had always been a serious concern; the humanitarian crisis had further increased their risk (8).

There is limited data available to explore health issues faced by pregnant women living in temporary camps after natural disasters in developing countries. Therefore, this study was designed to explore the difficulties faced by flood-affected pregnant women in refugee camps of the Hyderabad region of Pakistan.

METHODS

This study was exploratory in nature, used both quantitative and qualitative research methodologies conducted from October 2022 to September 2023. A field survey was done as part of quantitative research to find women affected by floods, and were residing in temporary shelter camps. These women were asked open ended questions, a qualitative interview method was adopted to get women's responses in their own narratives. The primary data collection took place close to Jamshoro, Kotri and Hyderabad City in the region where temporary flood-relief shelters were constructed and flood affected pregnant ladies referred to tertiary care (Countess Lady Dufferin Fund) Hospital with reproductive health issues including high risk pregnancies for antenatal care, correction of anemia, control of blood pressure and diabetes, normal vaginal delivery and emergency or elective caesarean sections. Social problems and difficulties in availing health care facilities faced by pregnant women, maternal health issues and data about fetal outcome were collected.

Each participant was personally interviewed by the researchers. Participants' consent was secured in order to utilize the data for scholarly publications. In order to get more insights about the problems, interviews were initially conducted in local language (i.e. Sindhi) and later translated into English. The research questions were addressed by carefully identifying themes from the data analysis.

Before beginning the formal interviews, all women were assured of their confidentiality and the rationale and the purpose of the study was also explained. All women were then signed informed consent for the use of data and volunteer involvement in research. Every attempt was made to give women a trustworthy environment. Due to the delicate nature of the research issue, interviews were done one-on-one.

Statistical analysis

Data were stored and analyzed using IBM-SPSS version 23.0. Number and percentages were reported on baseline characteristics of the study population. A Bar diagram was used to report the problems faced by pregnant women. Descriptive on access to the health care center and availability of screening tests were also reported for study population.

RESULTS

A total of 832 women were included in this study, out of which 69.2% were aged between 15 and 25 years old and 44.2% were presented in 2nd trimester in gestational age. Half of the participants were from low socio-economic class (50%) and 32.7% had only completed their primary education, 44.2% were booked, 40.4% had more than 20-days duration of stay in the camp. A summary of the data is given in Table 1. Half of the women recruited in this study had active health complaints in need of medical care. Figure 1. Presented the problems faced by pregnant women. All women complaint about unavailability of transportation. There were also complaints about antenatal care, disposing off waste, clean water supply and provision of proper food. A total of 53.8% denied access to healthcare centers, 32.7% agreed on the availability of the screening test for communicable diseases, and none was reported for the availability of screening tests for non-communicable diseases. A summary is presented in Table 2. Most common problem was anemia, followed by malaria and

hypertension. A list of health related issues is presented in Table 3. Early preterm labor and miscarriages were observed. A summary of outcome is given in Table 4.

Table 1. Demographic characteristics of pregnant women living in temporary camps made for flood affected population of Sindh (n=832)

Characteristics		n	%
Age Group	15-25 Years	376	69.2
	26-35 years	140	28.8
	36-45 years	16	1.9
Gestational age in trimesters	1st trimesters	352	42.3
	2nd trimesters	368	44.2
	3rd trimesters	112	13.5
	4th trimesters	0	0.0
Maternal Education	Nil	452	54.3
	Primary	272	32.7
	Middle	108	13.0
Socio Economic status	Low	216	50.0
	Middle	368	44.2
	High	48	5.8
Booking status	Booked	368	44.2
	Un-booked	462	55.8
Duration of stay	10-days	256	30.8
	11-20 days	140	28.8
	More than 20 days	336	40.4
Delivered	Miscarriage	42	5.0
	Preterm labor	37	4.4
	Vaginal delivery	109	13.1
	LSCS	85	10.2
Un delivered	Ante natal check up	559	67.1

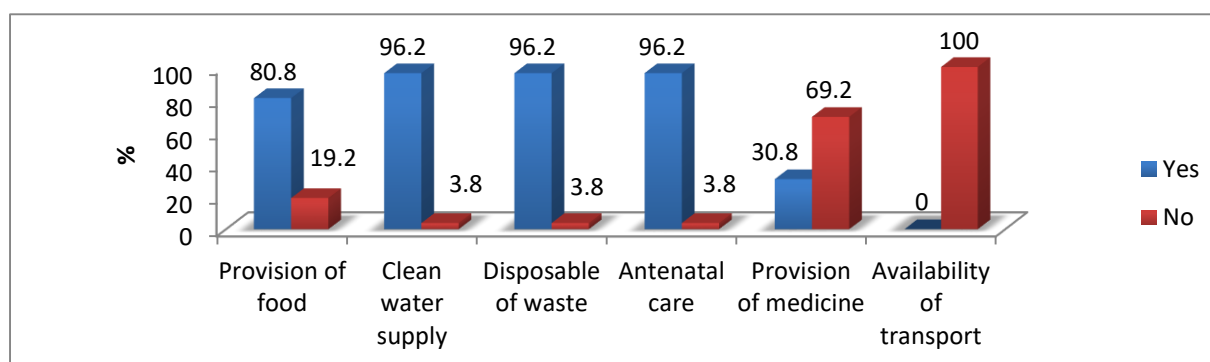


Figure 1. Summary of the problems reported by the women living in temporary camps for flood affected population in Pakistan

Table 2. Outcomes of access to the health care center and availability of screening tests

Questions		n	%
Access to the health care centre	Yes	112	53.8
	No	96	46.2
Availability of screening tests for communicable disease	Yes	68	32.7
	No	140	67.3
Availability of screening tests for Non-communicable disease	Yes	0	0.0
	No	208	100.0

Table 3. A summary of the active complaints in pregnant women living in temporary camps in flood affected population in Sindh

Complaint	n	%
Anemia	556	66.8
Miscarriage	42	5.0
Malaria	177	21.2
Dengue	76	9.1
Hypertension	87	10.4
Pre-eclampsia/ eclampsia	38	4.5
Preterm labour	37	4.4
Antepartum hemorrhage	51	6.1
Postpartum hemorrhage	62	7.4

Table 4. Fetal outcome of the pregnancies in women living in flood affected areas of Sindh

Outcome	n	%
Miscarriage	42	5.0
Preterm delivery	37	4.4
Still born	17	2.0
Early neonatal death	49	5.8
Remained alive	128	15.3

DISCUSSION

This study presented health issues faced by pregnant women living in temporary flood relief camps. Majority of women were young and in 2nd trimester of pregnancy. They faced many health related issues and there was a considerable number of early neonatal deaths. In the same environment as a natural disaster, women are more vulnerable than males. Women have a high mortality risk due to pre-existing gender inequity, sociocultural community factors, and poverty. Due to their lack of access to prenatal and obstetric care during any disaster or humanitarian emergency context, pregnant women are especially susceptible.

In this study availability of transport and medicine was satisfactory as responded by majority of pregnant women in the refugee camps of the Hyderabad region of Pakistan. Hundred percent of the pregnant women responded that there is no availability of screening tests for non-communicable diseases, while most of the pregnant women complained of the non-availability of screening tests for communicable diseases and lack of access to health care centers. Humaira Maheen et al conducted a study in 2011 on women's experiences of pregnancy and giving birth in natural disaster settings in Pakistan. In the relief camps, there were no skilled birth attendants, ambulances, breastfeeding stations, or postpartum care for women. When giving birth in unsanitary conditions in the camps, women sought the help of the customary birth attendants (9).

In the present study, there were 832 samples, 69.2% were aged 15 – 25 years old, 44.2% with 2nd trimester of gestational age, 32.7% were up to primary education, 50% were from low socio-economic class, 44.2% were booked, 40.4% had more than 20-days duration of stay. In the current study pregnant ladies were referred to CDF Tertiary care hospital with various maternal obstetrical complications and for delivery or termination of pregnancy, of which 273 women delivered, and the most common health issue was anemia in pregnancy followed by Malaria, hypertension and dengue fever in pregnancy respectively, regarding fetal outcome miscarriage found in 42(5%) patients, preterm delivery 37 (4.4%), stillborn 17(2%) ,early neonatal death 49 (5.8%), while 128(15,3%) babies remained alive and healthy. Another study was conducted by Shahla Baloch et al. on screening of reproductive health problems in flood-affected pregnant women in district Jamshoro. A total of 571 women overall (15.01%) experienced various obstetrical issues over the research period (2011). The majority of these women(n= 313, 54.81%), were between the ages of 21 and 30, and 359 (62.87%) were in the last stages of pregnancy. Anemia was the most prevalent obstetrical issue among flood-affected women, occurring in 399 (69.87%) instances (10). According to Memon, F. S. et al, a total of 20 women were interviewed in the flood-prone areas of Sindh. According to study a majority of women encountered various forms of physical and mental violence from partners and even total strangers. When women were displaced and stayed in temporary housing during a post-disaster period, the rate of such violence was increased further (11).

In the current study, the majority of women complained of a lack of provision of food, clean water supply, disposable of waste and antenatal care. A study by AbulKalam Azad examines flood-induced vulnerabilities among women in northern Bangladesh. Women were unable to carry out their normal responsibilities at home due to challenges in finding appropriate housing, food, safe water, and fuel for cooking, as well as issues with maintaining personal hygiene and sanitary conditions. These are all issues that pertain to women's gender identities and societal responsibilities (12). In another study from Bangladesh, due to maternal problems, a lack of prenatal care, and a shortage of doctors during flooding, pregnant women experience severe suffering. Finding a qualified attendant at the moment of delivery is challenging, and the patient with birth problems is referred to the healthcare facility. The sole means of transportation are boats. When women are being transported from their communities to hospitals by boat, the majority of maternal deaths take place during that transportation (13). Mehwish Muhammad Ali et al concluded that there was a shortage of food and potable water in flood affected areas. Additionally, there was no food available for women (14).

According to Nafeesa Naveed et al, tent residents reported sharing a room with more than four people. 31 people were using tents; 11 shared a room with 4-6 people, 19 shared a room with 7-10 people, and 1 was living with more than 10 people in a room. Regarding food, 15 participants (21.1%), as opposed to 56 (78.9%), stated that they received a full meal twice a day. They all claimed to have ingested carbohydrates in some way, along with some proteins and fruits, but no nuts were consumed (15).

The study was conducted on a large sample of pregnant women living in flood affected camps and a comprehensive interviews were conducted. It is considered as strength of the study. However, no interventional strategies were adopted is a limitation of this study.

CONCLUSION

Women living in flood relief camps face multiple health related issues, which become more serious when comes to pregnant women. Anaemia was the most common condition seen in pregnant women. There were also a considerable number of early neonatal deaths. Thus there is need to establish interventional strategies to reduce maternal health issues and neonatal deaths.

CONFLICT OF INTEREST:

Authors declare no conflict of interest

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ETHICAL APPROVAL:

The study was approved by local ethics committee.

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