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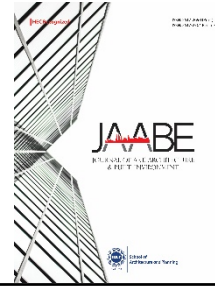
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- Author (s):** Aimen Feroz, Asim Muhammad, Atif Bilal Aslam
- Affiliation (s):** University of Engineering and Technology, Lahore, Pakistan
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Assessing Community Resilience from a Gendered Perspective: A Case Study of Flood Affected Areas of D.G. Khan, Pakistan

Aimen Feroz¹, Muhammad Asim^{*2}, Atif Bilal Aslam²

¹University of Engineering and Technology, Lahore, Pakistan

²University of Engineering and Technology, Lahore, Pakistan

Abstract

The current study aims to investigate the impact of floods in the rural areas of Dera Ghazi Khan, Punjab, Pakistan. Floods are a natural disaster that wreak havoc across the country but have disproportionate consequences for different genders. Flooding is a constant threat to the community resilience, especially in the remote areas. Lack of awareness and poverty makes the situation even more deplorable and triggers certain gendered issues in flood-affected areas. The prime concern of the current study is to highlight gendered issues, as an impact of floods in D.G. Khan Floods are a major natural disaster with greater impact on women rather than men due to work routine of the males. Floods have a major effect on the physical, social, and psychological aspects of a community which directly impact the lives of both men and women and increases their vulnerability. The current study has highlighted serious gender issues experienced by the inhabitants of D.G. Khan, further causing vulnerability for both genders, especially for women. Thereby, they become a more vulnerable part of the community. The feeling of suffering and helplessness that follows a natural disaster has a devastating impact on the population. As a result, the current case study has concentrated on the vulnerability of both genders, as there is a need to instill community resilience in both.

Keywords: community resilience, gendered perspective, natural disaster, vulnerability

Introduction

Countries like Pakistan are more vulnerable to floods than other natural disasters, where most of the population of the country is engaged in agricultural activities. The selected case study area for the current study is D.G. Khan. The inhabitants of this small community earn their living through local businesses and by doing other chores. Women in Punjab are

* Corresponding Author: muhammad.asim@uet.edu.pk

mainly occupied with horticultural advancement through cooperation in ranch activities and domesticated animals. They are in the profession of cultivation for a long time, still, they require expertise in basic leadership because of the male-centric culture that restricts them and gives greater opportunities to men in basic leadership. Women spend around 12-15 hours every day on farming exercises (Alam & Collins, [2010](#)). Due to the adverse impact of floods, agricultural land to a great extent becomes useless temporarily due to the presence of excessive flood water on the agricultural land. Therefore, the crops which are the only source of their main livelihood get destroyed completely. Eventually, such conditions make communities further vulnerable and increase poverty by affecting gender relations. (Komi et al., [2016](#)). The conditions described above have a considerable effect on the whole community but women are more likely to get affected by them. As women in rural areas are more vulnerable due to their less participation in society, therefore, they are more emotional regarding their family members, loss of household, precious items, and dowry (Alam & Collins, [2010](#)). Apart from the fact that women have suffered from the issues of privacy and harassment in the relief camps by men. Therefore, the absence of female/lady doctors makes them suffer more in silence as they are either shy or not allowed by their husbands or fathers to get examined by a male doctor. They face a huge problem of sharing common space for defecation (Komi et al., [2016](#)).

D.G. Khan is the selected area for the current study which is a semi-parched area, situated at a prime location connecting it with the other four provinces of Pakistan. The community of this area is defenseless against floods since it lies between the Indus River (a typical point for flooding) and the Sulaiman Mountains (which have a deluge spate water system framework that triggers flooding in downhill regions) (Evans et al., [2010](#)). Cotton, sugarcane, and rice are the significant yields and vocation sources. The nearby community relies upon these crops to earn their living. Another particular element of this area is its populace which has moved to the Gulf nations for business purposes. Henceforth, remote settlements are a conspicuous wellspring of pay that helps families (Khwaja & Aslam, [2018](#)).

Gender, the condition of being male or female, ordinarily used with reference to social contrasts as opposed to biological ones Perwaiz ([2008](#)), expressed the contrasts among women and men in the same family or society. Likewise, such conditions are also portrayed in jobs, duties, access

to assets, requirements, opportunities, wishes, views, and social perspectives. The expression of terms like sex and gender are never naturally the essential social certainties on the ground, nor are these differences ever taken to isolate a person from other aspects of life. Rather, the expression of these terms can never be taken to isolate a person from other aspects of life. Huyck ([1999](#)), contended that gender is not a word or a synonym to express females only, rather it includes both women and men and their mutually dependent connections. Furthermore, gender is never insignificant and should be dependably analyzed and reflected in practices for both genders (Aryal, [2014](#)).

The connections between men and women are ground-breaking and their powers are being observed in every culture. The way these connections are characterized makes contrasts in the jobs and duties of both males and females (Ainuddin et al., [2013](#)). It likewise prompts imbalances in their access, power over assets (who acquires land or can get credit from the bank), and basic leadership powers (who has a voice and, sits on network chambers and panels). The joined impact of these distinctions and disparities implies that women of any age face diverse types and dimensions of exposures and this weakness is seen further in the aftermaths of natural disasters (Drolet et al., [2015](#)). Gender-based practices and generalizations regarding the capability of both of these genders, can additionally add to gender inequalities. However, consideration regarding gender inequality is reliably one of the weakest zones of humanitarian reaction (Sayed & González, [2014](#)).

Every natural disaster affects the community as a whole. However, the impacts of disasters on both men and women are of different natures. They both experience disasters in totally different ways (Ditlevsen & Elklit, [2012](#)). Females, in general, tend to be more vulnerable due to their less exposure to society. Few of the commonly recorded reasons behind higher losses of lives among young girls and women includes: social imperatives on female movement which prevent self-rescue. For instance, females may not leave the home without male authorization and they might be hesitant to look for shelter, since shared collective facilities do not offer private spaces for ladies (Rivers, [1982](#)). Furthermore, there are fewer opportunities and practices for females for instance, swimming or climbing on a tree, which is generally termed for males as a symbol of less physical power t (Soffer et al., [2011](#)). This might be because of biological contrasts but at the

same time in a few nations also because of the impacts of continued dietary insufficiencies because of shortage of food than male members of society.

Gender relations and characters meeting with spaces, class of the women, job status, and human services were the intervening factors that set low wages for women as compared to other genders (Ajibade et al., [2013](#)). Regardless of their focal jobs in families, networks, and economies, females are moderately not considered in situations of hazard, planning, and reactions. Their previous hard works along with the present ones, and after the hazardous events are veiled by the female injured individual/male rescuer worldview (Enarson & Fordham, [2001](#)). Another study conducted in the USA suggested that women take the risk or emergency conditions more seriously as compared to men, especially if it threatens their families (Fothergill, [1998](#)). Men are not seen/considered capable as compared to females to perform this duty (Bateman & Edwards, [2002](#)). The psychosocial impact of hazards on females are estimated without looking at the bigger setting of the sexual orientation of relations. The hazard related personal fierceness is obviously under-examined, whether being compared to females or males, young males or young females (Enarson & Fordham, [2001](#)).

The Organizations of USA attempted to redefine gender roles and mobilize women according to their capabilities during a disaster (Fothergill, [1998](#)). The Government of Mexico suggested that if these communities were prepared before the occurrence of a disaster then not only lives but also the community's assets could have been saved and preserved. In a likewise manner, poor communities could also be able to save their assets by adopting avoidance measures that do not require a huge amount of capital. All they need is to improve the flood risk maps of their areas and the flood communication systems (Bateman & Edwards, [2002](#)). The women of Miami joined hands with the Government to reconstruct the city after being struck by natural disasters. It further talks about destroying gender roles in the face of disaster, and everyone should do their part fully (Sultana, [2010](#)). The government of North Carolina has taken serious notice against the sexual violence after the disasters rendered the women even more vulnerable.

The gender perspective as discussed by Atreya helps to prevent the post disaster issues, such as domestic violence and sexual abuse by effective mitigation and reconstruction programs (Atreya, et al., [2017](#)). In Indonesia,

women tend to have higher rates of getting vulnerable before, during, and after the disaster as has been generally recognized study conducted to assess their vulnerability (Childs, [2006](#)). The Government of Kenya has enhanced its capacities with respect to emergency preparation and crisis health services, both in advanced education and among the healthcare stakeholders (Karvinen et al., [2016](#)).

With the recent environmental change likely to activate worse times, a case is attempted for shared and institutional hard work to methodologically support poor urban females. This case focused on projects to reduce poverty, enhance women appearance to own their own houses, social insurance, access to health policies, and other means of occupation (De Silva & Jayathilaka, [2014](#)). The Government conducted a study to measure the flexibility of the societies by investigating the community empowerment against vulnerability. Also, they used the typology for zoning the flood affected villages of the area in Vietnam (Do Thi et al., [2014](#)). After knowing the causes and motives of the floods, the Government of China conducted a study whose core purpose was to make people aware about the emergency situations and for the implementation of Flood Management and Mitigation Program (FMMP). This program helped people of this area before and during the flood situations.

Moreover, gender role was specially incorporated for effective risk management (Gokhale, [2008](#)). The Government of India along with different NGOs has taken steps to empower native females to develop an interest in relief and recovery activities after flood. They were sorted into groups to fabricate the abilities and limits required to prepare the individuals for post-disaster recovering procedures for long-term development (Gokhale, [2008](#)). The vulnerability of women to natural disasters is high due to high illiteracy rate, early marriages, and consequently total dependency on men with an inability to take important decisions limiting to no economic freedom. Steps have been taken by Nepal Government to empower women by keeping societal norms under consideration (Ainuddin et al., [2013](#)).

According to a report, formulated by country like Bangladesh, which has similar societal values like Pakistan, females are not given equal rights as men. They have numerous issues to deal with, and fights with dangers in every disaster that the country faces. The GOB (Government of Bangladesh) has introduced various huge initiatives in the past couple of

years. The purpose of these initiatives was to restructure institutional courses of action from the national to local levels for successful and organized disaster managing programs for the people of Bangladesh (Rahman, 2013). The disaster vulnerabilities between men and women have been assessed and the results showed that such hazards could affect men and women in totally different ways pertaining to their physical, social, and attitudinal aspects. The Government puts efforts into the well-being of females addressing that if women are properly involved in disaster planning then they could play their part in reducing the damages of floods or disasters, while holding the norms of their area (True, 2013).

Therefore, it has been proved that better risk management cannot be achieved unless women are not considered as a significant part of this management. However, to involve them in disaster planning and implementation is not an easy task due to the societal norms. Though much research has been carried out to identify avenues for such participation but these could not be generalized due to varied social norms of different societies.

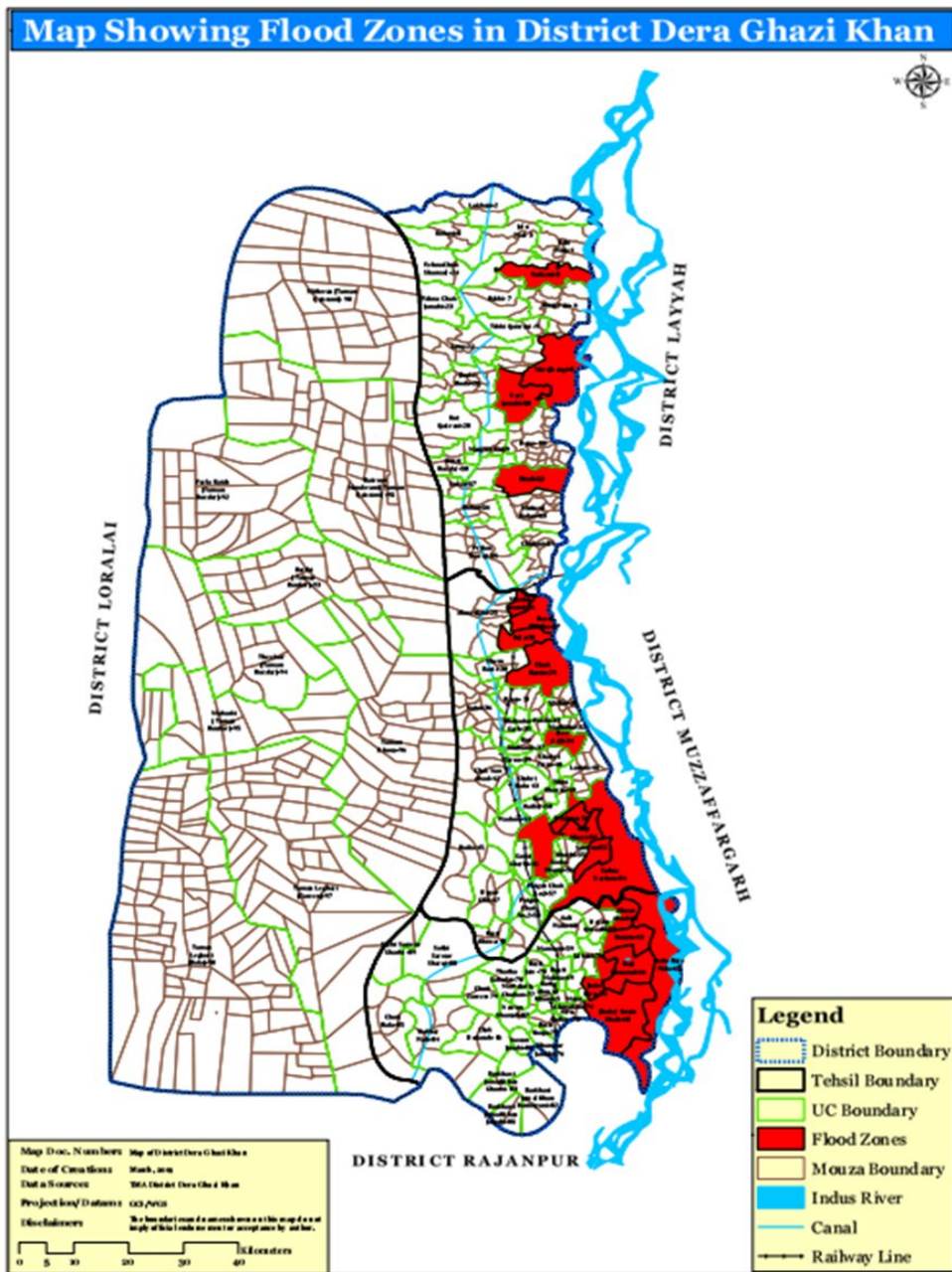
Materials and Methods

The current study aims to highlight gendered perspective which rose during the massive flood situation. This study addressed certain gender issues counting women as a significant sufferer among these natural disasters. Therefore variables are identified on the basis of previous literature within bigger canvas such as psychological and physical aspects. The variables like soreness, lack of sleep, violence, injuries, anxiety, fear, and discontinuity of routine, especially of young girls were studied and taken into consideration.

To conduct this study both the qualitative and quantitative data was collected and then different tests, like Cross tabulation test was applied to get the required results. The results, suggestions, and recommendations of this study were then used to enable the inhabitants of D.G. Khan to cope with the natural disasters like floods in future. A simple random technique has been applied to conduct the survey in the current case study. Therefore, 200 questionnaires were used to learn about the satisfaction level of the residents who got affected by the last flood disaster. The map along with the areas where the floods have been recorded is shown below:

Figure 1

Map of D.G Khan Made by Author Showing the Flood Affected Area



Results

Analysis of the field survey data focused on aspects of communal life such as physical, social, and psychological health. The questionnaires covered health, education, economy, and political factors which would make the people more vulnerable. The test uses the application of chi-square and cross tabulation to research the issues of gender in a society. The results are mentioned in the Tables given below.

Cross Tabulations

The outcomes of the current research proved that women, as compared to men faced more problems not only physically, but socially and psychologically as well which made them more vulnerable. As they were illiterate, they did not know what to do in case if any natural disaster occurs and there were no man power available in their houses. On being asked most of them replied that they would prefer to wait in the house for their men to come and save them rather to go out and become victim of harassment.

Socially, many women tend to depend on men and they were bound to obey what the man/leaders of the house orders. Additionally, there were women who were running the house but they also became horrified during such emergency cases of natural disasters.

Both men and women faced psychological problems but this percentage was higher among women. When women became patients of anxiety, men had to worry about the livelihood. Women could not get enough sleep because they had young daughters and they had to protect them during the night which became an evident reason for the sleeplessness.

In the given tables, the cross tabulations have been formed between the gender and physical, social and psychological impacts which affected the inhabitants of D.G. Khan. The distinct results of the tables showed that women are more vulnerable when they tend to face social and psychological impacts, whereas men are vulnerable in case of physical impacts. Therefore, these variables are considered as the impact which made people of D.G. Khan vulnerable to floods.

Table 1
Cross Tabs of the Physical Impacts

		Did you feel any of the physical problems during or after the flood?					Total
		Soreness	Sleeping Disturbance	Injuries	Insufficiencies	Others	
Gender	Count	12	57	31	0	0	100
	Expected Count	21.5	41.0	16.5	4.0	17.0	100.0
	Male % within Gender	12.0%	57.0%	31.0%	0.0%	0.0%	100.0%
	Male % within Did you feel any of the physical problems during or after the flood	27.9%	69.5%	93.9%	0.0%	0.0%	-
	Female Count	31	25	2	8	34	100
	Female Expected Count	21.5	41.0	16.5	4.0	17.0	100.0
	Female % within Gender	31.0%	2.0%	2.0%	8.0%	34.0%	100.0%
	Female % within Did you feel any of the physical problems during or after the flood	72.1%	30.5%	6.1%	100.0%	100.0%	-
Total	Count	43	82	33	8	34	200
	Expected Count	43.0	82.0	33.0	8.0	34.0	200.0
	% within Gender	21.5%	41.0%	16.5%	4.0%	17.0%	100.0%
	% within Did you feel any of the physical problems during or after the flood	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 2
Cross Tabs of the Social Impacts

		Did you feel any of the social problems during or after the flood?					Total
		Being Widow	Being Divorcee	Feeling of Isolation	Inability to Work	Others	
Gender	Count	0	1	33	65	1	100
	Male Expected Count	8.0	0.5	35.5	47.5	8.5	100.0
	Male % within Gender	0.0%	0.0%	33.0%	65.0%	1.0%	100.0%
	Female Count	16	0	38	30	16	100
	Female Expected Count	8.0	.5	35.5	47.5	8.5	100.0
	Female % within Gender	16.0%	0.0%	38.0%	30.0%	16.0%	100.0%

		Did you feel any of the social problems during or after the flood?					Total
		Being Widow	Being Divorcee	Feeling of Isolation	Inability to Work	Others	
Total	Count	16	1	71	95	17	200
	Expected Count	16.0	1.0	71.0	95.0	17.0	200.0
	% within Gender	8.0%	0.5%	35.5%	47.5%	8.5%	100.0%

Table 3*Cross Tabs of the Psychological Impacts*

		Did you feel any of the psychological problems during or after the flood?				Total	
		Anxiety	Fear	Discontinuity of Life Routine	Others		
Gender	Male	Count	27	11	54	8	100
		Expected Count	29.0	25.0	42.0	4.0	100.0
		% within Gender	27.0%	11.0%	54.0%	8.0%	100.0%
	Female	Count	31	39	30	0	100
		Expected Count	29.0	25.0	42.0	4.0	100.0
		% within Gender	31.0%	39.0%	30.0%	.0%	100.0%
Total	Count	58	50	84	8	200	
	Expected Count	58.0	50.0	84.0	8.0	200.0	
	% within Gender	29.0%	25.0%	42.0%	4.0%	100.0%	

Discussion

Researchers and practitioners in the fields of disasters and violence against women have paid surprisingly little attention to the issue of inequality, violence, and loss of life among women in the aftermath of disasters (Sherrieb et al., 2010). Majority of research on the current subject has been undertaken in North America. However, this might not be relevant in the case of developing countries (Röhn, 2015), where majority of the natural disasters take place and the impacts are more profound. The current study seeks to address this gap by providing detailed examination of the incidents faced by both men and women and then analyzed a gendered perspective to show who has suffered more in such natural disasters. The variables collected through the data have identified that catastrophic events bring down the future of women more than that of men. Attention must be given

to the exceptional therapeutic, financial, and security needs of ladies in the repercussions of disaster just as to systems to guarantee the reasonable and nondiscriminatory allotment of help assets. Growing such arrangements won't completely anticipate the unfriendly effect of enormous-scale cataclysmic events in social orders where their regular financial status is low. Such arrangements should, in any case, decrease the overabundance of debacle mortality of ladies contrasted with that of men (Bulley, [2013](#)).

Since, it has been researched that in order to make a community resilient there is a need to make all the factors available that is, men and women of the community must be regarded equal to enable them to cope with the disasters. Women of the area need to be educated and trained properly so that they can protect themselves and their family members when their men are not around (Yoon, [2016](#)). In cases where women are the heads of the houses, there is need to educate them about their protection and rights as well as how to manage disastrous situations (Hemachandra, [2018](#)). There is need that such women must be trained to ensure that they, along with their family is able to survive the risky situations, to protect young girls and children from harassment, and how to manage to shift the elderly people from flood situations to the shelters (Hemachandra, [2018](#)).

Conclusions and Recommendations

Vulnerability to dangers includes an intricate connection among destitution and sexual orientation relations, where ladies are probably going to encounter more elevated levels of powerlessness than men. The contact with inhabitants of D.G. Khan identified that the importance of social norms plays an essential part in the less contribution of both genders, in the pre and post phases of natural disasters. Though, women are more vulnerable to the impact of hazards; however, their participation is quite less in these horrendous situations. Through the current study it has been proved that women would suffer more as compared to any hazard impact rather than men. Therefore, their participation must be ensured from pre to post disaster in all activities. Moreover, the lower financial status of women suggested that policymakers, nongovernmental associations, and the scholarly network need to concentrate more on gendered idea of disaster vulnerability. Though countries having similar societal norms have attempted to involve women in such situations, and it can also be possible in the Pakistani context as well

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