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To cite this article: N Saleh *et al* 2022 *IOP Conf. Ser.: Earth Environ. Sci.* **1101** 022033

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Women's Empowerment in Post-Conflict Housing Reconstruction in Palestine

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Abstract. The occurrence of disasters, especially in the post disaster phase, could be an opportunity to empower women in housing reconstruction. Despite that the disasters are on increase globally; they affect women and men differently. Women are still passive in disaster management and they have been found more vulnerable to disasters than men. This study provides insights into the experiences of women empowerment in post disaster housing reconstruction (PDHR) in the Gaza Strip-Palestine. The study used a questionnaire survey to obtain data from women who had been involved in post conflict housing reconstruction. The results indicated that, five of nine practices of women empowerment were determined statistically significant. The findings showed that, the top three practices for women empowerment are: ensuring rights of land titles for female-headed households in the PDHR, equal distribution of financial assistance to both men and women, and equal access to resources and information related to reconstruction. Gaza Strip lacks researches regarding women empowerment in general and in PDHR in particular. This study fills the knowledge gap relating to women empowerment in post conflict housing reconstruction. The study results established a basis for better understanding of the women empowerment and could minimize their vulnerabilities to future disasters.

1. Introduction

Disaster is “a serious disruption of society that exceeds its coping capacity” [1: 265]. Disaster, both natural and human induced, cause severe, long term social, economic and environmental impacts around the world every year [2]. It causes massive destruction, damage and human losses, and the victims face the situation of collective suffering and physical and psychological trauma [3, 4]. Although disasters can broadly affect a community, they do not affect all community members equally [5]. The most vulnerable group to the disaster negative effects are the individuals and groups who suffer marginalization and discrimination [6, 7].

Scholars have highlighted that disaster influences women and men differently according to their roles and relations within a specific community [8]. Hamidazada et al. [9] mentioned that women and children are 14 times more likely to die in a disaster than other groups, especially in developing countries. Women are more vulnerable to the consequences of disasters because of their social role as mothers and housewives which increase their burden [10]. The women marginalization within many organizations and their absence from the decision-making structures, has contributed to the increasing of women's vulnerability in post disaster situations [6].

In post disaster, women are usually marginalized by agencies and organizations responding to the disasters despite their concern to be active in communities [11]. Lack of women involvement in planning and decision making in reconstruction resulted in ignoring their needs and demands [12]. The poor



procedures in capturing women's demands in planning and design led to reconstruction of inappropriate houses [13]. On the contrary, Andrew et al. [14] reported that the degree of success of reconstruction is captured through beneficiaries' perceptions regarding their reconstructed houses.

Gaza Strip- Palestine is a site of man-made disaster and facing a crippling humanitarian crisis [15, 16]. Therefore, it is vital to understand what are the practices experienced by the affected women in Gaza to empower them in post disaster reconstruction (PDR). The aim of this study is to investigate the women's empowerment in post disaster housing reconstruction (PDHR) in Gaza Strip. In achieving the aim, the study initially addresses the difficulties faced women in PDR worldwide. Further, the study elaborates the concept of women empowerment. Finally, the study investigates the women's empowerment practices during PDHR. After introducing the theoretical considerations, there is an explanation of the data collection methods and data analysis. Then, results from data analysis are summarized with a discussion.

2. Literature review

2.1. *Women's difficulties in post disaster housing reconstruction*

Scholars have highlighted that women are more vulnerable to the consequences of disaster than men [9]. Further, the degree of vulnerability differs considerably among women depending on the nature of the biological, social and economic conditions [17]. Disabled, elderly, pregnant and lactating women and widows are at greater risk of victimization [6, 12]. Women face many restrictions in their lives after a disaster which related to their rights, justice, and empowerment [6]. This indicates the necessity to identify women's difficulties that are directly related to disaster reconstruction which contribute to their vulnerability in post disaster to facilitate their empowerment [13].

Women are not vulnerable because they are weaker [10], but because they are marginalized within the responding agencies, and they are not involved in the decision-making structures in PDR [9]. Women are seen as helpless victims and their capacities, knowledge and skills in each stage of the disaster cycle are not recognized [18]. Yumarni and Amaratunga [19] stated that shortage of women leadership and voices in recovery and reconstruction is the most challenging in PDR to the women despite their contributions in disaster recovery. Women's participation in housing reconstruction of dwellings is not always anticipated [13, 20]. In parallel, women often lack the reconstruction skills and knowledge, so their dependency on others to complete the reconstruction increased their vulnerability [13, 21]. As the role of women as good mothers and housewives might limit their opportunities to develop their professional skills [16].

Women are also vulnerable due to their lower economic, social and political status such as high rate of poverty and cultural constraints on their activities [22]. In the aftermath of a disaster, women are responsible for heavy domestic workload which restricts their freedom of migrating to look for work [5, 11, 21, 23]. Females in some cultures are not allowed to go outside their homes for a job or any money earning activity [20]. For instance, Palestinian women are unable to choose any position they would like because of cultural restrictions imposed on them by their families and society [24]. Hence, women's economic dependence on men increases, which ultimately reduces their security and intensified their vulnerability [21]. Rehmani et al. [20] reported that women recovery in Pakistan was more slowly than men because of the major economic losses and their restricted mobility due to cultural constraints.

Women face ongoing disadvantages in the unequal access to resources in PDR [5]. These resources include access to land, financing, new technologies, bargaining power, social capital, and training for disaster preparedness [10]. Low income of women in association with lack of resources impacts women's bargaining power at various levels within households, in communities, nationally, regionally, and internationally [25]. Unequal access to power and resources are fundamental in weakness of women capacity to recover in post disaster [10, 26]. Further, it was found that female households in Sri Lanka faced discrimination in terms of their legal rights such as property rights and land titles which are only allowed to male. In parallel, government payments and interventions in the post Tsunami is provided to

the head of household [13]. Therefore, women often fail to receive equitable financial recovery assistance from the government or external donors [26].

In order to overcome the difficulties experienced by women in PDR including lack of opportunities, lack of income, lesser access to resources, lack of voice in decision making and exclusion, the concept of women empowerment was proposed by various researchers as a strategy to minimize their vulnerabilities for future disasters [5, 7, 20, 27, 28]. The concept of empowerment can provide women an environment to acquire the ability to make strategic life choices in terms of their own life which reduce their vulnerabilities [13].

2.2. Understanding the concept of women empowerment

The term empowerment covers a wide range of issues and subjects [29]. Wang & Burris [30] defined empowerment as a process of increasing capability, especially for marginalized people and groups who are farthest down the ladder in the power hierarchy and who have least access to knowledge, decisions, networks, and resources. Thurairajah [21:36] defined empowerment as “the process of giving employees the authority to take decisions, relating to their work processes and functions, and within the limits provided by management, but requiring them to assume full responsibility and risk for their actions”. Thurairajah & Baldry [28] stated that the concept of empowerment focuses on avoiding social exclusion, polarization and marginalization. This demands total commitment, involvement, support and trust from management [13].

According to Magar [31: 12], women empowerment is “a process whereby individual attitudes (self-esteem and self-efficacy) and capabilities (knowledge and skills and political awareness), combined together with collaborative actions (social and political participation), and reciprocally influenced by resources (information, material, and social/psychological) result in a transformation to desired achievements (individual, group, and societal)”. This can lead to an equal share in economic and political decision making, and control of economic resources which will reduce the women vulnerability in disaster situations (Amaratunga et al., 2019). Women’s empowerment in PDR is defined as “a process of giving women the authority to take strategic decisions, relating to their personal and work processes and functions and building capacities leading to greater participation and greater decision-making power and control to result in a transformation to desired achievements from post disaster reconstruction” [21: 47].

2.3. Practices of women empowerment in PDHR

The concept of empowerment is becoming an important concept to address women’s difficulties in PDHR [7, 18, 26, 32]. Women empowerment upgraded their position in the community from a passive role to the active role in post-disasters [7, 9, 10]. Women empowerment within PDHR develop a long-term disaster resilient community [6, 13, 32]. Women should be empowered to talk about their rights, properties, livelihood, access to resources, etc. [28].

Number of examples exists there in Bangladesh, India, Indonesia, Nicaragua, Sri Lanka and Nepal worked on empowering women to exercise leadership within their communities [7, 18, 33, 34]. Women’s leadership encouraged women’s involvement in reconstruction tasks and brought positive changes in women’s property rights [10, 23]. Women could be empowered in the form of increasing their representation and voice in post disasters [7, 19, 25]. Enabling women participation in decision-making promotes the inclusiveness of women empowerment in PDHR [5, 9, 20]. It helps to address women’s needs and demands [5, 6, 26, 35].

PDHR can offer an opportunity to encourage the participation of women in planning, designing and constructing homes, monitoring and evaluation the construction [6, 8, 19, 25]. In post 1992’s flood in Pakistan, women were participated in planning and implementation of reconstruction activities such as mud plastering [7, 12]. In the USA, women were involved in works which might be seen as man’s work as rebuilding houses and working in agriculture [6]. Following 1998 Hurricane in Nicaragua, women in were seen building houses, digging wells and ditches, hauling water and building shelters [17].

Accordingly, women's skills and experiences in past disasters must be fully recognized and utilized to build resilience and reduce women vulnerability for future disasters [5-7, 26]. In the same manner, participating women in reconstruction required a capacity building of women through construction skills training and awareness programs [6, 36-38]. This capacity can lead to an equal share in economic and decision making, and control of economic resources which reduces their vulnerability in disaster situations [33]. In post disaster, there is also a need to consider the equal distribution of funds to both men and women [10, 20, 21]. Besides, ensuring female property and land titles rights would enhance the women empowerment both economically and socially, and would rectify the fundamental injustice [21, 39].

3. Research methodology

Data collection of this study started by reviewing literatures related to women empowerment in PDHR, followed by data collection using a quantitative approach through questionnaire. The questionnaire was preliminarily designed based on the identified factors from reviewing literatures related to women empowerment in PDHR. The preliminary questionnaire consisted of 13 practices to determine the status of women empowerment in PDHR in Gaza. Then, the questionnaire was reviewed by experts to develop a questionnaire with high clarity and relevant items. The final questionnaire consists of two sections including the respondents' profile and the women empowerment practices in PDHR (9 practices). The questionnaire was drafted in English and translated into Arabic to be understandable for the Gazan people as the native language is Arabic. The questionnaire targeted the affected women in the 2014 post conflict. A total of 36 questionnaire were distributed to the selected respondents based on their experience and involvement in the post conflict.

The questionnaire was face to face administered questionnaire; which refers to questionnaires where interviewers physically meet respondents and ask the questions face to face [40]. The questionnaire asked the respondents to rate the applicability extent of the women's empowerment practices in PDHR from 0 "very low" to 4 "very high". The data was analyzed using descriptive statistics through frequency distribution and central tendency; and inferential statistics using Wilcoxon signed rank test. Frequency distribution was used to obtain the valid percentage of each practice to calculate the availability index (AI); which is equivalent to the Relative Importance Index (RII). As Holt [41] stated that questionnaire data resulting from the use of response scales are frequently analyzed using the RII method. AI is calculated using the following formula [41]:

$$AI = \frac{\sum_{i=1}^n i * \text{valid percentage}}{A} \quad (1)$$

Where: 1 and n represent Amin and Amax (i.e., 0 and 4 in this case); A is the largest integer in response scale (Amax). The valid percentage is computed by SPSS through frequency. AI ranges from 0 to 100; the higher AI is the more applicable in PDHR. Meanwhile, central tendency was used to determine the median of practices; where the median is the best measure of central tendency for ordinal data [42]. Inferential statistics using one sample Wilcoxon signed rank test was used to test the null hypothesis that the median of the sample is statistically equal to a hypothesized median [43]. The one sample Wilcoxon signed rank test is the non-parametric version of one sample t-test [44]. In this study, the hypothesized median is determined as 3 to be high availability or more based on the adopted scale from very low "rating=0" to very high "rating=4". With employing the Wilcoxon signed rank test, the median values of each practice would be checked to assess its significance value which accept or reject the hypothesis. The null hypothesis is defined as "Median of the sample of women empowerment practices is equal to 3". If the significance value is less than 0.05, the null hypothesis is rejected; otherwise, the hypothesis is accepted. The test was two tailed at a confidence level of 95%.

4. Findings and discussions

Table (1) shows the analysis results regarding the respondents' profile in terms of educational qualification, family size, ownership of the damaged house, and reconstruction period. It is shown that most of the targeted 36 women has an educational level of 12th grade or less. This was because most of damaged houses were in the remote areas of Gaza Strip, which is rural areas. From 36 women; 36.1% has family size consisting of 1-2 children, 30.6% has 3-5 children, 16.7% has 6-8 children, and 16.7% has 9-12 children. Moreover, the table shows that percent of house ownership is shared half to half between women who have their owned houses and women with family houses. Furthermore, 58.3% of the damaged houses of women were reconstructed in less than 6 months, 30.6% in 6-12 months, while 11.1% were reconstructed in 13-18 months, which reflect short period of reconstruction.

Table 1. Respondent's Profile

	Frequency	Valid percent %
Educational qualification		
12 grade or less	32	88.9
Diploma	1	2.8
Bachelor	3	8.3
Family size		
1-2	13	36.1
3-5	11	30.6
6-8	6	16.7
9-12	6	16.7
Ownership of damaged house		
Owned	18	50
Family house	18	50
Reconstruction period		
<6 months	21	58.3
6-12 months	11	30.6
13-18 months	4	11.1

The findings indicated that, the affected women indicated that “ensuring rights of land titles for female-headed households” have a very high degree of applicability to their empowerment practice (rating=4). Meanwhile, the practices of “equal distribution of financial assistance to both men and women”, and “participation of the affected women in planning and designing their houses” have a high degree of applicability (rating=3). While, two of women empowerment practices have moderate applicability degree and one has a low degree. On the other hand, three practices have very low degree of applicability to women empowerment practice. The results of one sample Wilcoxon signed rank test in Table (2) implied that four out of nine practices of women empowerment have (p -value > 0.05), which are in italic font. This reflected that the respondents didn't consider these practices as statistically significant and hence the hypothesis is rejected “H: the sample median is statistically equal or higher than 3”.

The rankings in Table (2) shows that majority of women respondents stated that they have a good empowerment practice regarding “ensuring rights of land titles for female-headed households in the PDHR”, “equal distribution of financial assistance to both men and women”, and “equal access to resources and information related to reconstruction” with AI of (86.75%, 70.25%, and 68.00%), respectively. The lowest AI were 14.50% and 4.25% which were sequentially related to “participating the affected women and taking leadership roles in reconstruction process, monitoring and evaluation”, and “establishing women's association to support women's collective action to reconstruct their house”.

Table 2. Results of Women Empowerment Practices in Post 2014 Aggression Housing Reconstruction

Women empowerment practices	Median	Valid percent					AI%	Rank	p-value
		Very low	Very high					
		0	1	2	3	4			
Ensuring rights of land titles for female-headed households especially in case of widow after wars	4	0	0	13.9	25.0	61.1	86.75	1	0.001
Equal distribution of financial assistance to both men and women	3	0	5.6	41.7	19.4	33.3	70.25	2	0.234
Equal access to resources and information related to reconstruction	2	0	5.6	50.0	11.1	33.3	68.00	3	0.104
Provision of respects and facilitating the steps of housing reconstruction	2	8.3	11.1	33.3	5.6	41.7	65.25	4	0.111
Participation of the affected women in planning and designing their houses	3	25.0	0	19.4	13.9	41.7	61.75	5	0.121
Prioritizing the reconstruction of female headed houses	1	36.1	19.4	13.9	2.8	27.8	41.75	6	0.000
Building connections between affected women and others who shared common histories, issues, and barriers	0	80.6	0	8.3	0	11.1	15.25	7	0.000
Participating the affected women and taking leadership roles in reconstruction process, monitoring and evaluation	0	75.0	8.3	8.3	0	8.3	14.50	8	0.000
Establishing women's association to support women's collective action to reconstruct their house	0	91.7	0	8.3	0	0	4.25	9	0.000

As shown in Table (2), the affected women were mostly empowered in the 2014 post conflict housing reconstruction from their perspective by ensuring their rights of land titles. This reflects the women high concern regarding their property rights which conserve their security in their own houses especially women who lost their husbands during the aggression. As the ownership of property reduces their vulnerability, enhances their self-esteem, and ensures their self-confidence. The women indicated that, the exclusive rights of their lands also secure their life with their children in safety and dignity without any worries to lose their houses any time. The women rights in land titles have been ensured was the Palestinian policies and the reconstruction policy followed in post 2014 aggression. The reconstruction agencies protect the rights of the female head of household in their lands. Besides, they facilitate the transfer procedure of land ownership for women who missed their husbands in the aggression. However, the reconstruction in post 2004 Indian Ocean Tsunami in Sri Lanka reported that women gave away their rights to receive the property to men in spite of their rights in land before tsunami due to hassles in handling the administration process [21, 28]. Likewise, Nahar et al. [45] mentioned that laws in Bangladesh were biased towards men in case of property rights of women. The marginalization of

women rights in their lands in Bangladesh magnified their vulnerability and poverty [45]. The women rights of land titles were also absent in Pakistan in post 2010-2011 flood reconstruction [12].

The second rank among the women empowerment practices was positioned by the equal distribution of financial assistance to both men and women. This is due to the reconstruction policy which is administered by the reconstruction agencies working in the Gaza Strip. The policy stated that the reconstruction is a right for all affected civilian during the aggression according to the damages in their houses. The affected civilians either males or females are prioritized in the financial compensation according to: family size, damaged area, number of damaged stories, land ownership, and completion the required documents. The affected family matching the criteria was provided the compensation regardless the gender of the head of household. Moreover, women are prioritized than men in case of equivalent assessment. Additionally, the amount of financial assistance is fixed for all families as 280\$/m² for foundation floor and 210\$/m² for other floors. In contrast, Sinha and Srivastava [23] demonstrated that beneficiaries of PDHR in India are solely registered for financial assistance based on male heads of household. Further, the Indian women who lost their husbands and their assets may not receive compensation for their losses [23]. Similarly, Roy [46] mentioned that while women were marginalized in the financial assistance policies of aid agencies in post 1999 cyclone in Odisha, men benefit disproportionately from these assistance.

Equal access to resources and information related to reconstruction was the third important practice in the women empowerment. Access to resources in Gaza was through the Gaza Reconstruction Mechanism (GRM) due to political issues. GRM is an administered system established by the Israeli Government, in coordination with the Palestinian Authorities and the United Nations to ease the entry of dual-use materials into Gaza for reconstruction like cement, steel bars, and wood. Accordingly, all beneficiaries of PDHR regardless their gender have to be accepted in the GRM to acquire the required reconstruction resources in order to tackle the reconstruction process. Hence, women have an equal access to resources without any bias. Abdullah et al. [18] confirmed that the civil war from 1991–2002 in Sierra Leonean created spaces for women to access to resources. Similarly, Thurairajah and Baldry [28] demonstrated that one of the main opportunities for women empowerment is ensuring equal allocation and distribution of resources. Conversely, Bradshaw and Fordham [8] reported that the root causes of women vulnerability in post disaster lie with the lack of access to the resources. In India, Sinha and Srivastava [23] stated that male and female are favorably titled towards males in terms of resource allocation in post disasters. Women also experienced a limited access to resources in post 2010-2011 floods reconstruction in Pakistan [12].

Referring to the lowest ranks, “participating the affected women and taking leadership roles in reconstruction process, monitoring and evaluation” has the eighth rank from nine empowerment practices. This factor has a low rank due to the cultural and social restrictions in Gaza. The highest percentage of houses destruction was in the remote area of Gaza Strip; which is a rural area and imposed restrictions on the movement of women and girls. In addition, the construction industry has a male-dominated culture in Gaza, which added limitations on the women leadership of their houses. Women also lack the skills that qualifying them to monitor the reconstruction process and they don’t have the power to properly evaluate the process. Therefore, most of Gazan women depend on males in their families like brothers, sons in case they missed their husbands to lead the reconstruction process. Fajarwati et al. [47] assured that women needed more empowerment with adequate knowledge and skills to lead the reconstruction in Lamongan and Bojonegoro in Indonesia. On the contrary, the flooding in the Bodin district of Sindh-Pakistan shows that in spite of the cultural and social restrictions on women, they participated in rebuilding homes the village in the wake of the floods [6]. Similarly, Moreno and Shaw [10] found that women increased their presence at the community level, as their management skills expanded in post 2010 Chile earthquake and Tsunami. After the 2015 earthquake in Nepal, women played a crucial role in rebuilding efforts [48].

The lowest rank in the women empowerment practices in reconstruction after the 2014 aggression was positioned by establishing women’s association to support women’s collective action to reconstruct their houses. The affected women stated that they haven’t been empowered through this practice. As

mentioned before, most of the affected areas in the aggression were remote areas; in which most of women have a low level of education which is confirmed in the respondents' profile. The women's low education and lack of skills decreased their confidence to participate in the social activities and engage in the Community-Based Organizations (CBOs). Further, women in Gaza might be constrained by the social norms which prevented their leave from house without male permission, and because their reproductive role and domestic tasks making them time poor. Conversely, women's grassroots formed in El-Morro in post the 2010 Chile earthquake and tsunami played a crucial role in responding to the women's vulnerability [10]. In Yogyakarta- Indonesia after the 2006 earthquake, women were highly strengthened due to the women groups in which they face the reconstruction challenges together [49]. Drolet et al. [6] also reported that the USA offers an example of women's collective action that can strengthen resilience at community as well as household level, making communities more likely to withstand future disasters.

5. Conclusions and recommendations

In post disasters, various factors contributed to women vulnerability including domestic tasks, lack of land rights, limited access to finance, limited access to resources, and lack of participation in decision making. Vulnerability of women due to their roles and the effect of disasters stressed the need of women empowerment practices to be implemented in PDHR. This paper investigated the women empowerment practices in post 2014 aggression housing reconstruction in the Gaza Strip- Palestine. Based on questionnaire analysis, the highest practices empowering the disaster affected women were "ensuring rights of land titles for female-headed households in the PDHR", "equal distribution of financial assistance to both men and women", and "equal access to resources and information related to reconstruction". The lowest ranks were "Participating the affected women and taking leadership roles in reconstruction process, monitoring and evaluation", and "Establishing women's association to support women's collective action to reconstruct their house". Accordingly, the study recommends to increase the women involvement in managing the reconstruction of their houses. This practice demands building their capacities through training sessions to improve their management skills in reconstruction. It is also vital to take initiatives by government and women agencies to ensure the women leadership in associations and CBOs to enhance their self-confidence. There is also a need to encourage them to build a grass root in future disasters to support sharing their experiences, feelings and comforting one another.

The results of this study established a basis for better understanding of the women empowerment in Gaza Strip. It is hoped to draw the attention of implementing agencies and women agencies to the difficulties of women in PDHR and to the practices that mostly empower women and the others that threaten their empowerment. Accordingly, the concerned agencies might prepare plans to improve these practices and mitigate the women vulnerability. Future studies could be implemented to investigate the strategies that implementing agencies adopted to empower the affected women in PDHR. Also, studies could be conducted to investigate the women empowerment through the whole process of disaster management including: preparedness, response, recovery and reconstruction.

6. Acknowledgement

Thanks, and appreciation is due to AvH Foundation for sponsoring this research.

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