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Gendered coping in disasters: Equality and Difference

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Note : This paper written by the above two members of the UK team is now being circulated amongst other UK research team members and may be revised to include more co-authors.

Abstract

Gender as a social construct has been used to understand and analyse the impacts of disasters in specific ways by feminists and others working in the field of disasters. This study affirms this general thinking and shows that vulnerability to disasters, as also capacities to deal with disasters are highly gendered. As social constructs, both vulnerability and resilience in disasters have to be understood through a gender lens. In the last decades, feminist theorising has increasingly problematised the idea of gendered difference and its relation with gendered equality. The question has really been about how to argue for gender equality whist affirming a difference or, put in another way, posing the question; are the concepts of equality and difference compatible with each other at the levels of political, social and philosophical engagements? Discussing these issues against the backdrop of disasters, gender and mental health, this study suggests that this poses specific choices for disaster practitioners and practices, especially those which have gendered equity and equality as their political objectives.

The Study Context

The study is a part of the MICRODIS Project[1] (www.MICRODIS-eu.be) which is an Integrated Project funded under the EU Sixth Framework Programme, and has the study and measurement of social, health and economic impacts of disasters as one of its goals. This particular study was located in Tewkesbury, UK, which was affected by severe floods in 2007.

The 2007 floods were a result of both surface water and river flooding. Flooding is the only major disaster risk in Tewkesbury, and the Severn catchment has a long and well-documented history of flooding . Tidal effects of the river Severn are usually confined to the stretch of river up to Gloucester and only reach Tewkesbury in unusual circumstances . Situated at the Avon and Severn confluence, Tewkesbury has thus always been prone to fluvial flooding due to its position on the main fluvial floodplain and the potential contribution of two separate river catchments to flooding events. Furthermore, there are 1,800 people in 800 households situated directly on the floodplain in the Tewkesbury district (Gloucestershire County Council, 2007).

Prior to the severe 2007 flood there have been five other recent major flooding events within the catchment (February 2004, February 2002, Autumn 2000, October 1998 and Easter 1998). However, Tewkesbury town itself was only affected by the flooding in Autumn 2000, which had been the largest flooding event on record in the lower Severn catchment before 2007 (Environment Agency, 2008). The first recorded flood in Tewkesbury was in 1484 and since then the town has experienced flooding events approximately every 30-50 years. The largest flood level of historic flooding events (records from 1862-1990) was recorded in 1947, triggered by warm rain falling on snow (Environment Agency, 2008) .

The district of Tewkesbury received 80-90 mm of rain on the 20th July 2007, which amounts to almost two months' rainfall in just one day and caused severe flooding of the town (Environment Agency, 2008). A water level of 12.93 metres above sea level was recorded at the river Severn on 23 July 2007 (previously the highest recorded level was 12.80 in March 1947.

An estimated 810 properties were affected by flooding in Tewkesbury, with the centre of town being completely cut off due to flood waters(Environment Agency, 2008) . Fifteen hundred buildings were flooded in Tewkesbury by both flash and fluvial flooding (Stuart-Menteth, 2007).

[1] MICRODIS– Thematic Priority 6.3 Global Change and Ecosystems (Contract number GOCE-CT-2007-036877).

Research Methodology and Respondents of Tewkesbury

In Jan 2009, the University of Northumbria (UoN) conducted a sample survey of the affected population, chosen on a systematic sample basis. Since the Data Protection Act in the UK did not allow UoN to access personal details of the affected group of people, a pathway analysis was carried out. All affected sections of Tewkesbury were visited and a pathway or a line drawn through these areas. Every alternate house on this outlined pathway was then taken into the sample population to be surveyed by the survey team. The survey team faced challenges in accessing the interviewees, as many did not want to participate due to a range of reasons; survey fatigue (many other groups having interviewed them before); being absent from home; not wanting to recall the trauma of the flood. In all, 136 households which were flooded were finally interviewed.

- The respondents belonged to diverse age groups but with the majority of them (53%) between 40-64 years, whilst 35% belonged to the age group above 65 years[2].
- 56% of the respondents were female, whilst 44% were male[3].
- The respondents were predominantly Christian, and 17% said that they did not belong to any religion.
- The sample had60% married respondents, whilst 15% were single and another 13% widowed. 9% were divorced.
- The sample population was educated with 85% having some level of school qualifications or higher degree or professional qualification.
- The sample has people working from diverse occupations. However, 40% of the sample belonged to the category of retired people. The representation of retired persons or pensioners is higher in the sample (40%) than in Tewkesbury town which stands at 11%. There are two possible reasons for this difference; one that the represented sample is only from the flooded area, and not from the entire town; second, it is likely that the interviewers were able to contact retired persons more easily than the rest of the population, as they were more likely to be found at home than the economically active population.
- In terms of ethnicity, the sample was almost entirely White British, in line with the general composition of the Tewkesbury population.

Limitation of the findings:

The general limitation of the study has been its sample size, and whilst the findings are analysed by taking gender as a variable, further statistically viable analysis of the data by gender and age, or gender and class has not been possible due to the restrictions imposed on an analysis by an even smaller sub-group sample size. Thus, whilst there may be other variables in conjunction with gender, which could have also contributed to the general findings of this study, they have not been considered in the analysis and the discussion of findings in this paper.

[2] All percentages given in this subsection have been rounded off.

[3] The deviation of the representation of the sample from the census population which outlines the female population at 51% and male at 49% can be attributed to the fact that the sample drawn is from the flooded area only and as such cannot be said to be representing the entire Tewkesbury town.

3) Research Question

The main research question asked was: what are the gendered effects of disasters on mental health and what are the implications for practice?

4) Gender, Disasters and Mental health: A framework for gendered coping resources

Studies on mental health have now reported differential psychological impact of disasters on men and women. Risk factors for adverse outcomes, associated with men and women are considered to be different (Norris, Friedman & Watson, 2002pg 246). Research indicates that women show higher levels of stress as compared to men, however this difference can also be influenced by multiple factors such as age, family – nuclear or extended, household structure and socio-economic status (Coyne & DeLongis, 1986; Solomon, A & Burke, 1989). In their study on flood survivors in three different cities in the USA, Ollenburger and Tobin found that both gender and age played a role in stress responses; that is, interactions between age and gender exacerbated the vulnerability of individuals during floods. Elderly women who lived alone were found to be more vulnerable than other women and men (Ollenburger & Tobin, 1998pg 96).

Norris et al also suggest that gender effects are modified through cultural factors amongst other factors such as severity of disaster, marital status, personal loss and community destruction. Further, these risk factors are also affected by different kinds of care systems available to the affected persons. Additionally, psychological resources and social support have also played an important role in protecting men and women and making them more resilient in the face of disasters(Hobfoll & Lilly, 1993). The psychological resource loss is also associated with social support, social embeddedness and perceived control. These factors mediated the effects of the mental health symptoms and females experienced a higher likelihood of adverse mental health outcomes (Norris *et al.*, 2002pg 217). The male and female susceptibility to higher risk is also attributed to their subjective interpretation of events (Glesar, Green & Winget, 1981; Garrison *et al.*, 1993). Differences between women's susceptibility to risk factors based on their marital status, such as their expectations from their partners and vice versa is also found to be significant, as marital stress had higher adverse impact (Glesar, Green & Winget, 1981)

On , coping, it is found that individuals have different coping strategies and what may work in one context may not in another. However, what was found consistently were self constructs such as belief in one's own ability to deal with the situation, self esteem and hope. It was the perceptions of people in their ability to deal with the situation that mattered more than whether they had the resources to do so in relation to their mental health outcomes (Benight *et al.*, 1999a; Benight *et al.*, 1999b).The effect of received social support is considered limited and were mediated by other factors such as sense of belongingness (Norris & Kaniasty, 1996).

5) Tewkesbury: Social Constructs assessed

The Tewkesbury study has assessed various social constructs to understand the relation between mental health and its predictors. It has taken MHI5 and SF12 [4]as its two main mental

[4] The MH15 is used to measure general mental health and includes following dimensions : anxiety, depression, loss of behavioural or emotional control and psychological control. The SF-12 is used to measure general mental health from the point of view of respondents. They include following concepts namely: physical functioning,

health and quality of life constructs as outcome variables. Both these constructs are widely used in understanding mental health and quality of life and this study used the standardised questions to assess the same. Similarly, keeping in view the literature for predictors of mental health outcomes, various other social constructs were assessed such as received social support, social embeddedness or sense of community, and different coping strategies which included positive as well as avoidance strategies.

The mental health construct MHI5 was a scale of five questions and its cronbach alpha for females and males was 0.824 and 0.738 respectively. The SH12 was the scale of 12 questions and its cronbach alpha for females and males was 0.865 and 0.806. Received social support was a scale of 21 sub-items and its cronbach alpha was for females and males were 0.709 and 0.791. The subscale of sense of community was made of 12 items and its cronbach alpha for females and males was 0.717 and 0.775. Thus, the reliability of the scales was generally good.

This paper specifically analyses the role of gender in the achieved mental health and quality of life after the floods in 2007. Using gender as a variable, Table 1 shows that there are differences in the mean mental health MHI5 and SF12 scores for men and women. Generally, women have scored lower on these indicators than men suggesting that they are more vulnerable to adverse mental health and quality of life outcomes. Similarly, Table 1shows that women have scored lower than men on indicators of quality of life. However, both groups have now achieved an average mental health as both men and women have scored more than 50 for MH15 and SF12 a threshold score, used to suggest whether they have an average mental health or not.

The general psychological resources assessed for mental health were sense of community and received social support as shown in Table 1. A comparison between the mean difference for these psychological resources between men and women, suggests that on an average, women felt a higher sense of community than men, a relationship also found to be statistically significant. Further, there does not appear to be any real difference between received social support for men and women.

role functioning physical, bodily pain, general health, vitality, social functioning. A SF12 and MH15 score of more than 50 represents average health status.

Table 1

Flooded Group	Gender	N	Mean	P value if <0.05 or <0.01
Mean MH15 score	Male	60	81.33	
	Female	76	77.8	
Sense of community	Male	60	43.10	<0.01
	Female	76	45.91	
Mean recd social support	Male	59	2.15	
	Female	76	2.12	
Mean SF12 score	Male	59	70.69	<0.05
	Female	75	64.07	
Meanlim_phy	Male	60	84.17	
(limitation in carrying out moderate and strenuous activities)	Female	75	74.33	
Meanlim_physical	Male	60	70.00	
(limitation in doing daily work due to physical problems)	Female	76	58.55	
Meanlim_emo	Male	59	85.59	
(limitation in doing daily work due to emotional problems)	Female	76	75.00	
Meanemo_well	Male	60	64.86	
(emotional wellbeing)	Female	76	59.76	
Phy_func	Male	60	66.66	
(general health)	Female	76	58.88	
Social functioning	Male	60	85	
(Interference of emotional and physical health in social activities)	Female	76	76.97	
Pain in health	Male	60	85	<0.005
(interference of pain in normal work – housework and outside)	Female	76	72.69	

6) Mental Health, Quality of life and Gendered psychological coping resources

To understand the predictors for the mental health and quality of life outcomes, a multiple regression was done for females and males vis a vis the different psychological resources – namely the sense of community and received social support. Table 2 outlines the statistically significant relationships found between the psychological resources, mental health and quality of life constructs. As can be seen in Table 2, statistically significant relationships were found for females alone vis a vis these psychological resources in a regression model. That is, for males, none of these psychological resources – sense of community and received support - had any real effect or statistically significant correlation with their mental health or quality of life.

As shown in Table 2, multiple regression showed significant relationships for females between mental health outcomes and sense of community. That is, received social support were not significant predictors for mental health; sense of community was the most important predictor for mental health outcomes for females. That is, the higher the sense of community, the better is the mental health of females.

Similarly, specific indicators for quality of life for women, such as general emotional wellbeing, had a significant relationship with sense of community and the main predictor for general emotional health of females was found to be the sense of community.

Further, Table 2 shows that within the general construct of sense of community, mental health for females was influenced more by other psychological attributes such as feeling at home in one's neighbourhood, and caring about what neighbours thought about one's actions. Both had a positive correlation with mental health.

Table 2 – all tables need a title

Females	Predictor	Adjusted Rsquare	Beta Coefficent	P value
MHI5	Sense of community	0.105	0.342	0.003
	Feeling at home in nhbd	0.112	0.359	0.002
	Caring about what neighbours think about actions	0.164	0.249	0.001
Meanemo_well sense of emotional wellbeing	Sense of community	0.081	0.305	0.007

In order to guage the effect of other psychological variables, mental health and quality of life, a Spearman Correlation was carried out for various psychological coping strategies, mental health and quality of life for males and females. Table 3 outlines the results of these correlations.

The predictors for mental health and quality of life MHI5 and SF12 for males and females show a remarkable divergence in terms of the psychological resources used to cope with the disaster induced stress. As can be seen from Table 3, the main predictor for males' vis a vis MHI5 and SF12 (that is the mental health and quality of life) is their degree in belief in their ability to deal with the situation. Regarding the emotional wellbeing of males, the degree of belief in ability to deal with the situation also plays the most important predictive role. In terms of social functioning, there is a positive correlation between social functioning and degree of 'doing things to improve the situation'.

Further, certain indicators of community embeddedness or sense of community such, as feeling at home within the community, has a negative correlation with the mental health status of males. Similarly, the statement that 'neighbours don't share the same values' has a positive correlation with the mental health of males. This could be taken as an indication of a competitive self, as being

important to male mental wellbeing. A sense of cooperation or one-ness with neighbours may not be measuring up to their ideal of maleness, thus contributing negatively to their mental health.

Taken as a whole, the analysis of the predictors for mental health and quality of life for males shows that it is the notion of ***being in control*** that can be said to be having the highest predictive effect on the mental health and quality of life of males in the post-flooded situation. ***All in all the psychological resources which enable the feeling of being in control can be said to be the main predictor for the mental health and quality of life for males.***

As one (male) Tom, aged 65 interviewee puts it:

> ...as a man I think you have to, you know, stand up and be...not going to be crying on my wife's shoulders. I think it should be the other way round. Now I know that's a bit old fashioned but that's the way I am. And so I found it very hard but you had to stand up and be counted and get on and deal with it. For her sake because if I went to pieces over it and just lost the plot, who's going to help her? There's nobody is there really? So, I'm not trying to be a martyr here, I'm just trying to say, as a bloke, sometimes you've just got to stop whingeing and get on with it. And that's how I really dealt with it.

On the other hand, a woman respondent, Janet, aged 60 felt that instead of feelings of being in control, she let go of that control in coping with the disaster:

> I think I've always been that sort of person, well you've got to put up with it; you've got to get on and put up with it. It's no good, you know, I can't alter it, really, I'm not going to have a big impact on altering it so if that's the situation that God's figured out for me then I've got to put up with it [laughs]. That's what I feel.

An analysis of the Spearman's Rho for females suggests that other psychological resources such as neighbourhood relations play a significant role in the mental health and quality of life (MHI5 and SF12). Similarly, social functioning amongst females is affected by an emotional relationship they have with others, such as degree of respect they get from family and friends, and also the individual degree of trauma felt by them. The degree to which their personal relationships were affected has a significant bearing on their ability to deal with daily work problems. Further, their emotional wellbeing is significantly affected by their relationship with their neighbourhood.

Apart from these findings from Spearman's Rho correlations, the multiple regressions discussed above have also revealed a sense of community and relationship that women have with their neighbourhood as the most important predictors for mental health. Taken as whole, the findings suggest that females' ***inter-subjective relationship with their surroundings*** has the highest predictive effect on their mental health and quality of life. ***That i,s the psychological resources which enable them to be in harmony with their surroundings can be said to be the main predictor for the mental health and quality of life for females.***

Table 3

Dependent variable	Males				Females			
	Predictor	Correlation coefficient	Pvalue	N	Predictor	Correlation coefficient	P value	N
SF12	Degree of belief in ability to deal with the situation	0.267	0.045	59	Caring about what neighbours think about actions	0.269	0.02	75
SF12	Degree of doing things to improve the situation	0.256	0.05	59				
MH15	Degree of belief in ability to deal with the situation	0.296	0.024	58	Feeling at home in neighbourhood	0.225	0.05	76
MH15	Feeling at home with community	-0.378	0,003	60				
MH15	Neighbours do not share the same values	0.374	0.003	60				
Social functioning	Degree of doing things to improve situation	0.276	0.033	60	How traumatic was flooding experience	0.232	0.043	76
Social functioning	.				Mean sumrespect scores	0.346	0.002	75
Meanlim_phy					Change in personal relations	0.251	0.035	71
Meanemo_well	Degree of belief in ability to deal with situation	0.279	0.034	58	Caring about what neighbours think about actions	0.255	0.026	76

This difference in the use of different psychological resources, a male disposition which relies primarily on self and being in control and a female disposition which relies primarily on intersubjective or relational resources, is further confirmed by the following differences between female and male behaviours as shown in Table 4. Females reported much higher change in personal relationships than men (72.91 and 57.57 respectively). Further a much higher percentage of females that is 72% sought help as compared to males (55%).

Table 4

Variable	Test used	Gender	Mean Rank	P<0.05	Percentage
Change in personal relationships	Mann-Whitney	Male	57.57	P<0.01	
		Female	72.91		
Help Sought	Chi Square	Male		P<0.048	55%
		Females			72%

7) Interpreting the Findings: The role of gender in mental health and coping

The findings indicate the differences in male and female strategies in the uses of psychological resources to cope with the disaster stress are almost opposites of each other. While the males use control oriented strategies, the females use strategies which rely more on their inter-subjective self which seeks harmony with its surroundings. How are we to interpret these differences?

Indeed feminists have interpreted such differences in male and female psyches in different ways. Within feminist debates, the question has been posed in terms of whether the difference can be attributed to the biological differences of sex between males and females or a social-cultural difference in terms of gender differences.

For example, for radical feminists(Daly, 1978; Spender, 1985), women are oppressed by their cultures and patriarchal languages, and need a different voice to express their “true” selves. They argue for a women-centred language and philosophy because the differences are also rooted in different male and female experience. They emphasise that the female experience needs to be revalued and that this would involve an affirmation of the feminine. However, an approach that relies on the essential differences between male and female experience has been criticised by others (for eg Gatens, 1994, who argue for a social constructionist approach, since one which focuses on the affirmation of the feminine, they argue, inadvertently contributes to the arguments which support female exclusion from various spheres of public activity The predominance of men in the public sphere is generally considered to be determined by a specifically “male” psyche as opposed to “female” psyche, which is rooted in the more domestic or private sphere, the domain of women’s experiences. These critics argue that traditional ideals of womanhood and femininity are in conflict with the ideals of equality and what is needed is an approach which erodes the dualistic modes of living and experiencing determined by a feminine/masculine divide (Gatens, 1994pg 106).Thus the issue of difference vs equality has been posed by the feminist movement and this has implications for feminist practice and modes of engagement. We now look at some of the debates and discussions around gender and the politics of engagement arising out of these.

The social constructionist approach focuses more on culture and society and suggests that the differences are 'gendered differences' and are socially constructed. Some feminists have used psychoanalytic theories to interpret these "gendered" differences. Nancy Chodorow for example, suggests that gendered differences are rooted in the ways in which selfhood is formed and that an early childhood experiences lead to a core gender identity. While boys and men develop a sense of self or 'I' an identity which is learnt as being not female or not mother – they learn what it is to be masculine meaning learning to be non-females or non-womanly. Boys and men grow up to deny the feminine identifications within themselves or what is perceived as feminine: the feelings of dependence, relational needs, and emotions. Chodorow argues, particularly in events and situations which evoke anxieties (and disasters would be one such situation), "they come to emphasize differences, not commonalities or continuities, between themselves and women, especially in situations that evoke anxiety, because these commonalities and continuities threaten to challenge gender difference or to remind the boys and men consciously of their potentially feminine attributes" (Chodorow, 1994pg45). A female identity does not face such 'me or not me' identification with the mother that the male faces, creating difficulties in a sense of separateness or autonomy. If there is too strong an identification with the mother, focusing on continuity, females may even develop a self which does not have a strong sense of a 'separate self'. A later association with a maternal figure which is devalued negatively by cultures may lead to femininity or a feminine identification of self and a feminine gendered identity which seeks to devalue itself. For Chodorow, "ideologies of difference which define us as women and men, as well as inequality itself, are produced, socially, psychologically, and culturally, by people living in and creating their social psychological, and cultural worlds"((Chodorow, 1994pg48). Arguing against the biological essentialist explanations which reify women and men's roles and attitudes towards self and the world, she suggests that understanding of these differences as being created and situated is the first step towards developing a feminist politics which engages with these differences.

Luce Irigaray, affirms equality and difference in her politics of engagement. For Irigaray, a feminist politics and movement would affirm the conditions of difference which is rooted in the idea of "becoming". In other words, the challenge is to affirm equality without giving in to masculine codes of living; this is affirming equality and difference at the same time. In her writing, *This sex which is not one*, Irigaray argues "Women could be man's equal. In this case she would enjoy, in a more or less near future, the same economic, social, political rights as men. She would be a potential man"(Irigaray, 1985pg84). For Irigaray this would not be enough as what is necessary is the building of a new symbolic order and an exploration of new futures that would unravel the "other" which is not masculine and yet has not found its voice. A separate political space in terms of a women's movement is essential for transformation. Women's movements then "call into question all existing theory, all thought, all language, in as much as these are monopolized by men and men alone. They challenge the very foundation of our social and cultural order, whose organization has been prescribed by the Patriarchal system"(Irigaray, 1985pg165).Thus it is in speaking out and engaging with the discursive production of knowledge, and action that female bodies break out and challenge the masculine hegemony of symbolic order.

Connell, who taking a social constructionist approach, suggests that the gendered differences are maintained by gendered regimes which produce inequalities of gender through various institutions: the family, workplaces, and many others through which dominant gender norms are reproduced. "A gender regime is a cluster of practices, ideological, material, which, in a given social context, acts to construct various images of masculinity and femininity and thereby to consolidate forms of gender inequality"(Connell, 1994pg8).Thus, if institutions are the forces through which gender inequalities are reproduced, then it is the institutions which need to be changed - for example, education. Further, there exist marginalised masculinities which have their own tensions with dominant masculinities. And it is this hegemonic masculinity that is the opposing pole in the patriarchal culture (Connell, 1995pg232-242).

In the context of our research findings, based on the above discussion, we can say that there are societal models of masculinity and femininity that work to produce certain effects of specific coping

strategies used by men and women in disaster situations. They produce specific modes of engagement with the stress produced due to disaster by men and women. Our research findings suggest that resilience as an ability to recover means very different things to men and women. The abilities and capacities to recover are distributed in different ways between men and women in disaster situations. What implications do these insights have for our engagements in disaster recovery processes and change? More specifically, how are we to deal with the question of difference and equality in disaster intervention and practice?

8) Implications for Disaster practice: Equality versus Difference

Should the fact that men and women use different psychological resources for recovery pose a problem or rather an issue for disaster practice? The answer to this would depend upon how we approach the difference versus equality debate. As Connell (1995) reminds us, if only difference in masculinity and femininity was the issue, then there would be no problem; however, in every society this difference of masculinity and femininity also creates inequalities, "the social organization of these practices in a patriarchal gender order constitutes difference as dominance, as unavoidably hierarchical" (pg 231).

Indeed, the current general disaster practice has a gendered orientation in line with dominant models of masculinity and femininity. Women in disaster practice are symbolically treated as victims holding the strong male hand(Enarson & Morrow, 1997a) .Women's vulnerabilities are more emphasised than their capacities, with disaster practice following the general stereotype of weeping women(Fordham & Ketteridge, 1998).Questioning this stereotype, the findings of this study suggest that although models of femininity and masculinity are highly implicated in the coping strategies of men and women; women are far from only vulnerable victims; the difference being that they work with different psychological resources than men in enabling their recovery. Further, men too face specific problems in recovery when they are not able to live up to the dominant model of masculinity having lost their pride in being the breadwinners of the family (Morrow, 1997pg166).The research findings of this study support this interpretation, as men who may not be able to feel in control have adverse mental health outcomes as higher mental health is associated with ability to feel in control, and vice versa.

Gendered coping has also been recorded elsewhere. In some cases, citizen based women's groups emerged after disaster and were active in communal activities which indicates the specific relation women had with their communities (Neal & Phillips, 1990).In still other cases, women's caring roles in their families were extended to their communities, after the disaster. For example, while men did rescue work, women looked after children and did home-based work; that is, the gendered division of labour continued after the disasters (Fothergill Alice pg 20; 1998 gendered terrain of disasters). And women were more likely to receive help than men, as men felt it was a stigma to receive any help (Drabek *et al.*, 1975).

From an interventionist perspective, that is the question for disaster practitioners is, given that dominant forms of masculinity and femininity are played out after disasters, what form of intervention needs to be adopted? How can equality and difference be worked through in disaster situations? Firstly, these research findings show that in contrast to dominant understandings which represent women as vulnerable victims as compared to men, women and men may be equally resilient although they adopt different strategies in the way they have achieved it. An interventionist perspective could therefore start with the premise that women as well as men have capacities; and enable a more reflexive approach in the way they attend to the disaster survivors. A reflexive approach would demand that due attention is given to promoting activities and interactions such that masculinised forms of recovery are feminized; affirming the positivity of feminized forms of recovery – in this case a validation of more intersubjective forms of recovery. An intersubjective approach is rooted in a validation rather than a negation of the other; it seeks to affirm the inter-connectedness between self and other thus, including rather than excluding the needs of the other. Such an approach would maintain that questioning structural hegemonic masculine identity is central to the project of attaining gender equality and justice. In the process, it may also enable more subordinated masculinities –

which do not for example use control oriented strategies to make their presence felt. This would be in line with affirming equality with difference; in Luce Irigaray's words "We need not become 'other' in relation to ourselves. And yet there is a threshold we should be aware of. In my view, it is marked by sexual difference…….It is a question of leaving behind our comparative state, by perception, by the exercise and expression of our sexuality, our sensibility, and our minds, by living as subjects our relations to our mothers, to the universe, to other women, to other men"(Irigaray, 1989).In other words, an inter-subjective and a relational mode of recovery – a female mode of recovery needs to be revalued and affirmed in disaster practice and interventions. And it is this insight that can potentially be used to engage with 'engendering' agendas in the Hyogo Framework of Action and in gender mainstreaming initiatives. This would initiate some radical transformations in disaster struck societies.

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APPENDIX I

SCALES USED:

1) SENSE OF COMMUNITY : 12 QUESTION SUBSCALE

In every community, some people get along with others and trust each other, while other people do not. Now, I would like to talk to you about trust and solidarity in your community. Can you please indicate to what extent you agree or disagree with the following statements?

	Strongly disagree	***Disagree***	*Neither agree nor disagree*	***Agree***	***Strongly agree***
I think my neighbourhood is a good place for me to live.	1	2	3	4	5
People in this neighbourhood do not share the same values.	1	2	3	4	5
My neighbours and I want the same thing from this neighbourhood.	1	2	3	4	5
I feel at home in this neighbourhood.	1	2	3	4	5
Very few of my neighbours know me.	1	2	3	4	5
I care about what my neighbours think about my actions.	1	2	3	4	5
I have almost no influence over what this neighbourhood is like.	1	2	3	4	5
If there is a problem in this neighbourhood people who live here can get it solved.	1	2	3	4	5
It is important to me to live in this particular neighbourhood.	1	2	3	4	5
The people who live in this neighbourhood get along well.	1	2	3	4	5
I can recognize most of the people who live in this neighbourhood.	1	2	3	4	5
I have no intention of moving from this neighbourhood any time soon.	1	2	3	4	5

II) RECEIVED SOCIAL SUPPORT : 21 ITEM SUBSSCALE

What degree of emotional support (e.g. sense of care, safety and security) do you have with the following people and organisations?

	COLUMN I		
	Emotional Support		
	None	*Some*	*A lot*
Husband/wife/partner	1	2	3
Children	1	2	3
Other family (e.g. grandparents, cousins, etc.)	1	2	3
Friends	1	2	3
Governmental organizations (e.g. police, etc.), specify: ……..	1	2	3
Non-governmental organizations (e.g. church, NGOs, etc.), specify……..	1	2	3
Other, please specify……	1	2	3

Are you respected or valued as a person for your skills and abilities by the following people and organisations?

	COLUMN I		
	Respected/valued		
	None	*Some*	*A lot*
Husband/wife/partner	1	2	3
Children	1	2	3
Other family (e.g. grandparents, cousins, etc.)	1	2	3
Friends	1	2	3
Governmental organizations (e.g. police, etc.), specify: ……..	1	2	3
Non-governmental organizations (e.g. church, NGOs, etc.), specify……..	1	2	3
Other, please specify……	1	2	3

To what degree do you receive information or advice from the following people and organisations?

	COLUMN I Information or advice		
	None	*Some*	*A lot*
Husband/wife/partner	1	2	3
Children	1	2	3
Other family (e.g. grandparents, cousins, etc.)	1	2	3
Friends	1	2	3
Governmental organizations (e.g. police, etc.), specify: ……..	1	2	3
Non-governmental organizations (e.g. church, NGOs, etc.), specify……..	1	2	3
Other, please specify……	1	2	3

III) MH15: 5 ITEM SUBSCALE

For each of the following question, please give the one answer that comes closest to the way you have been feeling during the *past four weeks*.

Have you felt calm and peaceful?

1. All of the time
2. Most of the time
3. Some of the time
4. A little of the time
5. None of the time

Have you felt sad?

1. All of the time
2. Most of the time
3. Some of the time
4. A little of the time
5. None of the time

Did you feel very nervous or anxious?

1. All of the time
2. Most of the time
3. Some of the time
4. A little of the time
5. None of the time

Have you felt so low that nothing could cheer you up?

1. All of the time
2. Most of the time
3. Some of the time
4. A little of the time
5. None of the time

Have you felt happy?

1. All of the time
2. Most of the time
3. Some of the time
4. A little of the time
5. None of the time

IV)SF12: 12 ITEM SUBSCALE:

Now I would like to ask you some questions about your general health.

In general, would you say your health is:

1. Excellent
2. Very good
3. Good
4. Fair
5. Poor

Does *your health limit you* in the following activities during a typical day? If so, how much?

***Moderate activities*, such as moving a table, sweeping/vacuuming the house, light gardening**

1. Yes, limited a lot
2. Yes, limited a little
3. No, not limited at all

Walking over a hill or climbing *several* flights of stairs

1. Yes, limited a lot
2. Yes, limited a little
3. No, not limited at all

During the *past 4 weeks*, have you had any of the following problems with your work or other regular daily activities as a result of your *physical health*?

***Managed to do less* than you would like**

1.Yes

2. No

Were limited in the *kind* of work or other activities

1. Yes

2. No

During the *past 4 weeks*, have you had any of the following problems with your work or other regular daily activities as a result of any *emotional problems* (such as feeling depressed or anxious)?

***Managed to do less* than you would like**

1. Yes
2. No

Didn't do work or other activities as *carefully* as usual

1. Yes
2. No

During the *past 4 weeks*, how much did pain interfere with your normal work (including both work outside the home and housework)?

1. Not at all
2. A little
3. Moderately
4. Quite a bit
5. Extremely

For each of the following question, please give the one answer that comes closest to the way you have been feeling during the *past four weeks*.

Have you felt calm and peaceful?

1. *All of the time*
2. Most of the time
3. Some of the time
4. A little of the time
5. None of the time

Did you have a lot of energy?

1 All of the time

2 Most of the time

3 Some of the time
4 A little of the time
5 None of the time

Have you felt sad?

1 All of the time
2 Most of the time
3 Some of the time
4 A little of the time
5 None of the time

During the *past 4 weeks*, how much of the time have your physical or emotional health interfered with your social activities (like visiting friends, relatives, etc.)?

1. All of the time
2. Most of the time
3. Some of the time
4. A little of the time
5. None of the time