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<b>Authors(s)</b>	Coughlan, Barbara; Sheehan, John D.; Carr, Alan; Crowe, John
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# An Investigation of the Psychosocial Impact of a Compensation Tribunal on Women with Iatrogenic Hepatitis C Infection

## Abstract:

The aim of this study was to investigate the psychosocial impact of a Compensation Tribunal in women with an iatrogenic hepatitis C virus (HCV) infection. Eighty-three women diagnosed with an iatrogenic HCV infection were recruited, 19 women were Pre-Tribunal and 64 women were post-Tribunal. Both standardised and disease specific psychological measures were used. A series of t-tests revealed no differences in psychological well-being and adjustment to HCV infection in women pre and post Compensation Tribunal. Chi-square tests revealed no association between PCR status and 1) psychological well-being and 2) experience of anger/blame in women post Compensation Tribunal. A further series of t-tests revealed that women with high levels of anger and blame post Compensation Tribunal perceived their future as more uncertain, experienced more pain, low self-esteem and psychological distress, viewed their ability to work as impeded and complained of increased stress preparing for their Compensation Tribunal. This study suggests that poor adjustment in women with an iatrogenic HCV infection post-Compensation Tribunal is not associated with attendance at a Compensation Tribunal nor PCR status but rather to experiences of anger and blame.

**An Investigation of the Psychosocial Impact of a Compensation Tribunal on Women with Iatrogenic Hepatitis C Infection**  
This study was carried out in the Centre for Liver Disease Mater Misericordia Hospital, Dublin 7, Ireland  
**Author** : Crowe John, Carr A, Coughlan BM, Sheehan John

## Abstract

The aim of this study was to investigate the psychosocial impact of a Compensation Tribunal in women with an iatrogenic hepatitis C virus (HCV) infection. Eighty-three women diagnosed with an iatrogenic HCV infection were recruited, 19 women were Pre-Tribunal and 64 women were post-Tribunal. Both standardised and disease specific psychological measures were used. A series of t-tests revealed no differences in psychological well-being and adjustment to HCV infection in women pre and post Compensation Tribunal. Chi-square tests revealed no association between PCR status and 1) psychological well-being and 2) experience of anger/blame in women post Compensation Tribunal. A further series of t-tests revealed that women with high levels of anger and blame post Compensation Tribunal perceived their future as more uncertain, experienced more pain, low self-esteem and psychological distress, viewed their ability to work as impeded and complained of increased stress preparing for their Compensation Tribunal. This study suggests that poor adjustment in women with an iatrogenic HCV infection post-Compensation Tribunal is not associated with attendance at a Compensation Tribunal nor PCR status but rather to experiences of anger and blame.

## Introduction

When individuals confront personally threatening events, the process of readjustment includes a search for meaning and an attempt to regain mastery over their lives.<sup>1</sup> Investigations by Bulman and Wortman<sup>2</sup> suggest that victims who believe that they acted in some way to cause their misfortune appeared to adapt and cope more successfully with their outcome than those who blame others. The link between blaming ones behaviour and adaptation<sup>3-5</sup> while supported in some cases has been questioned in other studies.<sup>6-7</sup>

An interesting finding to emerge from a review of the literature on blame by Tennen and Affleck<sup>8</sup> is the issue of other-blame. They suggested that there is a reliable association between blaming another person and poor adjustment to life threatening events blaming others for ones misfortune is associated with impairments in emotional well-being and physical health (pg. 209). Their findings concur with those of Synder and Higgins<sup>9</sup> who reported that while victimisation and serious illness provide ideal circumstances for externalising responsibility, other-blame appears to provide none of the benefits usually associated with this process.

Characteristics		Pre-Tribunal (n=19)	Post Tribunal (n=64)	t, c <sup>2</sup> ,
Age at diagnosis	M SD	46.3yrs 11.yrs	45.1yrs 5.9yrs	NS
Age at interview	M SD	49.6yrs 11.1yrs	48.8yrs 5.6yrs	NS
PCR Status PCR positive	f %	8 42	41 64	NS
PCR negative	f %	11 57	23 36	
Symptoms complaints at first visit Fatigue	f %	9 47.4	5 39.1	NS
Arthralgia	f %	5 26.3	16 25	NS
Number of children	Median Range	4 1-8	3 0-9	NS
Marital Status Married	f %	14 73.7	54 84.4	NS
Single	f %	1 5.3	6 9.4	
Separated	f %	3 15.8	3 4.7	
Widowed	f %	1 5.3	1 1.6	
Other	f %	/ /	2 3.1	
Geographical Region Urban	f %	8 57.9	33 51.6	NS
Rural	f %	11 42.1	3.1 48.4	
Occupation Full-time paid	f %	1 5.3	4 6.3	NS
Part-time paid	f %	/ /	13 20.3	
Household duties	f %	13 68.4	37 57.8	
Retired	f %	1 5.3	3 4.7	
Other	f %	4 21.0	7 11.0	

**Notes:** NS = not significant, M = Mean, SD = Standard Deviation, f = Frequency.

## Rationale for the present study

Following the introduction in Ireland of routine screening of blood donors for Hepatitis C Virus (HCV) antibodies in October 1991, a group of female donors were identified as positive for HCV antibodies. This cohort of blood donors differed substantially from the overall donor population in that they were older, the majority were Rh-negative and

had received anti-D immunoglobulin in 1977-1978.<sup>10</sup> This discovery provoked a major health crisis and led to the establishment of a national screening programme in February 1994 for all recipients of anti-D immunoglobulin from its introduction in the early 1970s until February 1994.

In 1997 the Tribunal of Inquiry into the Blood Transfusion Service Board<sup>11</sup> (BTSB) found that the primary cause of contamination of Anti-D with HCV was a breach of the BTSBs own standards for donor selection and procedures. The unique circumstances by which women were infected with HCV in 1977 and 1991 through contaminated blood and blood products gave them just cause for other-blame. The Compensation Tribunal<sup>12</sup> in March 1996 was set up to address the complaints of the infected individuals and it was expected that attendance at the Compensation Tribunal would be a positive experience for those involved.

A review of The Health Services Available for Persona who Contracted Hepatitis C through the Administration within the State of Blood or Blood Products commissioned by the Consultative Council on Hepatitis C and carried out by McGee and colleagues<sup>13</sup> reported greater clinical levels of depression and a trend towards higher levels of anxiety in individuals post Tribunal compared to those who were still waiting to attend. While their report suggested that the deficits in mental health in individuals post Tribunal were related to their having to face an uncertain future regarding their illness, the negative impact of blame and anger, as suggested previously<sup>8-9</sup> may offer an alternative explanation for their findings. This consideration led to the present study, the aim of which was to investigate the psychosocial impact of a Compensation Tribunal on women diagnosed with an iatrogenic HCV infection, more specifically this study set out to explore the issue of anger and blame.

## Patients and Methods

### Participants

Eighty-three women were recruited from a consecutive sample of 184 women attending the hepatology clinic between September 1997-March 1998 or by post if her clinic visit did not occur during the six months. All women recruited had either received HCV contaminated anti-D immunoglobulin for rhesus incompatibility in 1977 or HCV contaminated blood transfusions participated in the study. All were anti HCV positive (Elisa 3rd gen.) and of these, 49 women had chronic infection (PCR positive) and the remaining 34 women were considered to have a self-limiting HCV infection (PCR negative) Participant details are given in Table 1.1. Of the 83 women included in this study, 19 women were Pre-Tribunal (8 were PCR positive and 11 were PCR negative) and 64 women were post-Tribunal (41 were PCR positive and 23 were PCR negative). No association was found between PCR status and attendance at the Tribunal ( $\chi^2 = 2.9$ ,  $p = .09$ ) in the two groups.

### Measures

In addition to completing the newly developed Hepatitis C Survey Questionnaire (Coughlan, Sheehan, Carr, & Crowe, unpublished Mater Hospital) and the General Health Questionnaire<sup>14</sup> participants also completed and the Culture free Self-esteem Inventory AD form.<sup>15</sup>

Measure	Domain	Variable		Pre-tribunal Group (n=19)	Post-tribunal Group (n=64)	P
HCSQ	Illness related	Impact of fatigue	M SD	2.51 0.84	2.51 0.74	0.97
		Impact of pain	M SD	3.01 1.03	2.73 0.99	0.26
		Positive outlook	M SD	3.05 0.97	2.75 0.96	0.23
		Change in family relationships	M SD	4.46 0.61	4.41 0.82	0.79
		Mother role	M SD	3.49 1.16	3.30 1.28	0.64
		Stigma due to contamination	M SD	2.68 1.12	2.50 1.21	0.55
		Stigma due to fear of disclosure	M SD	2.96 1.36	2.80 1.18	0.62
		Feelings of anger/blame	M SD	2.30 0.76	2.29 0.83	0.96
		Negative behaviour	M SD	4.02 0.72	4.01 0.92	0.94
		Ability to work	M SD	2.82 1.19	2.41 0.92	0.13
		SE	Personal	Self-esteem	M SD	44.58 7.94
GHQ30	Personal	Psychological well-being	M SD	9.54 7.90	10.39 7.20	0.72

**Note:** HCSQ= Hepatitis C Survey Questionnaire; GHQ30= General Health Questionnaire; SE= Self-esteem Questionnaire

### Hepatitis C Survey Questionnaire (HCSQ)

The HCSQ was specifically designed and validated to assess factors relevant to adjustment following an iatrogenic HCV infection. Overall the HCSQ contains 51 items with 19 multi-item and single item scales grouped into 8 categories. Responses are graded on three and five point scales with lower scores indicating adjustment problems. Thirteen of the 19 multi-item and single item scales were used in this study. These scales measured the impact of an iatrogenic HCV infection on the physical, social, cognitive and emotional experiences of infected individuals. The internal reliability (Cronbachs Alpha) of the scale is 0.93 whereas the subscales reliability estimates range from 0.6-0.9. The test-retest reliability and the HCSQs sensitivity to change are not currently available.

### The General Health Questionnaire (GHQ30)

The GHQ is a self-administered screening instrument designed to detect current, diagnosable psychiatric disorders. All women participating in the study completed the 30-item inventory. Scores on the GHQ30 can be interpreted in three ways: as a measure of the severity of psychological disorder, as an estimate of the prevalence of psychiatric illness and as an indication of morbidity. In this study cases with a total score falling above a cut-off point of 5 was interpreted as indicative of mental health problems. Items were scored using 0, 0, 1, 1 scoring system. The authors of the GHQ30 have reported test-retest reliability at six months ranging from 0.85 to 0.92. Internal consistency reliability coefficients were established as ranging from 0.82 to 0.93 and validity correlation coefficients between the GHQ30 and standardised psychiatric assessment fell between 0.67 and 0.83.

### Culture free Self-esteem Inventory AD form (SE)

Battles (1992) self-esteem inventory was used to assess self-esteem. The sixteen items of general self-esteem were utilised and a t-score result on general self-esteem was obtained for analysis. The items were divided into two groups, those that indicate high self-esteem and those that indicate low self-esteem. This measure was completed with individuals giving a yes or no answer. A test-retest correlation of 0.81 and a high negative correlation ( $r = -.75$ ) have been reported by the author between high self-esteem and depression.

### Virological tests

Prior to the commencement of the study the group of women who had a chronic HCV infection (PCR positive) and the group of women who had a self limiting HCV infection (PCR negative) had been tested for antibody to HCV by third-generation EIA (Ortho HCV 3.0; ELISA) and this had been confirmed using four antigen RIBA (Chiron RIBA HCV 3.0; RIBA-3). The presence or absence of serum HCV RNA was determined using a standardised qualitative polymerase chain reaction (PCR) assay (Amplicor; Roche diagnostics systems, England) and in-house nested PCR assay (Virus Reference Laboratory, Dublin). HCV genotyping in those individuals with detectable viral RNA was determined by means of PCR at

the Virus Reference Laboratory, Dublin.

## Procedure

Following ethical approval and informed consent all psychological measures were completed by the participants.

## Analysis plan

All data were entered into SPSS for Windows (Version 8.0). Summary statistics were computed to verify the data. Firstly, a series of t-tests for independent samples were carried out to compare women pre-Tribunal to women post-Tribunal on all measures. Secondly, a series of Chi-square analysis were conducted on the cohort of women post-Tribunal to examine the association between, 1) PCR status and psychological well-being, 2) PCR status and level of anger/blame. Finally, a further series of t-tests were then carried out to compare adjustment to a diagnosis of an iatrogenic HCV infection in women experiencing high levels of anger/blame post-Compensation Tribunal to those who were not. To diminish the possibility of a Type I error,  $P < .01$  was chosen as the acceptable alpha level to detect significant differences between groups in the present study.

## Results

To investigate the psychosocial impact of attending a Compensation Tribunal for women with an iatrogenically acquired HCV infection, women pre-Tribunal were compared to women post-Tribunal on all measures using a series of t-tests and no significant differences were found between the two groups (Table 1.2). A series of Chi-square tests indicated that, PCR status was not associated with 1) psychological distress ( $\chi^2 = .31, p = .57$ ) or 2) level of anger/blame ( $\chi^2 = .31, p = .57$ ). A series of t-tests comparing women post-Tribunal reporting high levels of anger/blame to those who were not, revealed that they perceived their future as more uncertain, experienced diminished self-esteem and high levels of psychological distress, viewed their ability to work as impeded, complained of more pain due to their illness and more stress preparing for their tribunal (Table 1.3).

## Summary

In this study we explored the psychosocial impact of a Compensation Tribunal on women with an iatrogenic chronic HCV infection. We found no significant differences in adjustment between women who had attended their Compensation Tribunal and those who had not. Furthermore PCR status was not associated with psychological well-being or level of anger/blame. A profile of women reporting high levels of anger/blame revealed that they perceived their future as more uncertain, reported low levels of self-esteem and high levels of psychological distress, viewed their ability to work as impeded, complained of more pain due to their illness and experienced more stress preparing for their tribunal.

**Table 1.3 A comparison of a cohort of women with high levels of anger and blame and cohort of women with low levels of anger and blame post-Compensation Tribunal, on all measures.**

Measures	Variables		Group 1 n=36	Group 2 n=28	*P	Group difference
HCSQ	Impact of fatigue	M SD	2.40 0.64	2.67 0.83	.153	
	Impact of pain	M SD	2.44 0.80	3.11 1.1	.009	1<2
	Positive outlook	M SD	2.57 0.93	2.97 0.95	.097	
	Change in family relationships	M SD	4.31 0.88	4.58 0.68	.189	
	Mother role	M SD	3.06 1.21	3.69 1.3	.052	
	Stigma due to contamination	M SD	2.32 1.18	2.73 1.22	.176	
	Stigma due to fear of disclosure	M SD	2.82 1.10	2.78 1.30	.896	
	Negative behaviour	M SD	3.82 0.86	4.25 0.94	.063	
	Ability to work	M SD	2.17 0.65	2.72 1.12	.016	1<2
	Stress preparing for tribunal	M SD	1.77 0.91	2.63 1.00	.001	1<2
	Tribunal a positive experience	M SD	2.89 1.01	3.41 1.06	.053	
	Feelings of accountability during the tribunal	M SD	1.66 1.00	2.28 1.1	.026	
SE	Self-esteem	M SD	39.90 10.22	46.15 8.08	.013	1<2
GHQ30 <sup>1</sup>	Psychological Well-being	Mean Rank	37.85	25.63	.009	1>2

### Note:

Group 1 = Women with high levels of anger and blame (<2.2) on the HCSQ.

Group 2 = Women with low levels of anger and blame (> 2.3) on the HCSQ.

M = Mean, SD = Standard Deviation; Sign trend; \* $P < .01$

<sup>1</sup> Mann Whitney test carried out due to non-normality of data.

Lower scores indicate problems on HCSQ and SE measures.

High scores indicate problems on GHQ30 measure.

## Discussion

Overall, this study provides evidence to suggest that, womens adjustment problems post-Tribunal were not associated with their attendance at the Compensation Tribunal, nor to their PCR status but perhaps to their level of anger and blame. Few studies to date have tried to understand the ways in which iatrogenic injuries may cause psychological and psychiatric problems and affect the quality of victims lives. We attempted to redress this imbalance in the literature and set out to examine the impact of the Compensation Tribunal in women with an iatrogenic HCV infection. In contrast to McGee et als report<sup>3</sup> we found no differences in mental health between women who had attended the Compensation Tribunal and those who were still waiting to attend. Furthermore we found that PCR status was not associated with psychological distress or level of anger/blame in women post-Tribunal. These findings were similar to a recent study carried out by Coughlan, Sheehan, Hickey and Crowle<sup>6</sup> which demonstrated that the high levels of psychological distress and poor quality of life in women with an iatrogenically acquired HCV infection were not related to PCR status or liver histology. These findings also concur with the studies of Mayou<sup>17</sup> and McKinlay, Brooks and Bond,<sup>18</sup> which suggested that compensation was not a major determinant of disease outcome.

Similar to Mayou and Sharpe<sup>19</sup> the findings of the present study indicate the presence of psychological distress and disability following a major health crisis, which may as Mayou<sup>20</sup> suggests be determined more by individual vulnerability factors than by the nature of the physical disorder. Another explanation for these findings may be found in Vincent, Ennis and Audleys<sup>21</sup> study which suggests that professional support is vital in the recovery of physical and mental health functioning in individuals suffering a medical trauma and that this support may be withdrawn when it is needed most due to the nature of a medical accident or due to the iatrogenic acquisition of a disease. According to Vincent et al. withdrawal of support may occur because of an individuals fear and distrust of all health practitioners or withdrawal may result from medical practitioners feelings of embarrassment or fear of litigation. In either case, there is consistent evidence from past studies<sup>22-24</sup> indicating that that the process of compensation should only be seen as one of the many social influences on the course of disease outcome and response to treatments for the affected individual. If we accept that other blame has a negative influence on adjustment to illness it should follow that individuals involved in iatrogenic or accidental injuries are vulnerable and in need of support.

The present study highlighted the possibility that adjustment problems detected in individuals following a Compensation Tribunal were related to their level of anger and blame. However, further research is needed to evaluate this important issue and ways in which one might address its negative impact on individuals. We found that participation in a psychological/educational programme (Coughlan, Sheehan, Cockram, Carr, Crowe, sent to British Journal Of Health Psychology, June 2002), which dealt with the issue of blame and anger regarding the acquisition of a HCV infection, lead to decreases in blaming others and improvements in psychological well-being. To learn from these findings clinical practice needs to consider incorporating effective patient assessment programmes, which will explore the negative impact of blame (to include both self and other blame) in a diagnosis of illness or disease for the individual and to offer appropriate support and understanding to aid recovery.

The authors recognise that this study population is highly specific with regard to disease acquisition and gender (female sample only). Future studies are needed to address the issue of disease acquisition (self or acquired) in order to explore further the impact of blame and anger on disease outcome. Moreover one further limitation deserves particular attention i.e. the absence of power (due to the very unequal sample sizes, 19 vs. 64) to detect differences in adjustment for women pre and post-Compensation Tribunal that may have existed but were not demonstrated in this study.

Notwithstanding these difficulties, this study does indicate that a shift in thinking is necessary to move from the traditional view of compensation neurosis as a psychological syndrome which is motivated by hopes of financial rewards to an increased understanding of the ways in which accidental and other injuries impact on the quality of victims lives. Attendance at a Compensation Tribunal is stressful and does not always lead to closure for individuals. High levels of anger and blame, which remain for an individual in the aftermath of a Compensation Tribunal, may have a negative impact on adjustment and health outcomes in the long term. Better support systems and understanding are needed for such individuals in the future.

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#### Correspondence:

**John Crowe,**  
Centre for Liver Disease,  
Mater Misericordiae Hospital,  
55 Eccles St,  
Dublin 7.  
**Telephone:** 01-803 2048.  
**Fax:** 01-803 4058.  
**Email:** [liver@mater.ie](mailto:liver@mater.ie)

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