What is fair about pain? Justice beliefs and the experience of chronic pain

Dr Joanna McParland
Department of Psychology
Glasgow Caledonian University
Glasgow
Email: j.mcparland@gcal.ac.uk

Figure 1. The Perceived Unfairness Model. *Both stress and benign responses have cognitive, emotional, and motivational components; each type of response differs in content and effect. Stress responses increase allostatic load; benign responses decrease or have a neutral effect.
Perceiving Unfairness in Chronic Pain

• Sullivan, Adams, Horan, Maher, Boland & Gross, (2008)

• Sullivan, Thibault, Simmonds, Milioto, Cantin & Velly (2009)
Just world beliefs moderate the relationship of pain intensity and disability with psychological distress in chronic pain support group members

Joanna L. McParland *, Christina Knussen

Division of Psychology, Glasgow Caledonian University, 76 Cowcaddens Road, Glasgow, G4 0RA, UK

ARTICLE INFO

Article history:
Received 25 April 2008
Received in revised form 11 November 2008
Accepted 23 November 2008
Available online 1 January 2009

Keywords:
Chronic pain support groups
Just world beliefs
Pain intensity
Disability
Psychological distress

ABSTRACT

The impact of pain beliefs on coping and adjustment is well established. However, less is known about how beliefs unrelated to pain might impact upon this experience. In particular, just world beliefs could impact upon and be influenced by chronic pain, given that pain is not experienced in a vacuum but instead is experienced in a social context where justice issues are potentially salient. The focus of this study was the ability of personal and general just world beliefs to moderate the relationships psychological distress held with pain intensity and disability in chronic pain. The sample (N = 95) was recruited from members of arthritis and fibromyalgia support groups to investigate these social beliefs in a controlled community pain context. A cross-sectional questionnaire design was adopted. The personal just world belief was endorsed significantly more than the general just world belief, and endorsement of the personal just world belief was negatively correlated with pain intensity, disability and psychological distress, while the general just world belief was unrelated to these variables. When interaction terms relating to personal and general just world beliefs were entered simultaneously into regression analyses, the personal just world belief did not predict psychological distress. However, pain intensity positively predicted psychological distress at low but not high levels of the general just world belief, while disability predicted psychological distress at low and high levels of this belief. This suggests that a strong general just world belief has simplifications for psychological well-being in chronic pain, and as such this belief may occupy a potential coping function in this context.

© 2008 European Federation of International Association for the Study of Pain Chapters. Published by Elsevier Ltd. All rights reserved.
The Belief in a Just World

“Individuals have a need to believe that they live in a world where people generally get what they deserve” (Lerner & Miller, 1978, p. 1030.)
McParland & Knussen (2010)

• **Study aims:**

1. to determine level of endorsement of general and personal just world beliefs in chronic pain

2. to examine relationships between just world beliefs, psychological distress and pain variables

3. to explore the ability of just world beliefs to moderate the relationship psychological distress holds with pain intensity and disability
McParland & Knussen (2010)

Sample:
95 support chronic pain support group attendees; predominantly female n = 86 (90.5%); largest proportion with arthritis n = 43 (45.3%). Mean pain duration = 16.21 years, (SD = 14.66), Mean age = 66.23 years (SD = 11.44)

Measures:
- General Health Questionnaire (GHQ-28) (Goldberg & Hillier, 1979)
- Chronic Pain Grade (Von Korff, Ormel, Keefe & Dworkin, 1992)
- Marlowe-Crowne Social Desirability Scale (Strahan & Gerbasi, 1972)
- General Belief in a Just World Scale (Dalbert, Montada & Schmitt, 1987)
  “I think basically the world is a just place”
- Personal Belief in a Just World Scale (Dalbert, 1999)
  “I believe that most of the things that happen in my life are fair”
Table 2

Descriptive statistics and correlation analyses between just-world belief, age, religion, pain, and psychological distress variables.

<table>
<thead>
<tr>
<th></th>
<th>Means</th>
<th>SDs</th>
<th>Range</th>
<th>2a</th>
<th>3a</th>
<th>4a</th>
<th>5a</th>
<th>6a</th>
<th>7a</th>
<th>8a</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Personal JWB</td>
<td>25.72</td>
<td>6.06</td>
<td>13-42</td>
<td>0.45****</td>
<td>0.45****</td>
<td>0.29***</td>
<td>-0.33***</td>
<td>0.11</td>
<td>0.37****</td>
</tr>
<tr>
<td>2</td>
<td>General B/Wa</td>
<td>22.78</td>
<td>6.17</td>
<td>8-36</td>
<td>-0.12</td>
<td>-0.01</td>
<td>-0.14</td>
<td>0.19*</td>
<td>0.27**</td>
<td>-0.26***</td>
</tr>
<tr>
<td>3</td>
<td>Distress</td>
<td>24.62</td>
<td>11.75</td>
<td>6.52</td>
<td>0.27****</td>
<td>0.40****</td>
<td>0.11</td>
<td>-0.24*</td>
<td>-0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>4</td>
<td>Pain intensity</td>
<td>69.06</td>
<td>20.35</td>
<td>0-100</td>
<td>0.60****</td>
<td>-0.24*</td>
<td>-0.19*</td>
<td>-0.07</td>
<td>0.07</td>
<td>0.07</td>
</tr>
<tr>
<td>5</td>
<td>Disability</td>
<td>59.75</td>
<td>30.34</td>
<td>0-100</td>
<td>0.34****</td>
<td>-0.29***</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
</tr>
<tr>
<td>6</td>
<td>Pain duration</td>
<td>16.21</td>
<td>14.66</td>
<td>0-68</td>
<td>0.13</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
</tr>
<tr>
<td>7</td>
<td>Age</td>
<td>66.23</td>
<td>11.44</td>
<td>43-93</td>
<td>0.35****</td>
<td>-0.25***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Religiosity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note 1. BW = belief in a just world. Mean and range for pain duration and age are reported in years.

Note 2. Point biserial correlation was used for Religiosity: 1 = hold religious beliefs (75.8%); 2 = does not hold religious beliefs (24.2%).

*p = 0.05, **p < 0.05, ***p < 0.01, ****p < 0.005, *****p < 0.001

*Significant difference in endorsement of just world beliefs ((51) = 4.29, p < 0.001, multivariate g^2 squared = 0.17)
Table 3

Testing the moderating effect of just world beliefs on the relationships between psychological distress, pain intensity and disability

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>$R^2$</th>
<th>$\Delta R^2$</th>
<th>$B\alpha$</th>
<th>SE-B$\alpha$</th>
<th>t$\alpha$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Constant</td>
<td>$\times$</td>
<td>$\times$</td>
<td>27.22$\alpha$</td>
<td>3.54$\alpha$</td>
<td>7.69***$\alpha$</td>
</tr>
<tr>
<td>1</td>
<td>Social Desirability$\alpha$</td>
<td>0.08$\alpha$</td>
<td>0.08$\alpha$</td>
<td>-0.52$\alpha$</td>
<td>0.36$\alpha$</td>
<td>$\times$</td>
</tr>
<tr>
<td>1</td>
<td>Age$\alpha$</td>
<td>$\times$</td>
<td>$\times$</td>
<td>-0.02$\alpha$</td>
<td>0.11$\alpha$</td>
<td>$\times$</td>
</tr>
<tr>
<td>1</td>
<td>Religiosity$\alpha$</td>
<td>$\times$</td>
<td>$\times$</td>
<td>-2.37$\alpha$</td>
<td>2.72$\alpha$</td>
<td>$\times$</td>
</tr>
<tr>
<td>2</td>
<td>Pain intensity$\alpha$</td>
<td>0.35$\alpha$</td>
<td>0.28$\alpha$</td>
<td>0.07$\alpha$</td>
<td>0.07$\alpha$</td>
<td>$\times$</td>
</tr>
<tr>
<td>2</td>
<td>Disability$\alpha$</td>
<td>$\times$</td>
<td>$\times$</td>
<td>0.13$\alpha$</td>
<td>0.05$\alpha$</td>
<td>$\times$</td>
</tr>
<tr>
<td>2</td>
<td>Personal just world$\alpha$</td>
<td>$\times$</td>
<td>$\times$</td>
<td>-0.59$\alpha$</td>
<td>0.21$\alpha$</td>
<td>$\times$</td>
</tr>
<tr>
<td>2</td>
<td>General just world$\alpha$</td>
<td>$\times$</td>
<td>$\times$</td>
<td>-0.03$\alpha$</td>
<td>0.20$\alpha$</td>
<td>$\times$</td>
</tr>
<tr>
<td>3</td>
<td>PI x PBJW$\alpha$</td>
<td>$\times$</td>
<td>$\times$</td>
<td>-0.01$\alpha$</td>
<td>0.01$\alpha$</td>
<td>-0.42$\alpha$</td>
</tr>
<tr>
<td>3</td>
<td>PI x GBJW$\alpha$</td>
<td>0.42$\alpha$</td>
<td>0.07$\alpha$</td>
<td>-0.02$\alpha$</td>
<td>0.01$\alpha$</td>
<td>-2.07***$\alpha$</td>
</tr>
<tr>
<td>3</td>
<td>DIS x PBJW$\alpha$</td>
<td>$\times$</td>
<td>$\times$</td>
<td>-0.01$\alpha$</td>
<td>0.01$\alpha$</td>
<td>-0.69$\alpha$</td>
</tr>
<tr>
<td>3</td>
<td>DIS x GBJW$\alpha$</td>
<td>0.41$\alpha$</td>
<td>0.06$\alpha$</td>
<td>-0.01$\alpha$</td>
<td>0.01$\alpha$</td>
<td>-2.00**$\alpha$</td>
</tr>
</tbody>
</table>

Note 1. PI = pain intensity, DIS = disability, PBJW = personal just world belief, GBJW = general just world belief. Note 2. Regression coefficients reflect values at end of step 3. *$p<0.01$, **$p<0.001$.

Main effects at step 2:
Disability: $B = 0.16, SE = 0.05, \beta = 0.40, p < 0.01$; PBJW: $B = -0.61, SE = 0.22, \beta = -0.32, p < 0.01$.

Interaction effects at step 3:
PI x GBJW: $B = -0.02, SE = 0.01, p < 0.05$; Disability x GBJW: $B = -0.01, SE = 0.01, p < 0.05$.
McParland & Knussen (2010)

• Simple slope analysis (Preacher, 2003)

• Pain intensity – psychological distress relationship

Weak GJWB:  $B = 0.41; SE B = 0.09; \beta = .70; t = 4.72; p<0.001$

Strong GJWB:  $B = 0.11; SE B = 0.06; \beta = .18; t = 1.66; p > 0.05$

• Disability-psychological distress relationship

Weak GJWB:  $B = 0.27; SE B = 0.05; \beta = .71; t = 5.71; p<0.001$

Strong GJWB:  $B = 0.12; SE B = 0.04; \beta = .30; t = 2.67; p<0.01$
Key conclusions

• Personal belief in a just world beneficial for psychological well-being in general

• General belief in a just world beneficial for psychological well-being when someone is suffering in some way (chronic pain)
McParland, Eccleston, Osborn & Hezseltine (in submission)

Aim:

• To explore conceptions of justice and injustice in everyday context of chronic pain

Recruitment & Sample:

• Scottish Primary Care Research Network facilitated recruitment through General Practice
• N = 3 focus groups containing chronic pain sufferers from upper (n = 5), middle (n = 4) and lower (n = 6) socioeconomic areas
• 53.5% female; mean age = 51.64 years (SD = 12.56); mean pain duration = 15.1 years (SD = 10.48); mean current pain intensity = 5.2 (SD 2.04); Pain location: upper (n = 3, 20.0%), middle (n = 5, 33.3%), lower (n = 5, 33.3%), all over (n = 2, 13.3%) body.
McParland, Eccleston, Osborn & Hezseltine (in submission)

• Fairness

“Think back over your experience of being a chronic pain sufferer. Can you tell me about any instances where you have felt that life has been unfair? (Can you give me particular examples where you have felt that you have been unfairly treated?)”

• Deservingness

“Do you think you receive all the things you deserve as a chronic pain sufferer?”

• Entitlement

“Do you think you receive all the things you are entitled to as a chronic pain sufferer?”
McParland, Eccleston, Osborn & Hezseltime (in submission)

Results

• Focus group 1 (upper socioeconomic areas): “Seeking equality”

“I was gonna say, sorry I don’t know about unfairly but I feel that, eh, the process (...) it’s more rigorous kinda subjection to I get questioned more on your capability, em, your, em, how, that you’re gonna be able to complete a task or to meet a deadline or, em, you know, you kinda, it feels like the average person can get from A to Z but sometimes you have to go through A to B to C to D just to get to the same course (...) “(participant 3, 898-914).

“(…) they said to me, right, you know, we know you can do the job, you’ve done it for X number of years but we’re going to be fair and we’re going to say because of the fact that we know that your, your knees are away, etc and that your, your hands are bad, that your hand is bad, so it’s … your hand is bad, so it wouldn’t be, we feel that we, we’re gonna shift you and I said, are you going, are you trying to get rid of me, are you trying to get me out the door? No, no, no, we’re not. So I felt, I felt that was fair that they would give me a chance to continue my employment (...) “(participant 2, 1132-1147).
McParland, Eccleston, Osborn & Hezseltine (in submission)

Results

• Focus group 2 (middle socioeconomic areas): “Battle for quality of life”

“But the government can be unfair as well, the way it doles out its money, you know. It’ll give to some, it won’t give to others and people are taken off the disability and, em, and as I say, how do you show pain?” (participant 3, 1066-1071).

“So if you have a person who’s in chronic pain who’s (PAUSE), the whole sphere of their world has changed and they’re depending on government money and they’re not getting it, how does this person go?” (participant 3, 1089-1094).
Results

• Focus group 3 (lower socioeconomic areas): “The unfair advantage of others”

“I was top flat and I couldnae even get a house. There was nothing. I was 50th on the list and don’t get me wrong, I do believe in, you know, multi cultural but there was people that hadnae even been in the country yet that were coming in and I was like, well wait a minute here “(participant 6, 1934-1940).

“You know, I paid my taxes and all the rest of it. Fair enough, they’re, they’re fleeing but we live with chronic pain and all the rest of it and I wasnae asking for the, the brand new house, I was only asking for a low, a ground floor house. No. And I was like, no, this isnae on (...)” (participant 6, 1944-1952).
McParland, Eccleston, Osborn & Hezseltine (in submission)

Justice-related issues prioritised in terms of social concerns and personal needs

• Equality (F1): pain as a social barrier

• Need (F2): personal growth and welfare

• Equity (F3): Distributions proportional to inputs
Aim:

• To sample diversity of thought in justice-related accounts of chronic pain using Q methodology

Procedure:

Participants sorted 47 diverse statements onto a grid ranging from -5 to +5 (in the shape of a quasi-normal distribution) in terms of how strongly they ‘agreed’ or ‘disagreed’ with each statement, whilst ‘adopting a chronic pain perspective’. An additional comments sheet was provided to allow any further thoughts or opinions to be recorded.

Sample:

• Chronic pain sufferers (n = 33)
• Spouses (n = 9)
• Health professional lecturers (n = 15)
• Members of the public (n = 22)
### Score Sheet

<table>
<thead>
<tr>
<th>Factor Two</th>
<th>MOST DISAGREE</th>
<th>NEUTRAL</th>
<th>MOST AGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>-5</td>
<td>Pain is a punishment from God</td>
<td>Pain is neutral</td>
<td>Pain control is a human right</td>
</tr>
<tr>
<td>-4</td>
<td>Chronic pain is caused by an imbalance in the body and usually affects the brain</td>
<td>Chronic pain can be managed through lifestyle changes</td>
<td>Chronic pain reduces the ability to perform normal life activities</td>
</tr>
<tr>
<td>-3</td>
<td>People who suffer from chronic pain often have difficulty coping with daily life tasks</td>
<td>Chronic pain can be managed through lifestyle changes</td>
<td>Chronic pain reduces the ability to perform normal life activities</td>
</tr>
<tr>
<td>-2</td>
<td>The presence of pain makes people less able to focus on their work</td>
<td>Chronic pain can be managed through lifestyle changes</td>
<td>Chronic pain can be managed through lifestyle changes</td>
</tr>
<tr>
<td>-1</td>
<td>It is difficult to understand why people suffer from chronic pain</td>
<td>Chronic pain can be managed through lifestyle changes</td>
<td>Chronic pain can be managed through lifestyle changes</td>
</tr>
<tr>
<td>0</td>
<td>It is important to accept chronic pain and not to compare it to other forms of pain</td>
<td>Chronic pain can be managed through lifestyle changes</td>
<td>Chronic pain can be managed through lifestyle changes</td>
</tr>
<tr>
<td>1</td>
<td>Chronic pain sufferers are often seen as having the NHS</td>
<td>Chronic pain can be managed through lifestyle changes</td>
<td>Chronic pain can be managed through lifestyle changes</td>
</tr>
<tr>
<td>2</td>
<td>Pain control is a human right</td>
<td>Chronic pain can be managed through lifestyle changes</td>
<td>Chronic pain can be managed through lifestyle changes</td>
</tr>
<tr>
<td>3</td>
<td>The smallest thing about chronic pain often gets ignored</td>
<td>Chronic pain can be managed through lifestyle changes</td>
<td>Chronic pain can be managed through lifestyle changes</td>
</tr>
<tr>
<td>4</td>
<td>Chronic pain sufferers often feel a sense of normal life</td>
<td>Chronic pain can be managed through lifestyle changes</td>
<td>Chronic pain can be managed through lifestyle changes</td>
</tr>
<tr>
<td>5</td>
<td>Chronic pain often feels a sense of normal life</td>
<td>Chronic pain can be managed through lifestyle changes</td>
<td>Chronic pain can be managed through lifestyle changes</td>
</tr>
</tbody>
</table>

### Additional Text

- Pain is the body’s warning of something wrong.
- Chronic pain is caused by an imbalance in the body and usually affects the brain.
- People who suffer from chronic pain often have difficulty coping with daily life tasks.
- The presence of pain makes people less able to focus on their work.
- It is important to accept chronic pain and not to compare it to other forms of pain.
- Chronic pain sufferers are often seen as having the NHS.
- Pain control is a human right.
- The smallest thing about chronic pain often gets ignored.
- Chronic pain sufferers often feel a sense of normal life.
- Chronic pain is a part of life and is not under the control of others.
- Pain is a part of life and is not under the control of others.
- Pain is a part of life and is not under the control of others.
- Pain is a part of life and is not under the control of others.
- Pain is a part of life and is not under the control of others.
McParland, Hezseltine, Eccleston, Stenner & Serpell (in preparation)

Analysis

• PQmethod v2.11 (Schmolk, 2002)
• Q factor analysis (PCA with varimax rotation)
• Select factors with eigenvalues >1
• Factor loadings >.6 signify exemplificatory Q sorts.

Results

• Six chronic pain (insider) accounts
• Eight non-chronic pain sufferer (outsider) accounts
McParland, Hezseltine, Eccleston, Stenner & Serpell (in preparation)

Results: Shared themes

**Theme 1: Contesting Injustice**

- **CP 1 (12)**
  - “Pain is just part of life. It’s not unfair” (+4). *Pain is part of life but fairness has nothing to do with this*

- ** Outsider 2 (6)**

- ** Outsider 7 (spouse) (1)**
  - “Even amidst the worst suffering one should not lose faith that justice will prevail and set things right” (-4) *How will justice help the pain?*

*McParland, Hezseltine, Eccleston, Stenner & Serpell (in preparation)*
Results: Shared themes

**Theme 2**

*Injustice*

**Blame**

- **Outsider 5 (HP) (1)**
  - “People develop chronic pain because doctors are paid to fix problems not to listen to people” (+4). *I imagine feeling not listened to is the most frustrating aspect of pain*.

- **CP 3 (1)**

- **Outsider 3 (lay) (2)**
  - “Chronic pain goes hand in hand with chronic weakness of Character” (+2). *There seem to be a lot of chronic pain sufferers who are happy to moan but do nothing about it. Just be miserable, a bit weak.*

McParland, Hezseltime, Eccleston, Stenner & Serpell (in preparation)
Results: Shared themes

Victimisation
- CP 2 (11)
- Outsider 4 (2)

Theme 2
Injustice
- CP 4 (1)
- Outsider 1 (11)
- CP 6 (1)

Needless suffering of chronic pain

“The cruellest thing about chronic pain is that it is often not acknowledged as real” (+5). Not only acknowledged but often misunderstood as moaning.

“The needless suffering of the chronic pain patient in the United Kingdom today is a national disgrace” (+3) Need better facilities and more staff to reduce waiting times
McParland, Hezseltine, Eccleston, Stenner & Serpell (in preparation)

Summary

There are some shared understandings of injustice in chronic pain across chronic pain and non chronic pain groups. Specifically, chronic pain is widely considered in a complex social and cultural context of blame, victimisation and perceived neglect of need.
Future Directions

• Origins
• Measurement
• Functions
• Decision-making processes
• Reactions
• Injustice “environments”
• “Outsider” influences
Acknowledgements

• Economic and Social Research Council (RES-000-22-2381).
• Professor Chris Eccleston
• Louisa Hezseltine
• Dr Christina Knussen
• Dr Mick Serpell
• Glasgow Caledonian University
• Scottish Primary Care Research Network
• Professor Paul Flowers
• Dr Mike Osborn
• Professor Paul Stenner
• Dr David Craig
• Sister June Ramsay
Key References


