Pain in Haemophilia: Assessment of Pain Presentation; Coping Styles and Analgesic Approach.

Brian J Ramsay, Julia Phillips, Huib Buyck, Paul Hardy

Wellington Hospital Haemophilia Centre, Wellington Hospital, Riddiford Street, Wellington, New Zealand.

Introduction

People with haemophilia experience recurrent episodes of acute pain due to musculoskeletal bleeding and chronic pain due to arthropathy. Few data are published on pain type, coping styles and pain management techniques used by people with haemophilia [1].

New Zealand has good access to factor replacement therapy at 5.6 IU FVIII per capita in 2011, and prophylaxis has been offered routinely to children with severe haemophilia since the late 1990s.

Aim

We wished to establish the nature and extent of pain in our population of adults with haemophilia and explore current treatment and coping strategies.

Methods

All people aged 16 years or over who were registered with a diagnosis of mild, moderate or severe haemophilia A or B at the Wellington Hospital Regional Haemophilia Centre between January and April 2012 were asked to complete the McGill Pain Questionnaire [2] and the Haemophilia Coping Questionnaire designed by Elander [3]. Additional questions addressing the frequency of acute pain and factor use, methods of managing pain and drug treatments were also included.

Results

Patients

25 of 62 (40%) people surveyed have responded. Patient characteristics are listed in Table 1.

Age	17-72 yrs (median 45 yrs)
Gender	All male
Severe	13
Moderate	8
Mild	4

Table 1. Patient characteristics.

Sites of pain

Pain sites were recorded pictorially.

With respect to the 10 main joints affected by haemophilia (ankles, knees, hips, elbows and shoulders), respondents indicated pain in 0-9 joints (median 2).

Joint pain was not restricted to people with severe haemophilia. 5 people with moderate haemophilia reported pain in between 1 and 6 joints and 2 people with mild haemophilia reported pain in 1 joint.

5 respondents reported spinal pain and 5 reported pain in non-joint sites including thighs, upper and lower arms, scapular area, abdomen and forehead.

Pain severity

The distribution of the severity of lowest, highest and usual pain levels reported is depicted in Figures 1 and Table 2.

There was a significant trend to higher levels of highest and usual pain with increasing haemophilia severity, as might be expected. Figure 2 shows this effect for the parameter of 'highest pain experienced'.

	Severe	Moderate	Mild	P
Lowest pain score	0-4 (1.5)	0-2 (0.8)	0-2 (0.8)	0.447
Highest pain score	4-10 (7.2)	0-8 (4.8)	0-7 (2.5)	**0.008**
Usual pain score	1-6 (3.7)	0-5 (2.3)	0-3 (1.3)	**0.037**

Table 2. Ranges (means) of severity of pain experienced in relation to severity of haemophilia. [One way ANOVA test].

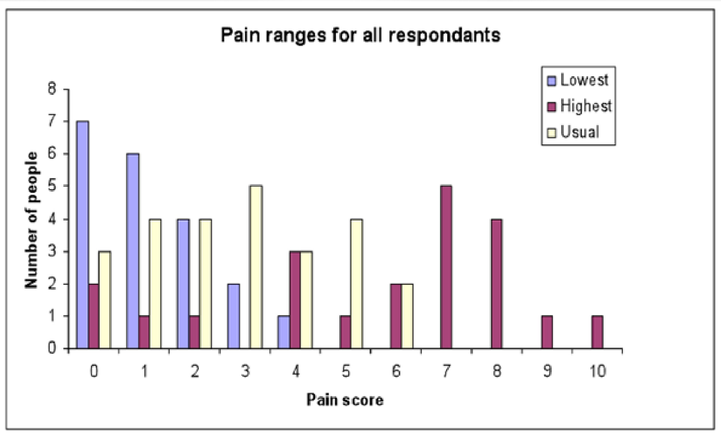

Figure 1. Ranges of lowest, usual and highest pain in all 25 respondents. Maximum pain score is 10 in each category.

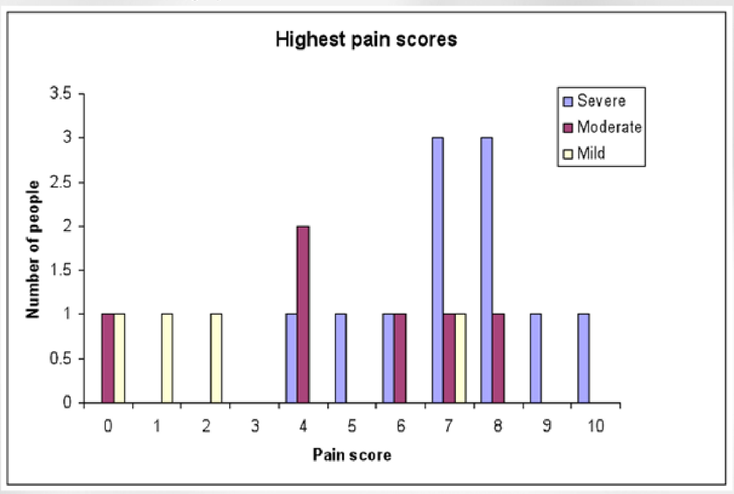

Figure 2. Highest pain experienced in relation to severity of haemophilia.

Quality of pain

The distribution of scores for the 4 types of sensory descriptors in the McGill scoring system for the entire study group are shown in Table 3.

A wide range of responses was seen for all parameters in each group.

There was a non-significant trend towards higher use of all descriptors in people with more severe haemophilia.

	All	Severe	Moderate	Mild	p
Sensory (max 42)	0-33 (13.6)	2-33 (15.4)	0-28 (13.7)	0-24 (7.5)	0.383
Affective (max 16)	0-10 (2.3)	0-10 (3.3)	0-8 (1.6)	0-1 (0.3)	0.215
Evaluative (max 5)	0-5 (1.5)	0-5 (1.9)	0-4 (1.1)	0-2 (1.0)	0.412
Miscellaneous (max 17)	0-12 (2.8)	0-12 (4.3)	0-4 (1.3)	0-2 (1.0)	0.054

Table 3. McGill descriptors of pain as ranges (means) for the whole group and for people with different severities of haemophilia [One way ANOVA test].

Pain frequency

Responses to the question:- 'How often do you experience acute pain problems?' were grouped by the authors into categories as shown in figure. Responses from people with severe haemophilia ranged from 'constant' to'rare'. Two people with moderate haemophilia

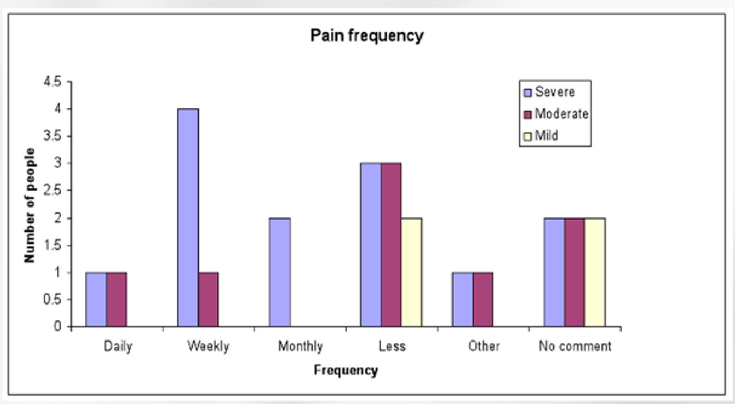

Figure 3. Pain frequency in relation to severity of haemophilia.

Factor use

Respondents were asked:- 'How often do you use factor for your haemophilia?'. 10 of 12 people with severe haemophilia reported being on at least weekly treatment with factor replacement. All people with mild or moderate disease reported being on demand therapy. Only 4 people gave estimates of intervals between treatments in this group.

Treatment of pain

Modalities of treatment used for managing persistent and acute pain are shown in figures 4 and 5.

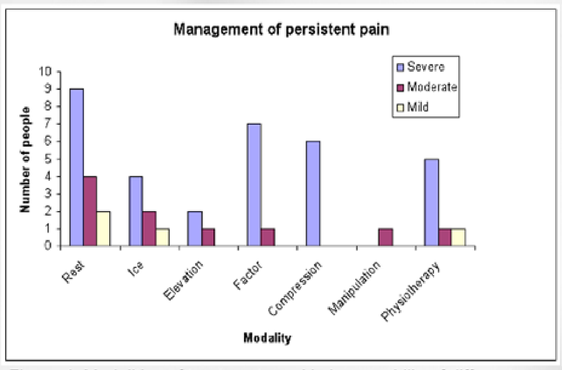

Figure 4. Modalities of treatment used in haemophilia of different severities for persistent pain.

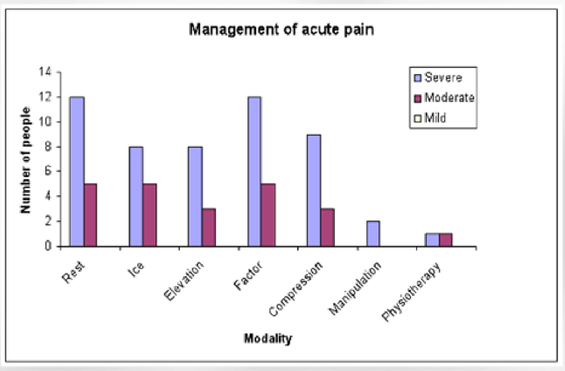

Figure 5. Modalities of treatment used in haemophilia of different severities for acute pain.

14 of 25 (56 %) respondents (10 with severe, 3 with moderate, 1 with mild haemophilia) were taking at least one form of regular analgesia. The number of patients taking each type of medications are listed in Table 4.

Medication	Number of people	Proportion of total
Paracetamol	9	36%
Non-steroidal	10	40%
Antidepressant	4	16%
Anticonvulsant	1	4%
Opiate	11	44%

Table 4. Medications currently being used for pain by respondents.

Coping strategies

Responses to this part of the questionnaire are summarised in Table 5.

There was a significant trend to greater reporting of negative thoughts, isolation, increasing behavioural activities and use of painkillers with increasing severity of haemophilia.

Only one person (with severe haemophilia) scored highly for catastrophising in our study group.

	Mild	Moderate	Severe	p
Negative thoughts	0-2 (1.0)	0.2-2.6 (0.9)	0.8-4.4 (2.1)	**0.011**
Active coping	0-3.5 (2.0)	0.5-3.3 (2.1)	0.7-4.6 (2.5)	0.675
Passive coping	0-2.6 (2.4)	0.9-4.1 (2.8)	1.8-6 (3.4)	0.280
Catastrophising	0-1.5 (1.0)	0-3.5 (1.1)	0-6 (1.6)	0.645
Anger	0-4 (1.0)	0-3 (0.8)	0-6 (2.4)	0.058
Fear	0-2.5 (0.6)	0-1.5 (0.6)	0-3.5 (1.2)	0.303
Isolation	0-4 (1.5)	0-3 (1.4)	0-6 (3.6)	**0.012**
Diverting attention	0-2 (1.1)	0-4 (1.4)	0-6 (2.5)	0.282
Ignoring pain sensation	0-5 (2.5)	0-4.5 (2.5)	0-4.5 (2.1)	0.856
Reinterpreting pain	0-4 (2.0)	0-4 (1.9)	0-6 (1.9)	0.994
Increasing behaviours	0-2.5 (1.0)	0-3 (1.1)	1.5-5.5 (3 4)	**<0.001**
Coping self-statement	0-4.5 (3.0)	0-6 (3.5)	0-5 (2.5)	0.311
Rest	0-5 (2.7)	1-6 (2.8)	1.5-6 (4.2)	0.137
Painkillers	0-2.0 (0.9)	0-6 (3.3)	1-6 (3.9)	**0.045**
Ice	0-3 (1.9)	0-6 (2.4)	0-6 (2.3)	0.911

Table 5. Ranges (and means) of pain coping strategy scores reported [One way ANOVA test].

Patient comments

Several participants expressed appreciation that we were asking about their pain and pain experience, and saw this as recognising pain as an important area of their care. Some commented that the questionnaire did not allow them to describe multiple different types of pain adequately. Two representative quotes are displayed below.

"I found the questionnaire difficult because it assumes one type of pain. In fact there is

- *pain from an acute bleed which is rare these days*
- *pain from old injuries or target spots*
- *pain from arthritis*

Thus I could give three different versions of pain and probably ended up mixing up responses on all three types !!!"

"Describing pain ….adds other dimensions as there is the tingle of nerve pain the graunching of arthritis and pain on activity"

Discussion

- Pain is a significant problem in people with haemophilia of all severities. Both 'usual pain' and 'highest pain experienced' were more severe with increasing haemophilia severity.
- Joint pain was a frequent occurrence. However, people with haemophilia also reported pain in other areas and pains of multiple different types.
- Treatment of persistent pain often included strategies more appropriate for acute pain, including factor replacement.
- Physiotherapy was infrequently used and may reflect difficulty in gaining access to specialist haemophilia physiotherapy in our unit.
- Regular current use of both non-steroidal anti-inflammatory drugs (40%) and opiate analgesia (44%) was common in our study group.
- People with severe haemophilia were more likely than others to use negative thoughts, isolation and increasing behaviours as coping strategies suggesting that targeted psychological services may be beneficial in this group.

References

[1] Riley R, Witkop M, Hellman E, Akins S. Assessment and management of pain in haemophilia patients. Haemophilia 2011;17:839-845.

[2] Melzack R. The McGill pain questionnaire: major properties and scoring methods. Pain 1975;1:277-299.

[3] Elander J and Robinson G, A brief haemophilia pain coping questionnaire. Haemophilia 2008;14:1039-1048.

WFH2012

154-Tu

Pain Management.

bj ramsay

DOI: 10.3252/pso.eu.WFH2012.2012

Poster presented at: WFH 2012 WORLD CONGRESS PARIS, FRANCE

PosterSessionOnline.com