Factors Influencing the Health-Related Quality of Life in People with Chronic Hepatitis B or C

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Introduction

Hepatitis B and C are viral infections which can become chronic and result in lower quality of life. Research in Australia indicates a higher prevalence and lower immunization coverage in the population than previously thought [9]. The impact of infant immunization is minimal in immigrant populations from endemic countries and therefore, CHB diagnoses and associated cases of liver cancer are expected to further increase [4]. Consequently, the first National Hepatitis B Strategy [5] similar to one existing for hepatitis C [6] was released in 2010. A need for more hepatitis B information resources for primary care health providers was also identified [7] and relevant resources are starting to emerge (e.g. [8] or hepBhelp.org.au).

Chronic illness affects people's quality of life depending on the changes that have to be made and a person's adjustment to these changes [9]. Research generally suggests that people with CHC have decreased health-related quality of life (HRQoL), but the few findings that exist regarding CHB are inconclusive. The purpose of this study was to explore and compare the relationships between HRQoL and: 1) sociodemographic information and care (DIC); 2) illness perceptions (IP), and 3) stigma in people with CHC and CHB. RIC was chosen because adequate information and support services are not yet available for people with CHB [7]. RIC fits well with the chronic care model (CCM) which covers concepts such as self-management and the removal of barriers to healthcare [10]. IP was chosen based on Leventhal's self-regulation model [11] which states that people's mental mechanisms and social/cultural living environment form positive or negative illness perceptions which then impact on quality of life. Past research supports this model with regard to CHC [12]. Stigma was chosen because both CHB and CHC are associated with risky lifestyle choices (although CHB to a lesser extent). Research shows that stigma adversely affects the quality of life of people with CHC [13] but there is little evidence that the same is true for CHB. Apart from an Australian study showing improved hepatitis B immunization rates in young drug users when the possibility of stigmatization was removed [14], many contradicting assumptions have been made. However, the importance of preventing illness-related stigma has been recognized in both national hepatitis strategies [5, 6].

Aims and Hypotheses

The aim of this study was to identify starting points for future research into the promotion of health- and information-seeking behaviours in people with chronic hepatitis, particularly CHB. The results add to current knowledge and may assist the national quest to optimize care and support for people with CHB in Australia in order to improve their quality of life and general well-being. The hypotheses are:

1. Overall HRQoL differs between CHB and CHC participants.
2. CHB participants score lower on RIC than CHC participants.
3. Scores on RIC and IP predict HRQoL.
4. People in the high stigma group score lower on HRQoL than those in the moderate and low stigma groups.
5. People with CHC are more likely to be in the high stigma group than those with CHB.

Method

Participants: The demographic characteristics of the sample are shown in Table 1. The CHC participants were <10 years older on average than the CHB participants. Only 3 participants identified as Indigenous Australians, 72.7% were Caucasian and half of the CHB sample identified as being Asian.

Materials and Procedure: A questionnaire was constructed incorporating demographic questions (Table 1) and the following four measurement scales: 1) DIC: Patient Assessment of Chronic Illness Care (PACIC) [15]; 2) IP: Brief Illness Perception Questionnaire (Brief IPQ) [16]; 3) Stigma: Social Impact Scale [17]; 4) HRQoL: Chronic Liver Disease Questionnaire (CLDQ) [18].

The questionnaire was offered and completed mostly online with a detailed information sheet and instructions provided. The internal reliability of the HRQoL scale was Cronbach's α = 0.943. Fifteen hard copies were mailed out on request but only one was returned.

Data Analysis was conducted using SPSS (PASW Statistics 18). An alpha level of 0.05 was used with all parametric tests and where subgroup analysis was not pre-specified.

Table 1

<table>
<thead>
<tr>
<th>Category</th>
<th>Total</th>
<th>CHB</th>
<th>CHC</th>
<th>p-value</th>
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<tbody>
<tr>
<td>Age (years)</td>
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<td>20</td>
<td>5</td>
<td>0.003</td>
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<tr>
<td>Gender</td>
<td>57</td>
<td>49</td>
<td>8</td>
<td>0.003</td>
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<tr>
<td>Education</td>
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<td>22</td>
<td>4</td>
<td>0.086</td>
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<tr>
<td>Occupation</td>
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<td>236</td>
<td>40</td>
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Table 2

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<th>3</th>
<th>4</th>
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<tr>
<td>Total Scores RIC</td>
<td>201</td>
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<td>121</td>
<td>92</td>
</tr>
<tr>
<td>Total Scores IP</td>
<td>686</td>
<td>584</td>
<td>461</td>
<td>397</td>
</tr>
<tr>
<td>F change</td>
<td>6.719*</td>
<td>17.139*</td>
<td>27.55</td>
<td>39.00</td>
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Table 3

<table>
<thead>
<tr>
<th>Stigma Group</th>
<th>CHB</th>
<th>CHC</th>
<th>Total</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>High n (%)</td>
<td>7 (30)</td>
<td>22 (59)</td>
<td>29 (51)</td>
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<tr>
<td>Low n (%)</td>
<td>13 (65)</td>
<td>21 (42)</td>
<td>34 (61)</td>
<td>0.003</td>
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References