The best aspects of being a chiropractor

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Objective: The aims of this study were to determine the best aspects of being a chiropractor from the practitioners’ perspective and to determine job satisfaction among respondents.

Methods: An anonymous online survey was distributed to members of the chiropractic profession from August to September 2019. The survey included 25 statements regarded as being “a positive aspect of being a chiropractor.”

Results: Three hundred and sixty-nine chiropractors responded. Respondents believe that the best aspects of being a chiropractor are that chiropractors can reduce pain, help move or build strength, flexibility, and power in patients. In addition, chiropractors ‘being trained to diagnose’ and ‘being able to transform peoples' quality of life’ were highly scored. Job satisfaction overall was rated as high (median score of 9/10). However, there are some aspects that are not highly regarded as best aspects by the profession such as the respect of the public and other health professionals.

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KEY WORDS: best aspects, job satisfaction, chiropractor, occupation, survey

Les meilleurs côtés de la profession de chiropraticien

Objectif : Cette étude visait connaître ce que les meilleurs côtés de la profession de chiropraticien du point de vue du praticien et d’établir le degré de satisfaction professionnelle chez les répondants.


Résultats : Trois cent soixante-neuf chiropraciens ont répondu au sondage. Ils estiment que le meilleur de ce que le chiropraticien peut apporter est le soulagement de la douleur, l’aide à la mobilité, l’augmentation de la force, de la souplesse et de la puissance. Les cotes attribuées aux énoncés « le chiropraticien est formé pour poser un diagnostic », et « le chiropraticien est capable de changer la qualité de vie du patient » sont très élevées. Le degré de satisfaction professionnelle globale est élevé (cote moyenne : 9/10). Certains aspects ne sont pas jugés les meilleurs aspects, comme le respect par le public et les professionnels de la santé.

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MOTS CLÉS : les meilleurs aspects, satisfaction professionnelle, chiropraticien, profession, sondage

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Introduction
Why does someone choose a specific profession? And why does someone choose to stay in that profession? There are attributes of an occupation that attract people to that profession. For many professions these attributes are unknown. Satisfaction at work is complex and multidimensional. There are different factors that can influence work satisfaction, including individual, cultural, social, managerial, and environmental factors. Job satisfaction is a judgement of the job in its entirety, which can include aspects such as the work itself, income, co-workers, and supervision. These aspects are likely to be different for each occupation.

As an example, many studies have been conducted regarding why students chose teaching as a career. Reasons included seeing teaching as meaningful, enjoying being with children and teenagers, being able to express creative abilities, an interest in teaching a subject, attractive working hours, and longer holidays. Also, factors have been identified in the teaching profession as to what is perceived to be important in teachers’ decisions to remain within the profession including student involvement, professional challenge, and collegial support. In the case of accounting, it was chosen as a profession among some because of job security, the challenging and interesting nature of the work, and opportunities for advancement.

Within health care, it has been found that nursing was chosen as a career due to a desire to care for others, believing that it is interesting work, and a personal desire for power and empowerment. Occupational therapy was chosen as a profession for reasons including wanting to help people with disabilities, the challenge and variety of the work, the ability to work in health setting, and the perception that many jobs are available. There were also factors that were likely to discourage people from becoming an occupational therapist including expense of education, not understanding what occupational therapy is, belief the training is too difficult, and being afraid of not being accepted.

A few studies have considered the job satisfaction of chiropractors. Overall, job satisfaction of chiropractors has been rated relatively high. Konrad et al. found job satisfaction was related to relationships with patients, relationships with chiropractic colleagues, and satisfaction with compensation. Zhang et al. reported that chiropractors who were satisfied associated career success with internal indicators including improving patients’ health, practicing ethically, and accomplishing personal goals over external factors such as high income. However, more research is needed to further determine the best aspects of being a chiropractor. The development of a list of “best aspects” could identify motivations to choose the profession and also be used by chiropractic programs to recruit students. Therefore, the primary aim of this study was to determine the best aspects of being a chiropractor from the practitioners’ perspective. The secondary aim was to determine job satisfaction level among responders.

Methods
Survey development
A draft survey of the ‘best aspects’ of being a chiropractor was constructed by two of the authors (BW and AB) using personal experience and exhausting logical possibilities. It was then assessed for face validity using a convenience sample of chiropractors and modified (described below). Hereafter, the survey was distributed to a proportion of the wider chiropractic profession to elicit opinions on the best aspects of being a chiropractor and job satisfaction using the improved pre-tested survey instrument.

Face validation of survey
The initial draft survey comprised of a 23-item questionnaire with additional spaces for other potential factors nominated by participants and a section at the end of the survey devoted to feedback from the clinicians. The questions were scored using a numerical rating Likert scale (0-10 option) with 0 representing strongly disagree and 10 strongly agree. Participants were also asked their sex and to rate their job satisfaction as a chiropractor. The survey was distributed via hard copy to a convenience sample of registered chiropractors in Perth in June 2019. Twenty registered chiropractors (12 male), all with at least three years’ experience were invited to participate. Ultimately, ten responded (five males), all were anonymous. The survey took approximately 10-15 minutes to complete and once completed was returned by stamped self-addressed envelope. Ethics approval was attained for the face validity survey from Murdoch University Human Research Ethics Committee (Approval number: 2019/081).

Modifications were made to the survey based on the opinions of the chiropractors that participated in the face
validation of the survey. Two additional statements were added to the survey; “Chiropractors enjoy being able to communicate with patients on a day to day basis” and “Chiropractors are able to participate in research.” Also, one statement was modified from “Chiropractors are safe and trusted. People trust their chiropractor” to “Chiropractors are safe and trusted.”

Practitioner participants
Once face validity of the instrument was established the final survey was administered to a broader population of chiropractors more representative of the profession. This was in the form of an anonymous online survey (Qualtrics, Provo, UT). The survey was disseminated by Chiropractic Australia through email, and the “Evidence Based Chiropractors” private closed Facebook group based in Canada from August 12 to September 15, 2019. Although the “Evidence Based Chiropractors” Facebook group is based in Canada, it is an international community.

The survey included 25 statements regarded as “a positive aspect of being a chiropractor” based around their perceived ability to help patients, training, earning potential, workplace flexibility, public perception, and intra/extra professional relationships (Table 1). The questions were again scored using a numerical rating Likert scale (0-10) with 0 representing strongly disagree and 10 strongly agree. Participants were also asked to provide demographic information including sex and years in full-time practice (or full-time equivalent), and to rate their job satisfaction as a chiropractor. Ethics approval was attained from Murdoch University Human Research Ethics Committee (Approval number: 2019/143).

Analysis
Data were exported from Qualtrics version 1.3 (Provo, UT) to IBM SPSS version 24.0 (Armonk, NY) and checked for implausibility’s and cleaned. Analysis consisted of simple descriptive statistics providing a mean and standard deviation (SD) for each answer. Inferential statistics used parametric and non-parametric methods, depending on the type of data, to examine associations between years of practice, sex, job satisfaction, and the best aspects statements.

Sample size calculation
At the time of data collection there were approximately 900 Chiropractic Australia members from a pool of 5,522 registered chiropractors in Australia and 9700 online members in the “Evidence Based Chiropractors” Facebook “private closed” group. This provides a theoretical sample size of 10,600. In detail, with a population size of 10,600, we set an expected frequency of positive aspects response at a conservative 50%, confidence limits were set at 5%, one cluster design and a design effect of 1.0. Center for Disease Control (USA) Epi-Info StatCalc was then used to derive a sample size of 359.

Results
Three hundred and seventy-four responses were received. Of these five were excluded, four because they had missing data on the two key questions, namely “I am a registered or licensed chiropractor” and “I have been in full time practice... years.” This dual question missing data could have been because the respondent was not a chiropractor and therefore ineligible to participate. The fifth was a “recent graduate” who was not registered or licensed as a chiropractor and had no full-time practice experience. Therefore, 369 survey responses were included in the final analysis, of which 204 were male (55.3%), 159 were female (43.1%), and six nominated “other” (1.6%). The mean years of full-time practice (or full-time equivalent years) of the responders was 13.3 years (standard deviation (SD) 10.1) with a median of 11 years. There was no statistical difference in experience (years of practice) between males and females (p=0.08).

Best aspects of being a chiropractor
The rank of the 25 statements of the best aspects of being a chiropractor are shown in Table 1. Using the median in years of experience (n=11) we dichotomised the respondents into less and more experienced. The more experienced chiropractors (n=179) rated the statement “Chiropractors can have holidays/vacations and leave when it suits them” higher (mean [SD] = 6.54 [2.24]) than the less experienced chiropractors (n=187, mean [SD]= 5.92 (2.85), p-value 0.03). Additionally, the more experienced chiropractors also rated the statement “Chiropractors are highly respected by other health professionals” higher (n=179, mean [SD]= 4.60 [2.46]) than chiropractors with less experience (n=187, mean [SD]= 3.89 (2.24), p-value 0.004).

Mean scores on all 25 statements were compared be-
The best aspects of being a chiropractor

<table>
<thead>
<tr>
<th>Rank</th>
<th>Statement</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Chiropractors can reduce pain, help move or build strength, flexibility and power in patients.</td>
<td>9.24</td>
<td>1.64</td>
</tr>
<tr>
<td>2</td>
<td>Chiropractors are trained to diagnose. Because chiropractors can see people without a medical referral, they need to be able to differentially diagnose.</td>
<td>9.17</td>
<td>1.84</td>
</tr>
<tr>
<td>3</td>
<td>Chiropractors can transform people’s lives. The ability to help people feel better and give them confidence to try something that they have not been able to do for a long time.</td>
<td>8.78</td>
<td>1.89</td>
</tr>
<tr>
<td>4</td>
<td>Chiropractors can work independently in their own businesses.</td>
<td>8.68</td>
<td>1.97</td>
</tr>
<tr>
<td>5</td>
<td>Chiropractors enjoy being able to communicate with patients on a day to day basis.</td>
<td>8.64</td>
<td>1.85</td>
</tr>
<tr>
<td>6</td>
<td>Chiropractors work with people, not just bodies. Chiropractors know that it is not enough to treat the body-as-a-machine.</td>
<td>8.46</td>
<td>2.06</td>
</tr>
<tr>
<td>7</td>
<td>Chiropractors physically touch people. This is a privilege i.e. to touch people for therapeutic reasons.</td>
<td>8.38</td>
<td>2.14</td>
</tr>
<tr>
<td>8</td>
<td>Chiropractors enjoy being first contact professionals. Few others, outside of medicine and dentistry, have this privilege.</td>
<td>8.22</td>
<td>2.28</td>
</tr>
<tr>
<td>9</td>
<td>With hard work chiropractors can earn a good income.</td>
<td>8.13</td>
<td>2.11</td>
</tr>
<tr>
<td>10</td>
<td>Chiropractors are constantly changing their posture at work and not sitting, standing or bending for too long.</td>
<td>7.89</td>
<td>2.12</td>
</tr>
<tr>
<td>11</td>
<td>Chiropractors have flexible working hours and days.</td>
<td>7.87</td>
<td>2.21</td>
</tr>
<tr>
<td>12</td>
<td>Chiropractors have variety in their work.</td>
<td>7.81</td>
<td>2.16</td>
</tr>
<tr>
<td>13</td>
<td>Chiropractors know people as social beings and take into consideration their personal values and circumstances</td>
<td>7.74</td>
<td>2.11</td>
</tr>
<tr>
<td>14</td>
<td>Chiropractors can readily keep up with science and modern evidence based practice advances.</td>
<td>7.68</td>
<td>2.34</td>
</tr>
<tr>
<td>15</td>
<td>Chiropractors provide employment for others.</td>
<td>7.61</td>
<td>2.25</td>
</tr>
<tr>
<td>16</td>
<td>There is a great work-life balance available to chiropractors.</td>
<td>7.61</td>
<td>2.23</td>
</tr>
<tr>
<td>17</td>
<td>Chiropractors are pragmatic, enthusiastic and motivated people who like to get things done.</td>
<td>7.60</td>
<td>2.26</td>
</tr>
<tr>
<td>18</td>
<td>Chiropractors are adaptable. No matter how difficult things seem right now, people will always want someone to use their hands in skilful, caring ways to heal them of their suffering.</td>
<td>7.56</td>
<td>2.3</td>
</tr>
<tr>
<td>19</td>
<td>Chiropractors are able to participate in research.</td>
<td>7.52</td>
<td>2.48</td>
</tr>
<tr>
<td>20</td>
<td>Chiropractors are safe and trusted.</td>
<td>7.17</td>
<td>2.50</td>
</tr>
<tr>
<td>21</td>
<td>Chiropractors enjoy collaborating with other health professionals.</td>
<td>7.14</td>
<td>2.51</td>
</tr>
<tr>
<td>22</td>
<td>Chiropractors can have holidays and leave when it suits them.</td>
<td>6.20</td>
<td>2.74</td>
</tr>
<tr>
<td>23</td>
<td>Chiropractors are powerful advocates for those less fortunate; advocating for people whose voices are not being heard.</td>
<td>5.43</td>
<td>2.83</td>
</tr>
<tr>
<td>24</td>
<td>Chiropractors are highly respected by the public.</td>
<td>5.33</td>
<td>2.41</td>
</tr>
<tr>
<td>25</td>
<td>Chiropractors are highly respected by other health professionals.</td>
<td>4.22</td>
<td>2.37</td>
</tr>
</tbody>
</table>

SD: standard deviation.

*Statements scored using a numerical rating Likert scale with a 0-10 option. 0 represented strongly disagree and 10 strongly agree*
tween males and females. Females rated the four statements; “Chiropractors are able to participate in research” (mean difference=0.81, p-value 0.001), “Chiropractors work with people, not just bodies. Chiropractors know that it is not enough to treat the body-as-a-machine” (mean difference=0.70, p-value 0.001), “Chiropractors are constantly changing their posture at work and not sitting, standing or bending for too long” (mean difference=0.63, p-value 0.004), and “Chiropractors have variety in their work” (mean difference=0.59, p-value 0.009) higher than males.

Job satisfaction

The overall mean satisfaction rating with choice of occupation as a chiropractor was 7.94/10 (SD 2.53) with a median score of 9/10 (Table 2). Years of experience did not alter opinion on job satisfaction. However, females were more satisfied with their choice of occupation as a chiropractor than males with a mean (SD) of 8.49 (2.07) and 7.64 (2.63) respectively (p-value 0.001).

Discussion

In summary, the results show that the highest scored ‘best aspect’ of being a chiropractor was being able to reduce pain, help move or build strength, flexibility, and power in patients. The second and third highest scored ‘best aspect’ related to the ability of chiropractors to diagnose conditions and that chiropractors transform peoples’ quality of life respectively. Two statements ranked below the median score of five out of 10 and these were “chiropractors are respected by other health professionals” and “chiropractors are highly respected by the public.” Job satisfaction overall was rated as high with a median score of 9/10. So, what is the significance of these results?

Regarding reasons for choosing an occupation, a study of occupational therapists found the top reason was the desire to help people with disability. Additionally, two of the reasons that discouraged people from becoming an occupational therapist were being afraid of not being accepted, and a lack of respect. These views seem to be shared with chiropractors demonstrating that the chiropractic profession is not alone in these viewpoints.

The top three statements show that many chiropractors appear to be confident in their own abilities to diagnose conditions and achieve results with musculoskeletal conditions. A survey of chiropractors in the United States found that the majority of surveyed chiropractors considered themselves musculoskeletal specialists and were able to diagnosis a wide range of health conditions.

The two lowest ranked statements demonstrate there may be a negative perception of the chiropractic profession amongst other health professionals and the public. Similarly, Mirtz et al., based on a survey of non-practicing chiropractors, found that 74% of respondents agreed with the statement ‘chiropractic lacks cultural authority’. Although the chiropractic profession has existed for over 125 years, chiropractic has not been able to establish full respect within mainstream society. There are mixed responses regarding public perception about chiropractic. A survey of the general population within Australia (n=182) was conducted to identify the public perception of the profession. Nine percent (9%) of participants found chiropractic to be dangerous, 27% were unsure, and 64%

Table 2. Job satisfaction based on sex and years of experience

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean (0-10)</th>
<th>SD</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>369</td>
<td>7.94</td>
<td>2.53</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>159</td>
<td>8.49</td>
<td>2.07</td>
<td>0.001</td>
</tr>
<tr>
<td>Male</td>
<td>204</td>
<td>7.64</td>
<td>2.63</td>
<td></td>
</tr>
<tr>
<td>Years of experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;11 years</td>
<td>187</td>
<td>7.96</td>
<td>2.31</td>
<td>0.94</td>
</tr>
<tr>
<td>11 and more</td>
<td>179</td>
<td>7.98</td>
<td>2.70</td>
<td></td>
</tr>
</tbody>
</table>

SD: standard deviation. Statement: “I am very satisfied with my choice of occupation being a chiropractor” scored with a 0-10 option. 0 represented strongly disagree and 10 strongly agree.
of participants perceived chiropractic as not dangerous. Additionally, the majority of participants (77%) believed that chiropractic should be part of the public health system, and 56% were interested to know more. Likewise, a survey conducted in the United States (N=5422) revealed that overall chiropractic was perceived as safe, and effective at treating neck and back pain. However, 24% of respondents believed that chiropractic care was dangerous. This mixed response could indicate that there may be a lack of knowledge about the profession, which may produce some negative views on chiropractic. In considering the opinions of medical, physiotherapy, occupational therapy, nursing, and pharmacy students about complementary and alternative medicine there was a correlation between educational exposure to complementary and alternative medicine, and the perceived usefulness of complementary and alternative medicine. Medical students, who had the lowest reported knowledge on complementary and alternative therapy, viewed complementary and alternative therapies as less useful. The student group that had the highest reported knowledge regarding a given therapy generally viewed that therapy more useful compared to students with less reported knowledge on that therapy. It is tempting to speculate that this is carried over into practice after graduation.

**Years of experience**

There were differences between chiropractors with 11 years or more of experience compared to chiropractors with less than 11 years of experience. Chiropractors with 11 years of more experience rated the statements “Chiropractors can have holidays and leave whenever it suits them,” and “Chiropractors are highly respected by other health professionals” higher than chiropractors with less than 11 years’ experience. We speculate this may be because chiropractors who have been in practice longer have higher levels of resources and seniority in the workplace and therefore may have more power over leave and time off. Additionally, they may have formed stronger relationships over time with other health professionals compared to chiropractors that have only been in practice for a relatively shorter period.

**Sex differences**

Females rated four ‘best aspect’ statements higher than males relating to the ability to participate in research, working with people, constantly changing their posture, and having variety in their work. Indicating that females enjoy the variability of being a chiropractor, however the mean differences of all the statements between men and women were less than one point on the Likert scale demonstrating the difference between the groups were small. Overall, females were also more satisfied with their choice of occupation as a chiropractor than males. We are unable to find or surmise a reason for this difference.

**Future direction**

There are many positive aspects of being a chiropractor. However, there are some areas that are not as highly regarded as best aspects by the profession such as respect of the public and other health professionals. To improve these aspects, evidence-based information and research should be more easily available to the public to improve their knowledge on the profession. Additionally, it has been previously proposed within the literature that in order to overcome the low status amongst healthcare professions, the chiropractic profession could make changes in some key practice areas. This includes being more involved in public health initiatives, ensuring high quality education and research is being undertaken, and establishing a clear identity. Future research is needed to understand not only the perception of chiropractic amongst the public and other health professions but also why these views are held.

Future research could consider why students select chiropractic as a profession and if this correlates with what registered chiropractors perceived as the best aspects. Finally, future research could also consider the reasons for the differing opinions between chiropractors with more or less experience, and between male and female chiropractors.

**Strengths and limitations**

Strengths of this study included the ample sample size of 369 of participants which exceeded the target sample size of 359. As this survey could be completed online, it was easily outsourced worldwide so participation was not just regional or national.

There were limitations within this study such as the potential for selection bias and response bias. We used a convenience sample through dissemination by Chiropractic Australia and the “Evidence Based Chiropractors” private closed Facebook group in Canada. This could have led to
a subsample of chiropractors being asked to participate in the survey who have certain philosophical views which may have influenced the results. We did not ask participants their country of practice, and it is acknowledged that there may have been differences based on locations of the participants. Additionally, particular chiropractors, interested in volunteering, are more likely to complete the survey potentially leading to response bias. As this was an online anonymous survey we cannot guarantee all responders were registered and practicing chiropractors. However, we did screen the responders through the two key questions, asking if they are a registered chiropractor and then secondly asking how many years they have been in full time practice, and this resulted in five survey responses being excluded from the final analysis. For the face validation of the survey participants were recruited from Perth, Western Australia, while this gives as overall validation of the survey in terms of understandability, the results are unable to be generalised to other countries and are unable to account for cultural differences elsewhere.

Conclusions
There are many positive aspects of being a chiropractor. Chiropractors believe that the best aspects of being a chiropractor are that chiropractors can reduce pain, help move or build strength, flexibility, and power in patients. In addition, chiropractors being trained to diagnose and being able to transform peoples’ quality of life were highly scored. However, there are some aspects that are not as highly regarded as best aspects by the profession such as respect by the public and other health professionals.

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