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Canada-based sports chiropractors' attitudes, beliefs, and practical application of sport psychology in the injury rehabilitation process: a mixed-methods study

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Objective: *To understand Canada-based sports chiropractors' attitudes, beliefs, and practical application of sport psychology in the sports injury rehabilitation process.*

Methods: *A cross-sectional, mixed-methods study design was employed. A questionnaire was emailed to 144 eligible participants including Fellows and Residents of the Royal College of Chiropractic Sports Sciences (Canada) (RCCSS(C)). Fifty-two surveys were returned fully completed. Fifteen respondents completed semi-structured interviews to further examine attitudes and beliefs in sport psychology training, delivery, and referrals.*

Results: *Approximately two-thirds of Canada-based sports chiropractors felt that athletes were affected psychologically 100% of the time when injured. Sports*

Attitudes, croyances et application pratique de la psychologie du sport dans le processus de rééducation des blessures chez les chiropraticiens du sport basés au Canada : une étude à méthodes mixtes

Objectif: *Comprendre les attitudes, les croyances et l'application pratique de la psychologie du sport dans le processus de rééducation des blessures sportives des chiropraticiens du sport basés au Canada.*

Méthodes: *Une étude transversale à méthodes mixtes a été utilisée. Un questionnaire a été envoyé par courriel à 144 participants admissibles, dont des membres et des résidents du Collège royal des sciences chiropratiques du sport du Canada (RCCSS(C)). Cinquante-deux questionnaires ont été retournés dûment remplis. Quinze répondants ont participé à des entretiens semi-structurés afin d'examiner plus en détail les attitudes et les croyances relatives à la formation en psychologie du sport, à la prestation de services et à l'orientation des patients.*

Résultats: *Environ deux tiers des chiropraticiens du sport basés au Canada estiment que les athlètes sont affectés psychologiquement dans 100 % des cas*

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chiropractors reported using some basic psychological techniques during the sports injury rehab process and expressed interest in having more training in more advanced techniques and practical application of these skills, as well as developing a referral network with sport psychology professionals in Canada.

Conclusions: Sports chiropractors in Canada reported receiving entry level training in sports psychology and understood the importance of addressing the psychological aspects of sports injury. Further research is warranted to explore the effectiveness of current and future sports psychology education interventions for sports chiropractors.

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KEY WORDS: injury rehabilitation, mixed-methods study, sports chiropractic, sports injuries, sports psychology

lorsqu'ils se blessent. Les chiropraticiens du sport ont déclaré utiliser certaines techniques psychologiques de base au cours du processus de rééducation des blessures sportives et ont exprimé le souhait d'être formés à des techniques plus avancées et à l'application pratique de ces compétences, ainsi que de développer un réseau d'orientation avec des professionnels de la psychologie du sport au Canada.

Conclusions: *Les chiropraticiens du sport canadiens ont déclaré avoir reçu une formation initiale en psychologie du sport et comprendre l'importance d'aborder les aspects psychologiques des blessures sportives. Des recherches supplémentaires sont nécessaires pour explorer l'efficacité des interventions actuelles et futures de formation en psychologie du sport destinées aux chiropraticiens du sport.*

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MOTS CLÉS : rééducation post-traumatique, chiropratique sportive, blessures sportives, psychologie du sport, étude à méthodes mixtes

Introduction

Sport injuries are an unfortunate, but common, occurrence for those participating in sport. In 2009-10, an estimated 4.27 million Canadians aged 12 and older suffered an injury that limited their normal activities, and 35% of these were related to sport or physical activity.[1] The definition of "sport injury" varies in the literature, however typically it incorporates the following characteristics: (a) the injury occurred while in training or competition for a sport (b) medical attention was sought for the injury and (c) time was lost from training, practice and/or competition.[2–5] The etiology of sports injuries is complex, with many variables affecting response, recovery, and prevention. It is critical to examine sport injury while accounting for the biomedical, psychological, and social contributing factors, using a biopsychosocial model, to ensure recovery is optimized. Since Engel's introduction of the biopsychosocial (BPS) model in 1980[6], there has continued to be a shift in healthcare, away from a more traditional biomedical approach and towards the more comprehensive BPS model. The BPS approach has also been described in the context of sports injuries and rehabilitation.[7]

There has been an abundance of research in the past thirty years examining the importance of psychosocial factors related to sport injury and rehabilitation. Psychological interventions have been demonstrated to have a significant impact on the sport injury rehabilitation process.[8–10] There is some debate as to how these interventions should be delivered. In particular, there is a growing consensus that sport psychology consultants and/or mental health professionals may be best suited to deliver these interventions as they have the greatest level of expertise in this field.[11] However, not all athletes have access to these providers, especially outside of professional and collegiate level sports.[12–14] Sports psychology professionals are rarely fully integrated into a sport medicine team, perhaps due to limited access of healthcare systems, lack of understanding and procedures for referrals, and/or reluctance of athletes to participate.[15] Emerging literature suggests that it may be efficacious to utilize sport injury rehabilitation professionals (SIRPs) to help address the psychosocial aspects of the rehabilitation process.[16]

The involvement of SIRPs in the psychosocial aspect of the rehabilitation process has been studied extensive-

ly.[17] The literature in this domain is focused primarily on athletic therapists and physiotherapists, but can be extrapolated to any healthcare provider who provides sport injury rehabilitation as a service. For the purposes of this study, the term "sport injury rehabilitation professional" encompasses any healthcare or performance professional that is responsible for overseeing sport injury rehabilitation.

SIRPs are well-positioned to influence the psychological aspects of sport injury rehabilitation for many reasons.[15,18,19] First, SIRPs are often the initial point of contact for care when an injury occurs, they have regular contact with the injured athlete throughout the rehabilitation process and are able to assess, monitor, and intervene for both the physical and psychological aspects of the injury.[15,20–23] Physical and psychological issues are not mutually exclusive - they are often discussed in relation to one another.[20] In addition, SIRPs are an important source of emotional support during the recovery process as they have established rapport and trust with the athlete.[18,24,25] They may also be able to influence how receptive athletes are to using sports psychology to enhance rehabilitation.[22,25,26] As well, the act of physical touch during manual therapy may facilitate an athlete opening up about psychological struggles.[27] Finally, existing literature suggests that both athletes and SIRPs themselves feel SIRPs are in an ideal position to address psychological aspects of injury.[15,28–30] Some researchers and practitioners even argue that it is an absolute requirement for SIRPs to address psychosocial factors to some degree during the rehabilitation process if holistic recovery is to occur.[22] Without a doubt, effective injury management is enhanced by an understanding of the psychological aspects of injury.[31]

Competencies for many governing bodies of SIRPs in Canada, including athletic therapists, physiotherapists, and others, call for a baseline level of knowledge in psychosocial factors of healthcare.[32,33] There is a strong argument to be made for SIRPs having the knowledge and skillset to address these factors at an acceptable level.[22] This includes being able to recognize potential psychosocial reactions experienced by injured athletes, have the skillset to intervene when necessary, and be able to recognize the need for referral.[34] In practice, however, SIRPs may not feel confident in their knowledge and/or ability to deliver such interventions.

Training for SIRPs is focused mainly on the biological, orthopedic, biomechanical, and pathophysiological aspects of injury occurrence and recovery, and much less on the psychosocial aspects.[20] Many physical and manual therapy programs at the university/college level do incorporate some form of psychology training, however it is highly variable in context and depth.[20,35] Currently, the Royal College of Chiropractic Sports Specialists (Canada) (RCCSS(C)) post-graduate program for sport specialist chiropractor trainees includes one three credit course on sport psychology, and the format, content, and instructor of the course are not standardized across the program.[36] SIRPs in the field and researchers alike have called for additional post-graduate training in the field of sport psychology in order to gain the knowledge and skillset to be able to competently address some psychosocial aspects of sport injury rehab.[12,37,38] These practitioners also identified the need for a referral network of sport psychology professionals and had a preference to working in a multi-disciplinary environment with these professionals to ensure that the athletes' needs are met when the scope of the issue is beyond the skillset of the SIRP.[11,17]

To plan future changes in sports psychology training for SIRPs, it is important to have a better understanding of the current attitudes and beliefs surrounding the use of sport psychology by Canadian SIRPs. Post-graduate healthcare professional education and practice differs by country and region, and by profession. It is not sufficient to extrapolate data from previous research on athletic therapists and physiotherapists in the United States and United Kingdom to all other SIRPs. The purpose of this study is to examine Canada-based sports specialist chiropractors' attitudes, beliefs, and application of sports psychology principles during the sports injury rehabilitation process.

Methods

This study is a cross-sectional, convergent parallel mixed-methods design which included a quantitative survey questionnaire, followed by qualitative semi-structured interviews. Research ethics board approval was obtained from the Canadian Memorial Chiropractic College (REB Approval #2012B02).

Participants

To be eligible as a participant in the survey questionnaire and the semi-structured interview components of

this study, participants had to be Canada-based sport specialist chiropractors who are Fellows or Residents of the RCCSS(C), and who self-identify as utilizing sport injury rehabilitation as part of their practice.

Measures

Sports chiropractors' attitudes and beliefs around sports psychology in the sports injury rehabilitation process was measured using an adapted version of the Physiotherapist and Sport Psychology Questionnaire (PSPQ).[28] The PSPQ was originally adapted from the Athletic Training and Sport Psychology Questionnaire (ATSPQ).[15] Both the PSPQ and ATSPQ have been used in previous literature to measure attitudes and beliefs of sport psychology within injury rehabilitation for different SIRPs.[12,15,28,37] While neither original authors of the survey instruments report any validity or reliability data, Larson *et al*.[15] describe a pilot study that contributed to the development of the questionnaire where adjustments were made following feedback from 18 athletic therapists across five different institutions.

In the version used for the current study, the Sports Chiropractor and Sport Psychology Questionnaire (SCSPQ), the authors simply replaced "physiotherapists" with "sports chiropractors" and changed the demographic data to reflect typical education requirements and location for Canada-based sports chiropractors. The SCSPG includes 11 items, with a mixture of 5-point Likert-scale, open-ended, and closed-ended questions. Questions included how often participants encounter certain psychological conditions and identification of certain behaviours or characteristics that are present in athletes who do and do not successfully cope with injuries. The survey also included questions about referral practices and access to sports psychology professionals, as well as their education and training in sports psychology as a SIRP. Survey participants were also asked how often they practice certain psychological skills/techniques in the sports injury rehabilitation process. The questionnaire concluded with a comment box that allowed participants to provide any further comments or additional information.

The semi-structured interviews were conducted by one female member of the research team (CL) who is a sports chiropractor and mental performance consultant with Master's level training in qualitative research methods and applied sport psychology. The interviewer has a collegial relationship with many of the participants due to common inclusion in the same sports chiropractic organization. The semi-structured interview guide was adapted from a similar study by Heaney.[37] Heaney reported that the interview script had established face validity by sports psychologists, and pilot interviews were conducted in which feedback was provided and minor adjustments to the interview script were made.[37] The interview script included questions that covered three main areas: sports psychology content in sports chiropractors education / training, delivery of sport psychology support during the sport injury rehabilitation process, and sport psychology referral practices. See Appendix 1 for the interview script.

Data collection

Participants were recruited via email through the RCCSS(C) mailing list of members, including active Fellows and Residents of the organization. E-mails were sent out by an RCCSS(C) administrator twice weekly for a period of one month, which included a link to the questionnaire conducted on SurveyMonkey (SurveyMonkey Inc., USA). Response limits were set to ensure participants only responded once. Participants self-selected to complete the questionnaire, and participation was voluntary with no compensation provided. The project information letter and informed consent outlined the purpose of the study, procedures, benefits, risks, and confidentiality. Participants were able to withdraw their participation at any time during the questionnaire responses. At the completion of the questionnaire, participants had the opportunity to provide contact information if they wanted to participate in the semi-structured interviews.

For the semi-structured interviews, convenience sampling was conducted, and a member of the research team followed up with 21 individuals who expressed interest in participating. The follow up email included another copy of the project information letter and informed consent about the purposes, procedures, and confidentiality surrounding their responses. Fifteen of these individuals scheduled a meeting time. The semi-structured interviews were conducted by a secure online video platform (Zoom Video Communications, Inc., USA, Version 5.6) or telephone call, which was audio recorded using the Audacity application (Audacity, USA, Version 3.0). Only the interviewer and participant were present on each call, and none of the interviews were repeated. No field notes were

made during or after the interviews. Prior to initiating the interview, the participants were asked for consent to proceed. See Appendix 1 for consent script questions.

The interviews took approximately 20 to 30 minutes to complete. The audio recording was then auto-transcribed through NVivo™ software and checked for accuracy by two research assistants who de-identified the data. At the completion of this step, participants were emailed a copy of their transcript and had the opportunity to review the transcript to confirm, clarify, or withdraw any or all responses. When transcribing the interview data, one audio recording of one interview was not captured due to a technical error. This resulted in a total of 14 interviews to be analyzed.

Data analysis

All questionnaires which were fully completed (n=52) were included for analysis. The quantitative analysis was descriptive in nature. Analysis of questions that used Likert scales involved the calculation of mean score and standard deviations, and frequency calculations were used for any closed-ended (yes/no) questions. The open-ended questions were analyzed by one researcher (CL) and a simple content analysis was executed. Responses were categorized and grouped with similar answers to determine the frequency of each response, which is reported in the results section.

Two researchers (CL and LDG) completed the qualitative data analysis and followed a qualitative description approach.[39] Interview transcripts were entered into NVivo™ qualitative data analysis software, which was used to conduct a systematic thematic conventional content analysis.[40] Phases of thematic analysis were utilized, including familiarization of the manuscripts, generating an initial set of codes, searching for themes that were grouped together with similar ideas, reviewing and revising themes, defining and naming themes, and final analysis.[41]

Members of the research team (CL and LDG) coded each transcript independently and kept a reflexive journal. Codes were generated by reading the data, highlighting quotes that captured key concepts, and labelling groups of similar concepts and quotes within the same code.[40] Codes were then sorted into categories and organized into a code tree. All codes were given operational definitions.[40] Notes were taken to capture the researchers' thoughts, impressions, and initial analysis. All disagreements were discussed, and consensus reached during debriefing sessions. Key themes were identified and tested for rigor through constant comparison to ensure consistency between researchers. Searching for negative, atypical, or conflicting cases in code and themes enhanced analytic rigour.[42] Data saturation was defined as the point where the data produced little or no changes to the qualitative codes.[43]

The three main themes, *training*, *delivery*, and *referrals* were selected a priori as defined in the interview guide. From each of these main codes, secondary codes and tertiary codes were generated. Secondary and tertiary codes are reported within the results section of this paper.

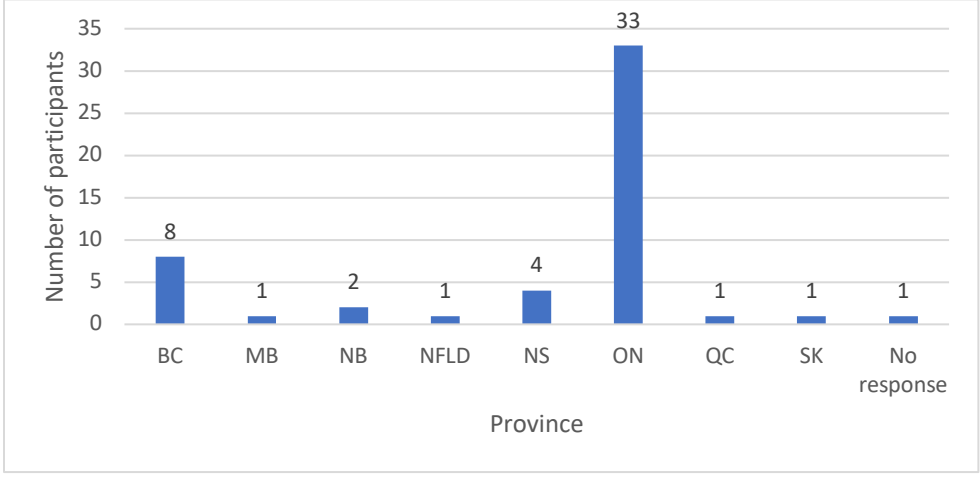

Figure 1.
Location of survey participants within Canada

Results

One hundred and seven (107) Fellows and 37 Residents of the RCCSS(C) were e-mailed the link to the questionnaire and a total of 52 surveys were submitted, fully complete, which is a response rate of 36%. The response rate was calculated as the number of respondents who submitted completed surveys (52) divided by the total number of eligible re-

spondents (144). Seven surveys were returned with only the demographic information completed, and no surveys were returned partially completed. A total of 21 respondents opted to also participate in the semi-structured interviews, and 15 of those respondents were interviewed.

Eleven (21%) identified as current Residents of the RCCSS(C) (21%), and 39 (75%) identified as current Fellows of the RCCSS(C). Two surveys were returned and did not indicate if the respondent was a Fellow or Resident. Figure 1 outlines the location of all respondents. Figure 2 outlines the educational and professional qualifications of the respondents. While post-graduate qualifications in sport injury / sport medicine and psychology differed across participants, the term "sports chiropractor" is used to refer to the participant group. Figure 3 outlines the number of years of experience of survey participants.

Quantitative results

The first part of the questionnaire investigated more general demographic characteristics of participants, as well as their utilization of sports injury rehabilitation in practice and the level of athletes they work with. One hundred percent (52/52) of participants reported that they utilize sports injury rehabilitation as part of their practice. The participants were asked to clarify further how many sports injury appointments or interactions they had per month (Figure 4). Sports injuries were characterized as the following: (1) the injury occurred while in training or competition for a sport (2) medical attention was sought for the injury (3) at least some time was lost from training or competition due to the injury. The participants were also asked about the level of competition of the athletes they treat (Table 1).

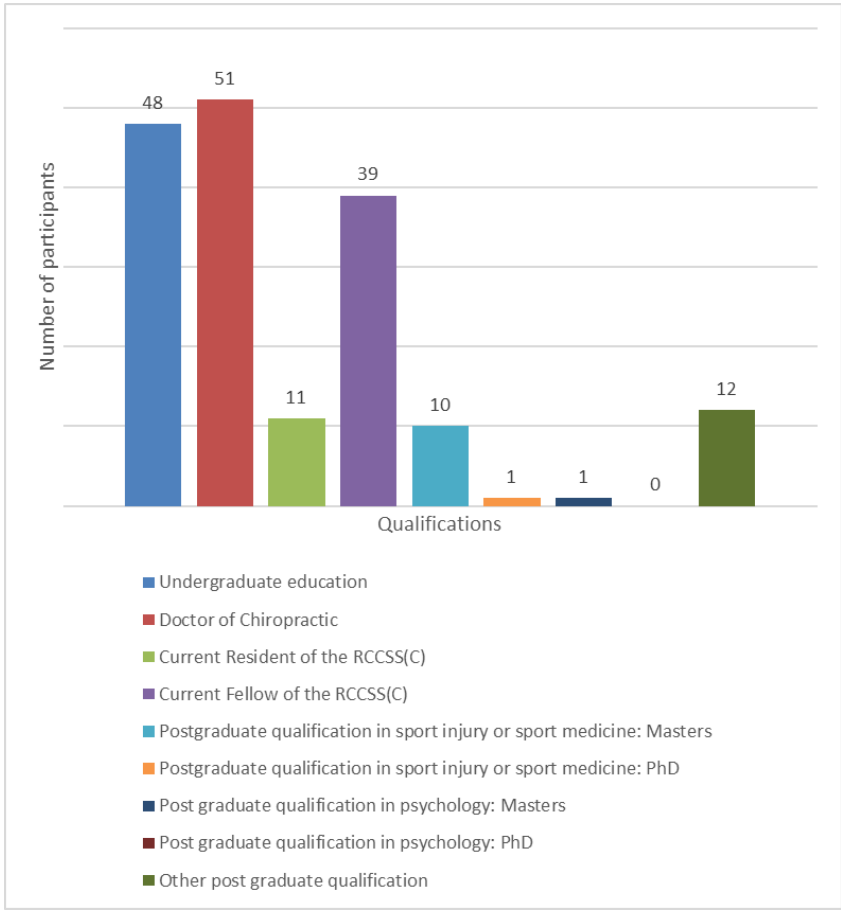

Figure 2.
Education and professional qualifications of participants

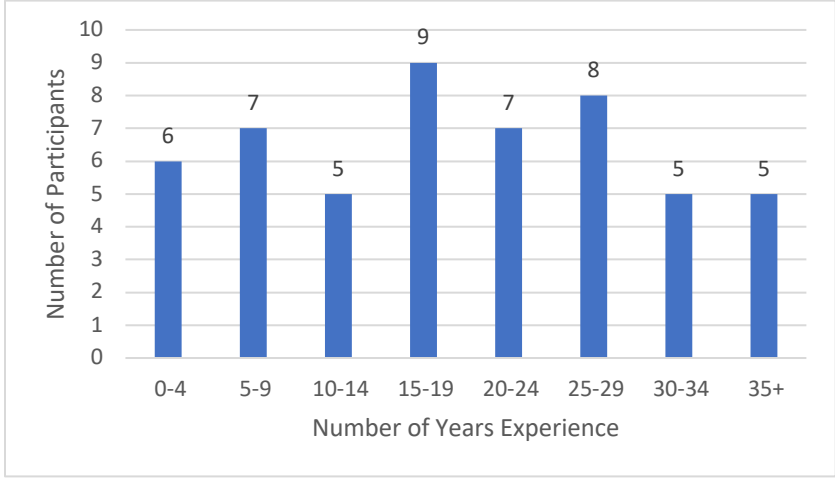

Figure 3.
Number of years experience as a chiropractor

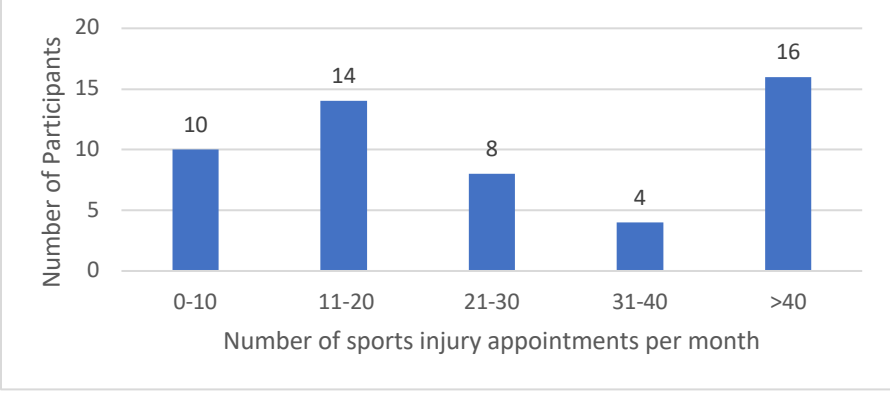

Figure 4.
Number of sports injury interactions or appointments per month

Table 1.
Level of competition of athletes treated

Level of Competition	% of participants who treat athletes at this level (n = 52)
Recreational	51 (98.1%)
Provincial	46 (88.5%)
National	34 (65.4%)
International	28 (53.8%)

Sixty-two percent (32/52) of sports chiropractors surveyed believe that athletes are affected psychologically by an injury 100% of the time, while 15% (8/52) of sports chiropractors believe that athletes are affected 75% of the time, and 19% (10/52) believe that athletes are affected psychologically 50% of the time (Q8). They reported encountering various psychological reactions or conditions associated with athletic injury, with stress/anxiety reported as the most common (Table 2).

Table 2.
Psychological reactions or conditions associated with sports injury.

CONDITION	MEAN	SD
Stress/anxiety	3.90	0.83
Exercise addiction	3.17	1.18
Fear avoidance	2.90	1.02
Depression	2.81	0.99
Treatment compliance problems	2.73	0.79
Anger	2.71	0.96
Cognitive overload	2.71	0.75
Problems with concentration/attention	2.56	0.85
1 = never encounter; 2 = rarely encounter; 3 = occasionally encounter; 4 =often encounter; 5 = very often encounter		

The practitioners also identified behaviours and characteristics between athletes who successfully cope with injury (Table 3) and those who do not (Table 4).

Table 3.
Behaviours/characteristics of athletes who successfully cope with injury

Behaviour/Characteristic	Frequency (%)
Positive outlook / attitude	38%
Compliance / commitment	36%
Resilience	31%
Intelligence / understanding of injury	31%
Social support	31%
Discipline / perseverance / dedication	23%
Determination / drive / work ethic	15%
Patience	13%
Motivation	12%
Goal-oriented	12%
Trust	12%
High self-confidence / esteem / belief	10%
Realistic / acceptance	10%

Thirty-nine of 52 of respondents (75%) have referred an injured athlete to counselling (including to a psychologist, mental performance consultant, social worker, etc.) for concerns related to their injuries. Thirty-two of 52 respondents (61.5%) refer directly to a specific mental performance consultant/coach and/or psychologist with a clinical focus on sport. Only twelve sports chiropractors surveyed (23%) use a specific written procedure when referring athletes for counselling services.

Table 4.
Behaviours/characteristics of athletes who do not successfully cope with injury

Behaviour/Characteristic	Frequency (%)
Stress / anxiety	42%
Fear / fear avoidance	33%
Poor compliance / commitment	23%
Poor social support	23%
Depression	19%
Hypercommitment / hyperfocus / overtraining	19%
Anger / aggression / frustration	17%
Poor intelligence / understanding of injury	17%
Poor lifestyle factors (i.e. nutrition, sleep, etc.)	15%
Negative / poor attitude	13%
Low confidence / esteem	12%
Loss of sport identity	12%
External stressors	8%
Poor concentration / focus	8%
Lack of trust	8%
Catastrophization	8%
Lack of acceptance	6%

The sports chiropractors surveyed indicated that they use a variety of psychological techniques during the sports injury rehabilitation process. Out of 13 suggested techniques, they utilized 8 of the techniques more than 60% of the time when working with injured athletes. The most used psychological technique was creating variety in rehab exercises, while the least used technique was reducing depression (Table 5).

Sixty-nine percent of sports chiropractors surveyed suggested that it was "very important" to address the psychological aspects of sports injury, and none of the participants suggested that it was "not important". In addition, 69% of respondents rated the importance of a course in sport psychology as "important" or "very important". Participants suggested that the top three most important skills a sports chiropractor could learn were "setting realistic goals", "understanding individual motivation", and "enhancing listening skills of the practitioner" (Table 6).

Table 5.
Psychological techniques used by sports chiropractors when working with injured athletes.

Technique	Mean	SD
Creating variety in rehab exercises	4.56	0.67
Using short-term goals	4.56	0.75
Encouraging effective communication skills	4.35	0.99
Encouraging positive self-talk / self-thoughts	4.25	1.12
Keeping athlete involved with the team	4.23	0.92
Enhancing self-confidence	3.85	1.14
Reducing stress or anxiety	3.40	1.16
Using relaxation techniques	3.00	1.28
Improving social support	2.90	1.26
Using mental rehearsal / visualization	2.79	1.33
Teaching muscular relaxation techniques	2.69	1.31
Teaching emotional control strategies	2.52	1.39
Reducing depression	2.10	1.24
1 = never use; 2 = use 25% of time; 3 = use 50% of time; 4 = use 75% of time; 5 = use 100% of time		

Table 6.
Reported important psychological skills / techniques for sports chiropractors to learn

Skill/Technique	Mean	SD
Setting realistic goals	4.38	0.89
Understanding individual motivation	4.37	0.89
Enhancing listening skills of practitioner	4.27	1.05
Using effective communication	4.19	1.05
Reducing depression	4.13	1.05
Creating variety in rehab exercises	4.13	1.07
Enhancing self-confidence of injured athlete	4.13	1.07
Reducing stress/anxiety	4.10	0.98
Encouraging positive self-talk / self-thoughts	4.06	1.02
Improving social support for the athlete	3.85	1.14
Teaching emotional control strategies	3.62	1.12
Teaching the use of mental imagery	3.60	0.99
Teaching muscular relaxation techniques	3.58	1.13
Teaching concentration skills	3.56	1.13
Note: 1 = not important; 2 = relatively important; 3 = important; 4= fairly important; 5 = very important		

Qualitative results

The qualitative results are presented as descriptions of the main themes and subthemes generated, with supporting quotes and statements that illustrate each theme. Representative quotes can be found in Tables 7 to 15. As a supplement to the qualitative data, numbers of statements related to the main issues are reported. Data saturation was reached at interview twelve, however the research team decided to continue to analyze the final two interviews to verify that data saturation had indeed been reached.

Main Theme 1: Training

Subtheme A: Type of training

Sports chiropractors described both structured and unstructured types of training. The majority of those interviewed (10/14) reported that they received training in sport psychology as part of their sports chiropractic residency program.

Half of the sports chiropractors interviewed (7/14) have attended a continuing education course or conference where sport psychology or mental health training was included. Many practitioners mentioned taking a mental health first aid course. Others described unstructured forms of training, including learning from experience in practice, and self-guided research through resources like books and podcasts. (Table 7).

Subtheme B: Content of training

Sports chiropractors reported a variety of topics that were covered in their sport psychology training. These included: recognition of symptoms/signs of mental health issues, psychology theory, general mental skills, mental skills for rehabilitation, and referral practices. Many of the interviewees reported that they gained a general "entry level knowledge" of sport psychology through their training. (Table 8).

Table 7.
Type of sport psychology training reported by sports chiropractors.

Code	Quote
Formal training in sport psychology	"I do remember that we did have a class in order. We have an academic requirement within the program in order to have to sit the exam, with specific hours that were involved, I think we needed 12 or maybe more than that. And I do remember going through things like visualization and guided imagery recognizing different types of athletes." (P1)
Continuing education courses and conferences	"Most of this would be through continuing education type, not specific courses on sports psychology, but in conferences and listening to speakers on the topic. I think there's a lot of that right now. So I've seen a handful of presentations on that in the last couple of years" (P4)
Unstructured training	"I've read a lot of books by a lot of different psychologists, lots of different approaches. And I think having known any of those things at that time would have been helpful, just to give athletes key points to think about, because sometimes they have access to professional sports psychologists and shockingly enough, some other really high-level people don't or they choose not to." (P11)

Table 8.
Content of sport psychology training reported by sports chiropractors

Code	Quote
Recognition	"It gives you the basic level of training to recognize when there are little things that you can help with that are sort of on the low end of the scale in terms of difficulty when it comes to dealing with the psychological aspects, with the athletes." (P1)
Entry level knowledge	"I do think that we have a good entry level knowledge on the topic, that we can start to address some of these issues with the athletes or patients that we're working with." (P3)
Theory of psychology	"I would say that we talked about more theoretical things than practical application. That's kind of what sticks out in my mind and thinking about general trends and acknowledging it more so than getting into the details." (P4)

Many sports chiropractors felt that the content of their training was lacking in some way. Areas that interviewees felt their training was lacking included: understanding scope of practice, sport psychology for injury rehabilitation, how to refer, and practical application of skills. (Table 9).

Subtheme C: Future training interests

When asked what areas of sport psychology they would like more training in at this point in their career, sports chiropractors had a variety of responses. Many (8/14) wanted additional training in mental skills, techniques and strategies, and in particular, the practical application of those strategies. Other topics of interest for future training included: understanding scope of practice, recognition of signs/symptoms of mental health issues, referral practices, research updates, experiences of athletes and professionals in the field, and more of a sports psychology for rehabilitation focus. (Table 10).

Main theme 2: Delivery

Subtheme D: Provider

Sports chiropractors believed that various professionals had a role to play in providing sport psychology support to an injured athlete (Table 11). Most commonly, they reported that the mental performance consultant (MPC) (11/14) should be providing this type of support, but also there was a role for the SIRP (8/14) to provide this support as well. They reported that other providers for support could be parents, coaches, physicians, and mental

Table 9.
Examples of aspects of sports psychology training that were lacking

Participant	Quote
Participant 3	"I think it gave me the ability to identify things, but not really the strengths to utilize it myself or I wouldn't say that I felt like I had a network afterwards to then refer people to. That was going to be working in that sports realm. I feel like that was lacking."
Participant 11	"I've been a fellow for over 20 years, and I don't specifically recall that we had any module or even discussion about sports psychology during our training. Like zero."

Table 10.
Future sports psychology training interests

Code	Quote
New mental skills and techniques	"I think in the fellowship training program, there should be a module, like when [mental performance consultant] was at our one conference. To have something consistently in there, for example, every injury rehab program, we talk about a technique or we talk about a modality or an approach for the mental side of that. You always have that little extra compliment there. I think it is that important." (P11)
Practical application of skills	"Practical applications and practical tools, case based scenarios, maybe even seeing - I don't love role playing necessarily - but seeing video or some sort of media that was created to show you these scenarios and give you examples would be helpful." (P4)
Referral practices	"I'm always trying to make myself that much more of a resourceful clinician for patients, and I think I really could build that list. Build the list of psychologists that… you need to go see this person if you're a team sport and you see this person if you're an individual sport and this person if you're athletic with, or an athlete with depression or an athlete with anxiety. I just want to know who to refer to." (P10)
Understanding scope of practice	"Knowing the scope of practice of those with a particular accreditation. What does a psychologist do or not do, or someone with a masters in social work. You can have a masters of psych or Ph.D. in psych and then you have a psychiatrist. Just knowing the scope of all of the different professionals that work within the mental health field would be helpful. How can they contribute differently than maybe someone else? And when and who should I refer there?" (P1)

health professionals (such as psychiatrists or psychologists). Many (8/14) indicated that there should be a team approach to providing psychological support to the injured athlete which could include any of the previously mentioned providers.

Subtheme E: Mental skills and strategies used in practice

Various mental skills and strategies are reported to be used in practice by sports chiropractors (Table 12). Most commonly, sports chiropractors used reassurance and education (10/14) with their athletes. Other mental skills and strategies include visualization, imagery, promoting social support, relaxation techniques, thought control strategies, active listening, communication, emotion management, goal-setting, return-to-play planning, and treating the person before the athlete.

Subtheme F: Integration Strategies

When asked how sports psychology can be integrated into

Table 11.
The professional whose role it is to provide psychological support to an injured athlete

Code	Quote
Team approach	"I think there's a collaborative effort. It's nice when the whole team is on the same page, and that means the whole thing, teammates, coaches. It means the practitioners that might be dealing with them, whether that's anyone doing any manual or physical therapy with them, their managing MD, all the way through to their psychological support team." (P1)
MPC / sports psych	"I think when you get to a certain level of sport, everybody needs to have some kind of sports psychology, whether it's goal setting, whether it's for coping with the stresses of losses or poor performances. I just think it's a really important component of sport that can't be ignored and pretending that it doesn't is necessary." (P11)
MPC / sports psych	"As far as the degree of the problem, a more significant, definable psychological issue should be dealt with by a sports psychology level person or someone with a reasonable amount of training." (P4)

Table 12.
Mental skills and strategies used in practice by sports chiropractors

Code	Quote
Reassurance and education	"I think engaging the athlete in their own recovery and in their own plan for recovery I think is really important. So having those skills to guide those conversations, I think is really useful. And explaining things in a way that makes it honest and clear what the expectations are." (P9)
Social support	"Depending on what kind of athlete, I think the athlete needs to make sure that they feel like they're still part of the team, that they're not like on an injured list and forgotten about." (P10)
Visualization	"I would say I do use visualization as well. So, like getting people to try to like, feel what they what they're going to feel in that scenario, think about like what it smells like when they're on the field and what they feel like when they're on the field and try to use some of those cues with people and get them to do that almost like a more of a meditative type approach." (P3)
Goal-setting	"I think goal setting is a big one. A lot of athletes are very goal oriented. So, you know, helping them set short term goals for the rehabilitation and then congratulating them when they get to those points so that they have some positive reassurance and then challenging them with future goals and achievements with respect to the rehabilitation process." (P7)
Emotion management	"The thing that gives them so much pleasure, that gives them their identity has been taken away from them temporarily, hopefully temporarily, and not permanently, to be able to deal with that loss for sure. And then to deal with the loss of the separation from their team or their sport or, you know, whatever is happening in their team or an individual athlete." (P11)
Active listening / communication	"Patients seem to like having the relationship, the conversations with them, the follow up with them. It is the village. You just listen and then you also make sure other people who work with them know your observations. Asking questions of colleagues often to confirm if they are seeing the same thing? They're always hard conversations to start." (P8)

the injury rehabilitation of athletes, sports chiropractors suggested the following strategies: selective integration, MPC fully integrated on support team, introduction at the community level, interprofessional collaboration, inherent within the rehab setting, role modelling of elite level athletes, and sharing of resources. (Table 13).

Main theme 3: Referrals

Subtheme G: Practitioner or resources for referral

Sports chiropractors utilize a variety of resources for referral for sports psychology issues. Most of the time (11/14), sports chiropractors are referring their athletes to mental health professionals (such as psychologists, psychiatrists, social workers, etc.) or mental performance consultants (MPCs). Occasionally, they are also referring their patients to physicians, school counsellors, coaches, or general web resources. (Table 14).

Subtheme H: Outcome of referral

The outcomes of the referral process were typically positive, where sports chiropractors felt that the athlete benefitted from the referral, or that collaboration occurred between practitioners. Occasionally, the outcome of the referral was unknown, as follow up did not occur. There was one instance where there was a negative outcome following referral.

Subtheme I: Barriers to referral

Sports chiropractors acknowledged many different barriers for referral (Table 15). The most common barriers reported by sports chiropractors were financial (10/14) and availability of practitioners for referral (13/14). Other reported barriers for referral included: time, stigma, scope of practice, laziness, athlete readiness/acceptance, and intra- and extra-professional perceptions of sports chiropractors.

Table 13.
Integration of sports psychology into injury rehabilitation of athletes

Code	Quote
Selective integration	"We need to be able to identify, though, when somebody needs some type of support. And we also need to know who to refer that person to because it might not be a regular psychologist. You might need somebody who's going to understand the level or what they're going through and be educated on what they're going through as an athlete, because not everybody can understand that and like why it's so important." (P15)
MPC fully integrated on integrated support team (IST)	"I've done a lot of work with the Olympic [sport] team… when we're actually at the worlds or at the Olympics, we have a morning meeting all the time with the physician, the chiro, the physio, the massage therapist, and sometimes [the mental performance consultant] would be involved. So we could mix up disciplines together for the benefit of the athlete." (P11)
Introduction at the community level	"It also has to come from grassroots level organizations saying, no, we need this, this is important… I think that organizations have to know a mental performance consultant / coach, and you start to get them at a younger age. So that way it becomes mainstream when they're older and they get into these higher levels of competition where these integrated health teams become very paramount to the success of that organization.. I think that has to be done and integrating that element in, similar to what they did with strength conditioning years ago, it wasn't mainstream, but they started to integrate it and showing the value to it." (P2)
Interprofessional collaboration	"I think having an open dialogue with I mean, with patient consent, obviously, with a psychologist, because I think an athlete might open up a little bit more to a psychologist or vice versa. And I would love tips from the psychologist, like make sure that you kind of hammer this home and mention this and stay away from this topic because it's triggering, but reinforce this topic and really have a team approach with the athlete in the center." (P10)
Inherent within rehab setting	"I think you can one hundred percent use it, with while we're having them do the rehab you can add the psychological component while they're doing that just to give more positive reinforcement, but also give them something that maybe they can do outside the clinic or if, let's say they're not ready to get back on their feet, something they can do while they're on crutches still or whatnot or even at practice, we can't physically participate, maybe there are some other type of drills they can do. I think that would be very beneficial." (P14)

Table 14.
Practitioner for referral for sports psychology

Code	Quote
Mental performance coach/ consultant	"Absolutely, and dealing with [major sport league] and a couple of teams that I've consulted with, they all have to see the mental performance specialist. That's what they're labeled as. It takes out some of the stigma and keeps in a realm that they can identify with. I think it's a great thing." (P2)
Sports physician	"My referrals being part of a multidisciplinary setting, a lot of times what I'll do is I'll send it to the sports physician. Right. So that way that direct referral could be made, so if there's an OHIP component to it, then that's an easier bridge to work through." (P2)
Mental performance coach/ consultant	"I think most often it's to a [mental performance consultant]. A lot of the work I do is quite often readily accessible. Our varsity team at [university], we send a bunch of people in there. Generally I'm finding the people on the spectrum that are having a difficult time with an injury, but we can actually see early signs of anxiety, depression, fear, avoidance or PTSD regarding injury. And like when I tend to find, like things are more severe, it's constantly on their mind, it's affecting their rehab, affecting their performance, those people we try really quickly, we try to get them out." (P6)

Table 15.
Barriers to referral

Code	Quote
Lack of network	"I don't have a network, so I don't know people I guess in my area. I find it really difficult to refer to people I don't personally know or don't have experience with." (P15)
Sport-specific expertise lacking	"These athletes in this day and age now know if it's going to resonate with them or if this is just generic. Athletes today are so highly specialized that referrals and the people that are working with them also have to be as specialized because they see that." (P2)
Financial	"The other problem, too, is always with the cost associated with it. In an ideal world, if you had people looking after their nutrition, you have the chiro and the physio that was looking after manual stuff, massage therapists, the psychological services, the naturopath, everyone. That could be helpful. But sometimes it does come down to cost. And so people will pick and choose what is maybe the best fit for them." (P1)
Scope of practice	"The uncertainty for me lies around the various types of mental health professionals. It's like choosing chiro, physio, athletic therapy when our patients say, well, do I physio or do I need chiro. So for me, how do I know, do I need a sports psychologist, a psychiatrist, a mental performance coach, a lifestyle coach? There are so many names now, just like in nutrition, like holistic nutritionist, dietitian, all these things. So not understanding the various qualifications and levels and sort of validity of each of these professions is a big concern for me, because I want to know that it's not, just it's above and beyond what I'm doing for them as someone who's just their advocate and someone they trust because they've been seeing me for a long time. What are these people saying and bringing from the practical side? So I want to know what they're doing and who they are basically to be succinct." (P4)
Perception of sports chiro	"I think that the psychology world also has to understand our competency with being able to identify athletes that have some profile, psychological profile that would warrant a referral, that our referral is actually respected and taken into consideration." (P2)

Discussion

The purpose of this study was to identify the attitudes, beliefs, and practical application of sport psychology interventions by Canada-based sports chiropractors in sports injury rehabilitation. Previous literature has explored this topic in athletic therapists and physiotherapists based in the United Kingdom and United States.[11–15,22,28–30,37,44–50] However to our knowledge, there have been no studies in Canadian sports chiropractors.

The literature has reported that SIRPs perceive that the psychological aspect of injury recovery is important and believe they have a role to play in addressing this aspect of recovery.[15,50] Forty seven percent (47%) of SIRPs surveyed by Larson and colleagues[15] and 62% of sports chiropractors surveyed in this study believed that every injured athlete suffers some sort of psychological issue related to their injury. The sports chiropractors in this study suggested that stress/anxiety was the most common psychological reaction to sports injury, along with exercise addiction, fear avoidance, depression, and treatment compliance problems. These findings are in line with the psychological issues reported by SIRPs in previous literature.[13,22,28,37,48]

Training / Education

Sports chiropractors in the present study seem to value sports psychology education, with more than two-thirds of sports chiropractors surveyed indicating that a course in sport psychology was "important" or "very important". While many of the interviewees who reported that their sport psychology training and education was part of their sports chiropractic graduate program, approximately half of the interview participants took a continuing education course that included sports psychology in some part. This may be due to the value they place on learning more about this topic. Among the interviewees having at least some exposure to sport psychology during their training, the overwhelming consensus was that their training was very basic in nature. General topics included recognition of signs/symptoms of mental health issues, psychology theory, and mental skills in general.

They felt that they lacked training in the practical application of skills. This finding aligns with previous literature where SIRPs indicated they were not receiving training in sport psychology theories and interventions, which resulted in a lack of confidence in implementing skills/techniques in practice.[48,49,51] Another common topic reported to be lacking in training of sports chiropractors was around referrals, including how, when, and who to refer to.[15,28,29,37,45,48,49]

Several studies noted that SIRPs expressed a desire to obtain more information about the psychology of injury and also a preference to learn about and apply mental skills to facilitate successful rehabilitation.[22] In other words, they wanted more education on both the theory and practical application of sport psychology specific to the sports injury rehabilitation process. While SIRPs recognize that additional knowledge is important, they also recognize that they currently lack the skills and/or competency to utilize these strategies with their clients.[22,46,50] Similarly, many of the sports chiropractors in the present study felt that their sports psychology training covered elements of performance psychology, however lacked a focus in sports psychology for injury rehabilitation, which is an important part of a holistic understanding of the recovery process.

Delivery / Practical application

The sports chiropractors surveyed in this study believed it was part of their role as practitioners to have the knowledge and skillset to address certain psychological aspects of rehab, with 69% of survey respondents acknowledging that it is "very important" to address the psychological aspects of sports injury. Many of these skills are woven organically into the clinical encounter and therapeutic alliance. Specifically, the most common skills identified as being important included setting realistic goals, understanding individual motivation, enhancing listening skills of the practitioner, creating variety in rehabilitation, and using effective communication.

Given that stress/anxiety and fear avoidance were two of the higher ranked psychological issues that SIRPs reported that their injured athletes experience, more advanced psychological techniques (such as using relaxation techniques, improving social support, using mental rehearsal/visualization, teaching emotional control strategies, etc.) were ranked lower as part of the sports chiropractors skillset, despite being recognized as beneficial by sports psychologists.[8] Previous research has suggested that this may be due to a lack of training in the practical application of these techniques, a lack of knowledge of these techniques to reduce stress/anxiety, or a belief that

it is not the role of the SIRP to implement such techniques.[29,37] This notion was supported by interviewees who reported that they felt competent in actively listening, and providing reassurance to injured athletes, but felt ill-equipped to provide further psychological support.

The sports chiropractors in this study identified several behaviours and characteristics displayed by their athletes who cope successfully and unsuccessfully with their injury. While it can be presumed that interventions designed to increase successful coping behaviours or decrease unsuccessful coping behaviours may be beneficial, no cause-and-effect relationship between coping and behaviour has been established.[37] The two characteristics that were identified as being associated with successful coping were "positive attitude" and "compliance / commitment", and the two characteristics that were identified as being associated with unsuccessful coping were "stress/anxiety" and "fear/fear avoidance". Interestingly, three previous studies in the literature by Heaney[37], Hemmings[28], and Larson15 each had "focus/concentration" and "poor focus/concentration" highly ranked on both lists, whereas participants in the present study did not identify those characteristics at all.

Some researchers identified that SIRPs do, in fact, feel underprepared to deal with issues related to motivation, counselling and social support, mental skills training, and psychosocial referral.[49] Gordon *et al*.[45] found that 84% of sports medicine professionals do not perceive themselves as competent in the use of sport psychology techniques.[45] Reasons for the lack of utilization of psychological strategies by SIRPs in the rehabilitation process may include: (a) SIRPs lack the confidence, knowledge, and/or training in integrating certain psychological techniques[15,38,48,50]; (b) SIRPs learn through experience and therefore favour more practical techniques[38]; (c) there is a lack of time in clinical practice already[15]; (d) the delivery of sport psychology techniques is beyond the role of the SIRP and may be better provided by a different professional[38,48]; (e) SIRPs are unfamiliar with the referral process or lack a network for referral[15]; and, (f) SIRPs believe that treating the physical complaint will result in a reduction of psychological symptoms[15]. Most of these sentiments were captured within the interviews of the present study. In general, it seems that sports chiropractors feel they have the knowledge, confidence, and skillset to implement basic psychological interventions such as goal-setting, self-talk, and imagery[22], but are less familiar with more advanced psychological skills that are better implemented by a specialized practitioner, such as a mental performance / sport psychology consultant[52]. Therefore, SIRPs must be competent in adequate referral practices, including who, when, and how to refer.

Referrals

Some concerns that athletes present with are beyond the scope of education and scope of practice of the SIRP. It is not always feasible or appropriate for SIRPs to be delivering these types of psychological interventions, and in these cases, a referral to an appropriately qualified healthcare professional is warranted.[29] Because of their proximity to, and frequency with which they attend to injured athletes, SIRPs may act as gatekeepers for athletes to access additional sports psychology services.[11] Therefore, they must have the knowledge to recognize a wide range of psychological reactions after injury, and have the skillset to intervene and refer when necessary.[11,16,22,34] This could be a number of concerns, including clinical mental health issues, performance-related psychological issues, and/or psychological intervention that is beyond what the SIRP is able to address. While clinical mental health issues are best addressed by a mental health professional such as a psychologist or psychiatrist, sports psychology consultants (SPCs), also known as mental performance consultants (MPCs), play an important role in assisting athletes in building psychological skills for rehabilitation or performance.[11]

In this study, 75% of sports chiropractors reported that they had referred an injured athlete to counseling for situations related to their injuries. This number was high in comparison to previous literature which reported referral rates between 9-54%.[15,28,37] Heaney[37] proposed that a higher rate of referral may suggest a greater appreciation for a sport psychology professional in providing support to an injured athlete, and/or a higher degree of access to sport psychology support. This may be related to the emergence of greater awareness of sports psychology in the past several years or the higher level of athletes that sports chiropractors are treating. Previous literature has suggested that a sports psychology professional is an integral member of a professional or elite sport medicine team, but is not as important at the lower levels.[53] In the present study, 56% of sports chiropractors work with

either a professional team or national sport organization, which may explain a greater access to sports psychology professionals for referrals. Interestingly, the semi-structured interviews revealed that many sports chiropractors lacked access to a sports psychology professional, however this may be more related to their work within the community, and less related to their work at the elite level. The interviews revealed several barriers that prevented sports chiropractors from referring their injured athletes to sports psychology professionals for sports injury rehabilitation. As previously mentioned, the availability of practitioners for referral was most cited. This may include lack of a referral network of sport psychology professionals, but also lack of sport-specific expertise within available mental health professionals. Previous studies have reported that only 10-25% of SIRPs who responded to surveys have access to a sport psychology consultant[12,15,28], whereas 27-46% of SIRPs surveyed in other studies actually referred athletes for sports psychology services[13,48]. Stigma attached to seeking sport psychology support was also considered a barrier, which aligns with previous literature.[37]

The literature supports the notion that SIRPs are able to recognize the signs and symptoms of a deeper psychological issue that warrants referral (i.e. when to refer), however they were uncomfortable in approaching the athlete to address their concerns and didn't know how to actually make the referral (i.e. how to refer).[12,44,49] Sports chiropractors in the present study reported similar concerns in lacking the ability to make an appropriate referral and expressed a desire for more training in this area. Other barriers to referral reported by sports chiropractors included cost of mental health services, athlete readiness/acceptance, and intra- and extra-professional perceptions of sports chiropractors.

Improved interaction and collaboration between SIRPs and sports psychology professionals is necessary in order to establish role clarity for psychological rehabilitation, clear boundaries of competence, and appropriate referral pathways to ensure a holistic approach to rehabilitation.[12,15,28,54,55] A number of strategies for fostering referral relationships have been suggested in the literature, including establishing written guidelines to standardize the referral process[54], informal meetings to develop open communication and share respective experiences[11], presentations from both SPC/MPCs and SIRPs to highlight their services, and specific training modules to equip SIRPs with strategies to utilize in clinical practice[11]. Future sports psychology education and training for sports chiropractors may include some of these strategies.

Limitations

The limitations of the current study include the possibility of selection bias. Participants self-selected to complete both the questionnaire and the semi-structured interviews. This could sway the sample toward individuals with interest in the subject matter, which may or may not exaggerate study findings. The lack of psychometric evaluation of the survey utilized in this study is a limitation. While the survey has been used in previous studies in similar populations, it has not undergone any reliability or validation testing which may introduce bias through measurement error. With respect to open-ended questions within the questionnaire, there may be some bias in interpretation when characterizing the responses. Another limitation of the present study is the distribution of geographical location of participants. Most participants are located in Ontario which may bias responses to practitioners working in this region.

Limitations of qualitative research in general may apply to this study. Schonfeld and Mazzola describe five potential limitations of qualitative research.[56] First, participants may change in the presence of an observer. The nature of their responses may change based on if they feel judgment, disrespect, or that their responses are not confidential. Second, there is a potential for the researchers to over-identify with study participants, which may affect the interpretation of the findings. In this study, the investigators know most of the study participants, given their inclusion in the same sports chiropractic organization. The participants may have also had previous knowledge of the interviewer which could affect their responses. Third, preconceived ideas from research or experience may influence the data naturally emerging from qualitative interpretation. Fourth, it is extremely difficult to draw causal inferences from qualitative data. This limitation is less prevalent in mixed-methods studies, given the corroboration that occurs with the quantitative data. Fifth, there is no statistical power analysis, such as in quantitative analysis, to determine when there is a sufficiently large and diverse sample. It is up to the interpretation of the researchers to determine if and when theoretical saturation has been reached.[56]

Future directions

The previous literature, as well as the findings of this study, have outlined the importance of sport psychology interventions in the sport injury rehabilitation process, as well as the attitudes and desires of SIRPs to have more knowledge and skills in delivering these interventions. There is a need for education for SIRPs to ensure that they have the knowledge, confidence, skills and competence to implement such interventions during the rehabilitation process.[46,54]

The limited body of evidence on specific sport psychology education interventions for SIRPs, and the questionable effectiveness of SIRPs sport psychology education, rationalizes a need for future research in this area. To our knowledge, there is no empirical data on sports psychology education interventions in sports chiropractors in Canada, despite a course requirement in the current graduate specialty program. Future studies could explore specific content to be included in a course curriculum, the method of delivery that is conducive to the learning style and time commitments of sports chiropractors in general, and how to measure the effectiveness of such a program to produce competency in this area.

Future collaborations or partnerships with stakeholder organizations including governing bodies of SIRPs, such as the RCCSS(C), with the Canadian Sport Psychology Association (CSPA), the governing body for mental performance consultants in Canada, may aid in the development of a network of professionals for sports chiropractors for the purposes of referral or consultation for sport psychology services. It may also be an opportunity to implement some of the collaboration strategies for the benefit of Canadian athletes.

Conclusion

Psychological responses are inextricably linked to physiological responses following an injury, and thus, psychological interventions should be considered as part of a comprehensive rehabilitation program. Sport injury rehabilitation professionals such as sport chiropractors are well-positioned to address and implement psychological strategies within rehabilitation and acknowledge the importance of doing so. However, they report that they require additional training in sport psychology theory and practical application beyond the basic educational curriculum. Few sport psychology education programs have been implemented and empirically evaluated with SIRP populations. Further research is warranted to establish an effective program design, and delivery method for a sport psychology education intervention for SIRPs.

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Appendix 1.
Semi-Structured Interview Guide (Adapted from Heaney, 2006)

Pre-interview script:
We will now be initiating the semi-structured interviews. Your identity will not be disclosed at any point during the interview. Please answer to the best of your ability and knowledge. You can choose not to answer any question by saying "Choose not to answer" and you can opt to end the interview at any point. Do I have your consent to proceed?

The audio component of this interview will be recorded on an external audio recorder for the purposes of transcribing and later analyzing the data. Do I have your consent to record the audio of this interview?

1. TRAINING

(a) During your training to become a sports specialist chiropractor, did you receive any training on the psychological aspects of sports injury? (YES/NO + Comments) [If no go to question (e)]
(b) If yes, approximately how many course hours did this cover?
(c) Do you feel that this was enough? (YES/NO + Comments)
(d) What areas did you cover?
(e) If no, do you think it would have been beneficial to you to have covered this as part of your training? Why/Why not?
(f) Have you ever attended any training courses on the psychological aspects of sports injury? (YES/NO + Comments)
(g) Are there any areas of the psychological aspects of injury that you would like to receive training on at this stage of your career?

2. SPORT PSYCHOLOGY SUPPORT

(h) Have you ever referred an athlete to a mental performance consultant / sports psychologist or other mental health professional? (YES/NO)[If no go to question (m)]
(i) If yes, what professional did you refer to?
(j) If yes, why did you refer the athlete?
(k) Did you feel that the athlete benefitted from seeing this professional?
(l) How did you contact/find this mental performance consultant / sports psychologist?
(m) Would you consider referring any future players to a mental performance consultant / sports psychologist? Why/Why not?
(n) What barriers might prevent you from referring an athlete to a mental performance consultant / sports psychologist?

3. SPORT PSYCHOLOGY DELIVERY

(o) Whose role do you believe it to be to provide psychological support to an Injured or rehabilitating athlete?
(p) Do you believe that a mental performance consultant / sports psychologist should be a standard integral member of the rehabilitation team? Why/Why not?
(q) How do you believe sports psychology can be successfully integrated into the injury rehabilitation of athletes?

4. ANY ADDITIONAL COMMENTS