

# A Qualitative Exploration of Collegiate Student-Athlete’s Constructions of Health

Bradley Crocker and Lindsay R. Duncan  
McGill University

Collegiate student-athletes are faced with unique challenges as they are often forced to negotiate between demanding social, athletic, and academic roles. These competing priorities put student-athletes at greater risk for experiencing physical and psychological health problems than their non-athlete peers. To better understand the behaviors and lifestyle factors leading to these negative outcomes, we must consider how they think about health. The purpose of this study was to examine how student-athletes in the Canadian context conceptualize health, and to examine how they formulate these understandings. Semi-structured interviews were conducted with 20 actively-competing student-athletes from nine varsity sports at two academic institutions, and data were analyzed using interpretative phenomenological analysis. Participants constructed health holistically, with particular emphasis on physical and mental domains over social well-being. The quality of one’s physical health was equated in many ways with athletic capacity, as was the quality of mental health to a lesser degree. Participants discussed many sources from which they drew health ideas, but sport experiences were cited as particularly significant and formative. Findings can inform future research into conceptualizations of health among other university student populations, and further inquiry into how health ideas manifest into behavior. Recommendations are provided for collegiate sport administrators including placing emphasis on mental health resources, and improving support while athletes acclimate to the demanding lifestyle of varsity sport.

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Health is a complex concept that can mean many different things to different people, resulting in ideas and perspectives that are infinitely varied, deeply personal, elaborate, and intricate (Crawford, 2006; Davis & Drew, 1999). The World Health Organization defines health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (World Health Organization, 1948, p. 1). In the past few decades, scholars in the fields of health psychology, sociology, and behavioral medicine have become increasingly focused on everyday people’s perspectives of health and illness (Backett, Davison, & Mullen, 1994; Herzlich & Pierret, 1985; Prior, 2003). Interactions with medical professionals and formal health education represent a significant portion of discourse informing these perspectives (Mackie & Oickle, 1997). There are also many social, cultural,



and lifestyle influences that can shape an individual's beliefs about health (Backett et al., 1994). To examine these influences, scholars have studied health discourse through the lens of social constructionism, which recognizes that conceptions of terms such as 'health' are constantly transformed through shifting social forces and conventions (Hibberd, 2005).

Conceptualizations of health, including individuals' perceptions of the promoters and detractors of health, undoubtedly influence health-related behaviors such as diet, exercise, and drug use (Lyons & Chamberlain, 2006). For example, Wright, O'Flynn, and Macdonald (2006) found that among young people, women discuss health with greater emphasis on body weight and shape whereas men put greater emphasis on utility for sport or exercise. These health discourses act as "powerful organizers of the ways (people) make choices about food and activity" (Wright et al., 2006, p. 714).

Collegiate student-athletes are a unique population in which to study how individuals' social, cultural, and lifestyle influences can inform the way they conceptualize health. The transition period from high school to university can be complex and challenging, as individuals are forced to quickly adjust to rigorous academic, social, and personal demands that are often quite disparate from their past experiences (Sevinc & Gizir, 2014). In the same setting, student-athletes are faced with the additional challenge of managing a demanding athletic role (Miller & Kerr, 2002; Jolly, 2007). As an illustration of this demand, in a survey of 921 NCAA Division I student-athletes, 82% reported spending more than 10 hours per week practicing their sport, and 40% reported spending an additional 10 hours per week playing their sport, all while maintaining their full-time academic studies (Potuto & O'Hanlon, 2007). Miller and Kerr (2002) found that Canadian student-athletes reported similar time commitments to sport as their NCAA counterparts, despite receiving significantly less media promotion and financial incentive. Athletic scholarships were not permitted in Canada's U-Sport system until 2006, and unlike the American NCAA system are limited to the value of annual tuition fees (White, McTeer, & Curtis, 2013). Despite this limit on financial compensation, first-year Canadian varsity football players have reported an expectation by coaches to invest up to 40 hours each week into their sport while maintaining a full-time course load to remain eligible to compete (Rothschild-Checroune, Gravelle, Dawson, & Karlis, 2012).

In the absence of a scholarship incentive, one contributor to Canadian student-athletes engaging in varsity sport may be the commonly-held belief that sport participation is a means of improving health. Parents frequently cite health and well-being as an anticipated benefit of their children's' sport participation (Neely & Holt, 2014), and sport promotion is justified by many governing health institutions as a means of reducing physical inactivity and thus inactivity-related illnesses (Eime et al., 2015). However, scholars have called into question the accepted positive relationship of sport and good health across many aspects of well-being (Robertson, 2003; Waddington, 2004; Young, McTeer, & White, 1997). Athletes often demonstrate a willingness to play through pain and injury, and this 'culture of risk' has been discussed as problematic in the context of sport and general athlete well-being (Cur-

ry, 1993; Hughes & Coakley, 1991; Theberge, 2008). The unquestioned equating of healthiness with an athletic body image, or with athletic capacity, can manifest into overtraining and body dysmorphic disorders, in addition to harmful normalization of pain and injury (Bridel, 2013). The pursuit of elite performance in sport has also been connected to particular risks of poor mental health (Rice et al., 2016) and family health (Bean, Fortier, Post, & Chima, 2014).

In the context of university sport, the competing academic, athletic, and social priorities faced by student-athletes can place them at greater risk for experiencing physical and psychological health problems than their non-athlete peers (Etzel, 2006; Nattiv, Puffer & Green, 1997). These problems include excessive alcohol consumption (Barry, Howell, Riplinger, & Piazza-Gardner, 2015; Grossbard et al., 2009; Martens, Dams-O'Connor, & Beck, 2006), disordered eating (Greenleaf, Petrie, Carter & Reel, 2009; Sundgot-Borgen & Torstveit, 2004), hazing (Diamond, Callahan, Chain & Solomon, 2016), doping (Bents, Tokish, & Goldberg, 2004), and committing sexual violence (McCray, 2015). Mounting evidence has also demonstrated that student-athletes are at particular risk for consequences such as burnout (Dubuc-Charbonneau, Durand-Bush, & Forneris, 2014), depression (Weigand, Cohen, & Merenstein, 2013; Yang et al., 2007), poor academic performance (Levine, Etchison, & Oppenheimer, 2014; Riciputi & Erdal, 2017), and poor sleep quality (Mah, Kerizirian, Marcello, & Dement, 2018). It has also been noted that, despite exhibiting significant psychological distress (Blacker, Sullivan, & Cairney, 2017), student-athletes seek professional support less often than their non-athlete peers (Watson, 2005).

Although this considerable body of literature exists critiquing the relationship between sport and health, research specifically investigating athletes' constructions of health remains scarce. In an investigation of elite athletes' perceptions of the relationship between health and sport participation, Theberge (2008) found that they often construct health in accordance with their immediate competitive careers, discussing their bodies in similar fashion to a piece of equipment. Bridel (2013) extended this work to recreational athletes involved in Ironman triathlons, finding similar constructions in a less competitive sporting environment. Bridel found these recreational athletes commonly referenced one's ability to be physically active as a measuring stick for health, reflecting their ability to finish an Ironman as indicative of being 'healthier' than those who could not. Taken together, Theberge and Bridel's research demonstrate that athlete identity plays a major role in shaping constructions of health.

Although there exists a large body of research examining student-athlete experiences, such as their academic attitudes (Eitzen, 1987; Martin, Harrison, Stone, & Lawrence, 2010) and their social life (Chen, Snyder & Magner, 2010), very little research has specifically addressed how student-athletes define and conceptualize health. In their college years, students see substantial change in their health-related beliefs and behaviours (Haas, Baber, Byrom, Meade, & Nouri-Aria, 2018), and it has been suggested that this transitional period of being responsible for one's own

health may have critical long-term health implications (Jackson & Weinstein, 1997; Nelson, Story, Larson, Neumark-Sztainer, & Lytle, 2008).

In summary, conceptions of health may differ vastly based on social, cultural, and lifestyle factors. Within specific social groups, such as a sports team, there is constant diffusing of health information (and misinformation), along with normative pressure to engage in certain health-promoting or health-degrading behaviors. This normative pressure continually shifts individuals' perceptions and biases toward health information (Institute of Medicine, 2004). Individuals who strongly self-identify with the social group in question, such as athletes who strongly identify with their athletic role, may be particularly susceptible to these influences (Hinkle, Smith, & Stellino, 2007). For example, if sport performance is considered a primary metric of one's health, this may influence one's opinion of the healthiness of performance-enhancing substances. The aim of this research is to explore Canadian university student-athletes' perceptions of health and how they develop to these perceptions. As such, the research questions guiding this study were:

RQ<sub>1</sub>: In the context of Canadian university sport, how do student-athletes conceptualize health?

RQ<sub>2</sub>: In the context of Canadian university sport, how do student-athletes define a healthy state of being?

RQ<sub>3</sub>: From where do student-athletes draw their ideas about health?

## Methods

### Paradigm

The research questions presented above are situated within, and best inquired into, using a constructivist paradigmatic lens. Constructivism represents the view that knowledge is contingent on human practices and is developed and transmitted within social contexts (Crotty, 1998). This paradigm fits the aims of this research well, as it has been identified that health-related beliefs and behaviors are largely socially constructed (Courtenay, 2000; Sharf & Vanderford, 2008) and can differ considerably between demographic groups (Wright et al., 2006). By investigating Canadian student-athlete constructions of health, we hope to better understand common shared experiences that influence their ideas of health in specific ways.

### Participants

To be eligible for this study, participants were required to 1) speak English, 2) be at least 18 years of age, 3) be actively competing as student-athletes in any sport at a Canadian university, 4) have already completed at least one full season as a university student-athlete, and 5) have lived away from their parents or guardians for at least the two most recent academic terms.

Sixteen participants were recruited through varsity-specific social media groups at two Canadian universities. Snowball sampling took place after this, where the remaining four participants were contacted by the initial participants. Of those who

expressed interest in the study, participants were purposively selected to ensure a diversity of sport backgrounds and an equal amount of male and female participants. Participants were also prioritized from sports that are typically more time-demanding and travel intensive, as the busy schedule resulting from this may have amplified their need to modify health behaviors. For example, athletes from sports with full-time training and competition for the majority of the Fall and Winter academic terms, such as competitive swimming, were sought more so than those finishing competition in the Fall, such as baseball. Participants were continually recruited until data saturation was reached, which was deemed to be true for this sample representing a broad variety of varsity sports, at 20 participants.

### **Procedure**

Data for this study were collected using semi-structured, one-on-one, face-to-face, audio-recorded interviews lasting between 42 and 75 minutes, with an average length of 62 minutes. All interviews were conducted in private rooms at the participants' institution. The interview guide started with broad conversation concerning participants' history in sport and experience as a student-athlete, before progressing to discussion around their ideas of health. Each participant was asked "How would you define being healthy?", and then a series of questions specific to the three domains of health present in the World Health Organization's definition (physical, mental, and social well-being). Recognizing health as a social construct, participants were also asked how they came to their understanding of health, and what they perceived as having the largest influence on their ideas. As each interview drew to a close, participants were prompted to contribute any remaining ideas or experiences they felt were relevant.

### **Data Analysis**

Interpretive phenomenological analysis (IPA) synthesizes concepts of phenomenology and hermeneutics to form a methodology intended to be both descriptive and interpretative (Smith, Flowers, & Larkin, 2009). Phenomenology involves suspending assumptions, and searching for fundamental meanings that are essential to understanding a phenomenon (Sparkes & Smith, 2014). Hermeneutics concerns the theory of interpreting meaning from text, which involves comprehending a person's mindset and language in order to translate their experiences (Freeman, 2008). In combination, it becomes the researcher's responsibility to represent the data in a meaningful way, while also providing accurate and useful interpretation of those data to ultimately convince the reader of its significance (Smith et al., 2009). IPA also emphasizes studying phenomena with respect to social and historical contingencies (Eatough & Smith, 2017), making it ideal for studying socially-constructed phenomena such as one's ideas about health.

Interviews were transcribed verbatim and de-identified by the primary investigator (PI). Smith, Flower, and Larkin's (2009) framework for IPA was then used. All transcripts were initially read once by the PI to familiarize themselves with the full data set, followed by three subsequent readings where NVivo 12 software was

used to form notes to summarize participant experiences, and codes to highlight key points, notable language, and to form connections between transcripts. At this point, a critical friend (Sparkes & Smith, 2014, p. 182) with a background in varsity sport, and otherwise uninvolved with the study, read the marked transcripts and met with the PI to provide a competing perspective on data interpretation. Once this process was complete for all transcripts, a fifth and final reading of each transcript was completed by the PI where prevalent themes were noted, supported by previous markings and transcript excerpts. Prevalent themes from all transcripts were then listed and organized, with some being clustered based on shared meaning or references. Clusters were given labels meant to represent the essence of all themes within them, and all clusters and themes were cross-checked with original transcripts to locate specific excerpts lending to their credibility. During this process, some less prevalent themes that didn't fit well within the emerging structure of the analysis, or that weren't supported by rich evidence within the transcripts were discarded. The list of prevalent themes was then assessed by the critical friend who again provided a competing perspective on selected themes.

In line with the traditions of IPA, the general format of the results section for this study will be to introduce key themes, supplement these themes with excerpts direct from transcripts, and provide insightful interpretation. It should be noted that the overall categories of physical health, mental health, and social well-being are all components of the World Health Organization definition of health (World Health Organization, 1946) that informed our design of the interview guide, and as such it is unsurprising that many key themes fit within these dimensions.

## Results

The participants for this study were 20 collegiate student-athletes (age range, 18 to 26 years; mean = 20.2 ± 1.1 years) from two Canadian universities. The athletes were 10 men (50%) and 10 women (50%) representing volleyball ( $n = 2$ ), swimming ( $n = 5$ ), soccer ( $n = 2$ ), rugby ( $n = 1$ ), hockey ( $n = 3$ ), baseball ( $n = 1$ ), football ( $n = 2$ ), track & field ( $n = 3$ ), and artistic swimming ( $n = 1$ ). The athletes' present year of varsity eligibility ranged from 2<sup>nd</sup> to 5<sup>th</sup> year, with 3 athletes in their 2<sup>nd</sup> year, 7 in their 3<sup>rd</sup> year, 6 in their 4<sup>th</sup> year, and 4 in their 5<sup>th</sup> year of varsity sport. The athletes represented four faculties of study, including arts ( $n = 9$ ), science ( $n = 7$ ), business ( $n = 2$ ), and engineering ( $n = 2$ ). Eighteen of the athletes were in undergraduate programs (90%), and the remaining two were in the first year of Master's programs (10%). Participants were not asked to identify their race or ethnicity for this study, though from appearances the majority were white.

### Holistic Definitions of Health

When asked to define 'being healthy', participants responded with conceptions of health ranging from relatively simplistic definitions of health as strictly physical, to holistic definitions of health touching on all three constructs present in the World Health Organization's definition of health: Physical, mental, and social well-being

(World Health Organization, 1946). The vast majority of participants identified physical and mental well-being in their definitions of health, placing these at the forefront of ‘being healthy.’ Conversely, social well-being was initially recognized by only three participants, though all participants recognized that relationships could be beneficial to health once prompted.

Being healthy can be looked at as mentally healthy and physically healthy. Mentally healthy in my opinion is having purpose every single day, having a goal that you’re going for no matter how you feel. If you feel down sometimes, you know how to pick yourself up, and not to drown in it. For physically healthy, just taking care of your body as an athlete so you’re not injury-prone. Eating well so you’re both lean, still strong, and to make sure you don’t have any toxins going into your body, you’re nourished, no problems or risks of anything, so you can do what you need to do.

Christine, Swimming, 5<sup>th</sup> year

In recognizing health as multifaceted, many participants further expressed that ‘being healthy’ necessitated a good state of being in all dimensions of health, and that being exceptionally healthy in one aspect could not compensate for poor health in another.

I think being healthy is about having balance with everything. I think it’s really important to not be stuck in just one facet of your life. It’s the same thing with food right, if you just have steak everyday you’re not healthy. You need a variety of things to keep you going. A balance between athletic life, academic life, social life. You can get stuck in focusing on just one of those things at times, and that’s not healthy.

George, Track & Field, 4<sup>th</sup> year

Following from this construct of health, the majority of participants generally recognized themselves as exceptionally healthy only if they were succeeding in both their athletic and academic roles. The following excerpt came in response to the question “To what extent are student-athletes healthy?”.

I think most of our lives are very healthy just based on the amount of stuff we have going on in our lives. The balance plays into every day as a student-athlete. In order to succeed you have to take care of everything in your life, and I don’t think the majority of other people could handle that. We do handle it, and I think we drive each other to be healthier by being successful in balancing everything.

Timothy, Swimming, 4<sup>th</sup> year

It is worth noting that some participants questioned this belief as well, recognizing that despite succeeding to some degree in athletic and academic roles, student-athletes could still be unhealthy.

I know some varsity athletes that are very healthy, and I also know some varsity athletes that are not healthy. I know some of them, when they're going out with friends they will do drugs recreationally, they'll smoke, they won't exercise a whole lot. I don't know how those guys are able to play, like how they do cardio for a whole game. So there are definitely athletes that are not healthy, but then there are athletes going to the gym every day, they're huge, they probably eat well too. I'd say for the most part they are healthy, but there are definitely athletes where like, I don't even know how they make it as athletes with their lifestyles honestly.

Oscar, Baseball, 4<sup>th</sup> year

When asked to describe unhealthy behaviors, participants generally listed behaviors destructive to bodily health, such as excessive alcohol consumption, physical inactivity, an unhealthy diet, and smoking. Some participants also touched on things they perceived to either lead to negative mental health outcomes, or to be the result of poor mental health, such as laziness and oversleeping.

I guess smoke, drink, eat garbage. Fast food and stuff, which is fine, you can eat fast food like once or twice a week, it's totally fine, but not every day. One of my roommates, he eats at a restaurant at least once every day. He's not healthy. Not doing sports, obviously. Sports are very important, lucky me. And that's it, smoke, drink, eat fast food.

Ryan, Football, 4<sup>th</sup> year

Binge-drinking is unhealthy, don't binge-drink too much. Oversleeping I think is bad too, if you sleep too much and stay inside all day that's bad for mental health. Not working out. I think those are the big ones.

Ian, Rugby, 3<sup>rd</sup> year

Participants recognized that nearly every aspect of their lives involves decisions with 'healthy' or 'unhealthy' consequences, referring primarily to their bodily health or mental health. Participants frequently extended discussion of these consequences by stating the impact they may have on athletic or academic success, constructing these as a perceived measuring stick for holistic health.

### **Physical Health**

Three dominant themes were identified in participants' conceptions of physical health: having an acute awareness of your body, fulfilling your body's needs, and functional capacity, meaning one's ability to perform physical tasks.

Physically, it's about listening to your body. If something's not feeling right, you should take care of that. Eating properly, that's something I've always struggled with. Basically giving your body what it needs to do your daily activities.

Claire, Soccer, 4<sup>th</sup> year

For physical, it's all about ability. If you can move around, and lift stuff, and not be tired all of the time, then you're physically healthy. The degree of that I don't know, like I don't know how strong you need to be, or how good your cardio needs to be to be fit, but the more of that you have the more healthy you are. Obviously as an athlete we need a lot of that, so to be healthy like we need to be able to lift a lot and run a lot.

Ryan, Football, 4<sup>th</sup> year

Conceiving of health as functional capacity extended to many participants gauging their own physical health in accordance with their capacity to perform in sport at any given time.

I think I assess and realize how healthy I am more because I practice every day. If I have a good practice I feel great, I feel energized, I feel focused, and that really reflects how healthy I am in pretty much every aspect. The next day, I might go through my whole day thinking I feel great, then at practice I'll feel exhausted and I can't focus, and that's when I know that I'm pretty unhealthy then. So it's about finding a way to make that great feeling in practice sustainable over multiple practices and games and things, and I think that's what health really is.

Rebecca, Volleyball, 5<sup>th</sup> year

My sport is where I end up noticing my health the most. In the off-season, I can eat whatever I want. I won't look great, I won't feel my best, but I'm not going to see that until I jump in the pool and try to swim a few kilometers, and realize that I don't feel like a swimmer anymore, I feel like a gigantic lump. Or I'll get a stomach ache after a few laps. That's when you really see it the most.

Natasha, Artistic Swimming, 3<sup>rd</sup> year

Other participants expressed that their experiences in sport generally led to different standards of acceptable physical health, again typically defined in terms of functional capacity.

When I wasn't an athlete, I felt that if I walked ten thousand steps in a day, that's healthy. Now, I think ten thousand steps is like nothing, I could get that done in like two hours, that wouldn't make me healthy. Am I injured? No. So if I'm not injured, good I'm healthy. Am I foam-rolling all of the time? Am I able to lift weights without being in pain? Good, then I'm healthy.

Danielle, Track & Field, 3<sup>rd</sup> year

Participants' made frequent reference to athletic experiences when discussing health, often discussing physical health as a means to sport performance. In this regard, student-athletes generally perceived themselves as exceptionally physically healthy, as long-term sport participation provided them with heightened body-state

awareness, and an improved ability to perform physical tasks within and outside of the context of sport.

### **Mental Health**

Mental well-being was recognized as an equally, and in some cases more, important dimension of health than physical well-being by all but two participants. Two dominant themes of mental health were identified: Life satisfaction, and having a feeling of purpose.

I'd say joyful. Someone that I see enjoying their life, or always seems happy. Sometimes it might not be that inside, but just being happy and showing that can help your mental health. Obviously mental is inside, so we can't always see it, but if you express it outside that you're a person that enjoys your life, wants to go to hockey, wants to go to school, then that might help you in the long-term with your inside self.

Lauren, Hockey, 2<sup>nd</sup> year

Many participants constructed physical and mental health as co-dependent, indicating poor mental health would likely manifest itself into poor physical health, and vice versa in the cases of injury or considerable fatigue.

I think it's the pillar of physical health, because I think our physical health is really just a manifestation of what we think, what we want. I think if your mentality isn't there, your body totally reflects it.

Emma, Track & Field, 5<sup>th</sup> year

If you aren't in the right presence of mind to perform, you just won't be able to perform. You need to be in a state where you're able to focus, able to feel comfortable and get yourself into a relaxed state of just feeling energetic. If you don't take care of yourself mentally, you're not going to be able to do anything physically.

Natasha, Artistic Swimming, 3<sup>rd</sup> year

As seen in the excerpt above, mental health was also linked with performance in sport, going as far as describing mental health in terms of one's possession of sport-related mental skills.

For student-athletes, mental health is something I'm generally more concerned for than physical health. I still believe that your mental health is probably 70% of your result in sport, 30% is the physical aspect. If you want to get far, you need to be mentally tough, and like I said if you have issues outside of the sport, then it's going to affect your physical aspect as well. So to me it's the biggest part. It encompasses how you do the physical aspects, as well as your ability to perform.

John, Swimming, 4<sup>th</sup> year

Similar to the link participants made between physical health and their capacity to perform in sport, mental health was also described by some as measurable in sport performance, though less explicitly than the links drawn between physical health and sport performance. It is also notable that, in contrast to how they describe physical health, mental health was commonly discussed in the context of broad life experience, rather than referring almost exclusively to sport experiences.

Participants also recognized inherent stigma surrounding mental illness and general mental well-being, both in the context of sport and the broader social context.

It's just a tough issue to talk about, because no-one really understands it, and if you don't necessarily have mental health issues, then it's hard to talk about because people could say that you don't know what you're talking about. So I could talk to a hundred people with mental health issues, and I probably have, but that doesn't mean I'm an expert, and so I would just say yes it's important.

Peter, Hockey, 3<sup>rd</sup> year

I also think that mental health is a huge part of overall health. A lot of people tend to ignore that, especially, I think, for student-athletes because again, there's such a culture of being strong, of being tough. Mental health is not a visible injury.

Shannon, Swimming, 5<sup>th</sup> year

The notion of sport contexts being particularly prone to mental health stigma was shared by many, who attributed hesitance towards mental health help-seeking to a culture of toughness, time constraints, and a poor reputation or lack of available resources.

When asked what could be improved to benefit student-athlete well-being in the Canadian university sport context, the most common element touched on by participants was a need for wellness resources specific to student-athletes. They described a particular need for general wellness information and resources in their earlier varsity years, and mental health resources throughout their time as varsity athletes.

I think being more informed about what athlete well-being really is. We do know what it is sort of, but we're never really told how we should act differently than regular students. So maybe having presentations on health for student-athletes specifically.

Lauren, Hockey, 2<sup>nd</sup> year

I would say if we needed more support, it's for mental health. Things like body image, managing that with our sport. Concussion protocol is very specific as to what to do, but anything else mental is not. At the beginning of the year we have seminars for hazing, nutrition, varsity information, but there's no seminar on mental health or how to manage everything. That's the thing that's severely lacking and nobody ever mentions it.

Charlie, Football, 5<sup>th</sup> year

These recommendations by participants shed light on their attitudes towards aspects of health in general, as well as what they perceive to be the most pertinent threats to student-athlete well-being in the present Canadian context. Many participants expressed a need for mental health resources, both in terms of counseling services and health education, which reaffirms the value they place on mental health as discussed previously.

### **Social Well-being**

The majority of participants did not include social well-being in their initial definition of health or 'being healthy', however when prompted all participants recognized that relationships could be beneficial to one's health. Social well-being was commonly connected with positive mental health.

In general, there's a baseline for what a healthy relationship should be like, and how to socialize in a healthy way. I think that's important to overall health because of the way it affects your mental health. If you're not in a healthy relationship, or your friends aren't treating you properly, or you're not treating them properly, that can really hurt you . . . if you're isolated, that's unhealthy.

Lauren, Hockey, 2<sup>nd</sup> year

In addition to its relationship with mental health, participants also discussed social well-being as beneficial when relationships drove them to make healthier decisions. This was mentioned as either by means of social support to make healthier decisions, or from pressure to enact a healthy lifestyle in fear of judgment or embarrassment.

Well, sometimes it can encourage you to live your best so that you don't feel embarrassed to be around other people. I want them to see me as a healthy person. I guess that would be it from a positive stance. If there are other people trying to make positive changes to be healthy that your friends with, then that's also good.

Natasha, Artistic Swimming, 3<sup>rd</sup> year

Of the three domains of health ascribed by the World Health Organization, participants discussed social well-being with the most brevity. It's notable that although many participants identified connections between physical health and sport performance, as well as mental health and sport performance, no such connections were made between social well-being and sport performance, even amongst those in team sports.

### **Determinants of Health Ideas**

Participants recognized multiple discursive sources that have impacted their conceptions of health, including formal education, family (parents in particular), media, and sport experiences. Sport experiences, and varsity sport in particular, were recognized by most participants as being exceptionally significant in shaping their ideas of health.

Team sports have really influenced what I think it means to be healthy. I really believe a team environment is healthy, well it can be unhealthy but I think a good team environment is healthy, and I've been in good environments. I think that has definitely played into how I feel about that, how I feel about exercise, how I feel about not laying in bed and being outdoors a lot. So I think my past experience as an athlete have really shaped what I call healthy right now.

Ian, Rugby, 3<sup>rd</sup> year

Varsity sport definitely makes you more mindful of what you're doing, what you're eating, the choices you're making, and the people you have around you. Before I didn't really care if people smoked around me, now I really care.

Emma, Track & Field, 5<sup>th</sup> year

Emphasizing sport experiences in their discussion of health is rather unsurprising given that the majority of participants have been participating in their respective sport consistently since early childhood. However, it is notable that despite a wealth of youth sport experience to draw from, many senior participants expressed that their ideas surrounding health shifted primarily from their experiences in university sport.

When elaborating on ways in which varsity sport shaped their ideas of health, participants described establishing a deeper understanding of what it takes to succeed in their athletic and academic roles, and this ultimately leading to better health.

They have developed way more since becoming a student-athlete. I started to think more about it as a student-athlete, so I won't crash. Doing well in school, doing well in sport, everything, finishing my degree, I have to be always thinking about that. So yeah, definitely, being a student-athlete helps me figure out how to be healthier, and to just be ready to succeed in general.

John, Swimming, 4<sup>th</sup> year

If there's one thing that university has changed is that I didn't realize how hard it was to be healthy, like to make these everyday changes in your life to be better. Like I didn't know it took so much discipline. That's a big thing I've learned here, it's all about discipline. Maybe a part of me thought it was just natural before, like some people are just meant to be healthy and some aren't, but it's really not that. There's people that get up every day and do things that other people aren't willing to do, that's what makes the difference. I think that's what I've really learned being in university, from sport and the education part.

Charlie, Football, 5<sup>th</sup> year

These excerpts re-affirm participants' connection between health and performance in both their athletic and academic roles. It is also worth noting that some participants expressed that university experiences outside of the varsity context also played a significant role in shaping their ideas of health, such as moving away from home, and encountering more people in general.

I've realized that there's a lot of ways to be unhealthy, I would say. Before I came here I just went to school, went home, played hockey, hung out with my friends, no major adversity came out of that. I essentially just looked to the media to see what was unhealthy, which was people who were super, super thin or pretty overweight. Nobody talked at all about being mentally healthy. Then I got here, and I met people who aren't mentally healthy, another person who isn't physically healthy, a person who smokes a lot of weed. So I would say my definition, or understanding of the word health, and the concept of being healthy, has definitely broadened and I've synthesized it a bit more since I've come to university.

Lauren, Hockey, 2<sup>nd</sup> year

Many participants felt their most impactful experiences, in terms of shaping their conceptualization of health and healthy behavior, came from times of difficulty or adversity. In the context of being a student-athlete, this was frequently discussed with reference to balancing demanding athletic, academic, and social roles.

If you're faced with a problem, how do you deal with it, how do you move forward, and through our sport we learn ways to deal with those problems. We've all had conflicts, we've all been really tired, we've all been faced with tough decisions that other students haven't had to deal with. In being exposed to these tough decisions in university, that's truly helped us understand being healthy.

Peter, Hockey, 3<sup>rd</sup> year

The vast majority of participants described the most difficult period of their university experience, and for some the most difficult period of their lives, to be in their first years as university student-athletes. The transition from high school to university, and from high school sport to university sport, was frequently characterized by feelings of stress, confusion, and being overwhelmed.

I think [student-athletes] are not equipped. It's not something you're taught, it's something you're expected to learn, which I believe is an issue with varsity sport. It's really dependent on what your experiences were growing up as an athlete in high school. There's no structured teaching of proper organization for sport and class, they don't teach that in school, you need to learn it yourself. Some people pick that up quickly, but a lot of people make it work at a significant cost to their mental health, some people can never make it work.

John, Swimming, 4<sup>th</sup> year

Participants recognized that, as a result of these stressful experiences, student-athletes learn to cope by shifting their approach to fulfilling their athletic and academic roles, and ultimately learn to modify their behaviours towards more proficient time management. Teammates were commonly discussed as role models for

successful strategies to manage both athletic and academic commitments, as well as for how to maintain a healthy lifestyle more broadly.

Depending on the team you're on, every team has different people that are good at different things, and there's a lot of help you can get within that peer group. The more you use them the better. Especially for us, there are guys that are really good in the pool, and there are guys that are really good at school, then there are a couple that are really good at doing both. You can look to each and every one of those people to figure out how you can manage, and you're around them every day so if you're in a bad spot they can tell you what you can do.

Timothy, Swimming, 4<sup>th</sup> year

It is evident that student-athlete experiences, both from their own perspective and vicariously through their teammates, play a significant role in sculpting constructions of health and healthy behaviour in our participants.

## Discussion

The purpose of this study was to investigate how student-athletes construct health in the Canadian context, and to identify discursive sources they draw these ideas from. The student-athletes of this study constructed these concepts in various ways, both supporting and challenging past findings drawn from athletic and general populations. Drawing from the World Health Organization's definition of health (World Health Organization, 1946), participants generally highlighted the importance of physical and mental well-being, while putting less emphasis on social well-being. Participants discussed multiple sources of information impacting their conceptualization of health, with a particular emphasis on the role of their experiences and relationships as varsity athletes and in sport more broadly. This affirms the notion of studying perceptions of health as a social construct, as participants derive its meaning from an "ensemble of social relations" (Parker, 1998, p. 2). Experiences involving adversity or negative outcomes were particularly emphasized by participants as shaping one's conceptualization of health, aligning with the idea of healthiness as the ability to self-manage in the face of challenges as proposed by Huber et al. (2011).

Student-athletes' conceptions of good physical health as being 'in tune' with the state of your body, fulfilling your body's needs, and functional capacity, both support and add to past findings in similar populations. Conceiving health as one's capacity to perform physical tasks is by no means unique to athletic populations (Makoul, Clayman, Lynch, & Thompson, 2009; Schatz & Gilbert, 2014), and using performance in sport as a measurement of one's health has been recognized previously in elite and recreational athletes (Theberge, 2008; Bridel, 2013). As discussed by Bridel (2013), the equating of health and athletic capacity may contribute to problematic trends amongst athletes such as the normalization of pain and injury, overtraining, and body dysmorphia. Similar connections are reflected in our findings, as participants noted that some levels of physical pain are not unhealthy when in the context

of sport, and that injuries are unhealthy on the basis that they limit one's ability to participate in their sport. Conceiving of health as a capacity to do one's sport may also contribute to troubling perspectives on some health-related behaviors, including classifying behaviors as unhealthy only so much as they impair sport performance. A particularly problematic example of this was described by Oscar, a fourth-year baseball player, in the context of alcohol consumption: "When they [athletes] do go out they don't really drink beer, they just chug vodka, which probably is the most healthy option for them. In terms of carbs and that stuff it's more worth it for them."

Physical health constructs of being 'in tune' with one's body, and to fulfill bodily needs, were discussed as contributors to participants' performance in sport, but additionally as guidelines for health more broadly. It's notable that in surveys of the general American population in 1995 and 2002, 'sensitive to physical state' was among the least prevalent conceptions of physical health (Makoul et al., 2009), whereas this concept arose quite commonly amongst our participants. Athletes' heightened awareness of physical state, gained from years of intensive sport participation, may produce a perceived proficiency in evaluating their physical health at any moment in time, explaining their emphasis on this aspect of physical health. Participants generally discussed fulfilling bodily needs in terms of effective coping with their demanding lifestyle, such as getting enough sleep, or eating enough healthy foods.

Participants identified life satisfaction, and having a feeling of purpose in life to be primary tenets of mental health. Mental health was discussed with consistent reference to mental illness, similar to recent findings with elite divers (Coyle, Gorcynski, & Gibson, 2017). In contrast to Coyle et al.'s findings, participants generally demonstrated confidence in describing their understanding and experiences of mental health. Consistent with previous research, participants also perceived stigma, both specific to athletes and in the broader social context, as a barrier to discussing mental health or seeking help (Gulliver, Griffiths, & Christensen, 2012). Recent mental health awareness initiatives may be contributing to more comfort in student-athletes discussing aspects of mental health, at least in a one-on-one conversational setting. Although our findings indicate progress in this regard, the consistent recognition of mental health stigma by participants demonstrates that there remains work to be done in this area.

Social well-being was identified as an element of health, unprompted, by only three participants, and was discussed primarily in terms of benefiting mental health and enacting social pressure to make healthier decisions. Participants largely recognized social well-being as beneficial to health once prompted, but it remains notable that social factors, such as social stability and positive relationships, did not consistently arise when student-athletes described necessary conditions of being healthy. This conforms to findings from a survey of the American public where social aspects arose in very few participants' conceptions of health (Makoul et al., 2009). Although public discourse has seemingly shifted towards holistic ideas of health (Engebretson, 2003), it seems social well-being continues to emerge less regularly as a prominent tenet of health.

It is clear from these findings that no single informational source distinctly accounts for the majority of health ideas in student-athletes, which is unsurprising given the complex manifestation of health concepts in essentially every facet of life (Crawford, 2006). A wide variety of discursive sources were indicated by participants as contributing to their understanding of health, with sport experiences commonly identified as very significant. This conforms to findings from Michaelson, McKerron, and Davison's (2015) research with Canadian adolescents, where it was suggested that personal experiences accounted for shaping health ideas more so than didactic learning. Sport experiences account for a significant part of student-athletes' life experience in general, both during and prior to university, signified by athlete identity often outweighing academic identity in collegiate athletes (Adler & Adler, 1991; Potuto & O'Hanlon, 2007). In this population, conceptualizations of health seem particularly vulnerable to change in sport contexts, and therefore interventions looking to address holistic health in athletes should consider integrating their messages directly into positive sport experiences when possible.

### **Limitations and Future Research**

In the context of this study, participants may have considered some thoughts and experiences pertaining to health to be sensitive information, and as such they may have felt some discomfort in disclosing these to the interviewer. Participants' right to abstain from answering any question was maintained, though it is notable that no participants decided to exercise this right at any point. There also exists the possibility that participants felt obligated to represent a stereotypically busy, stressed, resilient student-athlete to a higher extent than their lived experiences reflect. To minimize this, the interviewer refrained from prompting participants with any discursive norms or expectations of student-athletes, and refrained from overtly affirming or degrading participant responses during the interview.

The transferability of the findings from this study are limited by the inclusion of only English-speaking athletes from two academic institutions in the Canadian U-Sport system. These two schools were selected to capitalize on the researchers' existing connections with athletics programs, and English-speaking participants were used as the interviewer is only fluent in English. Although no consistent differences emerged in the findings between participants as a result of their academic institution, it should be acknowledged that these findings may not fairly reflect the entire Canadian collegiate sport system, and this should be addressed in future research.

Another limitation of this study relates to health ideas stemming from a variety of discursive sources. Participants of this study had many significant lifestyle factors in common related to balancing varsity sport with full-time academic studies, however they are also subjected to vastly different influences in the form of distinct gender discourses, distinct sport discourses, and distinct cultural discourses among others. Significant differences in health ideas based on gender or sport were not noted in this study, however this should be tempered with the acknowledgment that detecting such differences was not a significant focus during the data analysis process. Future

research investigating student-athlete constructions of health should consider focusing on a specific gender, specific sports, and extending to other geographic contexts.

Future research is also needed to establish how conceptualizations of health manifest into behavior, and ultimately how they influence health outcomes. Equating health with athletic capacity, as discussed in this manuscript, may result in excellent adherence to physical activity, but may also lead to acceptance of substance use to better performance at the expense of long-term bodily health. Student-athletes are an interesting population through which to consider the relationship between health ideas and behavior by way of their demanding lifestyle and related health concerns.

### **Practical Implications**

With regard to practice, findings from this study support two recommendations for athletic administration servicing Canadian academic institutions. First, many participants of this study indicated experiencing debilitating stress, unrealistic athletic commitment expectations, and resultant poor academic performance during their first year of varsity sport. This conforms to past findings with student-athletes in American contexts (Tracey & Corlett, 1995; Saxe, Hardin, Taylor, & Pate, 2017). Participants of this study attributed their negative experiences in this regard to misjudging the extent of their athletic and academic commitments throughout their first year, and having little means to learn to navigate these demanding commitments except by trial and error. In a system where academic scholarships, athletic scholarships, and future career aspirations are contingent on maintaining a competitive grade point average, struggling through this first year can have significant financial and long-term career implications. Our recommendation to address this issue is to make use of structured peer-mentoring programs, or group educational sessions, led by senior or recently graduated varsity athletes to set appropriate expectations and provide direction to incoming varsity athletes.

A second practical application stems from many participants of this study calling for increased mental health support, both in the form of counselling access, and mental health education sessions. As discussed in the literature review section of this document, a significant body of research has suggested student-athletes may be especially predisposed to high levels of mental distress (Blacker, Sullivan, & Cairney, 2017), and mental illness (Greenleaf, Petrie, Carter & Reel, 2009; Weigand, Cohen, & Merenstein, 2013; Yang et al., 2007). Participants of this study felt dissuaded from seeking information, or seeking help at times, due to issues of stigma, accessibility, and time constraints from their demanding roles. Our recommendation to address these concerns is to invest into student-athlete-specific mental health resources, including counselling and general mental health education, that cater to the unique lifestyle factors and schedule constraints of student-athletes. This recommendation is tempered by acknowledging the stringent financial resources permeating the Canadian collegiate context, particularly when compared to our American counterparts.

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