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The Importance of Touch in Sport: Athletes' and Coaches' Reflections

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Abstract

This study examined athletes' and coaches' experiences of positive touch within the coach-athlete relationship, including examples of positive touch, reasons for the use of touch, and factors affecting athletes' acceptance of touch. Semi-structured interviews were conducted with 10 coaches and 10 athletes from various sports. Data were coded using inductive and deductive coding techniques. All participants shared examples of positive touch in sport including: hugs, high fives, physical manipulation of the body, pats on the back, hand shaking, and spotting. Positive touch was reportedly used for affective, behavioural, safety, and cultural reasons. Touch was viewed by these athletes and coaches as being important and even necessary in the sport environment and within the coach-athlete relationship provided that it was individualized and contextualized. The findings are interpreted to suggest that the recent trend to avoid touch in child-populated domains ignores the many benefits of touch for health, instruction, and development.

Keywords: coaching; athlete welfare; athlete-coach relationship; positive touch

1. Introduction

1.1. Touch Aversion in the Coach-Athlete Relationship

In light of emerging recognition of the problem of sexual abuse and harassment of young athletes by their coach, and the associated inappropriate and harmful touching behaviours that can occur in the context of sport (Brackenridge, 2001), there has been a recent trend to limit or to avoid touch in the coach-athlete relationship (Bringer, Brackenridge, & Johnston, 2002; Piper, Garratt, & Taylor, 2013). A provocative contradiction exists however, regarding the relationship between the use of touch in sport and the welfare of athletes. On one hand, by prioritizing the avoidance of harm to young people, we may have pathologized the use of touch in sport by discouraging its use. On the other hand, a wealth of literature supports the positive benefits of touch (Ardiel & Rankin, 2010; Caulfield, 2000; Tobin, 2008), thus, by adopting an athlete welfare perspective, coaches should be touching athletes for optimal health and development. Learning more about athletes' and coaches' reflections on and experiences with the use of positive touch in the coach-athlete relationship may shed light on this contradiction.

In this section the importance of touch is reviewed followed by a critical summary of previous research on the use of touch in the coach-athlete relationship. Using this literature the purpose statement is defined. For the purposes of this research, 'touch' is understood to be an experience of inter-relational physical contact. 'Positive touch' is understood to be an experience of inter-relational physical contact intentionally directed by one person towards another and deemed to be of benefit to the recipient.

1.2. The Importance of Touch

There is a long and rich history of research on the importance of touch for the healthy growth and development of young people (Ardiel & Rankin, 2010; Caulfield, 2000; Tobin, 2008). For example, early studies of children in orphanages in England during World War II revealed that without touch, children became morose and in some cases, died, in spite of adequate nutrition and proper hygiene (Goldfarb, 1943). Subsequent research supported the findings that failure to meet tactile and stimulation needs produced poor health outcomes and marked developmental delays in infants and children (Frank, Klass, Earls, & Eisenberg, 1996). More recently, research has focused on the enriching effects of touch including positive influences on the physical growth, IQ scores, and the social-emotional well-being of children (Blackwell, 2000).

Evidence also exists to indicate the health promoting benefits of touch for adults. More specifically, touch therapies such as massage therapy, pet therapy, and hug therapy have been shown to enhance general well-being (Crawford, 2003;

Keating, 1994; Pardew & Bunse, 2005), reduce pain, increase attentiveness, decrease depression and anxiety, build empathy, and enhance immune function (Field, 1998). In addition to the benefits of touch for personal well-being, Hornik (1992) reported that the use of social and interpersonal touch can influence people by heightening their attentional arousal and interpersonal involvement (Patterson, Powell, & Lenihan, 1986; Silverthorne, McKlewright, O'Donnell, & Gibson, 1976). As one example, people are more likely to comply with requests that are accompanied by interpersonal touch (Gueguen, 2002; Haans & Ijsselsteijn, 2009; Kleinke, 1997; Willis & Hamm, 1980). Touch has also been found to enhance feelings of connectedness, belonging, and bonding between people (Seach, 2007). This school of literature suggests that to touch and to be touched, is to be human (Seach, 2007).

Touch has been shown to play an important role in enhancing individual health and human relationships at various stages of growth and development. This has been highlighted in a number of domains, including social work (Ferguson, 2009), healthcare (Older, 1984; Routasalo & Isola, 1996), child development, and education (Johnson, 2000; Piper & Smith, 2003; Stronach & Piper, 2008). This research, however, does not look specifically at the benefits of touch within the context of sport.

1.3. Relevant Scholarship on Touch in the Coach-Athlete Relationship

In spite of the considerable literature on the benefits of touch, the emerging body of literature on inappropriate touch in sport has unfortunately, polarised touch to have possible sexual conations, thus creating touch aversion in the coach-athlete relationship. Since the 1990s, the burgeoning of research on the sexual abuse of athletes has dominated the study of touch in sporting contexts (Brackenridge, 2001). This focus is also reflective of society's broader interest in and concern about the welfare and protection of young people. Today's Westernized societies have been characterized as risk-averse (Beck, 1992) with an emphasis on managing and avoiding risk to provide a sense of psychological comfort (Piper, Taylor, & Garratt, 2013). The banning of running and games such as tag during recess in some parts of the United States, and parents being generally fearful of letting their children play in unsupervised settings due to the (minimal) risk of a stranger abduction, are some manifestations of a risk aversive orientation. With respect to the use of touch, risk aversion leads people to be skeptical of touch between an adult and a young person and as Piper et al. (2013) write, these encounters tend to be viewed as "sexual and untrustworthy" (p.331). As such, adults in positions of responsibility over young people may be fearful of accusations of inappropriate conduct or abuse if their act of touching is misconstrued. As a result of these fears, some youth-populated domains, including some schools have become characterized as 'no touch' settings (Johnson, 2000; Tobin, 2008).

Bringer, Brackenridge, and Johnston (2002) reported that coaches are often reluctant to touch athletes for fear of that touch being misconstrued. Miller, Franken, and Kiefer (2007) confirmed the power of social influences on the use of touch as the coaches, particularly male coaches in this study, were concerned that others may question their motives if they touched athletes. In one study of coaches in the U.K, Piper, Garratt, and Taylor (2013) reported that more experienced coaches were skeptical of risk-averse coaching guidelines while younger coaches accepted this culture as normal. As Piper et al. (2013) wrote: "In a context where coaches are all too aware of the dire consequences of an allegation of abuse, many will think that 'no touch at all' is the correct, safe and prudent option" (p.578). With an increased awareness of both the occurrence of sexual abuse of athletes and the need for athlete protection, it is easy to understand why coaches may be reluctant to touch athletes. This, however, runs contrary to the well-documented intrapersonal and interpersonal benefits of touch.

1.3. Research Purpose

The purpose of this study therefore, was to examine athletes' and coaches' experiences of touch in sport, including examples of positive touch, reasons for the use of touch, and factors affecting acceptability of touch within the coach-athlete relationship. As research on inappropriate touch in the coach-athlete relationship already exists in the form of sexual abuse (Brackenridge, 2001), we wanted to examine experiences of positive touch in this relationship. The specific sub-questions of examples, reasons for use, and factors affecting acceptability were posed to glean a broader understanding of the who, where, when, what (example), why (reason) variables of positive touch as well as the variables that may distinguish positive touch from inappropriate touch in sport. The well-documented closeness of the coach-athlete relationship, including the extensive time athletes spend with their coaches and the trust athletes have in the authority of the coach (Stirling & Kerr, 2009) make this population an ideal one for the study of touch.

2. Methods

2.1 Participant Characteristics

Participants included 10 current athletes, 5 male and 5 female, and 10 current coaches, 7 male and 3 female. Athletes ranged in age from 20 – 25 years of age ($M \pm SD = 22.8 \pm 1.8$) and had been competing in their sport for 6 – 22 years ($M \pm SD = 10.3 \pm 5.3$). Coaches ranged in age from 35 – 59 years of age ($M \pm SD = 46.7 \pm 9.7$), with 11 – 45 years of

coaching experience (M±SD= 24.4 ± 11.6). At the time of data collection, the participants were competing or coaching at the university, provincial, national or international level of sport. A variety of individual and team sports were represented, including rugby, soccer, lacrosse, athletics, baseball, fastball, ice hockey, (American) football, gymnastics, diving, trampoline, basketball, tennis, golf, and squash. Specific participant profiles can be found in Tables 1 and 2.

Table 1 *Athlete Participant Demographics*

No.	Age	Gender	Sport	Years in Sport	Highest Sport level
1	21	Female	Lacrosse	8	University
2	22	Female	Athletics (Hurdler)	7	International
3	22	Male	Hockey/Baseball	17	Provincial
4	22	Female	Rugby	7	University
5	22	Male	Basketball & Rowing	7	University
6	25	Male	Soccer	22	University
7	24	Female	Fastball	12	University
8	25	Male	Football	6	University
9	25	Male	Rugby	7	University
10	20	Female	Trampoline	10	National

Table 2. *Coach Participant Demographics*

No.	Age	Gender	Sport	Years Coaching	Highest Sport level
1	35	Male	M/W Soccer	13	University
2	35	Female	Gymnastics	30	Provincial
3	59	Male	Squash	45	University
4	50	Male	Football	20	University
5	53	Male	Basketball/Tennis	40	University
6	40	Male	Athletics/Gymnastics	26	International
7	40	Female	Diving	16	International
8	45	Male	Golf	11	University
9	57	Male	Field Lacrosse	15	University
10	45	Female	Swimming	28	International

2.2 Sampling Procedures

Following approval of the study from the university's human ethics review board, participants were recruited by word of mouth. Purposive sampling was used by the research team to ensure that both male and female athletes/coaches were recruited and the perspectives of athletes and coaches from a range of sports and sport types were included. Participants were initially contacted by e-mail, were informed of the purpose of the study, and were given specific details about their involvement. If the potential participant agreed to be interviewed, a letter of information was emailed to him/her and a convenient time and location was arranged for the interview. The participants provided written consent before the interview began. Fifteen of the interviews were conducted face-to-face in a private interview room and five were conducted by phone.

2.3 Measures

Semi-structured interviews were conducted with the participants (Berg & Lune, 2012). The interviews, which were conducted individually, ranged between 30 and 60 minutes in length. With the participant's consent, the interview was digitally-recorded. Open questioning was used to encourage participants to reflect on their use and experiences of touch in the coach-athlete relationship.

To initiate discussion each interview began with the general question, "Have you ever used or experienced positive touch in the coach-athlete relationship? If so, please share a specific situation in which positive touch was used." More specific probes included, "What made the touch positive?" "Why was the touch used?", "Are there situations in which the same touch may not be received positively by yourself or another athlete?" (Question for athletes), and "What

factors do you consider to ensure that the touch is received positively by the athlete?" (Question for coaches).

2.4 Data Analysis

The recorded interview sessions were transcribed verbatim. Data from the interview transcriptions were discussed among the research team at several points throughout the process of data collection (i.e. every 2-3 interviews) in order to facilitative reflective engagement with the data and begin to identify emerging themes. Formal analysis of the data occurred once theoretical saturation occurred. For the purposes of this study, theoretical saturation was determined when no new themes or categories of data were emerging and when the sample was perceived as being demographically diversified (Berg & Lune, 2012). All transcripts of interviews were read together to achieve a sense of the whole and then re-read to identify significant statements regarding the participants' use and experiences of touch in the coach-athlete relationship. The meaning units from those statements were then identified and categorized into themes and sub-themes using a combination of inductive and deductive coding techniques (Creswell, 2007). In order to establish trustworthiness in the analysis process, intra reading and debriefing of the coding and categorization of the raw data occurred on a regular basis among the authors.

3. Results

Analysis of the interview data yielded three broad themes, including: examples of positive touch, reasons for using touch, and factors affecting the acceptability of touch within the athlete-coach relationship. The complete categorization of the raw data themes with numbered participant tags is illustrated in Figures 1 – 3. The main themes of data, and respective sub-themes and meaning units, are presented in descending order based on the number of combined athletes' and coaches' comments within each category.

3.1 Examples of Positive Touch

When asked to provide examples of positive touch between themselves and their coach, all of the athletes were able to identify examples very easily. As seen in Figure 1, the most commonly cited examples of positive touch between the athlete and the coach included: manipulation of the body, hugs, 'high fives', pats, hand shaking, a hand on the shoulder, spotting, massage, and chest bumps.

Themes	Meaning Units	Participants
Manipulation	Coach moves athlete's body	A1-5,7-10,C1-10
Hugs	Hug from coach (individual)	A1,2,4,8,10,C1,2,5-10
	Group hugs with coach and team	A4-6,C1,4,10
	Coach places arm around athlete's waist/shoulder	A9,10,C4,8,10
	Athlete hugs coach (individual)	C2,5,7,10
High fives	High five from coach	A1,2,4-7,10,C1-4,6-10
Pats	Pat on the back/shoulder from coach	A1,4,6,8-10,C1,4,7-10
	Pat on the helmet from coach	A3,7,8,C4
	Coach slaps player on butt	C4
Hand shaking	Post-game hand shaking	A4,6,7,9,C8
	Coach shakes player's hand	A6,C1,4,7,8
	Bump fists with coaches/teammates	A3,9,C8,9
Hand on shoulder	Coach places hand on the athlete's shoulder	A1,3,7,8,C4,8,10
Spotting	Spotting of training exercises	A2,10,C2,6,7,10
Massage	Massage/physical therapy	A2,10,C10
	Coach rubs athlete's back	A4,10
Chest bump	Coach bumps chests with athlete	A8

Figure 1. Examples of Positive Touch

3.2 Reasons for Use of Touch

A number of reasons for the use of touch between the athlete and coach were identified by the participants, including affective, behavioural, safety, and cultural reasons.

Themes	Sub-themes	Meaning Units	Participants
Affective	Affirmation	Touch in celebration of a positive performance	A1,3-5,7,8,10,C1-10
		Touch after a positive practice	A2,9,C3,8,9
	Reassurance	Touch after a mistake	A3,5,7,8,C3-8
		Consolation after injury / personal loss	A4,6,10,C4,10
		Athlete is relaxed when coach is spotting	A2,10,C2,6
	Cohesion/Bonding	It helps make a connection/unites	A4,5,6,8-10,C4-8
		Confirms team aspect	A4,5,C1,7,8
	Pump-Up	Pre-game huddle	A4,5,6,7,C1
		Touch that occurs to get pumped before a game	A1,8
Behavioural	Positive reinforcement	Touch used as positive feedback	A3,5-10,C1-4,6-10
	Instruction	Manipulating the athlete to demonstrate technique	A1-10,C1,2,4-8,10
		Adjust hands in teaching players to hold equipment	A1,3,7,C3,8,9
	Focus	It focuses everybody	A6,7,10,C4
		It's a way of getting the athletes attention	A8,C3,4
Safety	Harm prevention	Coach spots exercise to ensure safety	A2,10,C2,5-7,10
		Massage therapy/physical therapy to prevent injury	A2
	Injury assessment/ mitigation	Coach touches/rubs athlete's injury	A4,10,C1,10
		Coach helps injured athlete off the field	A4,C8
Cultural	Sport-specific rituals	Shaking hands after a game / practice	A4,6,7,C7,8
	Respect	Touch is used as a sign of respect	A4,6,C1

Figure 2. Reasons for the Use of Positive Touch

3.2.1 Affective Reasons

All of the athletes and coaches discussed the use of touch as a means for enhancing the emotional well-being of the athlete. Both athletes and coaches referred to the use of touch to help the athlete feel good about himself/herself. As one athlete reported, "The non-verbal communication [pat on the back] a lot of times says more than what you say to somebody. It's a bit more personal. It makes you feel good, validated, and more confident…" (Male basketball player). The use of touch to communicate support and recognition is reflected in the following quote by a coach, "It [touch] is positive because it makes the athlete feel good" (Female diving coach).

Touch was also used to affirm feelings of accomplishment and self-efficacy such as the commonly reportedly use of high fives and pats in celebration of a great performance or a productive practice.

> It [touch] is a way of congratulating somebody. In both basketball and tennis I remember winning championships and the player coming over and hugging me. You feel close to them and there's a feeling that you accomplished what you set out to do. (Male basketball/tennis coach)

Conversely, after a poor performance, injury or personal loss, touch was reportedly used and received as a form of reassurance, consolation and comfort.

In our sport there's a lot of injuries… . When your coach comes over and puts his hand on your shoulder it makes you feel like he's there with you and you're not alone. Just holding you, hand on your shoulder, sitting there next to you, I definitely feel comforted. (Female trampolist)

Another commonly cited reason for the use of touch was to enhance a sense of bonding between the coach and athlete(s). As one athlete reported, "When the coach gives me a pat on the back or shoulder, I feel a sense of connection with him… that we're on the same page and that he cares about me" (Female fastball player). Touch was also used to enhance a sense of team cohesion. As one coach reported, "I have my team give each other high fives or fist-bumps after every attempted goal – whether they score or not – to remind them that they are a team and need to play like one – to celebrate together and to support each other when they're not successful" (Male soccer coach).

And finally, within the affective theme, several athletes and one coach referred to the use of touch for the purposes of "pumping-up" the athlete prior to competition. In football, the pre-game huddle, in which all of the athletes and coaches touch one another, was cited as a way to enhance the emotional arousal of the players. Similar examples were provided from athletes in the sports of lacrosse, hockey, baseball, rugby and soccer.

3.2.2 Behavioural Reasons

All of the athletes and coaches expressed the use of touch for technical and instructional purposes and for shaping desired behaviours in sport. Touch was reportedly used as a teaching strategy; coaches often manipulated the athlete's body

physically to help him or her learn a particular technique and to feel the appropriate movement. As one athlete said, "It makes learning certain aspects of the sport easier" (male basketball player). The importance of touch for instructional purposes is further exemplified in the following quote:

> I don't think you could have sport without touch. You can't just explain to someone how to perform a skill verbally, you need to show it to them. You need to move their hand. You need to help them toss the ball. You need to go through those physical motions because it is a physical thing. In this regard touch is very positive because it helps you feel the correct motion. It helps you learn. (Female rugby player)

Touch, such as a hand on the shoulder or pat on the back, was also described as being used as a means for the coach to get the attention of the athlete and help him/her regain focus during training or competition. "When I call the quarterback over I will usually rest my hand on his shoulder pad or hold the back of the helmet. Occasionally I will slap the player on the butt… It re-focuses them and draws them back into the moment" (Male football coach).

3.2.3 Safety Reasons

Several of the athletes and coaches identified the importance of using touch for safety, particularly in the sports of gymnastics, trampoline and diving in which the spotting or physical manipulation of an athlete was viewed as an essential and routine part of athletic training for instructional and safety reasons. "Sometimes when children are attempting certain skills and fall we need to catch them. That's what we're there for. We're there to keep them safe" (Female gymnastics coach). Participants from other sport types also referred to the use of touch as a required safety precaution during strength training exercises.

Touch from the coach was also used for the purposes of injury prevention and management. One athlete explained, "Touch is also used for massage therapy or physiotherapy. You really need that physical touch from the coach to help stimulate that muscle response and avoid future injury" (Female hurdler). Similarly, a few athletes and coaches recalled instances when a coach touched the athlete to rub a muscle cramp, assess an injury, or carry an athlete off a competition field to prevent further harm.

3.2.4 Sport-Specific Ritual Reasons

A few athletes and coaches also talked about the use of touch as a longstanding part of the specific sporting culture, such as shaking hands after a game or match. In these situations the occurrence of touch was reported to be used as a sign of sportspersonship and respect, thus increasing feelings of camaraderie and validation in recipients.

> At the end of the game you line up and shake hands with the other team, and afterwards you generally pull a quick u-turn and shake hands and give hugs to the players and coaches on your team. It's basically a sign of respect to everyone who competed. Everyone is involved, coaches, players, even refs. (Male soccer player)

The use of the pre-game huddle in such sports as football and soccer also reflects sport-specific rituals that involve touch.

3.3 Factors Affecting Athletes' Acceptance of Touch

Factors affecting general acceptability of touch between the coach and athlete were also discussed, including a number of interpersonal, contextual, demographic, and intrapersonal variables (Figure 3).

Themes	Sub-themes	Meaning Units	Participants
Interpersonal	Accompanying verbal feedback	Positive comments come with the touch	A3-5,7,C1-10
		Coaches should establish a prior relationship	A4,8,C2-8,10
	Nature of the relationship	Some players just don't like their coach	C5
	Conversations about touch	Important to ask permission to touch	A4,9,10,C1,3,6,10
		Team/parent meeting about touch	C2,4
	Reciprocation	If touch is reciprocated it's accepted	C1,7
Contextual	Sport-specific touching requirements/rituals	It's the norm in the sport	A6,7,9,10,C1,8,9
		Touch is a required part of training	A4,5,9,10,C4,8
		Coach-athlete touch seen in the media	C3,9
	Public or private setting	Important to keep everything in the open	A6,C3,7,9,10
	Specific example of touch	There is a difference between forms of touch	A10,C1,3,6,10
	Force	The force at which you touch is important	A9,C1,7,8
	Timing	The touch should not last for too long	C1,3,10
		The touch should occur in a timely fashion	C1,3
	Amount of touch	Excessive touching may be crossing the line	C1,2,10
Demographic	Gender	Stigma of male coach/female athlete touch	A2,4,10,C3,7-10
		Male/female coaches use different touch	A2,5,C2,10
		Male/female athletes receive different touch	C3,4,8
	Age	You have to be careful approaching children	A6,C1
		Age difference between the coach and athlete	C6
	Family/Cultural background	Lots of physical touch at home	A4,C10
		Cultural influence on touch comfort level	C8
Intrapersonal	Degree of touch preference	Some people don't like being touched	A5,7,8,10,C2,4-6
	Understanding of sport-specific touch	Some people really like touch	A4,10,C2,7,10
		Understanding of the need for touch	A9,10,C1,6
	Previous history of harm	Previous negative touch experiences	A1,C5,10
	Mood	Need to understand body language and mood	C6,7
	Preferred coping strategies	Players deal with losing differently	C5

Figure 3. Factors Affecting Athletes' Acceptance of Touch

3.3.1 Interpersonal Variables

Most of the athletes and coaches spoke about the importance of the coach-athlete relationship and factors therein in determining whether touch is received favourably by the athlete. Factors such as the length and quality of the relationship, conversations about touch, positive verbal feedback associated with touch, and reciprocity of touch within this relationship were described as increasing the athlete's acceptance of touch.

> I think it's important and necessary that the coaches establish a relationship with you prior to that [touch] so that the touch is not weird… I've also never had a coach do something without telling me what he's doing and why he's doing it. And I think that's really important. (Female fastball player)

Several coaches echoed this comment by referring to their typical practice of asking the athlete for permission to touch and/or explaining the purpose of needing to touch, as in the case of 'spotting' and harm prevention. A couple of coaches also explained that they knew their touch was received positively when it was reciprocated by the athlete.

3.3.2 Contextual Variables

Many of the athletes and coaches explained that the perception of touch as positive or negative is highly contextualized and influenced by such factors as location, type, and nature of the touch, as well as sport-specific rituals. According to the participants, touch is more acceptable when it occurs in a public setting and during or immediately following the event with which the touch is associated. It is important that the touch be momentary and not forceful in nature. Additionally, it was suggested that the more common the touching behaviours are in the specific sporting context, the more likely they are to be accepted by the athlete in this environment. One coach explained, "The touch definitely occurs in a public area like on deck cause that's the moment where it happened. …I think I would be hesitant and think twice in giving a hug if it was a private situation" (Female diving coach). Another coach stated,

> I think it's a part of the [sport] culture and certain things are universally accepted if done in an appropriate way and a timely fashion so that it doesn't make the athlete feel uncomfortable… There's also something to be said about excessive touching, excessive high fives, excessive handshakes, and the force at which you do it. That may be crossing a line that you do not want. (Male soccer coach)

Interestingly, according to a male gymnastics coach, in spite of the frequent use of touch in gymnastics for instructional and safety purposes, the use of "butt-patting" was never used. In contrast, a male football coach described 'butt-patting' as a common form of touch in this sport.

3.3.3 Demographic Variables

Specific demographic variables including gender, age, and family/cultural background were discussed by the athletes and coaches interviewed as influencing the acceptability of touch. Athletes and coaches with both same and mixed gendered athlete-coach relationships were represented. Many athletes and coaches discussed the stigma associated with touch between an athlete and coach of different genders, specifically that of a male coach and female athlete. "With a male coach coaching a female team, the sense of touch is heightened with regards to what you can and cannot do" (Male squash coach). The participants explained that there should not be a difference in touch based on gender, but because of this stigma, the public nature of the touch, and concerns about how the touch may be perceived by spectators, touch between an athlete and coach of the same gender is often more acceptable than between a female athlete/male coach or male athlete/female coach.

Both the age of the athlete and the age difference between the athlete and coach were described as influencing an athlete's acceptability of touch, with a greater age difference between the coach and the athlete making the touch more acceptable. This point was expressed by one coach who recalled touch as being "uncomfortable" in the athlete-coach relationship when he was a 19 year old coach coaching 16-18 year old athletes.

Additionally, one's family and cultural background influenced one's comfort level with and level of acceptability of the use of touch. One athlete explained that she was quite happy with touch in the athlete-coach relationship because she grew up in a family with lots of touch and was therefore accustomed to it. Likewise, one coach recalled a previous athlete who was not comfortable with touch of any kind from the coach, and attributed this lack of acceptance to his cultural upbringing which discouraged the use of touch with non-relatives.

3.3.4 Intrapersonal Variables

Several athletes and coaches also described a number of characteristics specific to the individual athlete that affected his/her acceptance of touch. The factors identified included the athlete's degree of touch preference, mood, and preferred coping mechanisms (i.e. whether an athlete seeks consolation after a poor performance or prefers to be alone). One athlete explained, "There are some kids that hate to be touched and don't want the coach anywhere near them until after they compete. For me I like having that affection from the coach" (Female trampolinist). Similarly, a coach stated, "When you read people's body language and mood, it all helps add to a positive experience" (Male athletics coach). Another coach discussed the importance of athletes having an appropriate understanding and appreciation of the need for touch within the specific sport (Female gymnastics coach). A previous history of inappropriate touch or maltreatment in the coach-athlete relationship was also identified as a precursor to negative athlete attitudes toward touch.

4. Discussion

This study provided current coaches and athletes the opportunity to discuss their experiences of positive touch in the coach-athlete relationship. Study findings were interpreted to suggest that touch is perceived to be important and necessary within the sport environment. Participants in this study discussed examples of touch in the coach-athlete relationship such as physical manipulation, hugs, high-fives, and butt-patting. The results from Miller et al.'s (2007) study of sport also illustrated such forms of touching as high fives, hugs (one and two-armed), hands on shoulders, hands on backs, handshakes, instrumental touch (touch to teach a skill), and butt-patting.

In the present study, athletes and coaches articulated a number of reasons for the use of touch. Affective justifications for the use of touch included praising the athlete following positive performance, using touch to increase self-efficacy, to console or comfort the athlete, to connect with the athlete and to increase the arousal or excitement level of the athlete prior to competition. These results are congruent with the findings from other literature, including education, health care, caregiving, workplace and sport. Educationally-based research corroborates touch as a way to praise students following positive performance or behaviour (Del Prete, 1997; 1998), console students after the loss of a family member (Hansen, 2005), provide comfort and support (Del Prete 1997; 1998) and facilitate positive teacher-student relationships (Andrzejewski & Davis, 2008). With respect to health care settings, research has highlighted the need for affective touching to increase the self-confidence of elderly patients, provide consistent comfort and support, and facilitate a connection between a nurse and patient (Routasalo & Isola, 1996). In addition to nursing, other caregiving studies, specifically those in the childcare literature, highlighted the need for affective touch to comfort and calm children (Triplett & Arneson, 1979), enhance the bond between a parent or caregiver and a child (Grossman, Thane, & Grossman, 1981; Kennell & Klaus, 1979) and to promote positive development (JohPardew & Bunse, 2005).

There are similar research findings in the sport literature that confirm the affective justifications for touch found in the

present study. Both the findings of the current study and that of Miller et al. (2007) highlighted the importance of touch to console, comfort, support, show appreciation and celebrate a successful performance. However, using touch to enhance the arousal level of an athlete was a finding that is unique to this study, as well as to the sport specific literature. In fact, Miller et al. reported a contradictory finding, specifically that coaches used touch as a way to decrease nerves and calm athletes prior to competitions. These contradictory findings may be attributed to the specific groups of athletes and coaches in each study, thus highlighting the idiosyncratic nature of touch.

A coach's ability to praise, console, comfort, connect with, and motivate an athlete effectively is an important aspect of the coach-athlete relationship. Given that the present study corroborates the use of touch as a means to enhance these affective components of a relationship, it becomes clear that positive touch is an integral experience within sport settings and specifically within the coach-athlete relationship.

Behavioural support for the use of touch exists in the parenting, clinical counseling, and education literature. Since physical touch has the ability to enhance the channels of communication (Toronto, 2001), increase general attentiveness (Field, 1998), and increase task-specific attention (Jones & Yarbrough, 1985), its benefits for sport seems intuitive. In fact, the coaches and athletes in the current study acknowledged the value of touch to enhance task-specific attentional focus. Further, coaches discussed using touch as a behavioural strategy to reinforce and shape desirable athlete behaviours. Both athletes and coaches in this study identified the importance of touch for instructional purposes and explained that physical contact is necessary when assisting an individual with skill acquisition. This finding supports Miller et al.'s (2007) study in which both coaches and athletes acknowledged the value of touch for instructional purposes. Similarly, educators noted touch as an important and appropriate pedagogical strategy in a classroom setting, especially in a dance classroom where touch plays an integral role in learning new skills (Andrzejewski & Davis, 2008). Given the contemporary concerns about inappropriate touch with young people, it is important to recognize the consistency with which coaches, athletes, and educators, identify physical touch as a necessary pedagogical tool.

This study adds to previous literature by highlighting the use of touch for safety reasons (Field, 2002; Miller, Franken, & Kiefer, 2007; Routasalo & Isola, 1996). Ensuring safety of the athlete through touch was emphasized in only a few of the sports represented, suggesting that this use of touch may be more contextualized and sport-specific in nature compared to the identified affective and behavioural uses of touch. For example, spotting an athlete to prevent the athlete from harm was discussed primarily by athletes and coaches in the sports of gymnastics, trampoline, and diving. Interpretation of these findings suggest that touch may be sport-specific and in some cases, essential for the prevention of harm. Interestingly, looking at the trend towards no-touch policies that originated from an interest in preventing harm to young people; this may, in fact, be counterproductive in those sports that require touch for safety purposes.

Although several reasons for the use of touch were gleaned from the data, it is also important to note that these themes are not necessarily mutually exclusive as the same act of touch by the coach may serve several purposes simultaneously. As one example, the use of a pre-game huddle may be used by the coach to increase team bonding, the arousal levels of the athletes, as well as to focus the attention of the athletes.

A number of factors affecting athletes' acceptance of touch within the sporting context were proposed including interpersonal, contextual, demographic, and intrapersonal variables. Interpersonal factors that were identified in the present study included length and quality of the coach athlete relationship, previous conversations about touch, and co-occurrence of positive verbal feedback. Previously, Miller et al. (2007) found similar coach and athlete responses regarding the nature and quality of the coach and athlete relationship, including trust between the parties. The stronger the relationship, the more apt the coach and athlete were to engage in physical touch. Since interpersonal variables, such as prior conversations about touch and the co-occurrence of positive verbal feedback, have not been discussed previously in the literature, this finding is important for future guidelines about the use of touch. Coaches, as well as other professionals using positive touch with children, may benefit from recognizing that athletes may need verbal justification and reasoning for touch to be interpreted as both positive and acceptable.

In the present study, athletes also reported many contextual factors that influenced the interpretation of touch in sport. Specifically, the nature of the touch and the situation in which the touch occurs are important considerations. Although Miller et al.'s (2007) participants reported that physical contact between the coach-athlete occurred primarily after important, emotional competitions, the participants in the current study cited many other situations in which touch was appropriate. Similarly, a study regarding preschool child caregivers, noted that the context of the touch was among the most important factors when determining acceptability (Carlson, 2005). Sport-specific rituals and/or requirements are significant determinants of acceptability. For example, the act of "butt-patting" was reportedly used by athletes and coaches in sports such as football whereas in sports such as gymnastics and diving, this form of touch was not a normative behaviour – in fact it was deemed as highly inappropriate. Differences in athletic attire may contribute to explaining these differences. Athletes in sports such as swimming, gymnastics, trampoline and diving wear very little in terms of athletic

attire which would make butt-patting a far more personal act than in a sport like football in which athletes are covered extensively with padded equipment. Miller et al. (2007) also reported the use of butt-patting in some but not all sports. Other examples of the influence of sport specific cultures included lining up to shake hands with one's opponents in sports such as soccer and hockey but not in football or basketball.

Although many studies have noted the presence and importance of shaking hands as a sign of sportspersonship (Abad, 2010; Gaines, 2012; Vallerand, Deshaies, Cuerrier, Briere, & Pelletier, 1996), no previous studies have addressed touch between athletes and coaches to show sportspersonship. It may be interesting for future studies to explore the interplay of touch and the development of sportspersonship within coach-athlete relationships.

Demographics such as age, gender and family/cultural background also play an important role in touch acceptability, in both sport and other settings (Andrzejewski & Davis, 2008; Carlson, 2005). The age of an individual has been discussed as an important determinant of appropriate touch in the related literature. For example, as young children lack the reasoning and fundamental decision making skills to evaluate appropriate touch from an adult (de Young, 1988), teachers, child caregivers, and presumably coaches are cautioned to consider the age and maturity of a child before engaging in affective or behavioural touch (Andrzejewski & Davis, 2008; Bredekamp & Copple, 1997; Del Prete 1997; 1998). In the current study, a larger age range between the coach and athlete reportedly enhanced the comfort levels with the use of touch. Interestingly however, the coaches in the current study did not refer to the sensitivities of using touch with adolescents that has been reported previously by classroom teachers (Caulfield, 2000) perhaps because of the unique contextual aspects of the sport environment.

Gender was reportedly a critical factor in determining touch acceptability. The findings from the current study indicate the tendency of male coaches in particular to be reluctant to touch their female athletes for fear of this behaviour being misinterpreted or misconstrued. The male coaches in Miller et al.'s (2007) study reported similar fears. Touch between a male adult in a position of authority and a younger female has also been reported in education (Anderson & Levine, 1999). Although Field et al. (1992) reported that same gender discomfort existed in domains characterized by a fear of homosexuality, this was not reported by the participants in the current study. Sport-specific rituals seemed to play a more significant role in determining acceptability than either gender or sexual orientation. As an example, touch in the form of butt-patting was reportedly used and accepted by football athletes and coaches in the current study while the sport of football has historically been characterized as being hyper-masculine and hostile to homosexual players (Hickey, 2008; Welch, 1997).

Additionally, family and cultural background can be important mediators when considering the use and benefits of touch. For example, an individual's 'touch threshold' is variable, as children who experience a high degree of touch in the home often have a higher touch threshold and need more touch from teachers and other adults (Field et al., 1994). Also, cross-cultural studies have found that culture contributes in significant ways to an individual's perception of touch, the types of touch used, and comfort levels with using and receiving touch (Fejgin & Hanegby, 2001; Field, 1999). As sport continually becomes more diverse, racially and ethnoculturally, coaches will need to acquire the knowledge and skills to negotiate touch with athletes.

Intrapersonal variables that were noted as important factors in terms of touch acceptability include an athlete's degree of touch preference, understanding of sport-specific touch requirements and rituals, an athlete's present mood, and preferred coping mechanisms. Although touch preference and an individual's past experience with touching were only briefly recognized in the literature as a component when determining touch acceptability (Carlson, 2005), individual touch preferences were recognized as an important component of touch acceptability in the present study; this may be an important area for future research and for consideration by coaches.

4.1 Study Implications

Based upon the current findings and those from related studies, it can be concluded that touch is both idiosyncratic and contextual. Individuals differ in their tendencies to touch and receive touch and in their preferences for the type of touch used. Further, not only is the context of the sport environment unique in regards to the use of touch, but touch is used and accepted differently across sports. In this sense, each sport seems to have its own cultural norms with respect to the use of touch and touch rituals. Admittedly, the contextual nature of sport also contributes to the potential for sexual abuse of athletes to occur; however, it appears equally important to acknowledge the potential for the unique context of sport to contribute to healthy intrapersonal and interpersonal development through touch.

When determining touch acceptability, it is important for coaches to consider the nonverbal cues of athletes. The ability to effectively read nonverbal cues such as body language and mood, were determined as factors that can facilitate positive touch and prevent unwelcomed touch. Athletes who prefer to be comforted or praised through affective touch were able to appreciate and benefit from touch during emotionally charged times, opposed to those athletes who prefer to be alone and

appreciate space from their coach. Ultimately, coaches have a particular responsibility to be able to read an athlete's nonverbal behaviours and to know his or her individual coping preferences to ensure touch is received positively.

5. Conclusion

Positive touch was reportedly experienced amongst this particular sample of athletes and coaches. Some participants went as far as to state that touch was both valuable and critically important in the sport environment. The findings of this study suggest that the recent trend towards no-touch policies in some child-populated domains may be analogous to 'throwing the baby out with the bath water', effectively ignoring the essential nature of appropriate touch for health and development.

It is clear that the affective and behavioural uses of touch have potential positive implications in sport, as confirmed through athlete and coach testaments, as well as the existing touch literature. Further, touch was deemed as essential in some sports for safety reasons. There are long-standing sport-specific rituals that involve touch that have become normalized in sport even though they may not be so in other settings. Although the use of touch in sport is supported, many considerations must be made to ensure that touch is accepted positively in the coach-athlete relationship. Given the interpersonal, demographic, contextual and intrapersonal mediators of touch acceptance, significant responsibility is placed on the coach to negotiate touch within the coach-athlete relationship. As sport participants become more diverse in terms of sexuality and ethnocultural and racial backgrounds, coaches will require specific knowledge and skills to negotiate important and sensitive touch relationships. Given the cited benefits of touch, a potential applied recommendation would be to develop guidelines and codes of conduct for coaches that discuss the importance of appropriate touch and ways to facilitate rather than to discourage the use of touch.

In conclusion, there is a plethora of literature espousing the benefits of touch for individual well-being and human relationships. The results of the current study also highlight the value and importance of touch in sport. With a focus on facilitating positive touch in the coach-athlete relationship, we may enhance the development of athletes and their enjoyment of sport. Coaches may also have a more enjoyable experience, particularly if their fears around touching athletes and false allegations of maltreatment are diminished. Given the difficulties of recruiting and retaining coaches experienced by most countries, increasing the enjoyment and job satisfaction of coaches is an important endeavour. Taken together, we suggest that future research should examine ways of facilitating positive touch within the coach-athlete relationship.

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