Personal Experiences, Rules, Procedures, and Aspects of Aggression in Competitive Women’s Ice Hockey

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The purpose of this study was to present the emerging experiences of Canadian women hockey players’ perceptions of ice hockey, including aggression. Fifteen female hockey players participated in one of three focus group interviews. The analysis identified nine categories of information, which were grouped into three themes: (a) personal experiences in hockey, which explained their evolution and devotion to the sport of hockey; (b) rules and procedures of hockey, which discussed some factors, such as rules, that influenced the type of hockey played by women; and (c) aspects of aggression in hockey, which indicated their perceptions of various dimensions of aggression. Taken together, these results provided an understanding of various aspects of women’s hockey, most notably those related to aggression.

Cette étude brosse un tableau des nouvelles expériences que vivent les joueuses de hockey sur glace canadiennes, y compris la dimension violente du sport. Quinze joueuses de hockey ont participé à des entrevues dans le cadre d’un des trois groupes de discussion organisés. L’analyse a fait ressortir neuf catégories de données qu’on a regroupées sous trois grandes thématiques : (a) expériences personnelles au niveau du hockey, où les femmes expliquent leur évolution et leur dévouement face au sport du hockey; (b) règlements et procédures propres au hockey, où les femmes discutent de certains facteurs, comme les règlements, qui affectent le type de hockey qu’elles décident de jouer; (c) violence au hockey, où les femmes décrivent comment elles perçoivent la violence au hockey. Pris ensemble, ces résultats aident à faire la lumière sur maints aspects du hockey pour femmes, notamment ceux ayant trait à la violence.
Women’s ice hockey is one of the fastest growing sports in Canada (Seaborn, Trudel, & Gilbert, 1998; Theberge, 1997). The number of women enrolled in organized hockey has increased over 600% (from 8,146 to 51,105 participants) between 1990 and 2000 (Canadian Hockey Association, 2002). Despite increased participation in women’s hockey, there exists a noticeable absence of empirical research on various aspects of this sport, including aggression. The lack of research on aggression is somewhat surprising since women also have shown a propensity to engage in aggressive behaviours (Coakley & Donnelly, 2004; Rail, 1990; Shields, Bredemeier, Gardner, & Bostrom, 1995). For example, a 15-year-old female high school ice hockey player in Toronto was charged with assault after she repeatedly punched an opponent in the head, causing her to suffer whiplash and bruises to her neck (McGregor, 2002).

The term aggression has been defined as overt verbal or physical acts that are intended to either psychologically or physically injure another living organism (Silva, 1980). Furthermore, aggressive behaviours can be classified based on the reinforcement that is sought through the act. Hostile aggression refers to behaviours that are solely for the purpose of harming or inflicting pain on an opponent, such as when hockey players viciously slash an opponent with their stick with the intent of eliminating them from the game (Husman & Silva, 1984). On the other hand, instrumental aggression refers to acts used as a means to an end (Husman & Silva, 1984). That is, the goal is not to inflict suffering but to receive some other external reward, such as victory or praise. An example would be when a hockey player slashes an opponent with the intent of preventing a goal from being scored. A specific type of aggression is violence, which refers to extreme acts of physical aggression (Widmeyer, Dorsch, Bray, & McGuire, 2002). For instance, fist fighting or swinging a stick at someone’s head are acts that would be considered violent in ice hockey. Although individuals who commit such violent acts away from the rink would be prosecuted, there has been a tendency for hockey players to accept these acts as a part of the game (Smith, 1983). A final distinction in the aggression literature concerns assertive behaviours. Unlike aggression and violence, assertive behaviours are exhibited by players with no intent to physically or psychologically harm an opponent, and the behaviour is in accordance with the rules of the game. For example, a body check in men’s hockey is for the most part not intended to harm an opponent and is sanctioned by the rules of the sport. While it is important to define what constitutes an aggressive act, it is equally important to explain why aggression occurs in sport. To address this issue, Widmeyer, Bray, Dorsch, and McGuire (2002) proposed a list of 10 explanations as to why aggression occurs in sport. Four of the explanations reflected grand theories of psychology like instinct theory (e.g., born to be aggressive), social learning theory (e.g., learning how to aggress by watching others), physiological theories (e.g., levels of testosterone), and individual difference theories (e.g., certain types of people play certain kinds of sports). Two other explanations were termed middle-range theories; these included self-presentation (e.g., being aggressive to show toughness) and role theory (e.g., being aggressive is part of the job). The final four explanations were specific to aggressive behaviours, and included frustration hypothesis theory (e.g., reacting to a frustrating situation), retaliation (e.g., getting even with an opponent).
annoyance of opponent (e.g., opponent was bothersome or annoying), and group
influences (e.g., protecting a teammate).

Although research on hockey aggression has used these theoretical
explanations to empirically examine various aspects of aggression (see
Widmeyer et al., 2002 for a review), almost all of this research utilized samples
of men (Young, 1997); thus making it difficult to determine which theoretical
frameworks could explain aggression in women’s hockey. This is unfortunate
since several meta-analyses (e.g., Eagly & Steffen, 1986; Hyde, 1984) have
shown that males and females aggress differently. For instance, Eagly and
Steffen noted that male aggression tended to cause more pain or physical injury,
whereas female aggression was related to producing psychological or social
harm.

Given that the study of aggression in women’s hockey is in its infancy, it
seems reasonable to utilize a multifaceted theoretical approach to examine this
advocated the use of such an approach to study hockey aggression. Their
approach incorporated most of the explanations summarized by Widmeyer et al.
(2002). More specifically, Smith et al. advocated the importance of examining
the psychological, physiological, and social perspectives when studying aspects
of sport aggression. The benefit of adopting such an approach permits a
multitude of solutions to emerge rather than focusing on specific aspects, such
as factors relating only to frustration.

To date, research in women’s hockey has been exploratory in nature and
limited in its understanding of social psychological components, including those
related to aggression. Research in women’s hockey has examined perceptions of
learning at the youth level (Boyd, Trudel, & Donohue, 1997), instructional
content to players (Seaborn et al., 1998), aspects of physicality (Theberge, 1997;
Young, 1997), and the presence of aggressive acts and techniques (Bloom &
Vanier, 2004). For example, Theberge found that despite the illegal nature of
body checking in women’s hockey, both coaches and athletes reported that it
frequently occurred and that the players derived satisfaction from behaving
aggressively on ice. Similarly, Bloom and Vanier conducted interviews with
coaches who worked at the professional, university, and junior college levels in
women’s hockey in Canada. According to these coaches, aggression was an
accepted part of elite women’s hockey that was used to intimidate opponents.
Physical forms of aggression included hitting a player into the boards and
spearing an opponent in the ribs. As well, forms of violence were reported by
the coaches including the occurrence of fistfights and checking from behind.
One of the suggestions from Bloom and Vanier was the need to corroborate
these findings by gathering data from athletes themselves. Therefore, it can be speculated that if participation rates in women’s hockey are
going to continue to rise, then additional research on aspects of aggression seem
warranted. Further to this, research from Canadian sport scientists (e.g., Bloom
& Vanier, 2004; Boyd et al., 1997; Theberge, 1997) has indicated the need for
more research in this domain to get a better, more complete understanding of
aggression in women’s hockey. Thus, the purpose of this study was to present
the emerging experiences of Canadian women hockey players’ perceptions of
ice hockey, including aggression.
Method

Participants

Women ice hockey players (n = 15) from three different competitive levels of hockey participated in this study: the National Women’s Hockey League (NWHL), Canadian Interuniversity Sport (CIS), and CEGEP (Quebec Student Sports Federation) - the equivalent to junior college in most of North America. There were 8 teams in the NWHL and players ranged in age from 17-25. There were 17 teams in the CIS and the players ranged in age from 17 to 24. Finally, there were 8 teams in the CEGEP league, where the players ranged in age from 17 to 22. Thus, all participants for this study ranged in age from 17 to 25. These levels of hockey were selected because they represented some of the top levels of women’s ice hockey in Canada.

Data Collection

Athletes were selected by their coaches and participated in a focus group session with other members of their team. Focus groups were chosen as the method of data acquisition since it is a way of generating a rich understanding from several participants about topics that are poorly understood (Morgan, 2001). As well, purposeful sampling was used in this study. As such, each focus group had athletes who demonstrated (according to their coaches) varying levels of aggression while playing hockey. The coaches were used to help identify players since the use of penalty minutes as an indicator of players’ aggression have been shown to be misleading (Sheldon & Aimar, 2001). Thus, the coaches were provided with Silva’s (1980) definition of aggression to help identify possible participants. Each player participated in one of three focus group sessions that lasted approximately one and a half hours. Each session consisted of five players from the same team and was led by a moderator, monitored by an assistant moderator, and recorded by a videographer.

A semi-structured interview approach was employed due to the exploratory nature of this study. This approach, similar to open-ended interviews, allowed the moderator to explore the topic in a way that enabled participants to generate new insights (Morgan, 2001; Morgan & Kraeger, 1998). Morgan and Kraeger noted that focus groups are particularly useful for exploration and discovery purposes. Focus groups explore complex influences by encouraging participants to investigate ways in which they are similar to and different from each other. Interactions among participants in focus group sessions often involve an effort to understand the other participants.

Following the recommendations of Morgan and Kraeger (1998), the wording of the questions was direct, forthright, comfortable, and simple, and was delivered in a conversational manner. The moderator encouraged participants to share their thoughts, feelings, and experiences, while observing body language, gestures, and tone of voice (Morgan & Kraeger, 1998). Following the suggestions of Morgan and Kraeger, the interview was divided into six main areas: (a) opening, (b) introductory, (c) transition, (d) key, (e) ending, and, (e) summary questions. The investigation followed a sequence from general to specific, which allowed participants to gradually discuss the topic of aggression.

Opening questions were based on facts as opposed to attitudes or opinions and were designed to stimulate interaction. Athletes began by introducing
themselves and stating their previous sporting experiences (e.g., ringette, men’s, and women’s hockey) and how they became involved in women’s hockey.

**Introductory questions** were open-ended and designed to facilitate conversation and interaction among the participants. The introductory question suggested that the participants discuss skills they used and focused on during practices. **Transition questions** were designed to prepare participants for later key questions by broadening their understanding of the topic of aggression. The two transition questions were: “How is women’s ice hockey different from men’s ice hockey?” and “Do you feel as though there is greater focus on skating and skill in the women’s game because of the nonchecking rule?” The prompt for this question directed them to comment on how the nonchecking rule changed the flow of the women’s game. **Key questions** were those that drove the study and usually took the participants longer to answer. Key questions directed the participants to discuss aggressive acts in ice hockey and their own reactions. As well, they were asked to comment on feelings regarding various aspects of aggression in their sport. Of note, the players were not provided with definitions of assertiveness, aggression, or violence, and could then talk freely about their experiences without feeling pressure to conform to academic definitions. In addition, this facilitated the understanding of various forms of assertiveness, aggression, and violence used in this sport. **Ending questions** were designed to provide closure to the discussion and to allow participants an opportunity to reflect upon previous dimensions of this process. Finally, a **summary question** was asked after a two to three minute summary by the moderator on the key points raised during the session to assess the participants’ perceptions of the accuracy of the summary.

**Data Analysis**

All of the focus group interviews were transcribed verbatim and analyzed with the assistance of the QSR NUD*IST software program. An inductive data analysis was conducted using the long table approach (Morgan & Krueger, 1998). Initially, coding was performed by dividing the text from each focus group session into chunks that conveyed a specific meaning to the research team. These chunks of text (cf. Tesch, 1990) were given labels, called **codes**, which logically corresponded to the data they represented. Following this, the initial codes were regrouped into larger categories and an assistant verified the results independently to help ensure validity (Boyd et al., 1997; Morgan & Krueger, 1998).

Other precautions were taken to ensure the accuracy of the data analysis process. First, a pilot focus group session with female ice hockey players was carried out before data collection began. An individual with qualitative interview skills and experience was present and provided feedback to the moderator. Feedback included an analysis of the interviewing ability of the researcher and adherence to interviewing guidelines outlined by Rubin and Rubin (1995) and Morgan and Krueger (1998). Secondly, after the participants exited the room, the moderator and assistant moderator completed a 20-60 minute debriefing session. This session was tape-recorded and focused on the most important themes discussed during the session, how they differed from what was expected and/or had occurred during earlier sessions, as well as any unanticipated findings. Thirdly, member checks were completed with each of
the players. More specifically, after the data had been analyzed, each participant was sent a summary of the results and conclusions to assess. The participants confirmed the accuracy of this information, thus assuring the research team the accuracy of the results. Finally, peer review was another form of data verification and was comprised of individuals who were not part of the research team and who independently examined 25% of the assigned codes and then classified them to one of nine categories. The interrater agreement amongst the peer reviewers was high (over 85%).

Results

The analysis of the focus group data identified nine categories of information pertaining to the experiences of Canadian women hockey players' perceptions of ice hockey, including aggression. Nine categories were grouped into three themes which were labelled: (a) personal experiences in hockey, (b) rules and procedures of hockey, and (c) aspects of aggression in hockey. Table 1 provides an overview of the themes, the categories within each theme, and the frequency of responses. The following section outlines each theme, including similarities and differences within the players' responses. Each level of play was identified by assigning a separate letter for it - C to represent players at the CEGEP level, U for those at the university level, and an N for those in the National Women's Hockey League (NWHL). Each player was assigned a number from 1 to 15 to protect their confidentiality. Thus, players C1 to C5 competed at the CEGEP level, U6 to U10 at the university level, and those N11 to N15 in the NWHL.

Table 1.
A listing of the frequency and percentages of the themes and categories

<table>
<thead>
<tr>
<th>Themes and Categories</th>
<th>Frequency of responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Experiences in Hockey</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Athletic career</td>
<td>16</td>
<td>12.0</td>
</tr>
<tr>
<td>Reflective experiences</td>
<td>10</td>
<td>7.6</td>
</tr>
<tr>
<td>Practicing skills</td>
<td>12</td>
<td>9.1</td>
</tr>
<tr>
<td>Rules and Procedures of Hockey</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rules and officiating</td>
<td>8</td>
<td>6.1</td>
</tr>
<tr>
<td>Body checking and contact</td>
<td>13</td>
<td>9.8</td>
</tr>
<tr>
<td>Comparisons with men’s hockey</td>
<td>17</td>
<td>12.8</td>
</tr>
<tr>
<td>Aspects of Aggression in Hockey</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assertiveness</td>
<td>9</td>
<td>6.7</td>
</tr>
<tr>
<td>Verbal aggression</td>
<td>11</td>
<td>8.2</td>
</tr>
<tr>
<td>Physical aggression</td>
<td>37</td>
<td>27.7</td>
</tr>
<tr>
<td>Totals</td>
<td>133</td>
<td>100</td>
</tr>
</tbody>
</table>
**Personal Experiences in Hockey**

Information gathered on this theme was primarily obtained from the opening, introductory, and ending questions. This contained background information that provided a deeper understanding of how the participants became involved in ice hockey, how hockey influenced their personal lives, and how they honed and refined their skills.

Each player described her evolution in ice hockey in the introductory part of each focus group session. They played hockey between 6 and 19 years, for an average of 9.8 years. Their background prior to playing varied; three came from ringette, one figure skater, five initially played boys hockey, and the remainder started out in girls hockey. All athletes noted that playing women’s hockey was a positive experience for them. For instance, several players pointed out that a lot of their personal growth and opportunities to gain valuable life experience was achieved through their involvement in women’s hockey:

Girl’s hockey came to my rescue when I was 17 or 18. I wanted to keep playing and be part of the sport I loved, but with guy’s hockey it was difficult to continue. But with girls it opened a lot of doors for me and now and I have been through so many wonderful things. I think I have had more opportunities with girls than I could have had with guys. As [subject name] said, that has helped me develop my passion for the game. [N11]

I have been playing with boys’ teams all my life. Then two years ago I was cut from every team and I was thinking what’s going on? I was not good enough to play with the boys’ teams, it was time to switch to girls’ hockey. It has opened a lot of doors. I was on Team Quebec and the National team and that was a good thing for me. [N14]

Athletes also discussed some of the more specific benefits of playing organized hockey, such as improving their communication, focus, and time management skills:

Hockey has been a really good experience for me, especially the three years that I have had at [CEGEP name]. I have really learned a lot about myself, and a lot about how to interact with people. I have learned a lot about the game skill-wise, about managing my time around hockey and school. Playing hockey has made me learn so much stuff about life. Personally, I have had some good coaches and met a lot of girls from different places. It has been a good experience overall. [C5]

Hockey has been good for me because it is a team sport... Hockey helps me with my communication skills, understanding how to deal with people and deal with problems. I’ve met a lot of my friends there, so it has been a lot of fun. [C4]
Just having somewhere to go and not having any worries is nice. When you are on the ice you do not have to worry about the paper you have due the next day or the problems you are having with your boyfriend or anything like that. It is somewhere to go and hang out with people who have the same interests as you and the same goals in terms of hockey - and it is fun. [U8]

A related point to their enjoyment of hockey was the bonding experience with teammates in the locker room, “The social aspect of the dressing room is important to me. We are always kidding around and there is always something going on in the dressing room.” [C5]

A final category within this theme alluded to the manner in which the players practiced and honed their skills. This information further highlighted their commitment and dedication to hockey. At the CEGEP level, the players worked on skating and passing and gradually moved into playmaking and power plays as the season progressed. At the University level, the team followed weekly routines that progressed from individual skill development to team concepts, such as power plays and penalty killing. At the National League level, they developed timing drills, as well as improving anticipation and quickness. Practices addressed fundamental skills such as skating and shooting, but also involved cognition and execution at high speeds.

Rules and Procedures of Hockey

This second theme referred to specific aspects of women’s ice hockey as compared to men’s hockey, the body checking rule, and officiating. This information was valuable for interpretation and understanding of assertiveness, aggression, and violence that emerged in the third category (i.e., aspects of aggression in hockey). More specifically, before understanding acts or thoughts regarding various aspects of aggression, it was equally important to consider possible mechanisms that might have influenced player perceptions of aggression.

Initially, all three teams expressed dissatisfaction with respect to officiating in their leagues. Items discussed were the inconsistency of calling penalties and the lack of consistency between the different officials. Many comments were specifically directed at female officials, whom the players felt did not have a proper “feel” (understanding) for the game. Despite this, the players reported that developing female officials was important and necessary for the sport to continue to grow, and that the training and development of officials should be better developed at the grass roots level.

Opinions on what constituted legitimate body contact and what should be tolerated in the sport were discussed. Some players felt that not having to worry about getting hit or injured, actually facilitated their concentration on playing the game:

It is better for us [no body checking]. Maybe not for people in the stands, but it depends on what you want to see. Some people just want to see fighting so they do not care about our game. I think
the people who come to our games are happy with the way we are playing. [N11]

Along the same line, some players felt that the absence of body checking improved the flow of the game and resulted in better hockey, including allowing smaller women to participate:

It is not good for us because we are smaller. There are little girls like [name] that could not play if we had body checking. She would get killed. It leaves more of an opening for us since we are pretty small and if it was body checking I could not play - I would be dead! [N13]

Despite the aforementioned reports, the majority of the participants enthusiastically supported the inclusion of body contact in hockey, as long as the players were taught how to give and receive this skill at the grass-roots level. On a related issue, the general feeling was that allowing more body contact would be beneficial for women, without adopting a style similar to men's hockey, which allows full fledged body checking:

You should be able to go into the boards and get the puck, and you should not have to stop before you go in. I just think it would be better. If you are going in on defence, the defence cannot take the player, but they should be able to take the player. That is just the way it should be. [U9]

Two of the women on the University team also played for their provincial team. They said there was a lot more physical contact at the provincial level and the referees let it go. The players at the provincial level had to keep their head up for fear of being hit hard. There were open ice hits and the level of play was higher, so even when a player made contact, she would not always fall down as was the case at the lower levels:

I liked when we played for our provincial team. It was in between body checking and university hockey, and it was perfect. It was at that perfect stage where you could hit because they had the skill level to not fall down. [U10]

The biggest difference between men's and women's hockey is the use of body checking. Not surprisingly, this issue was discussed by the participants. They also alluded to physical and personality characteristics, as well as emotional differences between men and women. More precisely, the players felt that men's hockey incorporated more speed, strength, size, aggressiveness, and violence. The following quotation relates to some of these differences between women's and men's hockey:

When you go from playing women's to men's, you have so much less time to think about what you want to do. You have to know what you want to do before [you do it]. If you have been playing
men's and you go back to women's, I find you have that extra second to make a decision. [U8]

The women also discussed how penalties for aggressiveness or violence seemed to be harsher for women's hockey than men's. As one player noted:

You would be suspended for sure. There is a big penalty for fighting in the women’s game and not in the men's because we are not even allowed to body check – we would not be allowed to fight. [C4]

Aspects of Aggression in Hockey

Whereas the previous theme addressed various aspects related to factors that affected the type of hockey played by women, this theme addressed some of the outcomes that were affected by those factors. More specifically, it addressed the key issues guiding this study (i.e., the players’ views on aspects of assertiveness, aggression, and violence in competitive women's hockey). Not surprisingly, there were a high number of citations (42.8%) compared to the other two categories (i.e., personal experiences in hockey, 28.6%; rules and procedures of hockey, 28.6%), which was likely attributed to the nature of the interview guide and the purpose of the study.

Assertiveness was often described as going hard after the puck and being competitive. The athletes felt this was an important component needed to achieve success: “It is not dangerous and it is not meant to harm people. It is more being assertive, being able to play.” [C4]

Yeah, in front of the net especially, the defense are usually trying to get the forwards out. I found there is a lot of contact there and especially in the corners too. And you have to want the puck, otherwise you are never going to get it. You really have to dig in there and try to get it out. [N15]

As per Silva’s (1980) definition, the difference between aggression and assertiveness was whether the players were intentionally trying to harm their opponent or gain possession of the puck. As one athlete noted:

When I go into the boards, and I end up hurting someone, I am not thinking before that I am going to hurt them - but a lot of times it happens. Even things in front of the net, like you take people’s skates out with your stick, you are not intentionally trying to hurt them - you are just playing the game. [U9]

The players admitted to making some rule-breaking infractions, but noted that they were not intended to hurt an opponent, rather they were trying to gain an advantage. As one athlete said, “I have given cheap hits, but I am not thinking that I am going to hurt the person. I am just out there playing.” [U9]

The participants also discussed aspects of verbal and physical aggression. With respect to the former, some noted that female hockey players verbally
insulted each other on the ice to get an emotional reaction from their opponent and to put them off their game. Listed below are some examples:

I verbally insult the other player just because I know that the girl is going to get a two-minute penalty because she is going to hit me. There are some players where if you talk to them a lot they will not be focused on the game at all, so they will be out of it. [N11]

I said something to a girl that was kind of mean. I said, ‘You’re a big girl aren’t you?’ And she was a big girl. Maybe I should not have said it since she was a big girl. If she has low self-esteem, that is not my problem. Girls say it all the time and if they are going to say something mean then I am going to say something back. If they can not handle it, that is their problem. [U9]

[Coach’s name] likes this nice image of us being a classy school. I feel that I am from a classier school than they are, and I am better. Also, I can talk down to them. I do not have to use swear words, we just have a bitchy, snotty attitude. [U10]

The correlates of physical aggression in women’s hockey were discussed. Aspects of physical aggression mentioned by the athletes included cheap shots, illegal techniques and tactics, as well as the most extreme sort of aggression — violence. One player noted, “We have had people try to hurt us, like high sticks under the throat.” [N10]

Frequently, players were hit in the back of the calves where they had no protection. For example, goalies sometimes jabbed opposing forwards in the back of the legs with their sticks. Players would often jab their opponents in the ribs while going into the boards or on face-offs. As one player noted, “When you go into the face-off, they have their stick like this, they have their hand in here, and they will slide their hand down and jab you right in the ribs.” [U8] In addition a goalie remarked that, “I want my defencemen to push the other forwards away because they are right in my way and I want to see the puck. Sometimes you can see some cheap shots behind the legs.” [C1] Spearin, cross-checking, kicking the feet from under their opponent, slashing, hitting from really low down, and butt-ending during the face-offs were mentioned as most prevalent forms of aggression in the game. It was not uncommon for players to perform these aggressive acts when officials were not looking. “You have to make it look like you did not mean to hit them...you are looking that way and then all of a sudden...boom.” [N9]

At the National League level, the players commented that aggression was more a part of their game. Although body checking was against the rules, there was plenty of contact in their league. They said they had to be aggressive to be a part of the game. As a player noted, “There are a lot of punches and sometimes when the ref is not looking, there is a lot of hitting and slashing as well. But it is not like fighting for two minutes where everybody stops.” [N11]

Six of the 15 subjects reported stories of physical aggression they had encountered. Three of these examples included:
I played in a tournament with younger girls this weekend, and sometimes they give really cheap shots. You are in front of the net and you are just moving her out of the way and you turn your back and get hit in the face! The girl was like 13 years old, I was pretty surprised. [N13]

At our second national championships at [university name] we were playing the first game against [university name]. We could beat [opponent] and they knew they would not win and so they tried to injure us. Between each period all the girls were icing everywhere and the referee would not call anything. We got killed and we did not retaliate at all. There were cheap shots, very high sticks, slashing. We won the game for nothing because we lost our best player, due to a bad call from a linesman. [N12]

I was skating off and I saw these two hands in my face mask and I was pulled down. Then our arms were going nuts and all the guys were saying "two girls are fighting!" They had to separate us, and when I got in the dressing room I was so mad. [N10]

Some women said they would hit their opponent and risk getting a penalty if they were provoked enough. Taunting the opponent verbally or physically caused them to become frustrated and helped gain an advantage. Players became frustrated with themselves, the referees, the other team, and their own team when they were not playing well. One player became so frustrated she punched her opponent in the helmet after her opponent had hit her twice, once in the neck:

I got frustrated with a girl from the [city name] team. I think I might have hit her in the helmet once with my glove or something, and we both got thrown out. It was just two seconds, and then the refs came in, and we both went off. I was really frustrated. I think we were losing 6-1 and it was the third period. The ref had been right there, and the girl had hit me with her stick and I went down along the boards and then she hit me in the neck and the ref did not call a thing! [C5]

Two other players commented on feelings of frustration:

As a forward, when you are in front of the net and the defence is cross-checking you in the back but they are not supposed to get away with that. It is annoying after a while, and once in a while you just want to go and kick their skate. Once in a while I will swing my foot and knock them over. [C4]

I have been frustrated when our team has lost control of the game. For example, if a team is better than us and we cannot seem to score and we know we are not going to win, then I just get
frustrated and I will be a bit more aggressive. I will be a bit dirtier in the corners. [N15]

On one team, three out of the five athletes had concussions from playing hockey. They were concerned about sustaining more in hockey. Two were so serious that the players experienced a severe symptom of a concussion, vomiting. "When I was younger I didn’t know about concussions. I remember getting hit and I always felt so sick and I started throwing up and I had no idea what was going on." [U9]

**Discussion**

The results of the current analysis revealed three themes pertaining to women’s experiences and perceptions of hockey in Canada, including aggression. The themes were labeled: (a) personal experiences in hockey, which explained the players’ evolution and devotion to the sport of hockey, (b) rules and procedures of hockey, which discussed factors, such as rules, that influenced the type of hockey played by women, and (c) aspects of aggression in hockey, which outlined their perceptions of various dimensions of aggression. The discussion will focus on each of these three themes followed by future directions for research in this area.

Although the primary purpose of the study was to examine perceptions of aggression, the findings of the first two themes (i.e., personal experiences in hockey, and rules and procedures of hockey) shed insight on some of the factors influencing aggression in women’s hockey. For example, information within their personal experiences in hockey revealed that the participants played boy’s and/or girl’s minor hockey in their youth. This type of background information was deemed important since Vaz (1982) noted that players’ attitudes and values regarding aggression were learned during involvement in youth hockey.

Regarding the theme on rules and procedures of hockey, it was revealed that various situational factors may have influenced aggression in women’s hockey. One such factor was officiating. The participants indicated that referees were inconsistent in calling penalties. This finding concurs with Bloom and Vanier (2004) who found that coaches of elite women’s hockey teams felt that poor officiating contributed to increased frustration, and hence aggression, in their sport. In this respect, the current results are similar to men’s hockey where observations have found that poor officiating contributed to an increase in aggression and violence on the ice (Smith, 1979; Vaz, 1982). Future research should examine other contributing aspects of officiating in women’s hockey, including the quality of officiating, as well as potential differences between men and women referees.

Another variable that appeared to influence whether or not women hockey players aggressed was team cohesion. Most of the current participants noted that team bonding was an important reason why they enjoyed the game of hockey. According to Widmeyer et al. (2002), playing on a highly cohesive hockey team may increase the likelihood of a player behaving aggressively because the belief regarding the appropriateness of this behaviour increasingly becomes shared amongst teammates. Further to this, Shields et al. (1995) found cohesion to be positively associated with the expectations that teammates would aggress.
The theme entailing aspects of aggression in hockey revealed that assertiveness and both verbal and physical aggression were prevalent in women’s hockey. Despite this, all players indicated their intent was never to harm or injure an opponent. This result is in contrast to findings from Widmeyer and Birch (1984) who interviewed professional male hockey players to determine which acts were committed with the intent to inflict harm. Their findings suggested that slashing, spearing, high-sticking, butt-ending, cross-checking, charging, boarding, kneeling, elbowing, roughing, and fighting were committed with the intent to injure. Therefore, the current results appear to indicate that aggressive acts committed in women’s hockey are legitimized as long as the intent is not to harm or injure. Future research in women’s hockey should determine situations in which players legitimize aggression and determine the intent behind the aggressive act. It may be that female hockey players use aggression against their opponent for strategic reasons without the intent of harming the opponent. Interestingly, few players used the word ‘violence’ to describe acts of hostility in women’s hockey. Perhaps this could be attributed to the fact there are automatic sanctions, in the form of game suspensions, for players who engage in violence, such as fighting.

In attempting to explain and gain a better understanding of aggression in women’s hockey, the current study, following the recommendation of Smith et al. (2000), examined the perceptions of aggression using a more encompassing approach. That is, Smith et al. advocated an approach that brought together various elements related to the psychological, physiological, and social perspectives to better understand aggression in hockey. The results of the current study benefited from Smith et al.’s recommendation, especially given the predominance of information relating to the social and psychological perspectives.

Social learning theory posits that aggressive behaviours are learned by watching and modeling others, while also receiving reinforcement for exhibiting these actions. Previous investigations using this position have been conducted with male ice hockey players (e.g., Russell, 1979; Smith, 1975, 1979; Vaz, 1982). Among their conclusions, it was found that many coaches, parents, and teammates accepted and encouraged acts of aggression and violence in hockey. The results from the current study are in line with this orientation. Particularly, players appeared to be adapting and accepting of an aggressive style of play, as well as learning ways to avoid being penalized for their behaviours.

On a related point, it appears that the players in the present study believed or learned that physical aggression was an effective technique in ice hockey. Perhaps this result is not surprising since Boyd et al. (1997) found that young female hockey players enjoyed the physical aspect of the game, including body checking. In addition, the results from Boyd et al. indicated that aggressive play and body checking were listed among the players’ favourite aspects about competing in the sport. Although the present study included an older and broader age range, the attitudes of the players appeared to be the same as those of the 12 to 15 years olds. This suggests that the learning of aggression in women’s ice hockey was already initiated at the youth level and continued through higher levels of competition.

From a psychological perspective, the frustration-aggression hypothesis posits that individuals aggress after feeling frustrated because they did not
achieve their goals (Dollard, Miller, Doob, Mowrer, & Sears, 1939). The players in the present study revealed various situations that frustrated them and may have led them to act aggressively. It appeared that the likelihood of acting aggressively increased when players’ teams were losing with little chance of winning the game. Similarly, McGuire (1990) found professional teams losing by three or more goals were more aggressive than those losing by fewer goals. Although it appears that losing may lead to aggression, future research should determine the specific conditions of frustration that cause athletes to aggress.

Another psychological perspective to help explain why aggression occurred was related to reports of aggressive verbal interactions between players. The players reported insulting each other on the ice to elicit a negative emotional response and possibly break their opponent’s concentration. Although verbal aggression or “trash talking” was highlighted as a reason why female players aggressed, there is limited research on this topic specific to ice hockey. McGuire (1990) examined the antecedents of aggressive behaviour occurring in professional men’s ice hockey. It was shown that verbal aggression was present and occurred primarily late in the contest. It was concluded that either a build up of frustration and animosities among players as the game proceeded, or the cumulative effect of a number of incidents of verbal assault, could lead to higher levels of aggressive acts.

Overall, the results of the current study offered support for incorporating an approach that considered both the social and psychological components of aggression in sport (e.g., Smith et al., 2000). Despite this, inherent in the definition of aggression is the intent to harm another individual. Historically, it is this intentional aspect of aggression that has been most problematic in measuring this behaviour (Stephens, 1998). Thus, future research should investigate aggression in women’s hockey by examining the aggressive intentions of athletes. Consequently, there is a need to identify a conceptual framework that will allow for the examination of intentional aspect of aggression. One such framework is Ajzen’s (1991) theory of planned behaviour, which specifies that a person’s intention to perform a particular behaviour is a central determinant of actual behaviour since it reflects the person’s level of motivation and willingness to exert effort.

Future research may consider replicating aspects of the current study with a larger sample, using either qualitative or quantitative approaches. Another recommendation is to examine aspects of aggression in women’s hockey at the lower levels, since it appears that the socialization process occurs at quite an early age. From a practical perspective, there is a need to develop theory-based interventions to reduce incidents of aggression in women’s hockey.
References


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