

Women's Hockey: Gender Issues On and Off the Ice

Conference Abstracts

Women's Hockey: Gender Issues On and Off the Ice

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Saint Mary's University

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***Moments of Silence in Shallow Halls of Greatness:
The Hockey Hall of Fame and the Politics of Representation***

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Sport Halls of Fame bestow a level of status on athletes, both male and female, singling out specific sports and athletic accomplishments. As a medium for the dissemination of information, they play a vital role in the creation of social memory, the *remembering* of sport (Kidd, 1996). The information presented in halls of fame is often a mix of scholarly research with memories and myth, sometimes decontextualized for simplicity, and sometimes rendering complex social issues in a rather uncomplicated manner. Given the primary position of ice hockey in Canadian culture both past and present, the Hockey Hall of Fame in Toronto, Ontario is a shrine for more than a century of stories, historical claims, and memorabilia. The curators have arranged and organized various photographs, trophies, and hockey equipment to tell specific stories, to capture what have been identified as significant moments in Canadian hockey history. The processes of collection and donation and the decision-making with respect to these displays are not value neutral. Rather, they are entwined with an on-going engagement with culture, how people today interpret and represent the events of the past. Directly related to the complex of relations in today's society, displays and records reinforce hierarchies of achievement, in contexts that are comfortable for the observer or paying

customer, an active social process that ensures the prevalence of professional hockey in Canada, historically and in the present. That men's professional hockey, monopolized by the National Hockey League a central place in Canadian popular culture since the 1940s, is evident in the content of Hall of Fame displays. A consequence of this authority has been a marginalization of amateur hockey and of women players in general, some of whom having achieved significant athletic accomplishments. The iconographic status of professional stars, reinforced by their prominence in the Hall, is educational to the observer, the patrons of the facility. What place then is there for a critical interpretation of events and relationships in Canada's social history, one that considers issues more complex than championships, goals, and assists? Other museums and travelling displays tackle complicated issues that are uncomfortable for patrons, like the Holocaust or World Wars – yet, sports halls of fame, similar to the representations of sport in wider media broadcasts, decontextualize sport and the relations it has reproduced in Canadian society from era to era, an active construction of comfortable, even thrilling social memories. This paper examines the politics of representation in halls of fame, particularly the Hockey Hall of Fame, exploring the nature of its displays and their relationship to a more critical history of hockey in Canada.

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NCAA Three-Year Injury Pattern: Male & Female Ice Hockey

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The NCAA has tracked injuries in its Injury Surveillance System (ISS) database since 1989. Although men's Ice Hockey became an official NCAA sport in 1986, women's Ice Hockey only began as an official sponsored sport in 2000. Currently the men's sport has grown to 134 teams while there are 70 sanctioned women's teams. For the ISS database an injury is defined as any event resulting in time lost from the next practice or competition. This review summarizes the three seasons for which both Men and Women competed; 2000-03. Twelve schools completed injury data for the Women in the first two seasons (18%) and (17%) respectively and thirteen (19%) in the third season. 36 (28%), 35 (26%), and 34 (25%) schools completed injury data for the Men in the three seasons being reviewed. The primary difference in Men and Women's ice hockey is that the Women's game is intended to be a non-checking game and thus it is anticipated that there should be less contact injuries.

In 2001 there were 538 injuries reported out of 91,744 exposures for men (5.9 per 1,000) and 80 injuries reported out of 23,145 (3.5 per 1,000) for women. In 2002 there were 542 injuries out of 86,390 exposures for men (6.3 per 1,000) and 169 injuries reported out of 21,837 for women (7.7 per 1,000). In 2003 there were 396 injuries reported out of 88,642 (4.5 per 1,000) exposures for men and 131 injuries reported out of 25,787 (5.1%) for women. The primary mechanism of injury in each season for both the men and women was contact with another player.

The relative risk of injury for men compared to women in 2001 was 1.7 (C.I. 1.34,2.14). The relative risk of injury for men compared to women in 2002 was .81 (C.I. .68,.96). In 2003 the relative risk of injury for men compared to women was .88 (C.I. .72-1.1).

There is no obvious explanation for the large jump in number of injuries sustained by women from their first year of play to their second year of play, although season three data shows a downward trend. The high number of injuries that occurred from contact with another player is cause for concern in the women's game, which is theoretically non-contact as is the jump in concussion in season three.

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Homophobia: Seeing the Invisible, Talking about the Unspoken

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For years homophobia has been the barrier to women's participation in hockey that was never discussed, never identified, and never acknowledged. Whether it was an unexpressed concern of parents about their daughters starting to play the game, or the division between 'straight' and 'gay' players on a team, this issue has rarely been talked about in public forums. The objective of this session is to stimulate discussion and to help equip people to deal with situations that arise in sport, and in particular in women's hockey.

CAAWS, a national organization with an established reputation for bringing issues of gender equity into the mainstream, has conducted a series of consultations on the subject. Using information gleaned from these discussions conducted with women across the spectrum of the sport community, CAAWS has documented that homophobia is still an issue that coaches, players, parents, administrators, sport association staff, and journalists deal with. The session will focus on the results of the consultations and will bring real-life examples to demonstrate the depth and breadth of experiences people have had with homophobia.

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Officiating Division 1 Women's Hockey: Does The Referee's Gender Matter?

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Does the quality and character of hockey officiating vary with the gender of the on-ice officials? To properly answer this question, both performance variables and social issues must be considered. Informal observation suggests that gender, per se, may not make much difference, at least in terms of on-ice performance. Those experienced with women's college hockey, however, may call a different (and presumably better) game than those lacking such experience. Officiating assignments at The Ohio State University provide us with an opportunity to examine these questions.

Ohio State belongs to both the Women's WCHA and the Men's CCHA. All-male crews from the CCHA officiated the first three seasons of women's varsity competition in Columbus. The Women's WCHA began sending its own on-ice officials in 2002-03. Those crews include both female and male officials.

A questionnaire will be directed to coaches, players and off-ice officials. Respondents will be asked to compare officiating patterns from the two eras, and make general assessments with regard to gender and officiating.

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Effect on Playing Hockey on Fitness of Young Women Hockey Players

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There is much discussion in women's hockey about rules, age limits, geographical boundaries and who can play within, and outside the boundaries, equipment, injuries, and playing rules. However, little is known, and even less is talked about, the impact playing hockey can have on the fitness of young women. With childhood obesity at epidemic levels, children being chronically physically inactive, "adult diseases" afflicting children, and a large population of children being physically unfit to the point of being unhealthy and at risk for disease, it seems prudent to investigate the effects of hockey on fitness.

This paper will present data on the effect of a hockey season on off-ice and on-ice fitness, and skating performance of 7 to 18 year old women hockey players (average age = 11.71 years). Pre and post-season testing was performed on three hockey teams: 1) mixed Atom/Novice, 2) Pee Wee, and 3) mixed Bantam/Midget. The off-ice fitness tests included: muscle power, strength, and endurance, agility, flexibility, and anthropometrics. On-ice fitness was measured using a Modified Repeat Sprint Skate Test (Bracko and George, 2001) to measure time to complete three repeats, drop-off time (third repeat minus first repeat), post-test heart rate and recovery heart rate, and post-test rating of perceived exertion. Skating performance was measured by: acceleration, speed, and agility (Bracko and

George, 2001).

When the data were analyzed statistically, there were no differences between pre-season and post-season scores, on any fitness test. These results indicate that a seven-month schedule of playing/practicing two to five times/week causes no change in off-ice fitness, on-ice fitness, or skating performance of young women hockey players. These results can be interpreted two ways: 1) the practices and games were of sufficient intensity, duration and frequency to maintain fitness and skating ability or, 2) the practices and games were not of sufficient intensity, duration and frequency to improve fitness or skating ability.

It is important to point out that the two youngest hockey teams in this study conducted 50% of their practices on half an ice sheet. With no off-ice fitness training being used, the only activity the players had was on-ice games and practices. This raises questions regarding two teams practicing on one ice sheet: 1) Does practicing on half an ice sheet hinder the improvement of fitness and skating ability? Or 2) Does practicing on half an ice sheet allow sufficient stimulus to maintain fitness and skating ability?

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Physical Performance Characteristics of Canadian University Women's Hockey Players

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Gonzaga University With women's hockey attaining medal status at the 1998 Olympic Winter Games, and its subsequent growth, there is a need for a better understanding of the physical, and performance, characteristics of elite women's hockey players. Most of the research on physical characteristics of hockey players has focused on men (Agre et al., 1988; Bouchard et al., 1974; Chovanova, 1976; Newton, 1978; Pirie, 1974; Stepnicka 1976, 1977; Vossen et al., 2000). Data on the physical performance characteristics of women's ice hockey players (Bracko and Geithner, 2000; Geithner and Bracko, 1999, 2000, 2001), their relationships to, and prediction of, performance (Bracko and George, 2001), are limited.

The authors have been investigating the physical performance characteristics of one of Canada's most successful University women's hockey programs. In the last five years, the University of Alberta Pandas have won the Canadian Interuniversity Sport Championships three times, and took second once.

The purpose of this paper is to present four years of data on off-ice fitness, on-ice fitness, and skating performance of the University of Alberta Women's Hockey Team. The off-ice fitness tests include: muscle power, strength, and endurance, cardiovascular endurance, and anthropometrics. On-ice fitness tests include: predicted anaerobic power and capacity, maximum and recovery heart rate and lactate, and performance (time), all measured with a Modified Repeat Sprint Skate Test (Bracko and George, 2001). Skating performance was evaluated by: acceleration, speed, and agility (Bracko and George, 2001).

These data are instrumental in informing the University of Alberta coaches and players of the players' training status pre, mid, and post-season. The results of the research can be important to coaches (youth through university), players', recruiters, and strength and conditioning coaches regarding descriptors of high performance hockey players and possible identification of individual and team success. These data may also provide the foundation for talent identification, identification of strengths and weaknesses in conditioning, and the development of scientifically based training protocols to improve performance.

The results of the four years of study will be presented in order of testing: 1) Off-Ice Fitness, 2) On-Ice Fitness, and 3) Skating Performance. The results will be presented in a format that is understandable for coaches, administrators, players, sports scientists, journalists, and anyone else who is interested in the physical performance characteristics of Canada's best University Women's Hockey Team.

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Biomechanical Analysis of Women's Skating Performance

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Some debate exists about the skating biomechanics of women hockey players. The debate centres on the question if women have the same biomechanical skating characteristics as men. Some people wonder if women skate differently because of sex differences in body structure such as greater hip width and "Q-angle" at the knee.

Much is known about, and has been published on, the biomechanics and kinematics of hockey skating (Bracko, et al., 1998; Bracko, Fellingham and Lyons, 1996; Marino, 1984 and 1983; Marino and Weese, 1979; Hansen and Reed, 1979; and Page, 1975). All the biomechanical research on skating has been done on men, however, and the following characteristics have been found to be common among high performance skaters: 1) "game-performance" skating is characterized by "striding-gliding-striding-gliding" with almost equal amounts of left and right turns, 2) wide strides and greater hip abduction angle – pushing off to the side, 3) significant forward lean of the torso during acceleration and high speeds, 4) deep knee bend prior to push-off of the skate, 5) quick recovery of the skate onto the ice after push-off, 6) side-to-side (shoulder abduction – adduction) arm/shoulder movement in equal and opposite reaction to the abduction - adduction of the legs/hips, and 7) high stride frequency being correlated to speed (Bracko, et al., 1998; Bracko, Fellingham and Lyons, 1996; Marino, 1984 and 1983; Marino and Weese, 1979; and Page, 1975).

The purpose of this presentation is to discuss the research on the biomechanics of skating. This will be followed by video analysis of the skating characteristics of elite women and men hockey players to show a practical application of the research. The video will be used to identify similarities between the skating biomechanics of the two genders. It will be revealed that, in fact, women hockey players have the same biomechanics and skating characteristics as their male counterparts.

For the physiologist, strength and conditioning specialist, coach, and player, the research on "game-performance" skating has implications for on, and off-ice, training. An understanding of "game-performance" skating can help identify the causes of fatigue during a shift and game.

For the skating instructor, coach, and player this presentation can be helpful in understanding the most important skating characteristics for high performance skating. In addition, an instructional plan and practical application can be developed from the information derived from the skating research.

Finally, for anyone interested in hockey skating or skating instruction, this presentation can be useful by showing that "game-performance" skating does not resemble many of the skills and drills used in traditional "Power Skating" instructional programs. In order for coaches and instructors to improve "game-performance" skating, a hockey player should be confronted with the environmental conditions that will control her movement during a game (Marteniuk, 1976).

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Head Injuries in Female Youth Hockey: History, Attitudes and Management

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Participation in female hockey has increased by 400% in the last 10 years. However, research into injury rates and profiles of the female hockey player still lags far behind the male participant. Although rules against bodychecking apply to female hockey, injuries, including head injuries, have been documented at the collegiate and national level. At the youth level of female hockey, the prevalence of head injuries has received little attention. **PURPOSE:** To assess history, attitudes, and management of head injuries among youth (minor) female hockey players. **METHODS:** Eighty-one female hockey players 15-17 years of age completed a retrospective questionnaire while supervised by research team members and a member of their own coaching staff. Data collection was facilitated at a major tournament of the British Columbia Amateur Hockey Association, with representation from all hockey regions of British Columbia. **RESULTS:** Over 27% of all players had received at least one significant hit to the head while playing hockey, yet a mere 15% indicated they were concerned about getting a concussion. Even for those players indicating they had received a significant hit to the head, the level of concern was only 22%. Of these significant hits, 19% resulted in loss of consciousness, all for less than 1 minute, while 72% resulted in confusion, memory loss, or a high level of concern. The most common symptoms noted were headaches (90%), dizziness (61%), difficulty concentrating (33%), fatigue/sleeping more than usual (33%), nausea (19%), and sensitivity to light or noise (19%). While 61% of athletes indicated they had received hospital examination, only 14% indicated that a doctor made the decision regarding return to play. Over 52% of players made their own decision to return to play, only 33% were tested at exercise, and 47% reported still having symptoms when they returned to play. **CONCLUSION:** Female minor hockey players are at risk of sustaining a concussion, yet very few express concern for this potential injury. Even though Hockey Canada and its provincial chapter in BC have a protocol to

address concussions, over half of concussed female players made their own decision to return to play. Moreover, this was done in the absence of an exercise exertion test, and often with symptoms still present. It appears that either (or possibly both) a lack of awareness of, or compliance with, established concussion management and return to play guidelines exists within female minor hockey.

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***Elite Women's Hockey, Technology and Training Design:
A Development Program for Goaltenders of the National Women's Hockey League, Oval X-Treme***

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E-mail: crchisam@ucalgary.ca The Olympic Oval located at the University of Calgary is an excellent environment for the training and development of elite athletes. Facilities include an Olympic-sized ice rink, an Olympic-caliber weight-training center, and access to a number of elite level coaches, trainers, and other experts. The latest technological tools, including a virtual reality lab for performance analysis and enhancement, offers athletes a unique and exciting opportunity to further develop their hockey skills. The coaching staff has developed a specialized goaltending development program in the form of an intensive and demanding year-long plan to help goaltenders develop both physically and mentally. The combined result of all of the elements of the program is an elite female hockey training and development program unequalled anywhere in the world. It is our ongoing goal to innovate and modify our program so that it continues to provide new possibilities and opportunities that aid our athletes in their drive to enhance their performance and take their game to the highest level.

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Our Game? Women's Experiences with Recreational Ice Hockey in the Maritimes

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This paper is a preliminary investigation into women's personal experiences with recreational level ice hockey in the Maritime Provinces. The paper is based on extended, on-on-one interviews (analyzed using NUD#IST 4 a computer-based qualitative data programme) with five maritime women. In addition to interview data, this analysis includes a unique ethnographic component in which the researcher attempts, for the first time, to play recreational level ice hockey; recording her challenges and triumphs in this endeavor, from the initial stages of acquiring equipment to finally playing on the ice.

This paper contributes to an already existing body of knowledge in the area of women's ice hockey, including work by Nancy Theberge (2000), Elizabeth Etue, and Megan Williams (1996), and Joanne Avery and Julie Stevens *(1997). It contributes to scholarly work in the area of women, gender, sexuality and sport (Lenskyj 1986; CWS 1995).

The Maritime Provinces, a locale mentioned only briefly in the works cited above, is the focus of this research. An examination of recreation level organized hockey experiences of some adult women in the Maritimes; this paper contributes to understandings of existing challenges and achievements, while including an account of one woman's entry into recreational ice hockey and the fulfillment of a life-long goal of playing the game.

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***Hopscotch Connoisseur to Olympic Athlete:
Contrasting Health and Athletic Performance in Female Ice Hockey Players***

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St. Mary's College The women's ice hockey program is the fastest growing segment of Canadian hockey membership in Canada. An International Ice Hockey Federation survey published in 1996 showed that between 1988-89 and 1994-95 women's hockey experienced an overall growth rate of 265 percent. In recognition of this trend, women's ice hockey became a medal event for the first time in the 1998 Winter Olympics. However, with this increased participation comes an increase in sports related injuries and potential for increased health risk. There is the premise that female athletes often treat their injuries differently their male counterparts. In an injury study conducted at the

University of Calgary, we found that many of our athletes would rationalize that the seriousness of their injury was not enough to prevent them from playing. In other words, female hockey players often shrug off their injuries (Doyle-Baker, 1999). The aura of being fit and looking fit runs very deep in society. However, not every female athlete is healthy although they may be fit. In fact less than 50% of all the athletes we have surveyed stated that they were in excellent health! Hence, the goal of this paper is discuss the relationship between modifiable athletic risk (training intensity, energy balance, and competition status) and long-term health changes (injury and disability, osteopenia, and amenorrheic outcomes) in female athletes. The key issues will directly address female ice hockey players but the data will be drawn from a larger population of female athletes at the university level (basketball, soccer, volleyball, gymnastics and dance).

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Physiological Profile of Female Ice Hockey Players by Age, Level, and Position of Play

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In order to establish baseline data for female ice hockey players and to allow comparisons between other female athletes of different sports the fitness testing results of the 2001-2002 season from the Olympic Oval High Performance Female Hockey (OOHP) Program was pooled with other sources. The database includes 125 players with mean results grouped according to age, level, and position of play. SPSS was used to analyze and produce descriptive statistics including means (\pm) standard deviations (SD), minimums and maximums on 32 physiological assessments including: height, weight, aerobic fitness (20m shuttle run and directly measured V0 2 max from a cycle ergometer), anaerobic fitness (RHET, Reed Repeat Sprint Skate, 30 sec Wingate), upper body strength and endurance (bench press, pull-ups, push-ups), lower body strength and power (vertical jump, 30-sec Wingate), and on-ice skills (quick hands puck handling, agility). Included are player results from national, national developmental, under 22 national team, gold and silver of the OOHP, and Calgary and Alberta university varsity squads. There are 57 players with multiple entries, (max. 5), and 68 single entry players. Players range in age from 15-39 years and are ranked according to level. The players entries are divided into age groups with the corresponding number of players in each category: <18 years: 20, 18-22 years: 104, 23-27 years: 58, 28-30 years: 12, > 31 years: 19. Ages for seven players in the database were missing. There were 125 forward (left, right-wingers and centers), 68 defense and 27 goalie player entries. We believe that the data can be used to make player comparisons, monitor athletes over time, and also to prescribe training programs to target player weaknesses.

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Dietary Strategies Implemented by the 2002 Olympic Gold Medal Team

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The Registered Dietician for the Salt Lake City 2002 Olympic Gold Medal Women's Hockey Team will share the dietary strategies followed by this winning team. Specific nutritional practices that were implemented months, weeks, and days before, as well as during the Gold medal game will be addressed. Learn how and why the team participated in this comprehensive nutrition program.

In addition, current research findings will be presented regarding the dietary supplementation practices of Calgary-based high performance athletes. Why these athletes take supplements, who informs them about supplementation, and other observations around their choice to take dietary supplements will be presented.

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"A Place that People can be Proud to take their Wives or Girl friends to": Gender, Hockey Arena Construction, and Spectatorship in the late-1920s

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In 1949, Conn Smythe, president of the Toronto Maple Leafs, recalled his reasons for building Maple Leaf Gardens in 1931: "In the old days, men and women used to put on old sweaters to go to a hockey game. Now women come dressed in their best gowns, and they know they're not going to get dirty in the Gardens." Using textual sources in conjunction with photographs and newsreel footage, this paper examines the veracity of these claims. How was the Maple Leaf Gardens spectator experience different from that of its predecessor, Arena Gardens? Were these differences reflected in who attended professional hockey games in Toronto in the late-1920s and early-1930s? Indeed, who went to games at Maple Leaf Gardens? Did this audience composition represent a change from Arena Gardens? In addressing questions such as these, this paper challenges the claim that, by accommodating increasing numbers of female spectators, the hockey spectator experience underwent a dramatic shift in the late-1920s.

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Female Ice Hockey Players vs. Other Female Athletes and the General Population: A Physical Comparison

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Most of the existing research on ice hockey players has focused on males (Agre et al., 1988; Bouchard et al., 1974; Chovanaova, 1976; Newton, 1978; Pirie, 1974; Stepnicka, 1976, 1977), whereas fewer studies have been published regarding female ice hockey players (Bracko and Geithner, 2000; Geithner and Bracko, 1999, 2000, 2001; Puddu et al., 1999). Greater knowledge about female hockey players, such as average body size and proportions, body composition, physique, etc. could be helpful to coaches and recruiters in identifying players with the physical characteristics associated with elite level players, i.e. the "right stuff" to be successful in the sport, or in modifying training and conditioning programs to improve fitness and body composition in order to enhance hockey performance.

The purpose of this study was to identify physical characteristics of female ice hockey players across a wide range of ages. Novice, Atom/Peewee, Bantam/Midget players (ages 8-18 years) and collegiate level players in the Canadian province of Alberta had the following characteristics measured or calculated: height, weight, body mass index (BMI), percent body fat (estimated from skinfolds), Heath-Carter anthropometric somatotypes (means of describing physique from selected skeletal lengths, breadths, circumferences, and skinfolds to calculate scores for three components: endomorphy, mesomorphy, and ectomorphy), age at menarche (i.e., age at first menstrual period) from recall, and muscular endurance on push-up and sit-up tests. Results of testing were compared to reference data from the Canada Fitness Survey and to data for female athletes in other sports.

Female ice hockey players across a wide range of ages tend to be tall, heavy, and heavy for their height. Body composition varies with age and level of playing ability in that older, more physically mature minor players tend to have a higher percentage of body fat than younger minor players, and elite level players tend to be leaner on average, than older minor players. For minor players, excess weight and body fat are related to lower scores on muscular endurance tests. Based on size, female ice hockey players are similar to female athletes in other sports where power confers a performance advantage. Maturity status varies with level of playing ability, and collegiate hockey players tend to be later maturers, like female athletes in a number of other sports. Hockey players' physical characteristics appear to be consistent with the sport's requirements and components (e.g., agility, speed, power, body contact, etc.). This is probably reflective of a selective factor for performance as in other more studied sports. [Return to Top of Page](#)

Do Body Size and Composition Vary in Female Ice Hockey Players?

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With women's ice hockey attaining international acceptance with its 1998 Winter Olympics debut, there is a need for greater understanding of physical and performance characteristics of elite female ice hockey players. Most of the research on physical characteristics of ice hockey players has focused on males (Agre et al., 1988; Bouchard et al.,

1974; Chovanova, 1976; Newton, 1978; Pirie, 1974; Stepnicka 1976, 1977; Vossen et al., 2000). Fewer studies have been published on female ice hockey players with regard to body size or indices of relative fatness (Bracko and Geithner, 2000; Geithner and Bracko, 1999, 2000, 2001; Puddu et al., 1999) and all are relatively recent. A question of interest is how body size and composition vary over the course of a competitive season and during the off-season in these female athletes. Further, do body size and composition vary significantly in a team-oriented sport without a high premium on aesthetics? Thus, the purpose of this study was to determine the effects of a season of play and an off-season on the body size and composition of elite female ice hockey players.

Elite female ice hockey players at the University of Alberta were measured pre-season and post-season in 1999-2000 in which the team won the national championship and again at the beginning of the following pre-season. Measured and derived variables included height (cm), weight (kg), body mass index (BMI), skinfolds (SF, mm), and percent body fat (% fat, calculated using the Yuhasz method and LifeSize® software). Descriptive statistics and paired t-tests were run, and variables were graphed by case, pre-, post-season, and off-season. In addition, means for height, weight, BMI, and sum of five SF (?5 = biceps + triceps + subscapular + suprailiac + medial calf) of the University of Alberta players who were 18.00-19.99 years (yrs.) were compared to Canada Fitness Survey (1985) reference data for females ages 18 and 19 yrs.

Body size and % fat of elite female hockey players did not vary significantly from pre- to post-season, nor did they vary significantly during the course of the off-season. Three plausible explanations exist: 1) these players maintain their body composition by changing their dietary intake to meet the changes in energy demands that occur during the competitive season of play and the off-season; 2) the training volume in practices and games is insufficient to produce significant changes in body size and body composition during the season; and/or 3) these players maintain their fitness levels and body composition during the off-season by training sufficiently to achieve a neutral energy balance.

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Pride and Passion: The Intimate Zones of Canadian Hockey Culture

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In early 1990, hockey officials (even most hockey mad Canadians) couldn't image seeing women's hockey in the Olympics. Yet by 1998 the game had become the newest member of the Olympic family, and by 2002 six million viewers tuned in to watch the women's team quest after coveted gold. This very public and publicized series of events created a wide range of (re) formulating in national media around what it might mean to "officially" incorporate women into Canada's premier Nationalist game. Being one of the most visible and talked about spaces of sentimental and patriotic appeal in Canada, hockey has often been the place where we value patriotic identity over nationalist critique, assimilation over difference and men over women.

This paper has fun reversing these orders by tracing how all-women teams in transactional settings have challenged the hegemonic national icon/stereotype of hockey as an overwhelmingly straight masculine preserve. Though we think of hockey as a-political and a-sexual, national sporting culture and narratives actually describe meaningful things like what constitutes intimate relations, political personhood and national life – all of which have material consequences that extend through and beyond hockey. This paper ponders whose subjectivity, whose forms of intimacy and interests, whose bodies and identifications, and whose heroic narratives are directing the Canadian vision of the present and future.

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Starts and Stops: The Rise and Fall of Women's Hockey in 1920s America

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It is commonplace in hockey historiography to speak of the 1920s and 30s as a "golden era." In these years, the popularity of the game expanded considerably because of the ways in which it was sold to North American audiences in newspapers and over the airwaves. In the interwar years, the game's speed, skill and violence were emphasized in press accounts that resonated with contemporary definitions of masculinity. But women, too, played hockey in Canada and the U.S. in these years. While historians have begun to document the early years of women's hockey,

little has been done to assess what the game meant to contemporaries. This essay examines how women's ice hockey was "told" to American audiences by the press, from the earliest days of the game until its precipitous decline during World War II.

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Transformational Coaching

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In the last 10 years more research has focused on transformational leadership theory in organizations than on all other theories of leadership combined. Extensive data now exist showing that transformational leadership results in a host of outcomes including improved attitudes, performance and motivation. Research has also shown that athletes coached by transformational leaders are more motivated and perform at a higher level than when coaches do not engage in this style of leadership. This presentation will give a brief overview of transformational leadership theory and its application to coaching. Specific focus will be placed on the behaviors associated with being a "transformational" coach.

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Games & Sport in the Twenty-First Century: Protecting the Future with Lessons from The Past

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Games and sport are two of the most watched, listened to, read about, and participatory events of our modern world. The amplitude of the world of modern games and sport has brought with it a host of problems, from the scandals of doping and substance abuse that haunt the International Olympic Committee to the legions of parents who loudly, and sometimes violently protest coaching and referee decisions.

The ancient philosophical traditions from which modern games and sport have emerged can teach us many lessons. Foremost among these lessons is the emphasis on faith, dedication to preparation, the environment, and reciprocity (fair play). These lessons are made plain in the early games of indigenous people.

The ultimate goal of the presentation will be an understanding of the philosophies that served to inform the games of indigenous people, specifically the Inuit of the eastern Arctic of Canada. The presentation will examine:

1. *Theology* (The sacred practices integral to traditional games),
2. *Epistemology* (How traditional people came to know and understand their games),
3. *Ethics* (The nature of right versus wrong and reciprocity in traditional games) and,
4. *Aesthetics* (The nature of beauty in traditional games).

It will be this understanding, made plain through lecture and participation, which may help move conference participants to a greater understanding of modern games and sport.

The lecture/presentation will be informed from my many years of research into the traditional games and sport of arctic people. A significant highlight of this research was my four month sabbatical in Nunavut, Canada where I experienced first-hand the games and sport of Canada's indigenous Inuit. Supplementing this is my experience in amateur and professional sport, i.e., Assistant Basketball Coach for the National Basketball Association's, Philadelphia Seventy-Sixers (1982-84), and my being asked to coordinate a weeklong seminar in Calgary for the top forty-five figure skaters in Canada. The theme of the skater's seminar focused on looking back (Ancient philosophical traditions) so that these athletes might be better prepared to look forward.

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Recognition for Robbie Rosenfeld and Hilda Ranscombe

Lenard Kotylo

Society for International Hockey Research

E-mail: Lkotylo@aol.com Hockey excellence exhibited by outstanding athletes in leagues of many different levels has

been recognized and honoured, most notably by Hockey Halls of Fame. However, hockey excellence in the level of women's hockey is also remarkable and deserving of recognition. The best women hockey players of the decades of the twenties and thirties, Fanny ' *Bobbie* ' Rosenfeld and Hilda Ranscombe respectively, should deserve credit for their accomplishments.

Bobbie Rosenfeld has already been voted Canada's Female Athlete of the first half century and her successes as a Canadian Olympian medal winner in 1928, with a gold medal in the 400 meter relay and a silver medal in the 100 meter run are impressive. Her sports accomplishments equal those of Lionel Conacher and Babe Zaharias on all-round participation. Bobbie Rosenfeld was a superb hockey player. She was recognized at age 20, in 1923 as the outstanding player and the fastest in the Ontario playoff series when Ottawa Alerts defeated her North Toronto team. In 1924, a Preston reporter wrote that she was "the superwoman of ladies' hockey". In 1926, her Toronto Patterson Pats, Toronto Hockey League champions, won the Ontario Eastern finals against The Ottawa Rowing Club and she scored all the goals in her team's 4-0 and 2-0 victories.

Bobbie Rosenfeld's Pats team, undefeated for two years, was Toronto Hockey league champion and Eastern finalist in 1927 and, in 1929, the Ladies' Ontario Hockey Association champions. Although crippled by arthritis in 1929, Bobbie Rosenfeld returned to become the best hockey player in Ontario in 1932. Although arthritis terminated her sports career in 1933, she went on to become President of the L.O.H.A., and a sportswriter for the Toronto Globe and Mail.

The undoubted athleticism of Bobbie Rosenfeld, the recognition she was consistently given over a ten year period for being one of the best players on the ice, her ability to score clutch playoff goals, and her ability to take her teams to the championship level, all contribute to her worthiness to be considered one of the best female hockey players.

Bobbie Rosenfeld also inspired Hilda Ranscombe of Preston, the player of the decade for the thirties, to progress in hockey. Hilda and other Preston girls were encouraged to start a woman's hockey team. The Preston Rivulets teams were Ontario champions from 1933 to 1939, four time Dominion champions, and lost only two games in the decade. Hilda Ranscombe was the top player on a team which had to prove its merit against Toronto, Eastern and Western Province champions.

Carl Liscombe, who played for the Detroit Red Wings, played shinny against Hilda regularly on the frozen Grand River, and said that she could have played on any men's team. Hilda even scored a goal against Terry Sawchuk at the Galt Arena. Sawchuk was a net minder for the Galt Juniors at the time. Hilda Ranscombe was athletically balanced. She was a champion tennis player, a Preston softball team player, a coach of girls' hockey teams, and remarkably, a participant on a Preston hockey team in 1963. Like Bobby Rosenfeld, she established a level of excellence in women's hockey which equals the standard set by dominant players in any hockey league.

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Crossing the Blue Line: Women's Hockey Experiences at Mid-Life

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Theberge (1999) recognized that hockey has a "special grip on Canadian culture" (p.146). Participation in women's hockey has increased 400% in the last decade (Canadian Hockey Association, 2003). Women's hockey has begun to move from being an activity largely misunderstood at the margin to a more socially acceptable, mainstream activity. However, women's participation in hockey is still considered problematic by some and this ambiguity strikes harder as women age. Recognizing the dearth of research in the area, Lenskyj (1987) called for the development of more scholarly investigations into the phenomenon of women's participation in supposed "masculine" sports such as hockey as well as the development of explanatory models for such participation.

Curtis, White, and McPherson (2000) found that middle-aged women showed the greatest increase in involvement in physical activity of all age cohorts of women in their study. Poole (2001) found that women at mid-life "used fitness programs as a means of constructing intimacy, a sense of community, and satisfaction in interpersonal relations" (p.300). Theberge (1995) found similar benefits from participating in women's hockey. Porterfield (1999) became an athlete at mid-life and attributed her journey to a combination of history, culture and personal experience. Bennett, Whitaker, Woolley Smith, and Sablove (1987) ask if the meanings women attribute to their participation in sport

change as they gain confidence and competence?

Our present study concerns itself with ascertaining the meaning of the women's participation in hockey at mid-life. Specifically, this exploratory qualitative study is utilizing qualitative inquiry methods to investigate the following questions:

1. What are the barriers and facilitators to women's participation in hockey at mid-life?
2. How does participation in hockey influence women's sense of self, identity, body image, and gender?
3. Why do women chose to begin playing hockey or continue playing hockey at mid-life?
4. What is the role of hockey in women's health and physical activity at mid-life?

Qualitative inquiry is particularly suited to these research questions because accessing the lived and subjective experience of the self is seldom possible through quantitative inquiry (Grant and O'Brien Cousins, 2001). Hockey is as dynamic as it is complex. In order to understand women's participation in the game, deconstruction of the physical, social, cultural, and historical factors that influence participation is called for, and is, in fact, demanded.

By giving academics, administrators, coaches and players a better understanding of the significance of the women's participation in hockey at mid-life, this study has practical and socially relevant ends. With ever increasing participation rates, hockey administrators are faced with increasingly complex management decisions related to gender equity, access, coaching, leadership and development. (Robinson, 1997; Theberge, 1998; Etue & Williams, 1996). This study provides a needed understanding of the women's participation in hockey at mid-life and a concurrent discussion of how gender interacts with such participation. This innovative and collaborative approach to the research is contributing greatly to the existing literature and knowledge related to the phenomenon of women's hockey.

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Get Off Our Rocker and Into the Groove: Blade Rocker and Hollow Evaluations in Women's Hockey at the Calgary Olympic Oval

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Margaret Evans , Jason Chin and Arden Albert

Advanced Measurements Inc. During the 2003/2004 hockey season, the Calgary Olympic Oval will be adapting a new piece of technology, called BladeRunner™, to evaluate the rockers and hollows of hockey skates for the Oval X-Treme and other members of the women's hockey program at the Oval. BladeRunner™ was originally designed to precisely measure the rockers of speed skates in a highly consistent and accurate manner. In the interests of sharing technological innovations between sports that train at the Oval, a new mounting jig and sensor attachment has allowed BladeRunner™ to scan hockey blades.

A skate's rocker is the roundedness of the bottom of the blade as one looks at it from the side. It helps determine a skater's stability and manoeuvrability, as well as skating speed. Perhaps most surprising from a speed skating perspective is the fact that rockers have not yet been closely examined in hockey. It's care and maintenance is a matter of daily concern in speed skating. Indeed, our initial findings show just how variable the hockey rocker is from day-to-day and from week-to-week after periodic sharpenings and re-rockerings. The potential advantages of knowing one's rocker, and then tailoring it to maximize consistent performance, are significant. Likewise, the depth of the hollow (the concave cross-section of the underside of the blade) is influential in its effects on stability, manoeuvrability and skating speed. To examine the broader picture of how a blade performs, the hollow must also be measured and adjusted.

In our paper, we will present findings from the 2003/2004 season to show how various sharpening regimes can alter rockers and hollows with time. We will discuss the pros and cons of how one can measure hockey blade rockers and hollows. There are several pertinent variables to consider. And we will look at the potential benefits of controlling these blade characteristics more rigorously for skaters of any age, skill level or sex since different rockers and hollows accrue different benefits to different kinds of skaters. Finally, we will discuss the prospects for an inexpensive and portable rocker and hollow gauge for general use in hockey.

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Women's Hockey in Print (WHIP): A Literature Review

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In 2003 I began a project, called 'HIP, or Hockey in Print' that had as its first goal the establishment of a preliminary bibliography of writing on hockey. See <http://is.dal.ca/~dmcneil/hockey/hip-bib.htm>. Obviously, *Women's Hockey in Print* (or *WHIP*) is an important subset of the project (I plan to make 'WHIP' a searchable field-identifier). In this presentation I will assess the general literature featuring women's hockey across a number of genres: biography, popular histories, fiction. Although it is too early to draw final conclusions, I anticipate that this literature will reflect the rapid development of women's hockey as its own sport separate from the men. Issues such as equity, mixed teams, funding, rule-changes, are bound to surface. I also anticipate that there will be some overlap of concerns (celebrity status, Olympic dreams, love of the sport, maturation). If time permits, I will even say something about children's books. Are there specific books that aspiring, young female hockey players should read? Why? What are the best commentaries on women's hockey in Canada and the US? These are some of the questions I hope to answer. The results of an informal survey of female players (2 groups: Pee-Wee age and University or thereabouts) may be made public.

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Skate Blade Hollow and Oxygen Consumption During Forward Skating of Female Ice Hockey Players

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The purpose of this study was to investigate the effect of skate blade hollow on oxygen consumption during forward skating on a treadmill. Varsity level female hockey players (n = 10, age = 21.7 yr) performed skating tests at three blade hollows (0.25 in, 0.50 in, and 0.75 in). The subjects skated for four minutes at three submaximal velocities (12, 14, and 16 km/h), separated by five minutes of passive recovery. In addition, a VO₂ max test was performed on the day that the subjects skated at the 0.50 in hollow. The VO₂ max test commenced at 14 km/h and increased by 1 km/h each minute until volitional exhaustion was achieved. Four variables were measured for each skating bout, volume of gas expired (V_E), volume of oxygen consumed (VO₂), heart rate (HR) and rating of perceived exertion (RPE). No significant differences (p<0.05) were found in any of the four test variables (V_E, VO₂, HR, RPE) across the three skate hollows. These results show that when skating on a treadmill at submaximal velocities, skate blade hollow has no significant effect on V_E, VO₂, HR or RPE of female ice hockey players.

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Hockey Coaching ABCs: A Program for Developing the Complete Player

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Juhani Wahlsten

Turku, Finland Our presentation will focus on how we use games, small area games and transition games to teach the game of hockey. Developing individual skills and using them in game situations; better use of the ice; combining the best of European and North American hockey strategies and training, Juhani Wahlsten and Tom Molloy have created a teaching and learning system that make practices both productive and fun.

A hockey coach and educator, Wahlsten played for the Finnish National Team for eleven years, participating in three Olympic Games and five World Championships. Captain of the team for many years, he was named to the Finnish Ice Hockey Hall of Fame. In charge of International Educational Projects and Development for the Finnish Ice Hockey Association, Wahlsten has had a successful coaching career at the professional level in Finland, Germany and Switzerland, and at the international level with the Finnish Under-20 National Team. He was the first European coach to be offered a coaching position in the NHL, by Scotty Bowman, then of the Buffalo Sabres. Wahlsten's vision for international sports cooperation and communication has resulted in his involvement in international exchanges, symposiums and the production of books and video material.

Tom Molloy, also a hockey coach and educator, played college hockey and some minor pro in the United States before returning to Calgary to teach and coach. He is certified at the Level Four. Molloy has coached hockey at almost all levels, including assistant coach at the University of Calgary, head coach at S.A.I.T and is currently the

head coach of the Mount Royal College Women's Hockey Team in Calgary. As a guest coach or head instructor, he has used this teaching system with great success in Canada, Korea, Norway, United States, Finland and Austria. The system has also been introduced in France and Turkey.

He has also participated in numerous international presentations with Juhani Wahlsten and Vladimir Yursinow, the 1998 Silver Medal Russian Olympic coach and assistant coach in the 2002 Olympics. Learn by doing and Enjoy the Game, these principles are key to the Hockey Coaching ABCs: A Program for Developing the Complete Player, Book 2.

The practices inspired by these teaching principles will help to develop skilled players, great teamwork, creative and exciting hockey.

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The Influence of Coaching Style and Behaviors on Player Satisfaction and Perceived Coaching Competence in Women's Ice Hockey

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Coaches who understand the influence of their decision styles and the specific techniques they employ have been shown to have more satisfied and successful athletes and teams (Chelladurai & Arnott, 1985). Coaching athletes is a challenging endeavor and many coaches fail to understand the importance of their communication style and feedback patterns. Additionally, the gender of the team can have a significant effect in determining effective coaching styles and behaviors.

In this study, specific decision styles and confidence enhancing behaviors used by women's collegiate ice hockey coaches in the United States were examined. These behaviors were measured against player satisfaction levels and players' perceptions of their coaches' competence in coaching women's ice hockey.

The impact this information can have on coaching women's ice hockey is truly significant. Understanding the application of techniques and styles that positively correlate with successful team performance and are preferred by female athletes will provide important insight into a coaches' contribution to the dynamic of team building and team cohesion.

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A Comparison of Team and Player Confidence between Women's and Men's Collegiate Ice Hockey and its Effect on Performance

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Christy Duffy

Indiana University Player and Team efficacy play an important part in the success of hockey teams. Hockey teams have a high level of interdependence among team members. The feelings of confidence that each member of the team has about themselves and the team can have a significant effect on subsequent performance. Also, performance has been shown to affect future confidence.

The purpose of this study is to examine the pattern of team (collective) efficacy, player (self) efficacy and performance over the course of a season of women's collegiate hockey competition and compare the findings to Feltz and Lirgg's (1998) study of perceived team and player efficacy in a men's collegiate hockey season.

The participants were from 13 midwestern and northeastern collegiate hockey teams. Player and team efficacy were measured prior to games that the opponent was the same for both weekend games.

Feltz and Lirgg (1998) found that in men's collegiate ice hockey team efficacy was affected by wins and losses, significantly increasing with a win and significantly decreasing with a loss. They also found that player efficacy was unaffected by team wins and losses. In studying female collegiate hockey players preliminary findings suggest that team efficacy and player efficacy are affected by wins and losses.

The findings of this study can be used by women's collegiate coaches to understand the importance of applying efficacy enhancing behaviors to the team collectively and the players separately.

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***Hegemonic Masculinity and Kaufman's Triad of Violence:
Elite Male Athletes and Their Attitudes Towards Male/Female Relationships***

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Allegations have been made by the media, popular journalistic accounts and academic articles that elite male athletes are over-represented in incidents of sexual assault or are more likely to be sexually aggressive when compared to males in general. After conducting a vote-counting meta-analysis on the articles (n=23) which addressed these assertions, it was evident that one could not state conclusively that this was the case. However, there appeared to be an association between male elite athletic participation and sexual violence, which warranted further investigation. Hence, this paper analyzes whether the social and cultural organization of sporting practices around the celebration of hegemonic masculinity might place elite male athletes at higher risk for perpetrating acts of sexual violence. This paper argues that sporting practices which are organized around the celebration of an aggressive hegemonic masculinity perpetuates and maintains Kaufman's (1987) Triad of Violence, and thus might place elite male athletes at higher risk for engaging in sexual violence by encouraging a violent peer subculture. The links between Kaufman's profeminist model of male violence and sporting practices were assessed by conducting a survey employing a group of OHA Jr. A hockey players (n=102) and a control group of males (n=74). Seven questionnaires were used to measure the attitude of each group toward male/female relationships. The results of this study indicated that the Jr. Hockey players might be at a higher risk for engaging in acts of sexual assault.

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***Are Girls Really 'On the Move'?
Examining Physical Activity and Gender Differences in Nova Scotia***

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Increasing levels of physical inactivity are being documented within North America. As physical inactivity is a risk factor for many health problems, such inactivity raises concerns. These patterns of inactivity are being noted among children and youth setting potential precedence for life long behaviours. Data will be presented from a Nova Scotia provincial study of children and youth in grades 3, 7, and 11. A combination of accelerometers and surveys were administered to children/youth and surveys were also collected from their respective parents. Findings indicate lower levels of physical activity among girls than boys in each of the grades. Girls also had higher rates of being at risk of overweight and overweight in grades 3 and 7 than did the boys; however, girls in grade 11 had lower rates. A number of constraints were identified by both boys and girls that restricted their involvement in physical activity, with several gender differences being identified. Implications of the study findings will be discussed for practitioners and researchers.

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But What About the Girls: Talking to Girls in Swift Current

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This paper would revisit Swift Current, Saskatchewan, a town I first visited in the winter of 1993 after learning about an alleged gang rape perpetrated by two members of the Swift Current Broncos. In total over five years I interviewed ten girls. They alleged behaviour from the Swift Current Broncos that ranged from serious sexual harassment to violent gang rape, and highly misogynistic attitudes in general. I chronicle their stories in my book, "Crossing the Line: Violence and Sexual Assault in Canada's National Sport."

These girls are now young women. They lived through the scandal that involved more than 350 sexual assault charges laid against Swift Current's coach from 1989 to 1994, Graham James. Because James pled guilty there was no investigation and no trial. But what if there had been? Would we have a far better understanding of the ripples of his assaults? The girls I interviewed believed Graham James was a good coach. He taught his players how to do to girls everything he did to them. Victims of sexual assault, especially male victims who refuse to get help in order to deal with the assault(s), are at a higher risk of becoming victimizers than are non-victims. Why has the Canadian Hockey Association chosen to ignore this fact and do nothing to aid the girls in Swift Current? I will compare this situation to an Ontario Court of Appeal decision in April 2003 that allowed for third party libel suits by the generations that followed survivors of residential school against churches and government responsible for the schools. They have argued that abuse carries on for generations. If the police are right and James sexually abused between twenty to one hundred players, what is the ripple effect in Swift Current?

I look forward to telling the stories of the young women of Swift Current and comparing them to their stories in my book, ' *Crossing the Line* .' What has changed in six years? Has anything stayed the same? How do they view girls who appear to be "puck bunnies" today? Have they tried to change the culture of hockey?

I also want to look at what opportunities exist in Swift Current for girls and women in hockey. It is my belief that as long as there is not true equality in sport and in the lives of girls in general, that they will learn to live vicariously through the male sporting body if they believe they must have a relationship with the 'National Dream'. In other words, they will learn the passive behaviour of puck bunny/girlfriend. I would like to interview the present generation of puck bunnies at the arena. I would also like to compare expenditures by the town of Swift Current spend on boy's and men's hockey and on girl's and women's hockey. Have any of the dynamics that allowed for a rape culture in Swift Current for so many years changed?

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The Ban on Bodychecking in Women's Hockey: An Ethical Appraisal

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The formal prohibition of bodychecking in organized women's hockey raises a host of ethical questions related to the physical nature of the game, violence, women's bodies, institutional structures, women's rights, and the game's ethos and moral status. For over a hundred years, women's involvement in hockey has included an aggressive element, even when such rough play was frowned upon (McFarlane, 1994). Until 1990 intentional bodychecking was permitted in some circles, however, an official ban went into effect to reduce injuries and to create greater balance between athletes of different skill levels (Avery & Stevens, 1997). Growing interest in women's hockey throughout the 1990s has led to the emergence of world championships, Olympic women's hockey, and semi-professional women's hockey. By reconsidering the bodychecking ban in women's hockey from an ethical perspective, this paper will argue that the women's game is morally superior in relation to men's hockey and the bodychecking ban should not be rescinded.

The specific areas to be examined include those identified above. One should first have an understanding of the distinctions between physicality, body contact, and bodychecking and the way rules circumscribe these actions (Theberge, 2000). Bodychecking in women's hockey is a regulative rule that incurs a penalty when the rule is violated. As such, the bodychecking rule is recognized as referring to a price one pays rather than a rule that imposes a sanction (Simon, 1991). The bodychecking 'ban' therefore is not really a ban at all but an option. In contrast, severe suspensions are meted out for fighting and this, in part, explains why violence in the women's game is virtually non-existent. In fact, fighting is a rare occurrence in women's hockey. Expressions of women's bodies in hockey therefore provide for physical, assertive play, including intimidating and retaliatory actions, but there is a clearer distinction between legitimate, expected body contact and unacceptable forms of interactive behaviour. In this respect, women's hockey has not institutionalized fighting and other violent actions as in men's hockey. Whereas in some instances physicality in each game is distinguished by degree, fighting is a difference in kind. One may also consider the rights of adult women to engage in bodychecking as 'part of the game.' Bodychecking is a learned skill like tackling in football and is ethically unproblematic. If the community in women's hockey wanted to introduce, teach and execute bodychecking it could do so with few moral qualms. However, the bodychecking 'ban' does influence the ethos, attitudes and values within women's hockey as a resistant force contra the men's game. Rather than view the 'ban' as a restriction that poses a dilemma or as an inferior adaptation, a strong case can be made to show the moral superiority of women's hockey, and this perspective should be added to the chorus of arguments to advance the women's game.

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***Harmless Banter or Serious 'Trash Talk'?
Insults and Humor in Women's Recreational Ice Hockey***

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Through an analysis of verbal teasing, joking and "trash talking," this paper will add to our understanding of women's participation in recreational ice hockey. An additional goal of the paper is to pose questions surrounding the intensity with which adult women compete in recreational ice hockey, the use of the locker room as a space for building community, and the creation of a new model in which participation is for health and enjoyment not competition and mastery.

The research discussed in the paper derives from a participant observation of the Comet Sisters recreational ice hockey team. The Comet Sisters competed in the Women's Hockey League of Minnesota in the forth of seven divisions during the 1998-1999 and 2000-2001 seasons, during which the study was completed. Body culture theory is used to understand the intersections between bodies and cultures in recreational ice hockey; specifically, how women who compete in ice hockey address issues of gender, dominance, physicality, and anonymity. Fragments from field notes and in-depth interviews are used to answer the following questions: With what sort of language and tone do women recreational ice hockey players speak about their opponents? What types of banter occur on the ice during games, and what is the nature of intent of that banter? Are there conclusions we can come to about this particular brand of ice hockey by analyzing these on- and off-ice verbal negotiations?

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Injury Rates and Profiles in Female ice Hockey

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Objective: To prospectively examine the incidence of injury in a female hockey population and compare injury rates, types and conditions to a male hockey population. **Methods:** Six male and six female teams from the Canada West Universities Athletic Association (CWUAA) were followed during the entire 1998/99 varsity season. Injury report forms and attendance records for each team session were submitted by team therapists. **Results:** Male athletes reported 161 injuries, while females had 66 injuries. When the exposure was taken into account, the overall injury rates for male (9.19 injuries per 1000 athlete exposures) and female (7.77 injuries per 1000 athlete exposures) athletes did not differ significantly. Ninety-six percent of female and seventy-nine percent of male injury was related to contact mechanisms (contact with boards, an opponent, ice, etc.). The most common injury causing time lost from participation in female athletes were concussion injuries. Females also incurred more ankle sprains, thigh adductor strains and sacroiliac dysfunctions than male athletes. **Conclusions:** Although the injury rate for female hockey is expected to be lower than male hockey due to the lack of intentional body checking, the injury rate was similar between male and female groups. It appears that females may not possess appropriate body contact skills and are likely to be injured when contacted.

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***Dreaming of Varsity:
The Haphazard Journey of a Collegiate Women's Hockey Club***

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Women's collegiate hockey in the United States has a varied history in time and existence. In 2000, the National Collegiate Athletic Association hosted the first women's Division 1 level national championships in ice hockey, so too was the first women's collegiate club ice hockey championship held.

The focus of this paper will be women's college club hockey in the United States using the development and history of the Penn State women's ice hockey club. As the history of women's ice hockey is both long, fragmented, and not well documented, this paper will serve as both history and case study of the many challenges faced by a club level team. Penn State, while known for its many excellent Division 1 teams, such as men's and women's soccer, women's basketball, and football, is also a university with very strong club sport teams, such as rugby, crew, and ice hockey. The men's hockey club having a ragged history until the 1970's, became an eventual powerhouse in club hockey within five years of hiring a permanent coach in 1987.

The women's club was not formed until the fall of 1996 and several key issues have continued to challenge their sometimes precarious position in club status. The issues include: the men's club teams and facilities, competition, conference/leagues, personnel and finances. Still considered by some to be in their infancy, the *Lady Icers* have carved a niche into club and ice hockey history and here is their story.

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'Pucks, lies, and videotapes?'
An Examination of Gender Construction in Elite Hockey

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The purpose of this paper is to compare how three hockey teams in Canada prepared for major competition. More specifically, I will analyze from a feminist philosophical perspective; three motivational videotapes created for the Canadian women's Olympic team, the Canadian men's Olympic team, and the Canadian Junior team. The videos were produced for the purpose of energizing team spirits and creating team cohesion prior to Olympic competition.

However, it is worthy to examine the underlying gender stereotypes that are present within. I will argue that the various tapes' 'take-home message' is vastly different between the genders. Yet, all three teams, despite their differences, inherently create and portray gender stereotypes and social constructions that are prevalent in North American sport. I will then further examine if there is anything necessarily 'wrong' in portraying such an image. The works of Nancy Theberge, Laura Robinson and Ann Hall will support arguments.

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