Informing body checking policy in youth ice hockey in Canada: A discussion meeting with researchers and community stakeholders

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ABSTRACT

OBJECTIVES: Body checking is a significant risk factor for injury, including concussion, in youth ice hockey. Recent evidence regarding injury rates in youth leagues prompted USA Hockey to institute a national policy change in 2011 that increased the age of body checking introduction from 11-12 years old (Pee Wee) to 13-14 years old (Bantam). Body checking policy was more controversial in Canada, and research evidence alone was insufficient to drive change. The purpose of this paper is to provide an example of one of the knowledge exchange processes that occurred between researchers and community stakeholders, leading up to a national policy change in 2013.

PARTICIPANTS: There were 28 stakeholder attendees, representing the research community, youth hockey organizations, and child health advocacy groups.

SETTING: A one-day meeting held in Whistler, British Columbia, in April 2013.

INTERVENTION: Researchers and stakeholders presented current perspectives on evidence and policy change, and discussion focused on an a priori set of questions designed to elicit facilitators and barriers to policy change.

OUTCOMES: Three major factors that can drive policy change in the sport safety context were identified: the need for decision-making leadership, the importance of knowledge translation, and the role of sport culture as a barrier to change.

CONCLUSION: There is a critical need for researcher and stakeholder partnership in facilitating ongoing policy discussion and informing evidence-based policy change in sport and recreation injury prevention.

KEY WORDS: Policy; injury; ice hockey; knowledge translation

La traduction du résumé se trouve à la fin de l'article.

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Body checking is the most consistent risk factor for injury, severe injury, and concussion in youth hockey.¹⁻³ Hockey Canada defines body checking as a tactic used to gain an advantage on the opponent with the use of the body, occurring when a player makes no attempt to play the puck and intentionally plays the body of the opponent; changes direction or leaves the established skating lane to play the body of the opponent; or uses hips, shoulders or arms to push off and separate the opponent from the puck.⁴ In other words, 'body checking' describes body-to-body contact initiated with the intent of physically separating the opponent from the puck. It differs from regular body contact, which is contact that occurs between opponents during the normal process of playing the puck, providing there has been no overt hip, shoulder or arm contact to physically force the opponent off the puck and players maintain established skating lanes and body positioning.^{4,5} In simple terms, 'body contact' describes incidental contact that occurs when two players are vying for control of the puck.

In North America, body checking has typically been allowed starting in the 11-12 year old age group (Pee Wee). In recent years, however, public concern about the risk of injury (particularly concussion) in hockey and the amassed body of evidence regarding injury risk factors³ necessitated that hockey governing bodies review their policies regarding body checking in youth leagues. The resulting debate involved administrators, coaches, parents, players, and other members of the hockey

community, with arguments both for and against allowing body checking at this level.

In 2010 and 2011, two landmark studies were published that provided evidence that 11-12 year old players in body checking leagues are at a threefold greater risk of injury and a fourfold greater risk of concussion compared to those in non-body-checking leagues.¹ Furthermore, learning to body check in this age group provides limited protective effect when players graduate to the 13-14 year old age group (Bantam).² This evidence prompted USA Hockey to institute a nationwide policy change in the 2011-2012 season, whereby body checking was removed from 11-12 year old leagues at all competitive levels.

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The purposes of this change were to 1) allow players an additional two years to develop the fundamental skills of skating, puck control, passing, shooting, and position play without the distraction of body checking, which might impede a player's natural development; 2) ensure the safest possible playing environment for youth athletes; and 3) allow players two more years of body checking skill development in practice.⁶

In 2010, the Canadian hockey governing body (Hockey Canada) set the minimum national age of introduction to 11 years, with no exceptions, but encouraged regional jurisdictions (such as the provincial branches under Hockey Canada's governing structure) to set a higher starting age at their discretion. Individual associations were also free to restrict body checking to specific competitive levels (e.g., elite only). In addition to existing rules prohibiting checking an opponent from behind, in the 2011-2012 season Hockey Canada also enacted new rules prohibiting contact to the head, which included more severe penalties and more stringent rule enforcement. These changes applied to all age groups and divisions of play, but were not directly related to the age of body checking introduction. As of the 2012-2013 season, Hockey Quebec was the only Canadian provincial branch that delayed body checking until 13 years of age across all skill levels. This policy had been in place since 1986 in that jurisdiction, based on a similar platform of player safety and better skill training.

In 2011, the Ontario Hockey Federation and some associations in British Columbia decided to allow body checking in only the most elite levels (top 30% by division of play) for 11-17 year olds (Pee Wee, Bantam, Midget). Additional provincial branch votes were held in 2013, with Alberta, Nova Scotia and Ontario deciding to delay body checking until 13 years old (Bantam) across all levels of play. Following these decisions, the Hockey Canada Board of Directors ultimately voted to enact a national policy disallowing body checking in 11-12 year old (Pee Wee) leagues.

Policy change on this scale is often the culmination of long-standing stakeholder engagement in the decision-making process. The purpose of this paper is to highlight the roles of researchers and community partners in the Canadian national policy change through an analysis of an exemplar knowledge exchange meeting. Our objective is to identify emerging themes from the content of the meeting in order to better understand facilitators and barriers to policy change in this setting, with hopes of informing future knowledge exchange activities and sport injury prevention efforts.

MEETING FORMAT

Recognizing that dissemination of research evidence alone was insufficient to drive national policy change in Canada, researchers convened a one-day policy discussion meeting in April 2013 to facilitate knowledge exchange between researchers and community stakeholders. At the time of the meeting, Hockey Canada was not entertaining a vote on national body checking policy. Three provincial hockey branches and some regional associations were planning body checking policy votes in the weeks following the meeting.

Stakeholder interests were represented by 28 individuals from 4 universities (3 Canadian and 1 American) and 15 organizations:

Hockey Canada, USA Hockey, BC Hockey, Hockey Quebec, Hockey Calgary, Hockey Edmonton, Okanagan Mainline Amateur Hockey Association, Pacific Coach Amateur Hockey Association, Mayo Clinic Sports Medicine Center, Canadian Paediatric Society, Parachute, Alberta Centre for Injury Control and Research, Safer Hockey in Canada, Rick Hansen Institute, and Max Bell Foundation. Two invited youth hockey associations did not attend. A neutral Chair from the Canadian Centre for Ethics in Sport moderated the discussion. The meeting was supported by the Max Bell Foundation, which is a "Canadian independent granting organization that supports the development of innovative ideas that impact public policies and practices with an emphasis on health and wellness, education, and the environment."⁷

At the meeting, researchers and stakeholders presented current perspectives on evidence and policy change. Hockey Quebec and USA Hockey presented their viewpoints as associations that had already undergone a policy change, and shared the challenges and successes that came along with those changes in both the immediate (USA Hockey) and longer term (Hockey Quebec). Following these presentations, discussion focused on an a priori set of questions, which are detailed in the following sections. During the meeting, participants recorded their organization's views on each of the discussion points. These responses were aggregated and coded to allow the identification of emerging themes. The proceedings of the meeting were also audio-recorded to support the written responses.

KNOWLEDGE EXCHANGE

What are the perspectives of your organization regarding body checking policy in youth hockey?

All hockey association representatives acknowledged that, based on recent evidence and public pressure, there was a need for body checking policy discussion. Representatives from two associations indicated that evidence related to injury risk was sufficient to prompt body checking policy change at the 11-12 year old (Pee Wee) level. Another representative suggested that additional review of the evidence and better public education were necessary before addressing current policy.

Consistent with a recently published position paper,⁸ advocacy groups and researchers unanimously held the perspective that body checking should be introduced to players at no earlier than 13 years of age, and should be removed entirely from recreational and sub-elite leagues in all youth age groups. Additionally, some representatives suggested that a more conservative approach be considered, i.e., delaying introduction of body checking until players are >16 years of age.

What are the perspectives of your organization regarding the current evidence related to body checking policy in youth hockey?

There was agreement that evidence pertaining to body checking age was valid, consistent, and supported delaying introduction until 13 years of age; however, those representing associations that had not yet held a policy vote indicated that the official position of their organizations was to follow the Hockey Canada permitted age of introduction.

Few associations had restricted body checking to specific levels of play. Parent representatives felt there was sufficient evidence to remove body checking at all levels of youth competition (e.g., elite and sub-elite). Conversely, most associations supported removing body checking from sub-elite leagues, but were reluctant to enforce change at elite levels.

Evidence regarding body checking skill training was deemed insufficient. Hockey Canada had developed a four-step process to teach body checking skills, and resources to support this process were available to associations and coaches.⁴ Associations and advocacy groups supported this progressive introduction, but no organization currently enforced the process.

Association representatives expressed concern regarding a lack of knowledge translation between researchers and the grassroots hockey community. They believed that hockey association administrators were “getting the message” about the evidence, but this information was not reaching parents and players.

Are there gaps in the research that need to be evaluated before considering future body checking policy change in youth hockey?

A need for additional evidence regarding injury risk in 15-17 year old (Bantam and Midget) age groups was expressed by most representatives, as was a need for longitudinal data concerning injury consequences (including drop-out from sport). Understanding the long-term impacts of concussion was highlighted as a crucial next step.

Associations were concerned about the effect of policy change on skill acquisition and on-ice performance. Considering that one of the platforms of the USA Hockey policy change was greater skill development, it was suggested that this outcome be assessed prospectively.

A paucity of information about coaching practices and the validity of the Hockey Canada model of body checking education was discussed. Additionally, the influence of referee game management, rule interpretation, and injury risk awareness were identified as areas lacking in evidence. Information regarding the economic impact of hockey injuries was also deemed essential to inform policy decisions.

Which factors can drive body checking policy change and how could change be implemented to ensure success?

Several factors were identified, including increased public knowledge about injury risk and a unified communication strategy to ensure stakeholders were “speaking the same language.” There was a prevailing belief that governing bodies should provide “active and visible” leadership, and that the executives of these organizations would need to feel empowered, through public support, to make policy decisions. Advocacy for policy change by parents and other stakeholders was viewed as a powerful driver of change.

Additional factors included decreased social norming around the role of body checking in youth hockey, trends toward declining enrollment, health care costs associated with injury, and legal issues surrounding injury liability. It was suggested that the successful Hockey Quebec and USA Hockey experiences could help prompt change, although connecting skill development and safety would be important:

“You can only go so far with a negative message or avoiding the negative. It’s much better, if you can, to package it in a positive way... To the extent that we can package this in a way that’s performance-oriented and development-oriented, that will have the intended safety consequence... The perceived benefit can’t just be the benefit of avoiding an injury, it should be the benefit of developing a better player.”

– University researcher

Are there facilitators that may assist change?

The need for leadership was endorsed unanimously, and public concern over the potential long-term consequences of concussion was seen as a source of pressure that could drive change. Advocacy by recognizable figures, such as professional players or media personalities, was also suggested for promoting awareness and public support:

“I think one of the factors that can help drive change is getting elite players, very recognizable players from the National Hockey League [NHL], Olympians, coaches of those national and NHL teams to support this initiative... If we can get the elite players that everyone wants their child to be like – I think we need to connect the dots with those people that have reached that level of play to endorse this.”

– Governing body representative

What are the barriers to change, and how can they be overcome?

Responsibility for initiating policy change was addressed as a major barrier. Although policy was under the purview of provincial branches and regional associations, there was considerable pressure for Hockey Canada to take a national lead on the issue. Associations expressed concern that if they enacted a policy change, they would be “the only one,” preventing their teams from competing in tournaments or provincial competitions against teams from jurisdictions where body checking was still allowed. These associations were reluctant to place players at a competitive or developmental disadvantage:

“The local organizations don’t want to change for fear of being the only ones who change, and yet Hockey Canada will only make a change if the local organizations come forward. So it turns into kind of a circular argument... How do we make everyone feel like this is their problem? It seems like for every level of hockey organization, the responsibility for [body checking policy decisions] lies at a different level.”

– University researcher

Another barrier was that most administrators and coaches in Canadian youth hockey are volunteers, and it was believed that these individuals were provided with inadequate injury prevention training. Several individuals suggested that greater accountability for player safety be placed on these individuals, although as volunteers they may not feel capable of driving change or disseminating injury information. Furthermore, association representatives reported that it was challenging to balance parent and player expectations of performance with on-ice safety, particularly as it related to body checking.

Social context was also identified as a barrier. It was noted that public opinion about body checking is often formed based on

anecdote instead of evidence, and the benefits and consequences of policy change were being weighed based on hockey tradition instead of player safety. Constant exposure to professional hockey was viewed as an influencing factor, specifically around the acceptance of body checking behaviour. Media glorification of the “big hit” was deemed to reinforce this attitude. While representatives acknowledged that body checking is a necessary skill for those aspiring to professional careers, the majority of youth players will not go on to play in these leagues:

“The only reason an individual has to learn how to body check – it’s not for a lifetime of competitive hockey – it’s simply if you are going to go on into a professional or semi-professional [varsity] career.”

– Advocacy group representative

What are the anticipated outcomes following change?

Decreased injury risk was believed to be the most important outcome of policy change. Other potential benefits included better skill development, greater (lifelong) participation in hockey, reduction in health care costs, and more fun for recreational athletes. Although some negative consequences were expected, such as initial public dissatisfaction, most believed these would be short-lived. From a financial perspective, however, the costs associated with greater injury/concussion education alongside a policy change were viewed as a potential problem. It was also indicated that increasing enrollment and greater long-term participation would put additional stress on already overburdened facilities:

“If we are successful and outcomes are that (1) kids stay in the game longer, and (2) that we attract more players... that’s just going to add to not only [the youth] pool of athletes, but that in the adult game. I’m sure every large urban organization is already feeling significantly pinched that way.”

– Hockey association representative

What factors contribute to policy discussion in your organization?

Association representatives noted that, although injury evidence was a foundation for discussion, it was not the driving force behind ongoing debate. Media coverage of concussion incidents and policy change was perceived as highly persuasive, but it was seen as both helpful and detrimental. In some cases, it was argued that evidence for and against body checking was portrayed as more balanced than it actually was. There was also comment upon the incongruous messages being delivered by the media, whereby they promoted safety in youth hockey while celebrating “hard hitting” professional games. Popular media was viewed as a crucial method of communicating evidence to parents and players, but framing of the message was believed to impact public perception of the issues.

Perspectives varied on the role of elite hockey development in the policy debate. Some associations indicated that elite groups received balanced consideration in policy discussion, but others found this to be disproportionate. Association representatives highlighted the need to balance safety with their responsibility to provide elite players with necessary skill development. Although this was acknowledged as a significant barrier to change, it was also proposed to be a facilitator. Specifically, concern over losing elite players prematurely due to concussion, and coaches not

selecting players with a concussion history, could be a powerful motivator for improved safety.

POLICY IMPLICATIONS

Three major themes emerged during the meeting: 1) need for leadership; 2) knowledge translation; and 3) hockey culture as a barrier to change.

Difficulties surrounding leadership were primarily related to ownership over policy decisions. Although Hockey Canada clearly placed decision-making in the hands of its branches, associations felt that body checking policy should be championed at the national level. Dissonance between the bottom-up Hockey Canada approach and the top-down directive sought by the community was a major source of conflict. Stakeholders expressed frustration that enacting policy change was more of a “process problem” than an “information problem.”

The need for a comprehensive communication strategy was discussed. There was an identified need to ensure that accurate and current information was provided to stakeholders, but messages would have to use consistent language and properly define terms (e.g., body contact versus body checking) to be effective. Moreover, integrating evidence into policy discussion was challenging because many stakeholders preferred ideology, anecdotal evidence and personal experience to inform their positions. Research evidence would therefore need to be made accessible and meaningful to end-users.

The development of body checking resources was identified as a priority. Ensuring that coaches received standardized training to teach body checking and that officials were able to properly identify legal and illegal forms of contact would be key in enforcing policy change. Evaluation of knowledge exchange strategies would be important, but representatives believed that mandating the use of Hockey Canada body checking training materials was a good approach to immediately translate evidence into practice.

Hockey culture was seen as a contextual factor affecting all aspects of the decision-making process. The prevailing public belief that “the game cannot change” was discussed as an impediment to progress. Advocacy groups in particular argued that, due to the cultural importance of hockey in Canada, many parents were intimidated by the environment and were afraid to take a stance against body checking. Parents were also viewed as contributing to policy inertia through unreasonable expectations of their children’s participation in hockey. Placing performance goals ahead of player safety and the belief that body checking will “toughen kids up” were considered barriers to gaining public support for policy change.

OUTCOMES

An action item resulting from the meeting was the preparation of a two-page research brief (Supplementary Appendix A) for hockey associations to present at their upcoming annual general meetings. This was constructed with input from researchers and community stakeholders. Several local hockey associations used this brief to inform board members prior to voting on body checking policy. As this knowledge-brokering activity was left to the discretion of the association representatives, the impact of

this strategy in isolation is unclear. The research brief was, however, an example of a resource that was used to disseminate evidence during the voting process, and should be viewed as a complementary approach to other techniques (e.g., meetings, publications, presentations).

Subsequent to the Whistler policy discussion meeting, several provincial branch votes occurred between April-May 2013, with Alberta, Nova Scotia and Ontario deciding to delay body checking until age 13 (Bantam) across all levels of play. In June 2013, the Hockey Canada Board of Directors voted to enact a national policy disallowing body checking in the 11-12 year age group. The focus of Hockey Canada continues to be the appropriate and timely development of body checking skills.

CONCLUSIONS

There was a critical need for researcher and stakeholder partnership in informing evidence-based policy change in youth hockey. The engagement of stakeholders over several years was imperative to inform the research agenda, maximize public and media involvement, and facilitate ongoing policy discussion. This meeting represented a final stage of knowledge exchange that informed discussion and voting processes, leading to a policy change that will have long-term impact in reducing the risk of concussion and injury in youth hockey players.

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RÉSUMÉ

OBJECTIFS : Les mises en échec sont un important facteur de risque de traumatismes, y compris de commotions, chez les jeunes joueurs de hockey sur glace. Des données récentes sur les taux de traumatismes dans les ligues pour les jeunes ont poussé USA Hockey à instituer en 2011 un changement de politique nationale qui a relevé l'âge d'introduction des mises en échec de la catégorie des 11-12 ans (peewee) à celle des 13-14 ans (bantam). La politique sur les mises en échec prête davantage à la controverse au Canada, où les données de recherche n'ont pas suffi à elles seules à faire changer les choses. Dans cet article, nous présentons l'exemple d'un processus d'échange de connaissances entre des chercheurs et des acteurs communautaires qui a mené à un changement de politique nationale en 2013.

PARTICIPANTS : Les 28 participants représentaient le monde de la recherche, les organismes de hockey pour les jeunes et les groupes de défense de la santé des enfants.

LIEU : La réunion d'une journée s'est tenue à Whistler (Colombie-Britannique) en avril 2013.

INTERVENTION : Des chercheurs et des acteurs du milieu ont présenté les perspectives actuelles sur les données probantes et les changements de politique; la discussion a porté sur un ensemble de questions préparatoires conçues pour déceler les éléments qui facilitent ou qui entravent les changements de politique.

EFFETS : On a cerné trois grands facteurs pouvant amener des changements dans les politiques de sécurité dans les sports : le besoin de leadership dans la prise de décisions, l'importance de l'application des connaissances et le rôle de la culture sportive en tant qu'obstacle au changement.

CONCLUSION : Il y a un besoin pressant d'un partenariat entre les chercheurs et les acteurs du milieu pour faciliter un débat de fond et éclairer les changements de politique fondés sur les preuves afin de prévenir les traumatismes dans les sports et les loisirs.

MOTS CLÉS : politique; traumatisme; hockey sur glace; application des connaissances