

## **Cover Page**

**Title:** Survey on strategies to promote social inclusion through sports

**Running title:** Survey on inclusion through sports

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## **Survey on Strategies to Promote Social Inclusion Through Sports**

The regular practice of physical activities and sports is a determinant of physical and mental health (Gouvernement du Canada, 2018; Gouvernement du Québec, 2012). Several studies focusing specifically on people with intellectual disability have indicated that participating in physical activities and sports has positive effects on the physical health and well-being of this population (Carmeli et al., 2005; Guidetti et al., 2010; Van de Vliet et al., 2006). In addition, the participation of people with intellectual disability in these activities can foster their participation in community activities, the development of positive relationships and the development of a sense of belonging (Blick et al., 2015; Darcy & Dowse, 2013; Grandisson et al., 2012), which are all components of social inclusion (Simplican et al., 2015). Therefore, physical activities and sports seem to be powerful tools contributing to the development of more inclusive communities for people with intellectual disability.

People with intellectual disability participate in physical activities and sports in specialized, unified or mainstream settings. In specialized sports settings, they participate in activities dedicated to them, tailored to their needs. Special Olympics, for example, offers activities where athletes with intellectual disability train and compete together. The benefits of these activities have been documented, notably relating to the self-esteem of people with intellectual disability, to attitudinal changes in the general population and to the development of significant interpersonal relationships (Darcy & Dowse, 2013; Inoue & Forneris, 2015). Nevertheless, the athletic activities practiced in specialized settings, although beneficial, are sometimes criticized because they offer few opportunities to interact with people without intellectual disability compared to inclusive activities (Inoue & Forneris, 2015; Patterson, 2007). In order to address this, Special Olympics developed Unified Sports in which an equal number of

athletes with and without intellectual disability practice and compete together (Special Olympics, 2016). These initiatives are increasingly popular on the international scene with more than 1.4 million participants (Special Olympics, 2018). They have been documented to promote positive interactions and friendship development between athletes with and without intellectual disability (Baran et al., 2009; Harada et al., 2011; McConkey et al., 2013). They also allow people with intellectual disability to improve their social skills and their self-esteem, while encouraging individuals without disabilities to develop more positive attitudes towards this population (Harada et al., 2011; McConkey et al., 2013; Özer et al., 2012; Wilski et al., 2012). Finally, it is also possible to promote the inclusion of people with intellectual disability in physical activities and sports in mainstream settings (or inclusive settings), in the same activities as the non-disabled population. Yet, several factors can play an important role in the success or failure of this inclusion in mainstream settings. These factors include the training provided to the coaches, the awareness of the different stakeholders, and the support offered to the included athlete (Braga et al., 2018; Grandisson et al., 2010).

Prior to the current study, a scoping review of the peer-reviewed literature identified different strategies promoting social inclusion of people with intellectual disability in sports and physical activities (Grandisson, Marcotte, Niquette et al., 2019). These are: 1) developing Unified Sports in which sports groups are made up of 50% athletes with intellectual disability and 50% without; 2) conducting activities to raise awareness about the potential of individuals with intellectual disability and the benefits of inclusion; 3) providing training to coaches related to the inclusion of a teammate with intellectual disability; 4) using shadows or companions who are not part of the team to support the inclusion of an athlete with intellectual disability; 5) developing a peer-support structure in which a teammates helps an athlete with intellectual disability; 6) having a resource person available when needed; and 7) facilitating engagement in

non-playing roles (e.g.: supporting coaches or referees). These seven distinct strategies to foster social inclusion of individuals with intellectual disability through sports and physical activities were then documented in a qualitative study through focus groups in two regions of Quebec (Canada) (Grandisson, Marcotte, Milot et al., 2019). Findings from this study suggest that none of these strategies should be prioritized in all cases and contexts and that a combination of strategies would often be desirable. For example, Unified Sports might be more difficult to implement in rural contexts than in urban context. Therefore, to guide the implementation of these strategies and increase their chance of being successfully used, it is critical to obtain a global overview of the opinion of people engaged in sports and physical activity regarding these strategies. It is also important to understand in which contexts each one could be implemented.

### **Objectives**

To this end, the goal of this study is to document the perspective of the people engaged in sports and physical activities (sports stakeholders) regarding seven strategies to foster social inclusion through sports and physical activities. More specifically, this study aimed to document: a) if the strategies should be offered in Quebec according to sports stakeholders (ie. openness), b) their interest to be involved in their implementation, c) the contexts favorable to their implementation, d) the considerations for their implementation, and e) their preferences regarding the strategies to prioritize. This study also aimed to explore whether associations exist among sociodemographic characteristics (e.g. being involved in a specialized or mainstream sport setting) and preferences regarding the strategies to prioritize.

### **Method**

#### **Study Design**

This study is mainly quantitative in nature (Andres, 2012). To address the first objective, a cross-sectional descriptive design was used (Carter & Lubinsky, 2016; Fortin & Gagnon, 2016). More specifically, an online survey was done to describe the participants' openness to the strategies, their interest to engage in their implementation and the contexts favorable to their implementation. Free responses survey data were obtained using a comment section in the survey to clarify the quantitative data and understand the participants' perspectives more in depth. To address the second objective, a descriptive correlational design was used to explore if relationships exist among certain sociodemographic characteristics and participants' preferences regarding the strategies to prioritize (Carter & Lubinsky, 2016; Fortin & Gagnon, 2016). Ethical approval was obtained at Laval University (#2017-077).

### **Participants**

Participants were people involved in mainstream or specialized sports settings living in the province of Quebec (Canada). This included athletes with and without intellectual disability, coaches, athletes' parents, volunteers, coordinators, and referees. The participants had to be 18 years or older. Individuals with insufficient understanding of English or French to complete the survey independently or on the phone with a research assistant were excluded from the study. Although the support received by phone could increase the risk of bias associated with social desirability, it was deemed essential to capture the perspective of the individuals most concerned with study findings, namely individuals with intellectual disability (Butori & Parguel, 2010; Hall, 2017). The initial goal was to reach 400 participants in order to be able to obtain statistical significance for a population of more than 5000 individuals at a significance level of 5% (Statistics Canada, 2010). Yet, because of the exploratory nature of this survey, and given the resources available for the project, participants were recruited over a period of one month only,

from April 20 to May 18<sup>th</sup> 2018. The survey was sent by email and shared on social networks by several organizations and athletic federations in Quebec (Canada) offering specialized and mainstream sports. Many of these accepted to send a reminder to potential participants two weeks after the initial request.

### **Data Collection**

The online survey was self-administered, available in French and in English on the survey platform *LimeSurvey*, and could be completed in approximately 15 minutes. It was developed to be as accessible as possible: several choices were made to facilitate comprehension, response selection and completion of the survey (Agence de la santé et des services sociaux de Montréal, 2013; Krosnick & Presser, 2009). For example, short statements or questions, simple words and point forms were prioritized. In addition, the scales contained few levels and pictograms were used to illustrate the described strategies and the scale levels in order to facilitate the comprehension and the completion of the survey. The description of the strategies included in the survey and the pictograms used to illustrate them are available in Appendix A. Professionals with training in survey development and social inclusion validated the survey. It was pretested with people involved in sports at different levels, including a representative of Special Olympics Quebec, a representative of mainstream sports activities offered by Quebec City, two individuals involved in sports (one with intellectual disability, one without), and a parent.

The survey was divided into three sections: 1) sociodemographic characteristics of the participant; 2) opinions on the seven strategies; 3) prioritization of the strategies. The first section included five questions regarding the sport settings in which participants were involved (i.e. specialized, mainstream or both), their roles in each setting (e.g.: athlete, coach), as well as their gender, geographic region and age. The second section included three questions for each of the

seven strategies: participants' openness to the strategy, their interest to be involved in its implementation and the contexts perceived as favorable to their implementation. An optional comments sections was also provided for each strategy allowing participants to explain their choices and to propose ideas regarding the implementation of the strategies if they wished. Only participants who were open to a strategy (i.e. answered yes or maybe) were asked to indicate their interest to be involved in its implementation and the favorable contexts. Scales including three levels, with one representing a neutral choice, were used in this section. The neutral choice avoided forcing ambivalent participants to choose a response (Andres, 2012). They could be ambivalent for reasons such as the lack of information on a strategy or the difficulty to imagine its implementation. The third section of the survey included two questions. These are: which three strategies should be prioritized and why. The survey instrument allowed participants to advance in it only if they answered all required questions (i.e. all except the comments questions). Examples of the questions asked in each of the three sections of the survey are provided in Appendix A.

### **Analysis**

The electronic data collected through the online survey were exported in SPSS Statistics 25 and NVivo 11 to be analyzed. Only completed surveys were analyzed. For the first objective, descriptive statistics were done to measure the frequencies and percentages of participants opened and interested to be involved in the implementation of each strategy. To illustrate the results, visual analyses were done using bar graphs. The comments were examined qualitatively using a mixed content-analysis process. More specifically, a combination of deductive (based on the research objectives and the survey categories) and inductive (allowing other categories to emerge from the data) analyses were done (Hsieh & Shannon, 2005; Skillman et al., 2019). A

research assistant realized the first coding process, which was then validated by a second research assistant, which contributes to increasing the validity of the findings (Balard et al., 2016). For the second objective, bilateral chi-square tests were performed using crosstabs to verify the existence of relationships among sociodemographic characteristics and preferences regarding the strategies to prioritize in Quebec. Those tests quantified the probability that a participants' profile predict a specific attitude (Strobl et al., 2009). To determine whether a participant came from an urban region, the Quebec classification was used (Gouvernement du Québec, 2018). However, this classification does not allow to determine with certainty whether participants live in a city or in the countryside; it offers a general classification into regions that include city and small towns.

## **Results**

### **Participants**

A total of 358 people started the online survey. Among them, 229 completed it. Only one person requested and obtained support by phone to complete the survey with a research assistant. More than half of the participants were 39 years old or younger (61.6%) and were women (n=168, 73.4%). The respondents came from urban (52%) and rural (48%) regions according to the classification of the Gouvernement du Québec (2018). Most of the participants were involved in mainstream sports settings (n=158, 69.0%), but 21.8% (n=50) were involved in specialized settings and 9.17% (n=21) were active in these two settings. The roles of the participants in their sports settings are described in Table 1. The majority of the participants from mainstream sports settings were athletes. At least 14 athletes with intellectual disability involved in specialized sports completed the survey. The coaches were well represented in the two groups.

*- Insert Table 1 here -*

### **Perspectives on the Strategies**



The participants gave their opinion on each of the seven strategies. First of all, they quantified their openness and their interest to be involved in the implementation of the strategy. Next, they indicated which contexts would facilitate the implementation of each strategy. They also had the possibility to leave comments or suggestions regarding each strategy.

### ***Openness to Each Strategy***

Table 2 presents the degree of openness of the participants to the implementation of each strategy. There was a large sense of openness among sports stakeholders in Quebec, as at least 70% of the participants were in favor of the implementation of each strategy.

- Insert Table 2 here -

### ***Interest to be Involved in Each Strategy***

Table 3 presents the participants' answers regarding their interest to be involved in the implementation of each strategy. Only participants who were open to a strategy were asked to indicate their interest to be involved in its implementation. Regarding the provision of training to coaches, only the coaches from mainstream sports settings were asked about their interest to be involved in this initiative. Among the individuals who were open to each strategy, their interest to be involved in its implementation varied from 48 to 71.1% depending on the strategy. For the strategy of developing a peer support structure, an additional question was asked to athletes from mainstream sports settings who were in favor of this strategy. They had to indicate if they were interested to become a supportive teammate to an athlete with intellectual disability. Their responses were: yes (72.9%, n=62), maybe (24.7%, n=21) and no (2.4%, n=2).

- Insert Table 3 here -

### ***Favorable Contexts***

The participants shared their opinion regarding the contexts that would be favorable to the implementation of the strategies in Quebec. Only participants who were open to a strategy were asked to answer this question. These results are presented in Table 4. For all the strategies, more than 75% of the participants identified recreational community sports facilities and schools as favorable contexts in which these strategies could be implemented. Mainstream competitive sports settings were perceived as a favorable context by more than 70% of the participants for three of the strategies, namely providing training to coaches, having a resource-person available and facilitating engagement in a nonplaying role. Approximately half of the participants (n=110, 48.46%) perceived that training to coaching could be offered online.

- Insert Table 4 here -

### *Considerations for the Implementation of the Strategies*

Some participants shared their ideas through the open-ended questions in section 2 regarding key elements to consider when implementing strategies to foster inclusion through sports. The percentage of participants who added comments ranges from 13.10% (comments about conducting activities to raise awareness) to 27.07% (comments about developing unified sports), with an average of 18.34%. Two critical elements that emerge are the use of combination of strategies and the need for opportunities for real contact between people with and without intellectual disability.

First, many participants recommended that a variety of strategies should be used in combination, as this participant expressed: “The strategies appear to me complementary and all relevant to reach the goal of a better inclusion for people with intellectual disability in our community”. For example, the analysis of the participants’ comments revealed that many

believed that conducting awareness activities is an important strategy to use in conjunction with other strategies. Several participants underlined the importance of selecting one or more strategy according to the abilities and needs of the person with intellectual disability. For example, some participants proposed that Unified Sports and peer support would be more appropriate for people with a mild intellectual disability. The following comment sums up well the recommendations expressed by many: “Different models of support could be offered. I believe you need to choose the model according to the needs of the individual.” The support by a resource person seems to be a strategy that complements all the others, according to the participants. They specified that the resource person should ideally be available in-person or at a distance when needs arise. Yet, they mentioned that support offered by a peer remained relevant even when a resource person could be available.

Some participants suggested that awareness raising activities should provide opportunities for real contact between athletes with and without intellectual disability. For example, a participant shared: “And then, you have to live it. Spending time with athletes with a difference helps individuals in the regular [setting] understand!” This was also suggested as an important aspect of training to coaches. On this regard, a participant mentioned: “That the coaches are in direct contact with these young people during the training to experience possible situations and see how to do the right interventions on the field.” This comment echoes another idea that was raised several times, which is the fact that the training itself is a way to raise awareness and develop coaches’ acceptance. On the topic of training to coaches, many participants perceived that Internet would be a sound platform to host the training.

Many participants perceived that it is favorable to implement Unified Sports in individual sports because they think that it is unrealistic to have teams in which participants had similar

abilities. This comment illustrates this idea: “A special structure should be in place to allow youth with and without ID [intellectual disability] to feel good. In team sports, I have the impression this would be difficult.” Nevertheless, the risk of stigmatization was also mentioned several times, particularly in reference to the use of shadows and to the engagement in a nonplaying role. For this last strategy, participants underlined the importance of respecting the desires and abilities of the people when assigning them roles and responsibilities.

### **Prioritization of the Strategies**

Participants had to identify which three strategies among the seven should be implemented in priority in Quebec (Canada). Conducting awareness raising activities and providing training to coaches were the most prioritized strategies, with 58,1% and 64,2% of the participants who selected them. Approximately 40% of the participants prioritized the development of Unified Sports or the development of a peer support structure. Table 5 presents the number of participants who prioritized each strategy.

### ***Association With Sociodemographic Variables***

Table 5 illustrates the strategies prioritized by the participants in relation to the principal sociodemographic characteristics. No relationships were statistically significant ( $p \leq 0,05$ ) although the proportion of participants who prioritize the different strategies appear to vary slightly according to their profiles. For example, people who were involved in specialized sports settings prioritized Unified Sports more often and engagement in another role in a mainstream setting less often than those who were involved in mainstream settings. In addition, those from urban settings prioritized activities to raise awareness more often, whereas those from rural settings prioritized Unified Sports more often. Finally, the participants under 30 years of age

prioritized the development of a peer support structure more frequently, whereas those over 30 years of age tended to prioritize the availability of a resource person when needed more often. Yet, none of these relationships were statistically significant in our study. The association between priorities and roles (e.g.: athletes, coaches, parents) have not been studied because of the small number of participants in many of these categories and because many participants belonged to more than one categories. Yet, descriptive statistics are available in Appendix B if readers wish to know more.

*- Insert Table 5 here -*

### **Discussion**

The main objective of this study was to document the perspectives of sports stakeholders on seven strategies that foster social inclusion through sports and physical activities. This information provides guidelines to help decision-makers of different sports organizations who share the objective of promoting social inclusion through sports and physical activities. The results show that the population involved in sports in Quebec (Canada) is, in general, favorable to all the strategies even though the percentage of participants interested to be involved in their implementation is slightly lower. Two of the proposed strategies appear to have drawn a large consensus among the survey participants, namely providing training to coaches and conducting awareness raising activities. The openness of the participants is very high for these two strategies (>85%), which were also the two most often prioritized strategies in the survey among all groups of participants. These findings are in line with those from other studies indicating that: 1) the experience of participation in sports for people with disabilities is negatively affected by the lack of training of coaches (Tsai & Fung, 2014); 2) coaches of athletes with disabilities need more formal and informal opportunities of learning how to support the participation of athletes with

disabilities (MacDonald et al., 2016; McMaster et al., 2012); and that 3) awareness raising activities can foster inclusion of people with intellectual disabilities in sports (Harada et al., 2011). Yet, the strategy Developing Unified Sports has drawn more attention internationally to date. Our findings call for actions in favor of using a combination of strategies appropriate to the needs and contexts to foster social inclusion.

Our study findings also indicate that recreational sports settings and schools should be considered as favorable contexts for the implementation of the strategies. This is consistent with findings from other studies in European school settings (Bardon et al., s. d.; Hassan et al., 2012). The authors of these studies found that making Unified football practices in mainstream schools' premises facilitated the recruitment of athletes without intellectual disability. It also enabled students to see that people with intellectual disability can participate in activities with non-disabled peers and promoted interactions as well as the development of significant relationships between athletes.

The second objective of this study was to explore the personal characteristics that could be associated with the prioritization of the strategies. Although certain trends were noted, when comparing the proportions of participants favoring each strategy, no association reached statistical significance. The authors wish to highlight that there is no specific profile of participants leading to the need to prioritize one specific strategy. It is therefore impossible to conclude which strategy should be used and what adaptations should be made depending on the region, the sport setting, the age and the gender of the participants. Nonetheless, since the commitment of the most concerned individuals in the adaptation and implementation of interventions plays a critical role in their success (Damschroder et al., 2009), the authors recommend to select and implement the strategies to favor social inclusion in collaboration with

the partners involved in the activities. In addition, because the intention to be involved is a more predictive variable of people's behaviors than their openness, (Ajzen, 1991; Fishbein, 2008), it seems appropriate to identify in which strategies the individuals of a given community want to be involved. The descriptions and illustrations of the strategies presented in Appendix A can be used to facilitate discussions with practitioners involved in sports in a given community before making decisions and taking action to implement Unified Sports or provide training to coaches of this community for example.

### **Strengths and Limitations of the Study**

This study has created a first outlook on the perspective of the Quebec sports population on strategies that promote inclusion of individuals with intellectual disability through sports and physical activities. The sample size is lower than the ideal sample size identified and, since the survey was disseminated on the Internet through various sources, it was impossible to determine the response rate. The facts that the survey was available for only one month and that it required fifteen minutes to complete may explain why it was lower than expected. This relatively small sample size might contribute to explaining this difficulty to obtain significant relationships. Yet, the research team conducted additional statistical tests, more precisely bootstrap to identify confidence intervals for phi, and the small variance found reinforce our findings that is highly unlikely that there is a significant relationship between priorities and age, gender or region. The only result that is very close to a significant relationship is 'facilitating engagement in another role' in relation with sports settings of the participants. In any case, this strategy remained the least prioritized of all strategies among all groups of participants. Hence, even if a significant relationship were present there, it would not change the study implications. Concerning the absence of relationship between regions and priorities, it is not impossible that a different result

would have been obtained with another strategy to collect and analyze data (e.g. asking for the city of residence and then classifying it according to the number of people living in this city).

One of the primary strengths of this study is that it gave a voice to a large variety of individuals from both specialized and mainstream sports settings from all regions of Quebec, Canada. The efforts to make the survey as accessible as possible and to pre-test it with individuals it targeted certainly assisted to reach the different sports stakeholders, including fourteen athletes involved in specialized sports settings for individuals with intellectual disability. Nevertheless, as our sample included only fourteen athletes involved in specialized sports settings, the representativeness of this population in the present study is limited. While the individuals of this population likely presented mild intellectual disability, it is not impossible that some athletes with moderate intellectual disability completed the survey with support. The fact that we do not precisely know the specific characteristics of the individuals with intellectual disabilities who participated in the survey is another limitation. In addition, the survey being auto-administered and completed online, this reduces the risk of social desirability bias (Kreuter et al., 2008; Krosnick & Presser, 2009). Nonetheless, the authors recognized that it is generally more preferable to use Likert scales with a minimum of four categories since participants may be tempted to choose the middle option (i.e. maybe) (Lozano et al., 2008). Yet, in this survey, the middle option was never the most frequently selected. The decision to include a middle option was taken to allow uncertain participants not to give a false answer (Andres, 2012). The three-point scale was also perceived as easier to understand for people with intellectual disability or lower literacy levels.

## **Conclusion**



This study reveals that the population of Quebec (Canada) appears highly open to the implementation of the seven strategy that promote social inclusion through sports and physical activities. It also indicates that a large proportion of the population is interested to be involved in their implementation. Findings also suggest that no single strategy should be prioritized in all the cases. Therefore, developing tools to support stakeholders in the implementation of the seven strategies would be useful to help them to make informed decisions regarding which strategy to use. While the benefits of the strategy Developing Unified Sports have been documented, limited knowledge on the impacts of the other six strategies is available. In a near future, it would be relevant to conduct research to evaluate the effectiveness of the six other strategies to increase social inclusion of people with intellectual disability. Future studies could also specifically document the preferences and experiences of individuals with intellectual disability regarding their participation in sports alongside individuals without disabilities. Finally, further studies could explore the relevance of using the different strategies to foster inclusion of other populations, such as people with other developmental or physical disabilities.

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### **References**

Agence de la santé et des services sociaux de Montréal. (2013). *Pour qu'on se comprenne!*

*Précautions et littératie en santé : Guide pour les professionnels et communicateurs en santé.* <http://www.santecom.qc.ca/bibliothequevirtuelle/Montreal/9782896733231.pdf>

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Andres, L. (2012). *Designing and doing survey research*. SAGE Publications.
- Balard, F., Kivits, J., Schrecker, C., & Volery, I. (2016). L'analyse qualitative en santé. In J. Kivits, F. Balard, C. Fournier, & M. Winance (Dir.), *Les recherches qualitatives en santé (3e ed.)*. Armand Colin.
- Baran, F., Top, E., Aktop, A., Özer, D., & Nalbant, S. (2009). Evaluation of a unified football program by special olympics athletes, partners, parents, and coach. *European Journal of Adapted Physical Activity*, 2, 34-45. <https://doi.org/10.5507/euj.2009.003>
- Bardon, J. N., Harada, C & Parker, R. (s.d.). *Evaluation of the Special Olympics Europe-Eurasia Unified Football Pilot-Project: Findings from Austria, Poland, Romania, Serbia and Slovakia*. <https://www.specialolympics.org/our-work/research/evaluation-of-the-special-olympics-europe-eurasia-unified-football-pilot-project>
- Blick, R. N., Saad, A. E., Goreczny, A. J., Roman, K., & Sorensen, C. H. (2015). Effects of declared levels of physical activity on quality of life of individuals with intellectual disabilities. *Research In Developmental Disabilities*, 37, 223-229. <https://doi.org/10.1016/j.ridd.2014.11.021>

- Braga, L., Taliaferro, A., & Blagrove, J. (2018). Inclusion in the 21st century: Insights and considerations for teacher and coach preparation. *Journal of Physical Education, Recreation & Dance (JOPERD)*, 9(6), 42-49.  
<https://doi.org/10.1080/07303084.2018.1476938>
- Butori, R., & Parguel, B. (2010). *Les biais de réponse - impact du mode de collecte des données et de l'attractivité de l'enquêteur*. <https://halshs.archives-ouvertes.fr/halshs-00636228>
- Carmeli, E., Zinger-Vaknin, T., Mohammed, M., & Merrick, J. (2005). Can physical training have an effect on well-being in adults with mild intellectual disability? *Mechanisms of Ageing and Development*, 126, 299-304. <https://doi.org/10.1016/j.mad.2004.08.021>
- Carter, R. E., & Lubinsky, J. (Dir.). (2016). *Rehabilitation Research : Principles and applications (5th ed.)*. Elsevier.
- Damschroder, L., Aron, D., Keith, R., Kirsh, S., Alexander, J., & Lowery, J. (2009). Fostering implementation of health services research findings into practice: A consolidated framework for advancing implementation science. *Implementation Science*, 4, 50.  
<https://doi.org/10.1186/1748-5908-4-50>
- Darcy, S., & Dowse, L. (2013). In search of a level playing field – the constraints and benefits of sport participation for people with intellectual disability. *Disability & Society*, 28, 393-407. <https://doi.org/10.1080/09687599.2012.714258>

Fishbein, M. (2008). A reasoned action approach to health promotion. *Med Decis Making*, 28, 834-844. <https://doi.org/10.1177/0272989X08326092>

Fortin, M.-F. & Gagnon, J. (2016). *Fondements et étapes du processus de recherche (3<sup>e</sup> ed.)*. Chenelière-Éducation.

Gouvernement du Canada. (2018). *Votre santé et l'activité physique*.

<https://www.canada.ca/fr/sante-publique/services/etre-actif/votre-sante-activite-physique.html>

Gouvernement du Québec. (2012). *La santé et ses déterminants : Mieux comprendre pour mieux agir*. <http://publications.msss.gouv.qc.ca/msss/fichiers/2011/11-202-06.pdf>

Gouvernement du Québec. (2018). *Portrait économique des régions du Québec - Édition 2018*.

[https://www.economie.gouv.qc.ca/fileadmin/contenu/documents\\_soutien/regions/portraits\\_regionaux/portrait\\_socio\\_econo.pdf](https://www.economie.gouv.qc.ca/fileadmin/contenu/documents_soutien/regions/portraits_regionaux/portrait_socio_econo.pdf)

Grandisson, M., Marcotte, J., Milot, E., Allaire, A. S., & Lamontagne, M. E. (2019). Perspectives on strategies to foster inclusion through sports: advantages, disadvantages and considerations for implementation. *Inclusion*, 7, 140-153. <https://doi.org/10.1352/2326-6988-7.2.140>

- Grandisson, M., Marcotte, J., Niquette, B., & Milot, É. (2019). Strategies to foster inclusion through sports: A scoping review. *Inclusion*, 7, 220-233. <https://doi.org/10.1352/2326-6988-7.4.220>
- Grandisson, M., Tétreault, S., & Freeman, A. R. (2010). Le sport: Promoteur de la santé et de la participation sociale en déficience intellectuelle. *Revue francophone de la déficience intellectuelle*, 21, 54-65.
- Grandisson, M., Tétreault, S., & Freeman, A. R. (2012). Enabling integration in sports for adolescents with intellectual disabilities. *Journal Of Applied Research In Intellectual Disabilities: JARID*, 25, 217-230. <https://doi.org/10.1111/j.1468-3148.2011.00658.x>
- Guidetti, L., Franciosi, E., Emerenziani, G. P., Gallotta, M. C., & Baldari, C. (2009). Assessing basketball ability in players with mental retardation. *British Journal of Sports Medicine*, 43, 208-212. <https://doi.org/10.1136/bjism.2006.034918>
- Guidetti, L., Franciosi, E., Gallotta, M. C., Emerenziani, G. P., & Baldari, C. (2010). Could sport specialization influence fitness and health of adults with mental retardation? *Research In Developmental Disabilities*, 31, 1070-1075. <https://doi.org/10.1016/j.ridd.2010.04.002>
- Hall, S. A. (2017). Community Involvement of Young Adults with Intellectual Disabilities: Their Experiences and Perspectives on Inclusion. *Journal of Applied Research in Intellectual Disabilities*, 30, 859-871. <https://doi.org/10.1111/jar.12276>

Harada, C. M., Siperstein, G. N., Parker, R. C., & Lenox, D. (2011). Promoting social inclusion for people with intellectual disabilities through sport: Special Olympics International, global sport initiatives and strategies. *Sport in Society, 14*(9), 1131-1148.

<https://doi.org/10.1080/17430437.2011.614770>

Hassan, D., Dowling, S., McConkey, R., & Menke, S. (2012). The inclusion of people with intellectual disabilities in team sports: Lessons from the Youth Unified Sports Program of Special Olympics. *Sport in Society, 15*(9), 1275-1290.

<https://doi.org/10.1080/17430437.2012.695348>

Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis.

*Qualitative Health Research, 15*(9), 1277-1288.

<https://doi.org/10.1177/1049732305276687>

Inoue, C., et Forneris, T. (2015). The role of Special Olympics in promoting social inclusion: An examination of stakeholder perceptions. *Journal of Sport for Development, 3*(5), 23-34.

Kreuter, F., Presser, S., & Tourangeau, R. (2008). Social desirability bias in CATI, IVR, and web surveys: The effects of mode and question sensitivity. *The Public Opinion Quarterly, 72*, 847-865. <https://doi.org/10.1093/poq/nfn063>

Krosnick, J., & Presser, S. (2009). *Question and questionnaire design*.

[https://web.stanford.edu/dept/communication/faculty/krosnick/docs/2009/2009\\_handbook\\_krosnick.pdf](https://web.stanford.edu/dept/communication/faculty/krosnick/docs/2009/2009_handbook_krosnick.pdf)

Lozano, L. M., García-Cueto, E., & Muñiz, J. (2008). Effect of the Number of Response Categories on the Reliability and Validity of Rating Scales. *Methodology*, 4, 73-79.

<https://doi.org/10.1027/1614-2241.4.2.73>

MacDonald, D. J., Beck, K., Erickson, K., & Côté, J. (2016). Understanding sources of knowledge for coaches of athletes with intellectual disabilities. *Journal of Applied Research in Intellectual Disabilities*, 29(3), 242-249. <https://doi.org/10.1111/jar.12174>

McMaster, S., Culver, D., & Werthner, P. (2012). Coaches of athletes with a physical disability: A look at their learning experiences. *Qualitative Research in Sport, Exercise and Health*, 4(2), 226-243. <https://doi.org/10.1080/2159676X.2012.686060>

McConkey, R., Dowling, S., Hassan, D., & Menke, S. (2013). Promoting social inclusion through Unified Sports for youth with intellectual disabilities: a five-nation study. *Journal Of Intellectual Disability Research: JIDR*, 57, 923-935. <https://doi.org/10.1111/j.1365-2788.2012.01587.x>

Özer, D., Baran, F., Aktop, A., Nalbant, S., Ağlamış, E., & Hutzler, Y. (2012). Effects of a Special Olympics Unified Sports soccer program on psycho-social attributes of youth

- with and without intellectual disability. *Research In Developmental Disabilities*, 33, 229-239. <https://doi.org/10.1016/j.ridd.2011.09.011>
- Patterson, I. (2007). Changes in the provision of leisure services for people with disabilities in Australia. *Therapeutic Recreation Journal*, 41, <https://doi.org/108-118>.
- Simplican, S. C., Leader, G., Kosciulek, J., & Leahy, M. (2015). Defining social inclusion of people with intellectual and developmental disabilities: an ecological model of social networks and community participation. *Research In Developmental Disabilities*, 38, 18-29. <https://doi.org/10.1016/j.ridd.2014.10.008>
- Skillman, M., Cross-Barnet, C., Friedman Singer, R., Rotondo, C., Ruiz, S., & Moiduddin, A. (2019). A Framework for Rigorous Qualitative Research as a Component of Mixed Method Rapid-Cycle Evaluation. *Qualitative Health Research*, 29, 279-289. <https://doi.org/10.1177/1049732318795675>
- Special Olympics. (2016). *Project UNIFY*. <http://www.specialolympics.org/RegionsPages/content.aspx?id=24443&LangType=1036>
- Special Olympics. (2018). *Sports & Games - Unified Sports*. <https://www.specialolympics.org/our-work/sports-and-games/unified-sports>
- Statistique Canada. (2010). *Méthodes pratiques d'enquêtes*. <https://www.statcan.gc.ca/pub/12-587-x/12-587-x2003001-fra.pdf>



- Strobl, C., Malley, J., & Tutz, G. (2009). An introduction to recursive partitioning: rationale, application, and characteristics of classification and regression trees, bagging, and random forests. *Psychol Methods, 14*, 323-348. <https://doi.org/10.1037/a0016973>
- Tsai, E. H., & Fung, L. (2009). Parents experiences and decisions on inclusive sport participation of their children with intellectual disabilities. *Adapted physical activity quarterly: APAQ, 26*(2), 151-171. <https://doi.org/10.1123/apaq.26.2.151>
- Van de Vliet, P., Rintala, P., Fröjd, K., Verellen, J., Van Houtte, S., Daly, D. J., & Vanlandewijck, Y. C. (2006). Physical fitness profile of elite athletes with intellectual disability. *Scandinavian Journal of Medicine & Science in Sports, 16*, 417-425. <https://doi.org/10.1111/j.1600-0838.2006.00539.x>
- Wilski, M., Nadolska, A., Dowling, S., McConkey, R., & Hassan, D. (2012). Personal development of participants in special Olympics unified sports teams. *Human Movement, 13*, 271-279.

- *Insert Appendix A here* -

- *Insert Appendix B here* -

Table 1

*Roles of the Participants in Their Sport Setting*

Role	Mainstream sport setting (n= 179) n (%)	Specialized sport setting (n= 71) n (%)
Athlete	130 (72.6%)	14 (19.7%)
Parent	43 (24.0%)	19 (26.8%)
Coach	60 (33.5%)	27 (38.0%)
Volunteer	51 (28.5%)	28 (39.4%)
Coordinator	22 (12.3%)	10 (14.1%)
Referee or Judge	10 (5.6%)	3 (4.2%)
Other	18 (10.1%)	13 (18.3%)

Table 2  
*Participants' Openness to the Proposed Strategies That Foster Social Inclusion (n=229)*

Strategies	Openness	n	%	CI 95%
Developing Unified Sports	Yes	162	70.7%	64.2%-76.4%
	Maybe	61	26.6%	21.0%-32.8%
	No	6	2.6%	0.9%-4.8%
Conducting activities to raise awareness	Yes	207	90.4%	86.5%-94.3%
	Maybe	20	8.7%	5.2%-12.7%
	No	2	0.9%	0.0%-2.2%
Providing training to coaches	Yes	202	88.2%	84.3%-92.1%
	Maybe	25	10.9%	7.0%-14.8%
	No	2	0.9%	0.0%-2.2%
Using shadows	Yes	163	71.2%	65.5%-77.3%
	Maybe	57	24.9%	19.2%-30.6%
	No	9	3.9%	1.7%-6.6%
Developing a peer-support structure	Yes	172	75.1%	69.0%-80.8%
	Maybe	49	21.4%	15.7%-27.1%
	No	8	3.5%	1.3%-6.1%
Having a resource structure available when needed	Yes	171	74.7%	69.4%-80.3%
	Maybe	49	21.4%	15.7%-26.2%
	No	9	3.9%	1.7%-7.0%
Facilitating engagement in nonplaying roles	Yes	176	76.9%	71.6%-82.1%
	Maybe	43	18.8%	14.0%-23.6%
	No	10	4.4%	1.7%-7.4%



Table 3

*Interest of the Participants to be Involved in the Strategies*

Strategies (n= open or maybe open)	Interest to be involved	n	%	CI 95%
Developing Unified Sports (n= 223)	Yes	128	57.4%	50.8%-63.8%
	Maybe	87	39.0%	32.8%-45.5%
	No	8	3.6%	1.7%-6.7%
Conducting activities to raise awareness (n= 227)	Yes	111	48.9%	42.4%-55.4%
	Maybe	85	37.4%	31.3%-43.9%
	No	31	13.7%	9.7%-18.6%
Providing training to coaches (n= 60, coaches from mainstream sports settings)	Yes	43	71.7%	59.4%-81.9%
	Maybe	15	25.0%	15.4%-37.0%
	No	2	3.3%	0.7%-10.3%
Using shadows (n= 220)	Yes	137	62.3%	55.7%-68.5%
	Maybe	66	30.0%	24.2%-36.3%
	No	17	7.7%	4.7%-11.8%
Developing a peer-support structure (n= 221)	Yes	140	63.3%	56.9%-69.5%
	Maybe	69	31.2%	25.4%-37.5%
	No	12	5.4%	3.0%-9.0%
Having a resource structure available when needed (n= 220)	Yes	120	54.5%	47.9%-61.0%
	Maybe	79	35.9%	29.8%-42.4%
	No	21	9.5%	6.2%-14.0%
Facilitating engagement in nonplaying roles (n= 219)	Yes	135	61.6%	55.1%-67.9%
	Maybe	70	32.0%	26.1%-38.3%

No	14	6.4%	3.7%-10.2%
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Table 4

*Contexts Perceived as Favorable to the Implementation of the Strategies*

Strategies (n)	Competitive mainstream sports settings n (%)	Specialized sports settings n (%)	Mainstream recreational community sports centres n (%)	Schools n (%)	Work place or private companies n (%)	Other n (%)
Developing Unified Sports (n= 223)	99 (44.39%)	111 (49.78%)	186 (83.41%)	174 (78.03%)	76 (34.08%)	3 (1.35%)
Conducting activities to raise awareness (n= 227)	125 (55.07%)	107 (47.14%)	191 (84.14%)	195 (85.90%)	108 (47.58%)	4 (1.76%)
Providing training to coaches (n= 227)	163 (71.81%)	139 (61.23%)	191 (84.14%)	185 (81.50%)	96 (42.29%)	5 (2.20%)
Using shadows (n= 220)	145 (65.91%)	Not applicable	184 (83.64%)	184 (83.64%)	89 (40.45%)	6 (2.73%)
Developing a peer-support structure (n= 221)	146 (66.06%)	Not applicable	188 (85.07%)	191 (86.43%)	111 (50.23%)	3 (1.36%)
Having a resource structure available when needed (n= 220)	156 (70.91%)	Not applicable	187 (85.00%)	188 (85.45%)	103 (46.82%)	6 (2.73%)
Facilitating engagement in nonplaying roles (n= 219)	165 (75.34%)	Not applicable	190 (86.76%)	188 (85.84%)	116 (52.97%)	1 (0.46%)

Table 5

*Priorization of the Strategies and Associations With Sociodemographic Variables*

Strategies	proportion who prioritized	Proportion who prioritized the strategy								
		Gender		Age		Region		Settings		
		M	F	≤ 29	≥ 30	Urb.	Rur.	M	S	MS
Developing Unified Sports	90/229 (39.3%)	23/61 (37.7%)	67/168 (39.9%)	36/91 (39.6%)	54/138 (39.1%)	40/119 (33.6%)	50/110 (45.5%)	56/158 (35.4%)	23/50 (46.0%)	11/21 (52.4%)
		$p= 0.879$		$p= 1.00$		$p= 0.079$		$p=0.178$		
Conducting activities to raise awareness	133/229 (58.1%)	32/61 (52.5%)	101/168 (60.1%)	53/91 (58.2%)	80/138 (58.0%)	75/119 (63.0%)	58/110 (52.7%)	88/158 (55.7%)	33/50 (66.0%)	12/21 (57.1%)
		$p= 0.364$		$p= 1.00$		$p= 0.140$		$p= 0.475$		
Providing training to coaches	147/229 (64.2%)	36/61 (59.0%)	111/168 (66.1%)	63/91 (69.2%)	84/138 (60.9%)	77/119 (64.7%)	70/110 (63.6%)	100/158 (63.3%)	31/50 (62.0%)	16/21 (76.2%)
		$p= 0.352$		$p= 0.208$		$p= 0.891$		$p= 0.493$		
Using shadows	82/229 (35.8%)	21/61 (34.4%)	61/168 (36.3%)	27/91 (29.7%)	55/138 (39.9%)	42/119 (35.3%)	40/110 (36.4%)	55/158 (34.8%)	18/50 (36.0%)	9/21 (42.9%)
		$p= 0.877$		$p= 0.124$		$p= 0.891$		$p= 0.818$		
Developing a peer-support structure	93/229 (40.6%)	27/61 (44.3%)	66/168 (39.3%)	43/91 (47.3%)	50/138 (36.2%)	50/119 (42.0%)	43/110 (39.1%)	70/158 (44.3%)	16/50 (32.0%)	7/21 (33.3%)
		$p= 0.544$		$p= 0.101$		$p= 0.688$		$p= 0.233$		
Having a resource structure available when needed	68/229 (29.7%)	20/61 (32.8%)	48/168 (28.6%)	22/91 (24.2%)	46/138 (33.3%)	38/119 (31.9%)	30/110 (27.3%)	52/158 (32.9%)	13/50 (26.0%)	3/21 (14.3%)
		$p= 0.624$		$p= 0.143$		$p= 0.472$		$p= 0.180$		
Facilitating engagement in nonplaying roles	60/229 (26.2%)	18/61 (29.5%)	42/168 (25.0%)	23/91 (25.3%)	37/138 (26.8%)	30/119 (25.2%)	30/110 (27.3%)	48/158 (30.4%)	9/50 (18.0%)	3/21 (14.3%)
		$p= 0.500$		$p= 0.878$		$p= 0.765$		$p= 0.094$		

**Abbreviation.** M : male, F : Female, ≤ 29 : 29 years or younger, ≥ 30 : 30 years or older, Urb. : urban, Rur. : rural, M : involved in mainstream sport settings, S : involved in specialized sport settings, MS involved in mainstream and specialized sport settings.



## Appendix A.

### Description of the Strategies Included in the Survey and Examples of the Questions

Examples of questions about opinions on the seven strategies and description of the strategies:

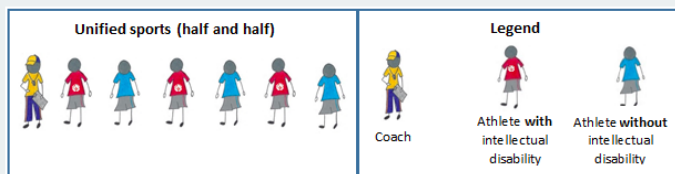
#### STRATEGY 1 - DEVELOPING UNIFIED SPORTS (HALF AND HALF)

Athletes with and without intellectual disability practice physical activities or sports together in one team :

- Their **athletic abilities** are similar.
- For **several weeks**, they **regularly** engage in physical activities or sports together.
- Up to half are athletes with an intellectual disability.

Exemple :

- The athletes with and without intellectual disability train together once a week for 10 weeks to complete a challenge together ( e.g. First 5km race).



7a. Do you think unified sports should be offered in Quebec?



No, this is not a good idea



Maybe.



Yes this is a good idea.



7b. Would you participate in unified sports activities (half and half) if they were offered?

Your participation could be in different roles (ex. Athlete with or without intellectual disability, coach, parent, coordinator, referee).



No I would not like that.



Maybe.



Yes I would participate.



7c. According to you, where should we develop unified sports (half and half) in Quebec?

📌 Check all that apply

- Within competitive regular sports contexts (swimming clubs)
- Within specialized sports contexts (Special Olympics)
- Within regular recreational community sports centres (activities offered by the city)
- Within schools
- Within workplaces or private companies
- Other:

7d. If you have comments you would like to share regarding unified sports (half and half), please write them here.

*The comments can explain why you are or are not in favour of this strategy, or can offer suggestions for the best way to implement this strategy in Quebec.*

## STRATEGY 2 – CONDUCTING ACTIVITIES TO RAISE AWARENESS

Organize more awareness activities on inclusion in sports.

- This could be done during special events or in the media.

Exemples :

- Create a special event where the general population is invited to play soccer with athletes with an intellectual disability.
- Realize publicities in which a Quebec star or media personality will present athletic achievements of people with an intellectual disability.



### STRATEGY 3 – PROVIDING TRAINING TO COACHES

One or two athletes with intellectual disability are integrated into a mainstream sport group (with individuals without intellectual disability):

- All the athletes train and participate in the competitions together.
- The **coach** or physical education teacher **attends a training workshop** on the inclusion of athletes with intellectual disability.
- This training workshop can be done in person or online.
- The training workshop could be divided in different subjects.

Examples :

- What to do when an athlete with intellectual disability starts with a group.
- How to adapt the instructions.
- What to do when there is a conflict.



### STRATEGY 4 – USING SHADOWS

An athlete with an intellectual disability participate in a mainstream sport team (with people without an intellectual disability):

- All the athletes train and participate in competitions together.
- **The athlete with the intellectual disability is helped by a shadow (or companion).**
- **The shadow is not part of the sport team.**
- The shadow is always present.

Examples of the role of the shadow:

- The shadow can clarify instructions.
- The shadow can encourage the athlete.
- The shadow can help the athlete with his/her transports.
- The shadow can make sure that the inclusion process is going well with the others.



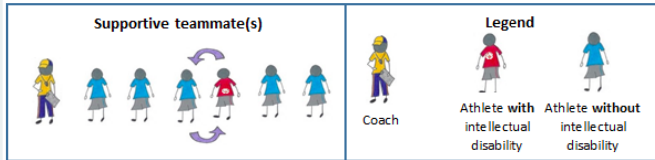
## STRATEGY 5 – DEVELOPING A PEER SUPPORT STRUCTURE

An athlete with an intellectual disability participate in a mainstream sport team (with people without intellectual disability).

- All the athletes train and participate in competitions together.
- The athlete with intellectual disability is helped by one or a few teammates without intellectual disability, with whom the athlete is paired.
- The teammate is an athlete who is part of the team.
- The two athletes encourage each other.

Example of the role of the teammate :

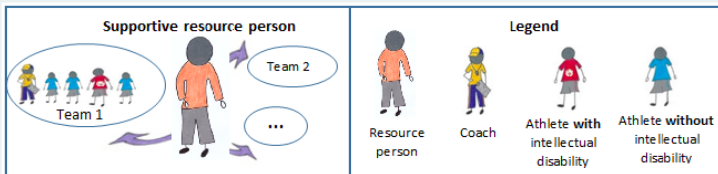
- The teammate can clarify instructions.
- The teammate can help the athlete with his/her transports.
- The teammate can foster the development of positive social relationships with other members of the team.



## STRATEGY 6 – HAVING A RESOURCE STRUCTURE AVAILABLE WHEN NEEDED

An athlete with intellectual disability is integrated into a mainstream sport team (with people without intellectual disability).

- All the athletes train and participate in competitions together.
- A **resource person** is supporting the inclusion of athletes with intellectual disability in the mainstream sport team.
- The resource person is a professional (ex. Special educator) who has a good knowledge of the strategies to foster participation in physical activities and sports.
- This person also knows the athlete with intellectual disability.
- The resource person is available when needed, but is not present at all activities.
- The parents, the coaches or the athletes can ask the resource person for help, if needed.



## STRATEGY 7 – FACILITATING ENGAGEMENT IN NON PLAYING ROLES

An athlete with intellectual disability participates in specialized activities (ex. Special Olympics).

In addition, the athlete is engaged in roles other than that of an athlete in a sport team of individuals without intellectual disability.

- The athlete is present at trainings and competitions for athletes without intellectual disability.

Involvement example:

- The person with an intellectual disability can help the referees or judges.
- He/she can transport the equipments.
- He/she can be an assistant to the coach.

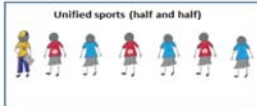
**Example:** Charles plays soccer on a Special Olympics' team. He is also the assistant-coach of the neighbourhood soccer league of his community.



## Questions about prioritization of the strategies

14. Choose up to 3 strategies (between 0 and 3) that you consider particularly important to implement in Quebec to enable social inclusion for people with intellectual disabilities through sports.

- Unified sports (half and half)



- Activities to raise awareness



- Training workshops for coaches



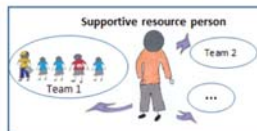
- Supportive companion (or shadow)



- Supportive teammate(s)



- Supportive resource person



- Involvement in another role



15. Do you have comments regarding the strategies that should be prioritized in Quebec? If so, please write them here.

Appendix B

*Proportions of Participants who Prioritized Each of the Strategies Depending on Their Role*

Strategies	Athlete		Parent		Coach		Volunteer		Coordinator		Referee or Judge		Other	
	n (%)		n (%)		n (%)		n (%)		n (%)		n (%)		n (%)	
	M	S	M	S	M	S	M	S	M	S	M	S	M	S
	n=130	n=14	n=43	n=19	n=60	n=27	n=51	n=28	n=22	n=10	n=10	n=3	n=18	n=13
Developing Unified Sports	48 (36.92%)	8 (57.14%)	17 (39.53%)	10 (52.63%)	22 (36.67%)	15 (55.56%)	17 (33.33%)	13 (46.43%)	8 (36.36%)	4 (40.0%)	1 (10.0%)	1 (33.33%)	6 (33.33%)	6 (46.15%)
Conducting activities to raise awareness	76 (58.46%)	4 (28.57%)	21 (48.84%)	14 (73.68%)	30 (50.0%)	20 (74.07%)	28 (54.90%)	21 (75.0%)	11 (50.0%)	7 (70.0%)	9 (90.0%)	2 (66.67%)	8 (44.44%)	9 (69.23%)
Providing training to coaches	84 (64.62%)	9 (64.29%)	24 (55.81%)	12 (63.16%)	43 (71.67%)	18 (66.67%)	32 (62.75%)	18 (64.29%)	17 (77.27%)	6 (60.0%)	7 (70.0%)	2 (66.67%)	13 (72.22%)	9 (69.23%)
Using shadows	44 (33.85%)	4 (28.57%)	21 (48.84%)	9 (47.37%)	24 (40.0%)	10 (37.04%)	20 (39.22%)	13 (46.43%)	9 (40.91%)	3 (30.0%)	1 (10.0%)	2 (66.67%)	7 (38.88%)	3 (23.08%)
Developing a peer-support structure	62 (47.69%)	8 (57.14%)	15 (34.88%)	5 (26.32%)	19 (31.67%)	6 (22.22%)	19 (37.25%)	7 (25.0%)	8 (36.36%)	2 (20.0%)	3 (30.0%)	1 (33.33%)	7 (38.88%)	4 (30.77%)
Having a resource structure available when needed	34 (26.15%)	1 (7.14%)	13 (30.23%)	4 (21.05%)	23 (38.33%)	6 (22.22%)	19 (37.25%)	7 (25.0%)	8 (36.36%)	4 (40.0%)	3 (30.0%)	1 (33.33%)	7 (38.88%)	3 (23.08%)
Facilitating engagement in nonplaying roles	37 (28.46%)	1 (7.14%)	16 (37.21%)	2 (10.53%)	18 (30.0%)	5 (18.52%)	16 (31.37%)	3 (10.71%)	5 (22.73%)	3 (30.0%)	4 (40.0%)	0 (0.0%)	5 (27.77%)	4 (30.77%)

**Abbreviation.** M : involved in mainstream sport settings, S : involved in specialized sport settings.