SPORT PARTICIPATION MOTIVATION OF ATHLETES WITH INTELLECTUAL DISABILITIES

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ABSTRACT

Special Olympics have grown and became the largest worldwide provider of sport opportunities for individuals with intellectual disabilities. In addition, Special Olympics sport programs participation is associated with improved physical fitness and motor skills as well as increased self-esteem, self-confidence, social competence and positive self-perceptions. But there is still limited research regarding sport participation motivation in Special Olympics, so the aim of the study was to identify why individuals with intellectual disabilities have joined and continue to participate in Special Olympics program.

This study evaluated sport participation motivation of 102 (60 males and 42 females) SO athletes aged 12 to 16 years (mean age 14.12, SD = 1.47). The sampling design was purposive in that participants had to meet criteria of mental retardation, to come from the same Kaunas region, and to participate in sport for 1—2 hours twice a week for a minimum 6 months. To measure sport motivation were used the Sport Motivation Scale (SMS) (Pelletier et al., 1995). The Lithuanian validation of this modified sport motivation scale (SMS) for persons with mild mental retardation was done by Sajute (2002).

The results showed that Special Olympics sport participants expressed significantly greater identified regulation level (extrinsic motivation) than intrinsic motivation, and the mean score of external regulation (extrinsic motivation) was higher compared to intrinsic motivation. Results showed the most motivating factors for participants was winning ribbons and medals, fun, being pretty skilled and spend time with friends. While sport participation motives of athletes with intellectual disabilities varied, they were not so different between genders. No significant differences were found between genders. Our study supported the use of self-determination theory for the evaluation of motivation for participation in Special Olympics sport programs.

Keywords: intellectual disabilities, sport participation, extrinsic and external motivation.

INTRODUCTION

Since its inception in 1968, the Special Olympics program has grown and become the largest worldwide provider of sport opportunities for individuals with intellectual disabilities. The Special Olympics and its method of encouraging the intellectually disabled to participate in sports has seen the best results so far. The physical activity along with support, rewards, and interaction seems to be beneficial to these individuals and their families. In addition, Special Olympics sport programs participation is associated with improved physical fitness and motor skills as well as increased self-esteem, self-confidence, social competence and positive self-perceptions (Farell et al., 2004; Castango, 2001; Dykens, Cohen, 1996; Riggen, Ulrich, 1993). The investigations reported
above were more related to the benefits of Special Olympics sport programs, and only a few researchers were interested in studies on specific motivational aspects of participation in sport for persons with intellectual disabilities (Shapiro, 2003).

Descriptive research has found that persons with and without disabilities have similar motives to participate in sport including improving sport skills, attaining goals, enjoying competitions, being part of a team, being with friends and family, having fun and receiving recognition for sport accomplishments (Farrell et al., 2004; Shapiro, 2003). But persons with intellectual disabilities have different cognitive abilities and perceptions about ability. As a result, their reasons for participation in sport may vary from other populations.

Self-determination theory (Deci, Ryan, 1985, Ryan, Deci, 2000a) is a useful theoretical framework for understanding varying levels of motivation for activity engagement. It addresses conditions of intrinsic and extrinsic motivation and has been used to study motivated behavior in the educational setting and sport. To summarize and organize the self-determination theory, R. J. Vallerand (1997) developed the Hierarchical Model of Intrinsic and Extrinsic Motivation. The model indicates that social factors influence able-bodied athletes’ perceptions of autonomy, competence, and relatedness, which in turn determine their motivation (intrinsic or extrinsic), and then the motivation leads to consequences. This model is useful in the fact that it allows researchers to review existing sport research on both the determinants and the consequences of intrinsic and extrinsic motivation (Vallerand, Losier, 1999). Several studies examined the patterns of motivation using the Self-determination theory in the field of physical activity research. They examined participation in physical activity (Wang, Biddle, 2001), physical education and sport for youth (Ntoumanis, 2001), and adult participation in sport (Vlachopoulos et al., 2000).

Individuals with intellectual disabilities are often encouraged to perform behaviors through the use of extrinsic rewards (Cohen, 1986), which according to the Self-determination Theory lead in spontaneous activity. Activities perceived to be less inherently interesting may need to be externally prompted in the beginning stages of participation. Individuals are likely to initiate to continue such behaviors if they are reinforced with extrinsic rewards or if the tasks are valued by significant others with whom they feel related or would like to feel related. Special Olympics athletes can choose to participate in different sports from one season to the next and from one year to another suggesting that the sport itself may influence an athlete’s participation motives (Shapiro, 2003).

There is still limited research regarding sport participation motivation in Special Olympics, because of that the aim of the study was to identify why individuals with intellectual disabilities joined and continue to participate in Special Olympics program. We designed a study and directed our investigation to the following research questions: Why do athletes participate in Special Olympics? What kind of sport motivation dominates?

METHODS

Participants of this study included 102 Special Olympics athletes between 12—16 years of age (M age = 14.12, years, SD = 1.47) (60 males, 42 females). The sampling design was purposive in that participants had to meet criteria of mental retardation, to come from the same Kaunas region and to participate their sport for 1—2 hours twice a week for a minimum 6 months. Specific information concerning assessment test or IQ scores was not made available. Parents or guardians of the participants signed the forms generated by Special Olympics Lithuania indicating their approval for their child to participate in the research study.

To measure sport motivation, we used the Sport Motivation Scale (SMS) (Pelletier et al., 1995). The scale is one of the tools most often used in research and practice concerning motivation for sport in children and adolescents. The Lithuanian validation of this modified sport motivation scale (SMS) for persons with mild mental retardation was done by Sajute (2002). A 16-item, 4-factor abridged version of the full SMS was administered to SO athletes. The modified abridged version of the Scale consists of four sub-scales that measure the three types of motivation (intrinsic, extrinsic and amotivation). Athletes were asked to respond to items for each subscale which followed the statement “I participate in sport because...”.

Example items are “I want to have fun” (Intrinsic Motivation), “my parents want me to participate” (External Motivation), and “I really don’t know why” (Amotivation). The items were rated on a 3-point scale, ranging from not true (1) to true (3). The simple rating was selected due the abilities of participants to understand the statements as well as the concepts “true”, “slightly true” or “not true”. Cronbach’s $\alpha$ was used to assess internal
consistency of the SMS and test-retest (Thomas, Nelson, 1996) for reliability of the scale. The overall reliability score for the SMS instrument was 0.74. Reliability scores are considered adequate when values are > 0.70. Athletes (n = 30) were tested two times within two weeks. Test — retest reliability for each item of the scale ranged from 0.86 to 0.94.

Statistical analysis was conducted using STATISTICA for Windows version 6.0. Descriptive statistics (mean scores and standard deviations) was computed for the total sample and the t test was used to determine differences in motivation of participation. Pearson’s correlation coefficient (r) was used to evaluate the relationship between the types of motivation.

RESULTS

The average scores of each motivation subscale of total sample along the rank — order list for each item of SMS scale are shown in Table 2. The item “I want to win ribbons and medals” received the highest rating (M = 2.98, SD = 0.20). This item describes ER (extrinsic motivation). The following items, representing IM in ranking, were “I am interested in sport” (M = 2.93, SD = 0.29) and “I want to have fun” (M = 2.91, SD = 0.38) followed by items describing IR (extrinsic motivation) — “I want to be pretty skilled” (M = 2.91, SD = 0.35) and “I want to meet friends” (M = 2.77, SD = 0.51) (see Table 2).

Descriptive statistics of the results for boys and girls with intellectual disabilities showed the highest score received identified regulation (IR) (respectively M = 8.17, SD = 1.03 and M = 7.88, SD = 1.21). Boys with intellectual disabilities reported significantly higher IR than IM (t = 3.2105, p = 0.002) and AM score was significantly lower (t = 17.9355, p = 0.000) compared to other motivation types. The statistical analysis of the results of girls with intellectual disabilities showed that only the AM score was significantly lower (t = 13.9255, p = 0.000) compared to other motivation types. Data analysis showed the similar mean scores of IM, IR and ER between the results of boys and girls. Spearman’s correlation coefficient analysis for females resulted in the significant correlation of 0.47 between ER and IR. Any significant relations between types of sport participation motivation were not found within the results of the males.

In the statistical analysis for gender differences, male and female participants’ mean scores were compared and significant differences were not found between the groups though girls reported slightly higher IM and AM than boys. The item “I want to win ribbons and medals” (which describes ER) received the highest rating between
boys and girls with intellectual disabilities (respectively \(M = 2.0, SD = 0.00\) for boys and \(M = 2.95, SD = 0.31\) for girls, (see Table 2) followed by items “I want to have fun” and “I am interested in sport” (which describes IM) as well as “I want to be pretty skilled” (which describes IR) (see Table 2). Statistical analysis for gender differences in separate items of boys and girls showed no significant differences between the groups.

**DISCUSSION**

The primary purpose of this study was to test participation motivation in Special Olympics sport programs based on the Self-determination theory (Deci, Ryan, 1985; Ryan, Deci, 2000 a, b) in which motivation can be classified into intrinsic motivation (fun, learning new skills), consisting of identified regulations (friendship, good relations with coaches) and external regulations (winning medals or ribbons), as well as amotivation (boring, wasting time). The results showed that Special Olympics sport participants expressed significantly greater identified regulation level (extrinsic motivation) than intrinsic motivation, and the mean score of external regulation (extrinsic motivation) was higher compared to intrinsic motivation. Athletes who manifest external regulations are likely to have higher intrinsic motivation for participation in Special Olympics sport programs. But the computed correlation coefficient presented in Table 1 did not permit to make definite conclusions regarding links between motivation types because the Pearson’s correlation coefficient was low. Statistical analysis of the results showed that amotivation of sport participation received significantly less scores in comparison to the other motivation types investigated as well as the significant relationship between amotivation and external regulation. These results could be treated as amotivation being the state of lacking an intention to act, because according to R. M. Ryan and E. L. Deci (2000 a) it is results from not valuing the activity, not feeling competent to do it or not believing it will yield a desired outcome.

According to the Self-determination theory, differences in the types of extrinsic motivation are likely to have higher intrinsic motivation for participation in Special Olympics sport programs. But the computed correlation coefficient presented in Table 1 did not permit to make definite conclusions regarding links between motivation types because the Pearson’s correlation coefficient was low. Statistical analysis of the results showed that amotivation of sport participation received significantly less scores in comparison to the other motivation types investigated as well as the significant relationship between amotivation and external regulation. These results could be treated as amotivation being the state of lacking an intention to act, because according to R. M. Ryan and E. L. Deci (2000 a) it is results from not valuing the activity, not feeling competent to do it or not believing it will yield a desired outcome.

### Table 2. Data on Sport Motivation According to the Gender

<table>
<thead>
<tr>
<th>I participate in sport because…</th>
<th>Participants (n = 102)</th>
<th>M</th>
<th>SD</th>
<th>Rank</th>
<th>Males (n = 60)</th>
<th>M</th>
<th>SD</th>
<th>Rank</th>
<th>Females (n = 42)</th>
<th>M</th>
<th>SD</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Internal motivation</strong></td>
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</tr>
<tr>
<td>I want to have fun</td>
<td>2.91</td>
<td>0.38</td>
<td>3</td>
<td></td>
<td>2.98</td>
<td>0.13</td>
<td>2</td>
<td></td>
<td>2.81</td>
<td>0.55</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>I like the excitement</td>
<td>2.25</td>
<td>0.93</td>
<td>10</td>
<td></td>
<td>2.20</td>
<td>0.95</td>
<td>10</td>
<td></td>
<td>2.31</td>
<td>0.90</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>I am interested in sport</td>
<td>2.93</td>
<td>0.29</td>
<td>2</td>
<td></td>
<td>2.98</td>
<td>0.13</td>
<td>2</td>
<td></td>
<td>2.86</td>
<td>0.42</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>I think that sport is great</td>
<td>2.78</td>
<td>0.59</td>
<td>4</td>
<td></td>
<td>2.75</td>
<td>0.63</td>
<td>5</td>
<td></td>
<td>2.83</td>
<td>0.54</td>
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<tr>
<td><strong>Identified regulation</strong></td>
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<tr>
<td>I want to learn new skills</td>
<td>2.69</td>
<td>0.56</td>
<td>8</td>
<td></td>
<td>2.72</td>
<td>0.56</td>
<td>8</td>
<td></td>
<td>2.64</td>
<td>0.58</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>I want to stay in a good shape</td>
<td>2.45</td>
<td>0.77</td>
<td>9</td>
<td></td>
<td>2.43</td>
<td>0.77</td>
<td>9</td>
<td></td>
<td>2.48</td>
<td>0.77</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>I want to meet friends</td>
<td>2.77</td>
<td>0.51</td>
<td>5</td>
<td></td>
<td>2.78</td>
<td>0.49</td>
<td>4</td>
<td></td>
<td>2.76</td>
<td>0.53</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>I want to be pretty skilled</td>
<td>2.91</td>
<td>0.35</td>
<td>3</td>
<td></td>
<td>2.93</td>
<td>0.31</td>
<td>3</td>
<td></td>
<td>2.88</td>
<td>0.40</td>
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<tr>
<td><strong>External regulation</strong></td>
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<tr>
<td>My parents want me to participate</td>
<td>2.22</td>
<td>0.94</td>
<td>11</td>
<td></td>
<td>2.08</td>
<td>0.98</td>
<td>11</td>
<td></td>
<td>2.40</td>
<td>0.86</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>I like my coach</td>
<td>2.73</td>
<td>0.66</td>
<td>7</td>
<td></td>
<td>2.68</td>
<td>0.72</td>
<td>7</td>
<td></td>
<td>2.79</td>
<td>0.56</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>I feel important and popular</td>
<td>2.76</td>
<td>0.63</td>
<td>6</td>
<td></td>
<td>2.73</td>
<td>0.66</td>
<td>6</td>
<td></td>
<td>2.81</td>
<td>0.59</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>I want to win ribbons and medals</td>
<td>2.98</td>
<td>0.20</td>
<td>1</td>
<td></td>
<td>3.00</td>
<td>0.00</td>
<td>1</td>
<td></td>
<td>2.95</td>
<td>0.31</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Amotivation</strong></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>I had to do something</td>
<td>1.51</td>
<td>0.78</td>
<td>12</td>
<td></td>
<td>1.42</td>
<td>0.72</td>
<td>13</td>
<td></td>
<td>1.64</td>
<td>0.85</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>I think it’s boring activity</td>
<td>1.39</td>
<td>0.66</td>
<td>14</td>
<td></td>
<td>1.35</td>
<td>0.66</td>
<td>14</td>
<td></td>
<td>1.45</td>
<td>0.67</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>I am wasting my time</td>
<td>1.33</td>
<td>0.59</td>
<td>15</td>
<td></td>
<td>1.25</td>
<td>0.54</td>
<td>15</td>
<td></td>
<td>1.45</td>
<td>0.63</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>I really don’t know why</td>
<td>1.44</td>
<td>0.70</td>
<td>13</td>
<td></td>
<td>1.45</td>
<td>0.75</td>
<td>12</td>
<td></td>
<td>1.43</td>
<td>0.63</td>
<td>14</td>
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</tbody>
</table>
negative outcomes, blaming others. The results of the study partly support these statements, but on the contrary, our results showed that identified regulation was associated with more interest and enjoyment for participants involved in Special Olympics sport programs for 5 and more years. R. M. Ryan and E. L. Deci (2000 b) pointed that extrinsically motivated behaviors are not typically interesting, the primary reason for the persons to perform such actions is because the behaviors are prompted, modeled or valued by significant others to whom they feel (or want to feel) attached or related. This suggests that relatedness, the need to feel connectedness and connectedness with others, is centrally important for internalization. On the other hand, the relative internalization of extrinsically motivated activities is also a function of perceived competence. Persons are more likely to adopt activities relevant social group value when they feel efficacious with respect to those activities. That is in agreement with our results. Participants in Special Olympics sport programs indicated that meeting friends (being in social group) was an important reason for participation in sport. The other literature sources supports our results reviewing that many individuals participate in physical activity because they need to relate to and be friends with other people, and because they want to feel accepted by a social milieu (Weiss, Duncan, 1992; Weiss, Ebbeck, 1993). Therefore, sport activity provides ample opportunities for individuals with MR to interact with others (teammates and opponents), learn new sport skills together, and strive for individual and team achievement.

Despite the fact that extrinsic motivation dominated for participation in Special Olympics sport programs, the participants of the study indicated intrinsic motivation also as an important factor for sport participation. These results could be supported by the statements of the Self-determination theory (Ryan, Deci, 2000 a) that distinction between different types of motivation is based on the different reasons or goals that encourage an action. Intrinsic motivation refers to doing something interesting or enjoyable (as our results indicate) and extrinsic motivation refers to doing something because it leads to a separable outcome (winning medals or ribbons). But these results could be considerably more controversial. For example, extrinsic rewards can undermine intrinsic motivation. It could be interpreted in terms of rewards facilitating a more external perceived locus of causality, and confirmed that all expected tangible rewards made contingent on task performance and undermine intrinsic motivation.

L. M. Wankel and P. S. J. Kreisel (1985) reported that although able-bodied youth sport participants ranked intrinsic factors such as improving skills and personal accomplishment as important to enjoyment, extrinsically oriented factors such as winning and receiving rewards were also found to be important. Similar results were reported in this study. Analysis of separate motives showed that individuals with intellectual disabilities most highly rated motives for participation in Special Olympics sport programs were winning ribbons and medals (external regulation, extrinsic motivation), having fun and being interested in sport (intrinsic motivation), notwithstanding that identified regulation (extrinsic motivations) was significantly higher than intrinsic motivation and less higher than external regulation extrinsic motivation. This similarity of the results shows a possibility to compare sport motivation of persons with MR with able-bodied sport motivation. This confirms F. M. Brasile et al. (1991) study claiming that there were more similarities than differences among those with and without disabilities in terms of incentives of participation in sport.

The principles of Special Olympics require those athletes who participate in regional games receive a medal or ribbon. According to D. R. Shapiro (2003), athletes with MR give prominence to winning ribbons and medals. This is similar to our results presented in Table 2. Individuals with MR tend to be specific in their thinking, making tangible rewards like ribbons and medals more important than intrinsic rewards. On the other hand, this extrinsic motive can be related to the attitude of coaches. Coaches have the most regular contact with Special Olympics athletes, which make them a unique and valuable source for increasing motivation for participation in sport. But for some coaches according to L. Paulauskaitė (2003) good appreciation in competitive sport environment is very important, because they tell athletes with MR to win a medal during participation in various sport competitions.

Special Olympics athletes indicated fun as one of the most important motives for participation. This finding is similar to the results of other researchers, positing that enjoyment is derived from achievement behavior which is intrinsically motivating and provides perception of competence and self-determination (Deci, Ryan, 1985).

A secondary purpose of this study was to examine differences between males and females with
MR in participation in sport programs. In the scientific literature differences were found between males and females in sport participation motivation (Ashford et al., 1993; Ebbeck et al., 1995; Koivula, 1999). Women rated the Achievement Orientation and Extrinsic Factors to be more important than men. Men were more motivated than women to participate in sport activities for mastery and performance (Ashford et al., 1993). In our study no differences between males and females were found.

CONCLUSION

Summing up, athletes participated in Special Olympics sport programs for their own enjoyment, for the social purposes and for the competitions. While sport participation motives of athletes with intellectual disabilities varied, they were not so different between genders. Our study supported the benefits of using Self-determination theory for the evaluation of motivation for participation in Special Olympics sport programs. However, to enhance motivation for individuals with disabilities, scholars and practitioners in the area of adapted physical activity and sport should strive to establish mastery oriented motivational climate, which nurtures task oriented individuals to increase their perceived competence, intrinsic motivation, physical activity adherence, and decrease attrition. Further research should focus on the influence of additional social factors such as peer and parental influence on the motivation of athletes with intellectual disabilities. Finally, cognitive outcomes such as levels of attention and learning could also be measured.

REFERENCES


**SUTRIKUSIO INTELEKTO ATLETŲ SPORTAVIMO MOTYVACIJA**

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**SANTRAUKA**

Specialioji olimpiada yra tarptautinė organizacija, suteikianti sutrikusio intelekto asmenims galimybę mokytis, džiaugtis ir save realizuoti individualiame ir komandinameorte. Tyrinėjant Specialiosios olimpiados sporto programas, didžiausias dėmesys buvo kreipiamas į mokslinius tyrimus fizinio pajėgumo ir motorinių išgūdžių gerėjimo, savęs vertinimo, socialinės kompetencijos ir savęs suvokimo srityse. Tyrimo metu siekta nustatyti sutrikusio intelekto atletų sportavimo motyvaciją.

Buvo tiriami 102 (60 vaikinai ir 42 merginos) 12—16 metų amžiaus specialiosios olimpiados atletai (amžiaus vidurkis 14,12 m., SD = 1,47). Tiriamųjų imtis tikslinė. Tiriamieji parinkti taikant šiuos kriterijus — turėti intelekto sutrikimų, gyventi Kauno apskrityje ir dalyvauti specialiosios olimpiados sporto programoje ne mažiau kaip 6 mėnesius po 1—2 valandas du kartus per savaitę. Sporto motyvacijai nustatyti naudota modifikuota Sporto motyvacijos skalė (Pelletier et al., 1995).

Tyrimo rezultatai parodė, kad Specialiosios olimpiados atletų, dalyvaujančių sporto programoje, identifikuoto reguliavimo lygis (išorinė motyvacija) kur kas didesnis negu vidinė motyvacija. Visgi išorinio reguliavimo lygis (išorinė motyvacija) nedaug skyrėsi nuo tiriamačių vidinės motyvacijos. Išvairių prizų ir medalų laimėjimas, sportavimo džiaugsmas, išgūdžių igavimas ir laisvalaikio praleidimas su draugais — dažniausiai sportavimą motyvuojantys veiksmai. nors sutrikusio intelekto atletų sportavimo motyvai yra įvairūs, statistiškai reikšmingų šios motyvacijos skirtingų priklausomai nuo lyties nepastebėta. Atliktas tyrimas parodė, kad vertinant sutrikusio intelekto asmenų sportavimo motyvacijos tipus galima naudoti pagrindines apsisprendimo teorijos doktrinas.

**Raktažodžiai:** sutrikęs intelektas, sportavimas, išorinė ir vidinė motyvacija.