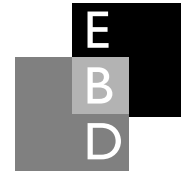


Behaviour disorders, social competence and the practice of physical activities among adolescents



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ABSTRACT Behaviour disorders represent a major concern in today's schools. One widely used method to address these problems has been social skills training. To date, the efficiency of this training is modest with respect to the transfer, maintenance and generalization of the newly learned skills. The goal of this study is to compare the profiles of behaviourally disordered (BD) students with non-behaviourally disordered (non-BD) students with respect to variables associated with social skills, psychosocial adjustment, physical activity and certain health habits. This correlational study uses a sample of 12–14-year-old students from the region of Québec City, which includes identified BD students as well students not identified as BD. Analysis of the results reveals that the BD students show lower levels of social skills, cooperation, self-esteem and self-efficacy. In addition, the results show that non-BD students participate in more organized sports activities than do their equally active BD peers, who tend to practice non-organized sports activities. In conclusion, the authors propose different intervention approaches for use in social skills training programmes for students with behavioural disorders.

KEYWORDS

adolescent;
behaviour
disorders;
health habits;
lifestyle;
physical
activity;
social
competence;
social skills

For several years, behaviour disorders in students have constituted a major preoccupation for school personnel. Studies are showing a significant rise in the rate of behaviourally disordered students in school (MEQ, 2000a; Walker et al., 1995). According to the Québec Ministry of Education (MEQ,

2000b), the proportion of behaviourally disordered students in elementary school has tripled in the space of 15 years, going from 0.78% in 1984–5 to 2.50% in 1999–2000. According to the Québec Superior Council on Education (CSE, 2001) and the Québec Ministry of Education (MEQ, 2000b), despite the statistical rise, these students remain under-identified in the school milieu. Of note is the fact that the majority of the currently identified BD students tend to be so identified as a result of their externalizing, violent and/or aggressive behaviour (Kauffman, 1997). Problems associated with behaviour disorders often impact negatively on the learning necessary for a student to develop and succeed both academically and socially (Bourque et al., 1984; Desbiens, 2000).

Researchers report that BD students generally demonstrate weak social skills, which in turn limits them in their ability to establish satisfying social relationships and stay away from antisocial behaviours (Goldstein, 1999; Scheier et al., 2000; Vitaro et al., 1994). This deficit in social skills represents a critical factor in their ability to integrate into their social and school milieus (Bourque et al., 1984; Desbiens, 2000).

In this context, many social skills training programmes were developed in response to the needs of BD students (Gresham, 1998; Kauffman, 1997). The objective of these programmes was to teach socially adapted behaviours. Despite their popularity, the efficacy of these programs remains modest (Gresham, 1998; Massé, 1999; Walker et al., 1995). Researchers generally conclude that these programmes demonstrate: (1) little or no effect in the short, medium or long term; (2) weak level of transfer and maintenance of learned skills; and (3) weak level of generalization of pro-social skills into the behavioural repertoire of the youths (Bellmann et al., 1994; Gresham, 1998; Massé, 1999). Among the reasons cited for these results, certain researchers mention: (1) the teaching of the skills often occurs in contexts not familiar to the students; (2) a lack of opportunities for the students to practice the new skills in a supervised, educational setting (Gresham, 1998; Quinn et al., 1999). Given the significant limitations associated with social skills training programmes, researchers and practitioners should explore new methods and strategies in an effort to improve their efficacy.

Among potential strategies, physical activity and cooperative games show particular promise. Several studies have shown that physical activity can result in benefits to the participating person's psychological well-being, including youth (Bordeleau et al., 1999; FÉÉPEQ, 1995; MacMahon, 1990; Thibault, 2001; Weinberg and Gould, 1997). The principal benefits mentioned by these authors are: improvements in communication and adaptation skills; self-esteem; self-confidence; self-efficacy; feelings of self-control; conflict resolution skills; academic performance; etc. On the other

hand, also noted was a reduction in levels of anxiety, depression, stress, tension, hostility, as well as reduced levels of tobacco and drug consumption.

Some researchers have concerned themselves specifically with severely behaviourally disordered adolescents (Bordeleau et al., 1999; Mahoney and Stattin, 2000) and concluded that physical activity can allow the participants to develop a better ability to adapt to their social reality. The practice of social skills by means of physical activity permits the student to generalize and to transfer learning by giving him the opportunity to practice his skills and receive feedback from peers and adult supervisors, which in turn contributes to the behaviour difficulties risk factors reduction (Cloutier, 1996; Gendron and Desharnais, 1999; Gendron et al., 2003; Vitaro and Gagnon, 2000). Despite various methodological problems, the studies completed on this subject have shown promising results (MacMahon, 1990).

The objective of the present study is to compare a sample of adolescents identified as behaviourally disordered (BD) in school, with a sample of adolescents not identified as behaviourally disordered (non-BD) in school. The research questions are aimed at comparing the two groups with respect to habits of physical activity (i.e. frequency, types of activity and satisfaction level); social skills development (i.e. cooperation, self-control, self-affirmation, empathy); social adaptation capacity (i.e. self-esteem, self-efficacy); and health habits (i.e. smoking, alcohol or drug consumption).

Method

Participants

The sample for this study comprises 185 adolescents, aged from 12 to 14 years old, attending three high schools in the Québec City region. The BD group is formed of a majority of boys (68.9%), whereas the non-BD group is comprised of more girls (59.6%) and are representative of their respective populations in the Québec school system. The first group of BD students ($n = 77$) is composed of students from special education or regular classes in high school (grade 7 and 8) stream who have been identified as behaviourally disordered. The assessment of these students was carried out in two stages, working with teachers, using Walker and Severson's (1992) *Systematic Screening for Behavior Disorders (SSBD)* and Bullock and Wilson's *Behavioral Dimensions Evaluation Scale* (translated by Tremblay, 1996). The second group (control, non-BD) ($n = 108$) is composed of randomly selected students in regular first-cycle high-school classes.

Instruments of measure

The objective of this correlational study is to compare both groups based upon the results obtained from three questionnaires.

- 1 *Questionnaire de l'Enquête sur la Pratique des Activités Physiques au Secondaire* by Desharnais and Godin (1995). Survey designed in order to identify different variables associated with the practice of physical activities and lifestyles. For the purpose of this study, we used only parts of the survey and tried to trace a portrait of the last school year of the student using the following questions or scales: physical activity (i.e. level of practice, type of practice, general level of satisfaction) (nine items); self-esteem (10 items); and lifestyles related to health (i.e. smoking, alcohol and drug consumption) (five items).
- 2 The French version (translation in preparation by Fortin et al.) of Gresham and Elliott's (1990) Social Skills Rating Scale (SSRS). For our study we used the 'adolescent' self-report version, which measures the frequency of appearance of certain social skills. This instrument is comprised of 39 items that provide a standardized total score and four subsets of social skills: (a) cooperation; (b) self-affirmation; (c) empathy; and (d) self-control.
- 3 The French version (translation in print by Dumont) of Schwarzer's (1993) Generalized Self-Efficacy Scale. This questionnaire of 10 items evaluates one's sense of competence and power when in a position to make decisions and adaptations in specific life situations.

Procedure

For the entire sample, the collection of data was carried out simultaneously in the three target schools in November 2000. Participation of students was in sub-groups, and was voluntary. The questionnaires were administered during regular 75-minute class times.

Results

Of note, prior to the interpretation of the results, is the fact that we have incorporated three levels of significance ($p < .05$, $p < .01$, $p < .001$). This is to address the problem of using multiple tests¹ (Glass and Hopkins, 1996; Kirk, 1995). Tables 1 and 2 present the results that we will discuss in the following section.

Discussion

According to the analysis of our results, it is clear that important differences between the BD and non-BD groups exist with respect to the types

Table 1 Practice of physical activities (PA), social skills, psychosocial adaptation and health habits of adolescents

Variable	BD (<i>n</i> = 77)		Non-BD (<i>n</i> = 108)		Test-T
	M	ET	M	ET	
Level of practice (PA)	4.62	1.53	4.75	1.17	-0.649
Level of satisfaction (PA)	3.73	0.95	4.09	0.89	-2.625**
Social skills	52.95	10.69	57.93	7.61	-3.648***
Cooperation	13.66	3.45	15.97	2.49	-5.240***
Self-affirmation	13.61	3.10	14.03	3.01	-0.907
Empathy	14.14	3.54	15.41	2.60	-2.775**
Self-control	11.22	3.47	12.52	3.08	-2.590*
Psychosocial adaptation					
Self-esteem	2.76	0.43	3.01	0.52	-3.579***
Self-efficacy	2.94	0.59	3.27	0.43	-4.335***
Health habits					
Cigarettes	2.79	1.15	1.83	0.95	6.124***
Alcohol	2.75	0.81	2.31	0.92	3.349***
Drugs	2.37	1.12	1.53	0.89	5.551***

* $p < .05$; ** $p < .01$; *** $p < .001$.

Table 2 Types of physical activities practiced by adolescents

Variable	BD (<i>n</i> = 73) <i>n</i>	Non-BD (<i>n</i> = 106) <i>n</i>	Total (<i>n</i> = 179) <i>n</i>
Organized sport	27 (37%)	61 (58%)	88 (49%)
Non-organized sport	46 (63%)	45 (42%)	91 (51%)

Pearson $\chi^2 = 7.312$; $p < .01$.

of practice and the satisfaction level of physical activities, their levels of social skills and cooperation, and their perceived levels of self-esteem and self-efficacy. In addition, there exist differences with respect to certain health habits, most notably the consumption of tobacco, alcohol and drugs.

First, our results reveal that the BD students are more likely than the non-BD students to participate in non-organized sports activities. Previous studies confirm that participation in non-organized sports is associated with heightened levels of antisocial behaviour (i.e. criminality, aggressive behaviour, consumption of alcohol and drugs, delinquency, school

dropout), whereas participation in organized sports is clearly linked to lower levels of deviant behaviour (Mahoney and Stattin, 2000; Osgood et al., 1996; Walker et al., 1995). As with these authors, we believe that these results can be explained by the fact that the BD youth who participate in organized sports activities (competitive or recreational) feel the constraints inherent in these activities, such as the supervision of the adult, the need to follow rules and the discipline of the game. In general terms, students with behaviour disorders often associate and form groups with each other during and after school hours, which in turn, sows seeds for future more deviant or delinquent group or gang activity (Mahoney and Stattin, 2000; Osgood et al., 1996; Walker et al., 1995).

Today's youth, compared to the youth of 30 years ago, are 40% less active, particularly in early adolescence (Patrick, 1996) and our results confirm that (i.e. practice a physical activity once a month). Despite the fact that in this present study the level of participation in physical activities (i.e. frequency) does not differ between the two sample groups, that is not the case when we look at levels of satisfaction gained from these activities. Even though a small but significant difference between groups, both report having positive memories of their experiences in physical activities. This last result is closely linked to the type of activity (i.e. organized sport) in which the non-BD student participates. Thibault (2001) and Weinberg and Gould (1997) report that positive effects from participation in physical activities are augmented when attached to success, feedback about competence and when a social reinforcement is forthcoming. So, organized sport, by furnishing this type of gratification, can provide and maintain motivation to participate, whereas non-organized sports activities offer few extrinsic motivators. The fact that BD students retain positive memories of their participation in physical activities opens the door to introducing such a component into their programming (Gendron et al., 2003). This may encourage some of these students to actively participate in a process in which, we should keep in mind, they are the principal actors.

With respect to the research question dealing with social competence, results lead us to believe that BD students have a lower level of social skills development than their non-BD peers. Analysis of results seems to confirm this, and to support results from previous studies (Goldstein and McGinnis, 1997; Quinn et al., 1999; Vitaro et al., 1994; Walker et al., 1995). Average scores for social skills, cooperation, empathy and self-control are all higher for non-BD students.

For behaviourally disordered youth, aggressive behaviour and gaps in social skills and self-control are associated with factors predictive of problems such as delinquency and substance abuse (Vitaro and Gagnon,

2000). Of note, weak self-control is associated with: impulsivity; lack of perseverance; attraction to risk; preference for concrete and physical activities; and low levels of frustration tolerance (Cloutier, 1996). The social rejection that these youth are often faced with serves to increase their social skills deficits, by limiting opportunities for them to learn from their more socially adapted peers (Desbiens, 2000; Vitaro and Gagnon, 2000). According to Cartledge and Milburn (1995) and Mahoney and Stattin (2000), participation in physical activities and structured cooperative games obliges the participant to use a variety of social skills and to interact with the other participants.

Our research question, focusing on the adolescent's capacity for psychosocial adaptability, is comprised of two elements: self-esteem and self-efficacy. Our finding that the BD group reports lower levels of self-esteem than the non-BD group supports several studies (Desbiens, 2000; Scheier et al., 2000). One's level of self-esteem is directly linked with one's experiences of success and the corresponding social reinforcement that ensues (FÉÉPEQ, 1995; Thibault, 2001). Weak self-esteem and a negative self-image are characteristic of many BD youth (Walker et al., 1995) and represent important risk factors for the development of deviant behaviour (Scheier et al., 2000). We must, we feel, offer these youth attractive pedagogical activities, encouraging their active participation, and giving them the best chances to be valued and to receive positive reinforcement subsequent to demonstrating adaptive behaviour (FÉÉPEQ, 1995; Gendron et al., 2003).

A sense of self-efficacy represents one component of the capacity for psychosocial adaptation and social competence (Cloutier, 1996; Scheier et al., 2000). For the BD student, their perception of their own ability to make changes or decisions is weaker than that of the non-BD student. A behaviourally disordered student's sense of competence cannot be improved if, within the context of a traditional teaching environment, they are faced with more failures than successes in their academic and social endeavours (CÉÉPQ, 1993).

Youth are particularly sensitive to issues of popularity and prestige among peers, which in turn influences the development of their sense of self-efficacy and their choice of activities (Bandura, 1997). Intervention should be planned to train youth in a stimulating pedagogical environment within which they can feel both confident and competent, and are motivated to participate to the full extent. In this light, the practice of physical activities and cooperative games offers the advantage of being able to fit into the curriculum of a certain number of students.

Health habits seem to be consistent with other behaviours associated with BD and non-BD students. Drug and alcohol consumption has been

associated with various behaviour problems by many authors (Kauffman, 1997; Vitaro and Gagnon, 2000), and forms part of the typical profile of BD students. Supported by several studies, results associated with the health habits category of our study confirm that BD students are more prone to smoke cigarettes, and to consume alcohol and drugs, than are their non-BD peers. This is due, in part, to the fact that these youth tend to interact socially with like-minded peers who value deviant behaviour (Bowen et al., 2001; Desbiens, 2000).

These poor health habits act as a vicious circle of reinforcement within groupings of marginal and behaviourally disordered youth, who have a tendency to normalize inadapative behaviour (Vitaro and Gagnon, 2000). According to Thibault (2001) the steady decrease in the practice of physical activities during adolescence is directly related to the adoption of harmful health habits (i.e. smoking). In addition, professionally structured physical education and organized sports activities encourage the student to adopt healthy lifestyles and to prevent or modify certain self-destructive behaviours, such as smoking and substance abuse (FÉEPEQ, 1995; Thibault, 2001).

We would like now to point out certain limits associated with our study. The first has to do with our use of self-report questionnaires filled out only by the adolescents in our samples. It would have been interesting and pertinent to our interpretation of the results to have had data from parents and/or teachers, and to have compared them. A second limit has to do with the choice of the sample groups. Assessment of participants was carried out looking only for behaviour disorders of an externalizing nature. It is therefore important to keep this in mind when generalizing the results, especially with respect to the proportion of BD and non-BD students in the school population.

Conclusion

Students with behavioural disorders present with characteristics distinct from their more socially adapted peers. The results presented here support the conclusions of previous studies which found significant relations between BD students and weak levels of social skills, self-esteem and self-efficacy (Goldstein and McGinnis, 1997; Scheier et al., 2000; Walker et al., 1995). Of note is the fact that BD students practice fewer organized sports activities than do their non-BD peers, for reasons not yet fully understood. This result is particularly interesting as it applies to the development of social competence, and allows the following hypothesis: is the practice of organized physical activities associated with the possession of good social skills?

It is a fact that the practice of physical activities is directly associated with heightened levels of social skills, self-esteem, self-efficacy and health habits (FÉÉPEQ, 1995; Patrick, 1996; Thibault, 2001). Therefore, it seems evident that youth, both BD and non-BD, be given encouragement and a taste for participating in organized physical activities, which should increase their satisfaction with and frequency of participation, which in turn, should lead to improved levels of self-esteem and social skills.

Given the results presented here, we propose to introduce physical activities and cooperative games as educational and re-educational intervention strategies for youth with behaviour disorders. In this manner, students will be able to practice their social skills in an educational and non-threatening context, allowing for the transfer and maintenance of new skills, as well as for the generalization of their new more socially adapted behaviours. For future research on this subject, it would be interesting to examine more closely the relations between the different variables of this study, in order to be able to predict the emergence of behaviour disorders and levels of social competence among adolescents.

Note

1. As presented in Table 1, showing 15 t-tests, we rely most heavily on results demonstrating a significance of $p < .001$.

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