Encouragement of Physical Activity among Students by Employing Short-Term Educational Counselling
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Abstract
The aim of the research was to establish the appropriateness of brief educational counselling among students seeking promotion of their physical activity. From randomly selected students, two groups of research subjects were drafted. The impact group consisted of 92 students. A methodology based on SFBC was developed for the promotion of physical activity. Students were evaluated by employing the IPAQSF. After solution-focused brief counselling, 44.6% of the students previously facing physical activity issues achieved prominent changes in the subjective evaluation of the issue, 21.7% of the students showed medium changes and 33.7% of the students minor ones. The suggested methodology significantly impacts on the physical activity of adolescents: their physical activity significantly increased (p<0.05). No gender differences were established.

Keywords: Physical activity, students, short-term counselling

Introduction
Physical activeness is one of the key ways of boosting one’s health. Scholars note that the physical activeness of adolescents is insufficient worldwide (Obeisat & Gharaibeh, 2012). The sudden decrease in physical activeness during the period of adolescence, especially among senior students at secondary school, is becoming a major issue for contemporary society, and its consequences are unarguably damaging (Cairney et al., 2012). Hence promotion of physical activeness has involve one of the most essential and topical objectives of health-care and education systems (Sneider & Cooper, 2011).

According to some scientists, the peculiarities of the physical education curriculum may strongly contribute to the decrease in physical activeness coinciding with the growth of adolescents (Barr-Anderson et al., 2008; Cairney et al., 2012). The physical education course at school should be an efficient factor providing a positive impact on physical, psychological and social health, physical activeness and the attitude that physical activeness constitutes part of a healthy lifestyle (Cairney et al., 2012). Essentially, physical education at school concerns almost all students and directly or indirectly impacts on their attitude to physical activeness, their physical activeness and its quality beyond the educational process in the future (Barr-Anderson et al., 2008; Prochaska et al., 2003). Yet, the decrease in physical activeness among students is incontestable proof that the school physical education curricula can and should be improved (Cairney et al., 2012).

Adolescence is the period when lifestyle habits and skills are developing (So et al., 2011). Consequently, it is of utmost importance that a healthy lifestyle should be developed during the period of childhood and adolescence.

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(Daniels et al., 2005; So et al., 2011). Hence, in the process of developing, introducing and implementing intervention programmes whose objective is the boosting of physical activeness among adolescents it is essential to discover specific and applicable factors and conditions within the school environment which should contribute to quality training of physical activeness among adolescents (Sallis et al., 2000).

In order to achieve these objectives, various methods of educational impact are applied. They vary in terms of theoretical presuppositions, complexity of impact, duration and objectives. Recently, a trend for evaluating methods of educational impact regarding the efficiency of their application when seeking alterations to students’ emotional state and behaviour has been observed. Higher priority is given to methods of cognitive impact while lower priority is shown to those methods which take up less of the time of the client and the specialist, are based on theory or are more structured (Kazdin, 2000; Selekman, 1997).

The above-listed statements demonstrate that new ways of promoting physical education classes are to be sought. In the course of alterations of educational paradigms (Cairney et al., 2012) affecting physical education at school, when seeking lifelong psychological health and physical welfare, new forms and methods promoting physical activeness among students are being sought. During physical education classes, the method of educational counselling was applied; this is based on solution-focused brief therapy (de Shazer, 1985) and could be referred to as a measure for promoting the process of physical education targeted at boosting physical activeness among students and health education. The objective of the present research is to establish the efficiency of educational counselling when promoting physical activeness among students.

2. Methodology of research

2.1. Participants of research

192 students from senior (9th to 12th) grades at secondary school took part in the research; they constituted the impact and comparison groups.

The impact group consisted of 92 students aged 15 to 19 (average age 17.05±1.25), among whom 55.4% were females (n=51) and 44.6% were males (n=41). All the counselled students had issues related to physical activeness. In the comparison group, there were 100 students aged 15 to 19 (average age 16.94±1.37) consisting of 57.0% females (n=57) and 43% males (n=43). All of them admitted to be facing difficulties with physical activeness; yet they were not attempting to deal with these issues. The students of the impact and comparison groups were homogeneous in terms of gender ($\chi^2=2.14; p=0.653$) and age ($t=1.47; p=0.106$).

2.2. Methods of research

In order to promote physical activity among students, solution-focused brief counselling (de Shazer, 1985) was applied. This type of counselling is based on principles of communication that are highly valued among adolescents, such as an empathic attitude to the adolescent’s world outlook, the promotion of the strengths and inherent abilities of the adolescent, positive interaction between the adolescent and the educator, and the development of clear and specific objectives in the course of counseling. The physical education teacher, by concentrating on the abilities and personality strengths of the adolescent and by applying measures of educational counselling, strives to help the student discover a “different” reality, i.e. when facing an anxiety-causing and complicated situation, the counselled student is encouraged to look for alternative solutions in his/her personal life in order to decrease the urgency of the issue.

In order to assess physical activeness among students, the International Physical Activity Questionnaire short form containing seven questions and designated for the establishment of physical activeness of individuals aged 15 to 69 was applied. In order to obtain more precise research results, only those spans of physical activeness which last no less than 10 minutes were to be indicated. The participants of the research who in the course of responding to the questions of the IPAQ questionnaire omitted some answers or responded “I do not know”, “I am not sure”, etc. were not included in the analysis of the research data.
2.3. Research procedure

The research took place in three secondary schools between the years 2007 and 2012. During the course of the research, the efficiency of educational counselling at school was explored with the objective of boosting physical activeness among students.

A non-traditional physical education class was conducted for the students, during which the benefits of health-enhancing physical activeness were emphasized to the trainees. 57 students (61.9%) contacted a specialist on their own initiative while 35 students (38.1%) were sent to consultations by physical education teachers.

Educational counselling was conducted by physical education teachers (n=2), psychologists (n=2) and health-care specialists (n=2). 92 students from the impact group were counselled; they sought counselling because of issues in communication with the physical education teachers (29.3%; n=27), insufficient involvement in physical education classes (31.5%; n=29) and difficulties in boosting their physical activeness (39.1%; n=36). Each student was provided with between one and six counselling sessions (2.70±0.99 sessions on average). The sessions took place in the room of the school’s physical education teacher and in the rooms of the psychologist or the health-care specialist. Each counselling session took 30 to 50 minutes. The counselled students were told about their confidentiality and were aware that the counselling data would only be applied in a generalized form. Before and after counselling, the students from the impact group filled in questionnaires on their physical activeness.

The students constituting the comparison group were not counselled. Their physical activeness was evaluated twice before and after a period of approximately one month.

3. Results

The data on the changes in physical activeness of counselled and non-counselled students are presented in Table 1.

<table>
<thead>
<tr>
<th>Physical activeness</th>
<th>Prior to counselling/first evaluation, n (per cent)</th>
<th>χ², p</th>
<th>After counselling/second evaluation, n (per cent)</th>
<th>χ², p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Counsed adolescents* 34 (37.0)</td>
<td>33 (33.0)</td>
<td>χ²=1.90; p=0.386</td>
<td>23 (25.0)</td>
</tr>
<tr>
<td></td>
<td>Non-counselled adolescents** 31 (34.0)</td>
<td>41 (41.0)</td>
<td></td>
<td>26 (28.3)</td>
</tr>
<tr>
<td>Medium</td>
<td>29 (31.5)</td>
<td>26 (26.0)</td>
<td></td>
<td>21 (23.2)</td>
</tr>
<tr>
<td>High</td>
<td>29 (31.5)</td>
<td>26 (26.0)</td>
<td></td>
<td>21 (23.2)</td>
</tr>
</tbody>
</table>

* Changes in physical activeness of counselled students prior to and after counselling: χ²=63.94; p=0.0001;
** Evaluation of non-counselled adolescents: first and second evaluation: χ²=20.32; p=0.178.

Prior to educational counselling in the impact group, the physical activeness of counselled and non-counselled students was not statistically different; however, after counselling, the physical activeness of adolescents participating in counselling sessions increased statistically significantly: the number of students with low physical activeness decreased from 37.0% to 25.0% while the number of students with high physical activeness increased from 31.5% to 46.7%, whereas the physical activeness of the members of the comparison group did not exhibit statistically significant differences (Table 1).

The data on the changes in physical activeness in the groups of counselled males and females are presented in Table 2.

<table>
<thead>
<tr>
<th>Physical activeness</th>
<th>Prior to counselling, n (per cent)</th>
<th>χ², p</th>
<th>After counselling, n (per cent)</th>
<th>χ², p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Males 18 (43.9)</td>
<td>16 (31.4)</td>
<td>χ²=7.18; p=0.028</td>
<td>12 (29.3)</td>
</tr>
<tr>
<td></td>
<td>Females 16 (31.4)</td>
<td>16 (31.4)</td>
<td></td>
<td>11 (21.6)</td>
</tr>
<tr>
<td>Medium</td>
<td>7 (17.1)</td>
<td>22 (43.1)</td>
<td></td>
<td>8 (19.5)</td>
</tr>
<tr>
<td>High</td>
<td>16 (39.0)</td>
<td>13 (25.5)</td>
<td></td>
<td>21 (51.2)</td>
</tr>
</tbody>
</table>

* Changes in physical activeness of male students after educational counselling: χ²=28.29; p=0.0001;
** Changes in physical activeness of female students after educational counselling: χ²=36.24; p=0.0001.
The results of the research revealed that after educational counselling, the physical activeness of both males and females statistically significantly increased. It is evident that prior to counselling, there were more males exhibiting high and low levels of physical activeness than females. Among females, prior to counselling, the percentage of medium physical activity was higher than among males. These results may have been determined by the fact that the percentage of males directed to counselling by physical education teachers was higher. However, after educational counselling, the physical activeness of males and females in the impact group did not differ in terms of statistical significance.

The data on the alteration of physical activeness in students counselled regarding various issues related to physical activeness are presented in Table 3.

<table>
<thead>
<tr>
<th>Physical activeness</th>
<th>Prior to counselling, n (per cent)</th>
<th>After counselling, n (per cent)</th>
<th>χ², p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>P1</td>
<td>P2 **</td>
<td>P3 ***</td>
</tr>
<tr>
<td>Low</td>
<td>9 (33.3)</td>
<td>18 (62.1)</td>
<td>7 (19.4)</td>
</tr>
<tr>
<td>Medium</td>
<td>9 (33.3)</td>
<td>5 (17.2)</td>
<td>15 (41.7)</td>
</tr>
<tr>
<td>High</td>
<td>9 (33.3)</td>
<td>6 (20.7)</td>
<td>14 (38.9)</td>
</tr>
</tbody>
</table>

Note: P1: Students counselled because of communication issues with physical education teacher of; P2: students counselled because of insufficient involvement in physical education classes; P3: students counselled because of their need to increase physical activeness. P1 * Changes in physical activeness prior to and after counselling: χ²=38.93; p=0.122; P2 ** Changes in physical activeness before and after counselling: χ²=36.38; p=0.0001; P3 *** Changes in physical activeness before and after counselling: χ²=31.03; p=0.0001.

It was established that those students who were counselled regarding insufficient involvement in physical education classes exhibited statistically significant lower physical activeness than students seeking counselling because of other issues related to physical activeness. The highest statistically significant physical activeness was observed among those students who addressed counselling due to their need to increase physical activeness in comparison with students needing counselling because of other issues (communication issues with physical education teachers, insufficient involvement in physical education classes). The physical education of the latter group of students increased to a larger extent after counselling sessions as well. Physical activeness did not alter among those students who sought help regarding communication issues with physical education teachers.

4. Discussion of results

In the process of improving pedagogical communication, new strategies are being sought to assist teachers in creating an optimism-promoting educational environment and in developing easily applicable methods stimulating students in the process of physical education (Cairney et al., 2012; Sneider & Cooper, 2011; Peterson, 2005).

Educational counselling positively affects the course of physical education classes and promotes physical education among senior students at secondary school; hence personalized and purposeful counselling may be effective at dealing with issues of physical activeness (Lin et al., 2010; Williams & Strean, 2005).

It is of interest that the highest level of physical activeness is manifested in those adolescents who sought counselling regarding the increase of their physical activeness, and their physical activeness increased after counselling as well. Physical activeness did not significantly alter after counselling among those senior students at secondary school who sought counselling because of communication issues with physical education teachers. These results may be explained by the fact that these students sought counselling not directly because of physical activeness but rather because of their relationship with the physical education teachers, and even though the process of education during the physical education classes became more pleasant and acceptable, it still did not affect the physical activeness of the relevant students. In addition, the obtained results reveal the importance of an adolescent’s willingness to deal with his/her own issue, as all students seeking counselling regarding increasing their physical activeness participated in the counselling sessions because they wanted to. On the other hand, those students who specifically/particularly dealt with all the issues related to physical activeness achieved positive changes. Thus, in the drive to promote physical activeness the model of educational counselling is useful for senior students at secondary school exhibiting both higher and lower motivation levels. Students with higher motivation are encouraged to seek even higher results, while less motivated students are prompted to undertake initial yet significant changes in physical education at school and physical activeness in general.
Educational counselling is denoted by both traditional and modern attitudes to the improvement of the educational process. The research confirmed that brief counselling is an appropriate method of dealing with issues of the physical activeness of students (as corroborated by other researches, e.g. Lin et al., 2010; Williams & Strean, 2005) as well as when eliminating disturbances in pedagogical communication during physical education classes from the point of view of the teacher (Murphy, 1994) and other specialists such as psychologists (Williams & Strean, 2005), social pedagogues and promoters of public health (Franklin et al., 2008).

5. Conclusions

1. Educational counselling is an efficient method of promoting physical activeness among students.
2. After educational counselling, all the students of senior grades and the groups of males and females exhibited an increase in physical activeness. The physical activeness of students not taking part in counselling sessions did not alter.
3. After educational counselling, students of senior grades striving to deal with the issue of insufficient involvement in physical education classes and exhibiting the intention to increase their physical activeness showed an increase in physical activeness, while those students of senior grades who sought counselling because of communication issues with physical education teachers did not exhibit changes in terms of levels of physical activeness.

References