

**Original research paper**

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Trenčín**DANCE AS AN IMPORTANT ELEMENT OF PHYSICAL ACTIVITIES  
AND ITS EFFECT ON HUMAN EMOTIONS**Key words: *dance, movement, negative emotions, positive emotions, students***Introduction**

Therapy by means of dance can be effective not only in healthy individuals, but there were several researches that evaluated its effects on mental health of a human being, especially in the work with mentally disabled individuals, and also in the treatment of patients with mental disorders. The work with mentally disabled individuals needs cooperation of specialists from more scientific fields, especially a medical doctor, a physiotherapist, the specialist from the field of physical and sports education and a musician.

Hižnayová<sup>1</sup> claims that movement is connected with emotions, in better case, with euphoria. In respect to his claim, we note that in the education aimed at the development of personality there is prevailing the pressure on emotional expression and an individual should be able to control his or her emotions. Thus movement is needed not only biologically, but also as a primary need of a human being, and from psychological aspect<sup>2</sup>. Similarly Šutka, Kalinková and Rigó<sup>3</sup> say that movement activity contributes not only to the improvement of physical fitness and self-confidence, but it also has a beneficial effect on the health of young people and especially their well-being. The relationship between movement activity and health was confirmed based on his research by Dobrý<sup>4</sup>.

<sup>1</sup> K. Hižnayová, *Tanec a jeho pôsobenie na psychiku a emócie tanečníka*, [in:], *Šport a zdravie 2009*, elaborated by J. Broďáni, M. Miškolci, Nitra 2009, p. 42-47.

<sup>2</sup> Ibidem.

<sup>3</sup> V. Šutka, M. Kalinková, L. Rigó, *Vplyv výživy a pohybových aktivít na zdravie stredoškolskej mládeže*, [in:] *Šport a zdravie. Zborník vedeckých prác*, elaborated by J. Broďáni, N. Halmová, Nitra 2011, p. 208-212.

<sup>4</sup> L. Dobrý, *Úvod do problematiky vzťahů pohybových aktivít a zdraví*, "Tělesná výchova a sport mládeže" 2006, 72, no. 3, p. 4-13.

In the literature aimed at physical education there is often mentioned the definition “movement equals health”. This motto is similarly used by World Health Organisation (WHO), like “movement equals health”, that confirms the same meaning of the concept. Medeková<sup>5</sup> claims that movement activity represents the basic condition of life. The movement is the key way of the existence of human being, while pointing out that it cannot be limited to a product of muscle activity. Conversely, movement should be understood as one of the key needs that belong to human life. We agree with Hodáň<sup>6</sup>, that movement belongs to human life and is a prerequisite for the expression of human life. Physical activity is one of the chief factors of building healthy lifestyle. The inclusion of physical activity into daily routine affects a student’s physical and mental health. Movement in general has a positive impact on health.

Cavill, Biddle and Sallis<sup>7</sup> claim that in the sense of support, there are the following four main reasons to implement physical activities for children and young people:

- The establishment of physical and mental health.
- Optimization of physical fitness, and its positive impact on growth and development.
- The promotion of active lifestyle.
- The reduction of risk factors and diseases in adulthood.

Systematic and well developed physical activity starts to be a necessity nowadays<sup>8</sup>. This claim confirm several researches by Bartík,<sup>9</sup> and Šimonek<sup>10</sup>. “Physical activity is non-recurring, and systematic expression of the best organized material in nature in which there are experienced all the expressions of movement in the nature of which a man is not only an object, but active subject who regulates, and governs them and provides for all forms of his or her existence – mainly the ones connected with health”<sup>11</sup>.

Effect of physical activity on human emotions is well known and can be characterized as anxiolytic, antidepressant and abreactive (repressing emotions)<sup>12</sup>.

In relation to what Hižnayová<sup>13</sup> claims we present the following short-time effects of short-term physical movement and training on the emotions and mind of an individual:

- Anxiolytic (reducing anxiety, fear, tension and restlessness).

<sup>5</sup> H. Medeková, *Pohybová aktivita*, [in:] J. Labudová et al., *Obsahová báza v programe šport a zdravie*, Bratislava 2007, p. 69-71.

<sup>6</sup> B. Hodáň, *Tělesná kultura – sociokulturní fenomén: východiska a vztahy*, Olomouc 2000.

<sup>7</sup> N. Cavill, S. Biddle, J.F. Sallis, *Health enhancing physical activity for young people: statement of the United Kingdom expert consensus conference*, “Pediatric Exercise Science” 2001, 13, p. 12-25.

<sup>8</sup> J. Michal, *Volnočasové pohybové aktivity a ich vplyv na zdravotný štýl žiakov základných škôl*, [in:] *Pohyb a zdravie*, Nitra 2010, p. 97-108.

<sup>9</sup> P. Bartík, *Postoje žiakov základných škôl k telesnej výchove a športu a úroveň ich teoretických vedomostí z telesnej výchovy v intenciách vzdelávacieho štandardu*, “Tel. Vých. Šport” 2009, 19, p. 4-6.

<sup>10</sup> J. Šimonek, *Výskum objemu pohybovej aktivity na školách*, [in:] *Pohyb a zdravie*, Nitra 2010, p.137-152.

<sup>11</sup> H. Medeková, *Niektoré poznatky o telovýchovnej aktivite detí a mládeže*, Bratislava 1998, p. 14.

<sup>12</sup> D. Stackeová, *Svalový systém jako prostředník vlivu pohybu na psychiku*, [in:] *Prožitek a tělesnost. Zborník príspevkov konferencie konanej 24.4.2002 na UK FTVS*, Praha 2003.

<sup>13</sup> K. Hižnayová, *Tanec a jeho pôsobenie...*, p. 42-47.

- Antidepressant (reducing desolation, and sadness).
- Tranquilizing (soothing, calming, relieving mental stress, inducing an inner peace and harmony).
- Myorelaxant (reducing tone, tension, muscle stiffness).
- Analgesic (pain killing).

Currently the dance is used as the form of therapy, which can be seen as the proof of its positive impact on human emotions. As a form of therapy, dancing began to be used since 1940, to improve mental and physical health. In 1966 there was established American Dance Therapy Association.

Curricula of physical education for disabled students, that are valid in the European Union, describe movement therapy as therapy, where dancing of an individual can be integrated in the process supporting his or her emotional, cognitive, physical and social integration<sup>14</sup>. Králová<sup>15</sup> claims that every song or composition has its specific mood, thus it can form an individual not only from physical, but also from affective and moral aspect. And moreover, dancing persons can experience pleasure and satisfaction in pleasant atmosphere of music.

Primary aims in dance movement therapy are the following:

- Reach the changes in mental life and behaviour of an individual.
- Achieve truer self-examination.
- Induce positive perception and orientation in the relationships to the others, even to themselves.
- Manage tension, anxiety, stress and repressed energy.
- Develop motor skills and abilities.
- Find the new ways of expressing our own feelings<sup>16</sup>.

In general dance affects not only physical and mental health of an individual, but in case of collective form, it can support socialisation, and help to establish positive relationships.

### **Research Goal**

The goal was to support research results and medical practice of positive effect of dancing on human emotions and personality. This assumption is depicted in the *Introduction* of the study from the aspect of subjective perception of the aforementioned on students who devote their free time to dance and movement activities. We compare them to students who devote their free time to various movement activities that are not aimed at dance.

### **Methodology**

In the research there were used the methods presented and described below that were used to obtain research data, to process and assess them. The utilised methods have been analysed in a detailed way:

<sup>14</sup> Ibidem.

<sup>15</sup> E. Králová, *Music and Movement Activities in Transition Period to Middle School*, [in:] *Theory and Practice of Music Education in Schools, Visegrad Doctoral Forum Prague 2013*, Prague 2014, p. 88-93.

<sup>16</sup> I. Kozubková, *Tanec ženy. Prínos brušného tanca pre súčasnú ženu*, Postupová práca, Bratislava 2007.

### ***Methods of obtaining empirical data***

Research data was obtained by means of the questionnaire which consisted of 15 items (4 semi-closed and 11 closed) and standardised psychological test (*Subjective Emotional Habitual Wellbeing Scale*, SEHP). We discussed the selection of a questionnaire with a professional psychologist. The questionnaire was distributed to a 40 active member dance group (classical, contemporary and modern dance) in Nové Mesto n/Váhom and 40 pieces to the active members of movement group with the integration of modern dance as the part of movement activities, also in Nové Mesto n/Váhom. Since we personally provided the distribution and administration of the questionnaires, the rate was 100%. In the research participated 44 girls and 36 boys.

The research data was verified by means of the questionnaire *Subjective Emotional Habitual Wellbeing Scale* (SEHP)<sup>17</sup>. A standardized questionnaire is a research tool for measuring habitual emotional subjective well-being. The instrument distinguishes between positive and negative aspects of experiencing emotions and integrates physical emotions as well. It also determines the frequency of experiencing emotional state in a given time interval. The authors of the questionnaire divided the research tool to two sub-scales (positive and negative mood), that measure emotional component of subjective well-being. Positive scale is represented by 40 substantives (joy, happiness, enjoyment, and physical freshness), negative scale contains 6 substantives (fear, shame, sadness, guilt, anger and pain). The research tool consists of 10 items. The respondents have the opportunity to present their response on the six point scale in the frequency rate of experiencing the emotions as the following: almost never, rarely, sometimes, often, very often, and almost always.

We have processed and evaluated the selected items aimed at the following research questions:

- *Do you think the dancing has positive mental benefits?*
- *Does it sometimes happen to you that your mood is qualitatively different before dance training and after it?*
- *Does it sometimes happen to you that your mood is qualitatively different before movement training and after it?*
- *If your mood before and after the training changes, how exactly does it change?*

### ***Methods of Data Processing, Assessment and Interpretation of Data***

The data obtained by means of empirical research methods were processed and assessed by the following approaches of mathematical statistics:

1. processing and evaluation of statistical methods – we used the program *Microsoft Excel*;
2. for illustrative presentation of research results, we used the pictorial diagrams – bar charts that were produced by a computer program *Microsoft Excel* combined with descriptive characteristics;
3. to process the results of inductive methods there were used the methods of inductive statistics (Mann-Whitney U test), and
4. descriptive statistics (graphical representation, the percentages, the median, and descriptive statistics).

<sup>17</sup> J. Džuka, C. Dalbertová, *Model aktuálnej a habituálnej subjektívnej pohody*, “Československá psychologie” 1997, roč. 41, no. 5, p. 385-398.

## Results and Discussion

For the purposes of our research, we present the following research results. Thirty one from forty respondents of dance group answered “yes” to the 1<sup>st</sup> question *Do you think the dancing has positive mental benefits to you?* Only three of them answered “no”, and six had an indifferent attitude to the item 1 (Fig. 1).

Twenty-one respondents from forty of movement group answered this question as “yes”, five answered “no” and fourteen did not answer whether the dance had a positive impact on their mind (Fig. 1). We believe that it was caused by the fact, that they did not practice dancing regularly, but it was applied in movement lessons chiefly for higher diversification of movement activities. There was a very positive discovery, that the dance as a part of movement had positive impact on human mind in general, similarly Dastlík<sup>18</sup>, Hižnayová<sup>19</sup>, Chren<sup>20</sup>, Michal and Nevolná<sup>21</sup> and others claim that.

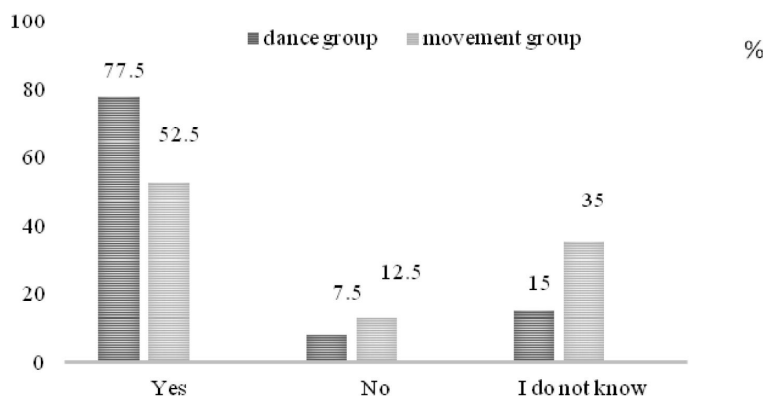


Fig. 1. Impact of dance on human emotions

Thirty-four from forty respondents of dance group answered the question: *Does it sometimes happen to you that your mood is qualitatively different before dance training and after it?*, as “yes”, only three respondents did not feel any changes of mood and three respondents had indifferent attitude to this question (Fig. 2). Concerning respondents from movement group, twenty-seven from forty answered they felt changes of mood after movement training, four of them did not feel the changes and nine respondents had indifferent attitude to the question (Fig. 2). We were interested whether the mood of respondents was changed preferably in a positive or negative way.

To our question: *If your mood before and after the training changes, how exactly does it change?* we received the answers from thirty respondents that their mood improved in

<sup>18</sup> L. Dastlík, *Prožitok “JÁ” v pohybové terapii*, [in:] *Prožitok a tělesnost. Zborník príspevkov konferencie konanej 24.4. 2002 na UK FTVS, Praha 2003.*

<sup>19</sup> K. Hižnayová, *Tanec a jeho pôsobenie...*, p. 42-47.

<sup>20</sup> M. Chren, *Estetika tanca a tanečného športu*, Bratislava 2009, p. 224-231.

<sup>21</sup> J. Michal, T. Nevolná, *Physical activity as an effective means to a healthy lifestyle*, [in:] *Acta Universitatis Matthiae Belii, Telesná výchova a šport*, Vol. 4, no. 1/2012, Banská Bystrica 2012, p. 103-115.

most cases. Two respondents said that their mood always improved, and finally two respondents answered that their mood was sometimes better, and another time worse. Three respondents had indifferent attitude to the question. We see as a positive finding, that no respondent said his or her mood most often worsened after dance training.

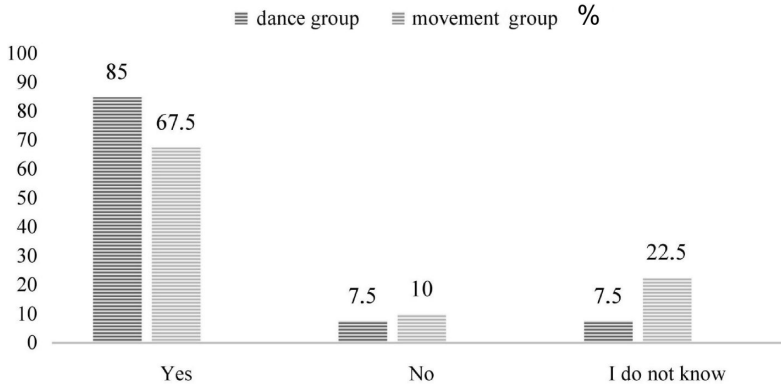


Fig. 2. Mood changes following/after dancing or dancing training

From the respondents that attended the movement group, twenty-one young people (which is the majority) said that their mood was sometimes better and other time worse after dance training. Two respondents said their mood was most of the time improved, four respondents did not feel any changes and nine respondents had to this question indifferent attitude. After movement training the mood of respondents worsened in four respondents. This fact might be caused by musculoskeletal fitness movement training (Fig. 3).

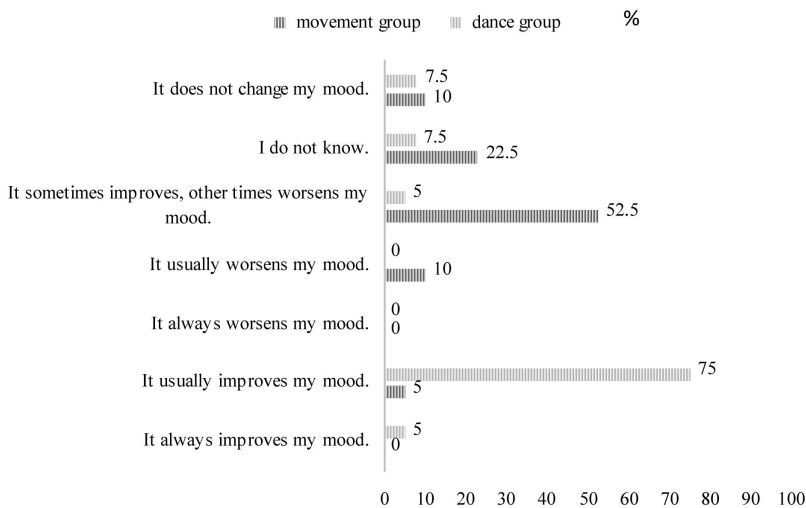


Fig. 3. Direction of mood changes after dancing or movement training

It is clear from research results that in case of dance group, there was improved the mood after training in a more significant way than in movement group. We can state that dance, as the form of movement activity, has a positive impact on the emotions of dancers. We can also support the positive effect of dance on the mind of a human being, chiefly in the sense of experiencing positive emotions. Similar results were proven by Hižnayová<sup>22</sup> and Kozubková<sup>23</sup>.

Based on the assessment of the questionnaire Subjective Emotional Habitual Wellbeing Scale (SEHP), we found that there exist differences in the frequency of experiencing positive emotions between respondents of dance group (Me = 16) and respondents of movement group (Me = 13) and also in experiencing negative emotions between respondents of dance group (Me = 9) and respondents of movement group (Me = 14). The research results of experiencing positive and negative emotions are summarised in the Figure 4. They indicate positive impact on human emotions.

There was proven a statistical significance ( $p = 0.0425$ ) in the respondents of dance group (Me = 16). Their frequency of experiencing emotions was significantly higher than in the respondents of movement group (Me = 13).

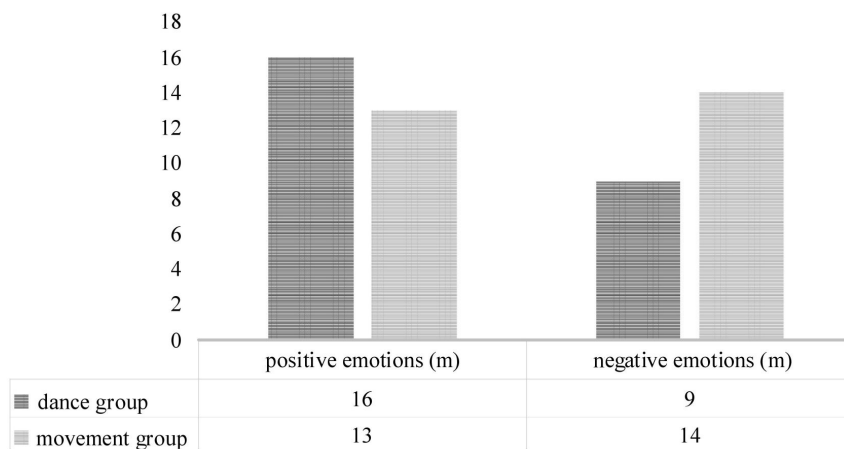


Fig. 4. Differences in median values in the frequency of experienced emotions in dependence on the form of exercise/training

Similarly in the respondents of movement group (Me = 9) there was proven lower frequency of experiencing negative emotions in comparison with the respondents of movement group (Me = 14). There was proven a statistical significance ( $p = 0.00070$ ), see the Table 1. We think that the research results were caused by the fact that the respondents of movement group during their trainings often experience negative emotions such as anger, pain and fear at higher stress intensity. Similar research results show Michal and Nevolná<sup>24</sup>, Michal<sup>25</sup> and Dobrý<sup>26</sup>.

<sup>22</sup> K. Hižnayová, *Tanec a jeho pôsobenie...*, p. 42-47.

<sup>23</sup> I. Kozubková, *Tanec ženy...*

<sup>24</sup> J. Michal, T. Nevolná, *Physical activity...*, p. 103-115.

<sup>25</sup> J. Michal, *Vôľnočasové pohybové aktivity...*, p. 97-108.

<sup>26</sup> L. Dobrý, *Úvod do problematiky...*, p. 4-13.

Table 1

Significance of the differences in the frequency of emotions experienced in the dependence on the form of exercise or training

Emotionality	Mann-Whitney U-value	Significance	Median Dance group	Median Movement group
Positive emotions	2185	0.0425 *	16	13
Negative emotions	1289	0.0070 **	9	14

Legend: \* statistical significance of 0.05; \*\* statistical significance of 0.01

## Conclusions

Dance as an inherent part of physical activity has a positive impact not only on physical health but it also has beneficial effect on mental health. Our research results demonstrate, based on the theory, other research and partly medical practice, the positive effect of dancing on human mind in the sense of experiencing emotions.

Our research results indicate that the vast majority of respondents (65%) subjectively perceived positive effects of the dance on their emotions. The respondents of dance group perceive the dance in a more positive way in comparison to the respondents of movement group. There were 77.5% respondents of dance group who experienced the positive impact of the dance on their emotions. On the other hand, 52.5% respondents from movement group experienced the positive impact of the dance on their emotions.

Research results show that 76.25% of all respondents experienced changed mood affected by dance and movement training, even if the frequency of the positive perception of this phenomenon varied. In 80% respondents of dance group there was found the occurrence of changed mood affected by dancing training, compared to 5% of respondents from movement group, where there was improved mood by means of movement training. The research results of habitual subjective well-being indicate, that the frequency of experiencing positive emotions in the respondents of dance group is statistically more significant than in the respondents of movement group at  $p < 0.05$ .

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## Summary

### DANCE AS AN IMPORTANT ELEMENT OF PHYSICAL ACTIVITIES AND ITS EFFECT ON HUMAN EMOTIONS

Background: The paper focuses on the problem of the effect of dance as a part of movement activities on human emotions and their experiencing in students. The movement activity has a positive impact not only on physical health of a human being, but also on his mental health. Movement not only serves to increase physical fitness in healthy subjects, physical activities suitably chosen can be applied in an effective way in with weakened organ systems. The movement is nowadays considered a suitable tool to eliminate excessive stress.

Research results: The study summarises our research results of positive effect of dance on experiencing emotions of students that were verified and supported by medical practice that claims positive effect of movement on mental health of an individual. Our research results indicate that respondents from dance group experienced more positive emotions than the respondents from movement group. A statistically significant difference was found at the level of significance ( $p = 0.0425$ ) in the respondents from dance group ( $Me = 16$ ). Their frequency of experiencing positive emotions is statistically higher than in the respondents from movement group ( $Me = 13$ ).

Key words: *dance, movement, negative emotions, positive emotions, students*