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Effect of dancing on subjective experiences and psychological state of dancers

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ABSTRACT

Hrusova, D. (2015). Effect of dancing on subjective experiences and psychological state of dancers. *J. Hum. Sport Exerc.*, 9(Proc1), pp.S198-S204. Dance is a physical activity that improves physical fitness, and also develops social and psychological aspects. The research study focused on dancing and psychological aspects in experiencing common feelings of individuals and their changes due to dance training. The aim was to determine current feelings and experiences and their possible changes in relation to the actual effects of the selected dance styles - street dance and modern scenic dance. The problem was solved by an empirical approach with quantitative and qualitative data analysis. A sample comprised 20 participants who are active dancers (10 street dancers + 10 modern scenic dancers). The main method of data collection was a standardized questionnaire of the structure and dynamics of subjective experiences and individual states (SUPSO). Both positive components (P – psychological wellbeing, A – activeness) and negative components (U - anxious expectations and fears, S – sadness and depression) were employed as indicators of psychological state of dancers. The positive and negative components of psychological state were assumed to be changed due to the dance training. The data were evaluated by quantitative and qualitative analysis and the results suggested that dancing influenced psychological state. There was an increase of positive components and decrease of negative components, both in street dance and modern scenic dance. **Key words:** DANCE STYLE, STREET DANCE, MODERN SCENIC DANCE, FEELINGS, EMOTIONS.

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INTRODUCTION

Dance is a physical activity that improves physical fitness, and also develops social and psychological aspects. The research study deals with dancing and psychological aspects in experiencing common feelings of individuals. Focus in the study is on modern scenic (or the so called contemporary) dance and street dance. Apart from classic (ballet) dance, basically there are not many limits or rules. Street dance (SD) and modern scenic dance (MSD) often reflect the interaction between people and the environment. As defined by Mikšík (2004), the interaction of people and environment is then reflected in the psychological state as a subjective picture of the given environment, in the shape of dynamic changes of inner feelings, experiences and states, in the shape of level of psychological activation and also in the concrete emotional mood.

Dance is characterized by rhythmic movements, should be harmonic, targeted, aesthetic and not aimed for working purpose (Blížkovská, 1999 a Jebavá, 1998). Both selected forms, SD and MSD, are expressive and improvisational. Jebavá (1998) emphasizes that the movement of dancers must come out from their heart, which makes the dancing unique and unrepeatable. To some extent this is common for all dancing forms and styles, both on professional and recreational level. However, in dancing as a leisure time sport activity, there are no performance criteria. A main purpose, in addition to improving physical fitness and health, is fun, active relaxation, and experiencing. Experiencing is also emphasized by Svatoň (1995) and Neumann et al. (1999). Experiencing is associated with an active will to form, change and do something, it occurs under certain mental and physical tension.

Hanna (1995) claims that dance may moderate, eliminate, or avoid tension, chronic fatigue, and other disabling conditions that result from the effects of stress. Goulmaris et al. (2014) investigated a positive effect of Greek dance lessons on well-being, stress and fatigue, related to the satisfaction of basic psychological needs. In accord, Campion and Levita (2014) suggested short duration dancing as a tool to enhance emotional well-being and reduce feelings of fatigue. In recent research studies dancing is also investigated as a convenient movement therapy (Martin, 2014; Jorba-Galdos, 2014; Murrock & Graor, 2014; Slavin-Mulford, 2013; & Pinniger et al., 2013).

MATERIAL AND METHODS

The aim of the research was to determine the current feelings and experiences and their possible changes in relation to the actual effects of the selected dance styles - street dance and modern scenic dance. The problem was solved by an empirical, causal research with both quantitative and qualitative data analysis. It was assumed that dancing will significantly influence the selected components of psychological state of dancers, in terms of increasing the positive components and decreasing the negative components.

Participants

Research sample comprised 20 participants (10 street dancers, SD, and 10 modern scenic dancers, MSD) who are active, but not professional dancers. The main criteria for inclusion were that the participants attended regular training lessons with minimal frequency twice a week, for at least half a year. There were 16 women (6 SD and 10 MSD) and 4 men (SD); the range of age was 17 – 36 years.

Measures

The main method of data collection was a standardized questionnaire of structure and dynamics of subjective experiences and individual states (SUPSO, Mikšík, 2004). The selected 2 positive components (P – psychological wellbeing, A – activeness) and 2 negative components (U - anxious expectations and fears, S – sadness and depression) components were employed as indicators of psychological state of dancers. The SUPSO questionnaire is a result of a factorial and multi-variance analysis (by Mikšík, 2004), comprising 24 adjectives (in the original version 92 adjectives), that represent the individual concrete symptoms of psychological experiences, feelings and emotional states of individuals. The respondents recorded their feelings and states in the defined period of time. There is an ordinal scale (0 – never/no, 1- sometimes/slightly, 2 – usually/medium, 3 – often/strongly, 4 - all the time/extremely) for evaluation of the adjectives and then the “gross score” is converted into “proportions”. For graphic use the proportions can be converted into percentage. The questionnaire was distributed in pre-test and post-test to determine the effect of dance training lessons.

Procedures

The aim was to determine the current feelings and experiences and their possible changes in relation to the actual effects of the selected dance styles - street dance and modern scenic dance. The problem was solved by an empirical approach with quantitative and qualitative data analysis. A sample comprised 20 subjects, active dancers (10 street dancers + 10 modern scenic dancers). The main method of data collection was a standardized questionnaire of the structure and dynamics of subjective experiences and individual states (SUPSO, Mikšík 2004). Both positive (P – psychological wellbeing, A – activeness) and negative (U - anxious expectations and fears, S – sadness and depression) components were employed as indicators of subjective experiences and individual psychological state of dancers. The positive (comfort) components were assumed to be increased and negative (discomfort) components were assumed to be decreased due to the dance training.

The questionnaire was distributed in pre-test and post-test, to determine the effect of intervention – a regular training dance lesson (street dance in 10 cases, modern scenic dance in 10 cases).

Analysis

Data were analysed by quantitative and qualitative analysis. Statistical significance of the difference was calculated by nonparametric tests for dependent choices (sign test and Wilcoxon paired test), at the level of statistical significance of $p < 0.05$. In qualitative analysis the results were evaluated according to the criteria determining the minimum effect of intervention, based on expert opinions: relative frequency of improvements in at least 50 % of cases and zero absolute frequency of impairments between pre-test and post-test. The parallel validity of both criteria was required. Participants who scored by 0 % (“norm” – see table 3) in the given indicator of negative components already in the pre-test were not calculated in the total value of relative percentage of improved cases, as 0 % is the best result for negative components and thus there was no space for the actual improvement of the score in post-test. With regard to the expert opinions, the minimal required change was 10 % in positive components and 5 % in negative components of psychological state.

RESULTS

The collected data were processed and evaluated by quantitative and qualitative analysis and the results suggested that dancing influenced psychological state. The significance of the difference was calculated in

statistical analysis (sign test and Wilcoxon pair test, $p < 0.05$) and qualitative analysis. One hypothesis (H1) focused on positive components and the other hypothesis (H2) focused on negative components of psychological state. There was an increase of positive components and decrease of negative components, both in street dance and modern scenic dance.

Increase of positive components (H1) was verified by means of the 2 selected indicators (P - Psychological well-being; A - Activeness). There was a significant difference between pre-test and post-test, based on both statistical analysis (see table 1 and 2) and qualitative analysis (see table 3). The significance of difference was calculated on $p < 0.05$. Results of all 20 participants showed improvement. The criterion of relative frequency of improvement (10 %) was exceeded in 17 cases for P and 13 cases for A (P: 85 % of cases; A: 60 % of cases) and there was no impairment. The overall results of positive components suggest increase of psychological well-being and activeness between pre-test and post-test, both in street dance and modern scenic dance.

Table 1. Sign test – statistical significance of the difference in indicators of positive (P, A) and negative (U, S) components.

Indicator	Sign test			
	Level of significance $p < 0,05$			
	Number of different	Percent $v < V$	Z	p
P - psychological well-being	20	100	4,25	0,00002
A - activeness	20	100	4,25	0,00002
U - anxious exp. and fears	18	0	4,007	0,00006
S - sadness and depression	18	0	4,007	0,00006

Table 2. Wilcoxon test – statistical significance of the difference in indicators of positive (P, A) and negative (U, S) components.

Indicator	Wilcoxon pair test			
	Level of significance $p < 0,05$			
	Number of valid	T	Z	p
P - psychological well-being	20	0	3,92	0,00009
A - activeness	20	0	3,92	0,00009
U - anxious exp. and fears	18	0	3,72	0,0002
S - sadness and depression	18	0	3,72	0,0002

Table 3. Qualitative analysis of significance of the difference in indicators of positive (P, A) and negative (U, S) components.

Indicator	Absolute frequency of differences					Relative frequency of improvement	Criteria		Verification
	"+"	"+" >10%	"0"	"-"	norm				
P - psychological well-being	20	17	0	0	0	0,85	> 50 %	0 impairment	YES
A - activeness	20	13	0	0	0	0,65	> 50 %	0 impairment	YES
U - anxious exp. and fears	18	15	0	0	2	0,83	> 50 %	0 impairment	YES
S - sadness and depression	18	13	0	0	2	0,72	> 50 %	0 impairment	YES

Decrease of negative components (H2) was verified by means of the 2 selected indicators (U - Anxious expectations and fear; S - Sadness and depression). There was a significant difference between pre-test and post-test, based on both statistical analysis (see table 1 and 2), and qualitative analysis (see table 3). The significance of difference was calculated on $p < 0.05$. Results of 18 out of 20 participants showed improvement. 2 participants scored by 0 % ("norm" – see table 3) in the given indicator of negative components already in the pre-test and these 2 cases were not calculated in the total value of relative percentage of improved cases, as 0 % is the best result for negative components and thus there was no space for the actual improvement of the score in post-test. The criterion of relative frequency of improvement (5 %) was exceeded in 15 cases for U and 13 cases for S (U: 83 % of cases; S: 72 % of cases) and there was no impairment. The overall results of negative components suggest decrease of anxious expectations and fears and sadness and depression between pre-test and post-test both in street dance and modern scenic dance.

DISCUSSION

Dance is a physical activity that improves physical fitness, and also develops social and psychological aspects. The research study deals with dancing and psychological aspects in experiencing common feelings and their possible changes due to the dance training. The effect of dance lessons both of street dance (SD) and modern scenic dance (MSD) was reflected in the enhancement of psychological well-being and activeness of the participants, right after the dance lessons. It supports the research findings of Goulimares et al. (2014) about highly rated positive well-being in relation to basic psychological needs in recreational dance activities (Greek dance). The authors also reported almost complete lack of stress and a low percentage of fatigue. Campion and Levita (2014) verified that even 5 min of dancing can enhance positive affect, decrease negative affect, and reduce feelings of fatigue. Koch et al. (2014) also confirmed decrease in clinical symptoms such as depression and anxiety. Concerning negative aspects, in this research study a significant decrease in anxious expectations and fears, and sadness and depression was detected.

The focus in this study was not on professional dancing, but on dance as a sport leisure activity. Neumann (1999) claims that such activity is characterised by certain feelings and experiencing, as a result of full concentration on the activity itself. This brings satisfaction and joy. A dancer concentrates on dancing itself, feels the rhythm and flow of one motion to another, which provides relaxation and diminishing of stress. Contemporary dance uses many dance techniques; in addition, it also draws on yoga and Pilates. Each

dancing motion should begin in the centre of the body and then come out outwards, into the space. Contraction of the core muscles is a precondition to movement of the extremities, which is similar in Pilates (Hrusova, 2014). In addition, Pilates follows similar principles as dance (e.g. core, contraction, flow, precision of movement). In this research the contribution in the field of practice is in verifying the significant positive effect of dance as a regular sport leisure activity on psychological health, which can support use of dance lessons of street dance and modern scenic dance as a convenient means in dance therapy. The statistical analysis was supported by substantive qualitative analysis, as recommended by van Tulder et al. (2007).

CONCLUSIONS

The aim of the study was to determine the possible effect of dancing on subjective experiences and psychological state of dancers, in street dance and modern scenic dance. The results showed a significant difference in an increase of the selected positive (comfort) components and also in a decrease of the selected negative (discomfort) components. The results indicated an effect of dancing as a regular leisure sport activity on psychological well-being, activeness, anxious expectations and fears, and sadness and dejection. However, due to the limited size of the sample and no control group, the findings cannot be generalized and further research is needed.

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