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Sport activity in the context of subjective well-being of university students

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Abstract

Introduction. In our research we were particularly interested in answering the question whether there is a relationship between a person's comfort or well-being in relation with the sporting activity of adolescents. Aim of Study. The aim of the research was to analyse the relationship between physical activity and subjective well-being of university students. Material and Methods. The research was carried out on a group of university students studying at different types of universities. The research group consisted of 150 men and 230 women with an average age of 20.81 years. For data collection we used: questionnaire of emotional habitual subjective well-being and questionnaire of life satisfaction. The data obtained in this way were subjected to statistical analysis of x2 test and Spearman correlation coefficient. Results. We have found that active sports respondents at a non-professional level compared to passive athletes are more likely to experience a sense of physical freshness and enjoyment. On the other hand, the non-sportsmen are more likely to experience fear and pain. Our findings clearly confirm the correlation coefficients between active sports and the frequency of positive emotions. On the other hand, we found negative correlations in the relationship between active sports and the experience of negative emotions. In the case of a higher level of sports performance, we found significant negative weak to medium close relationships with the frequency of survival of negative emotions, and significant positive moderate relationships were shown by survival of physical freshness, enjoyment and joy. In the case of relationships between top sports and the emotional component of subjective well-being, we found weak to moderate relationships with the enjoyment, guilt and shame. Sports activity leads to increased life satisfaction, which confirmed number of correlations between active non-professional sports and overall life satisfaction. Conclusions. Our research findings have confirmed that physical activity even if in a minimum rate, increases the subjective well-being of adolescents as well as self-satisfaction and contributes to more frequent positive emotions or increased adolescents' life satisfaction.

KEYWORDS: subjective quality of life, impact of sport, life satisfaction, emotions, self-evaluation.

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Introduction

Subjective well-being, quality of life, satisfaction with life, a sense of happiness [4, 12] are interrelated, intertwining concepts that psychologists, sociologists, and doctors fill with different content. According to Corrigan and Buican [2] there are two objective qualities of life: objective conditions of life of a person – income, type of living, rate of social contacts (not subject to psychological examination) and subjective quality of life – individual understanding of one's life conditions. Džuka and Dalbert [5, 6, 7, 8, 9, 11], in connection with the objective and subjective quality of life, also

define the third construct – subjective well-being – the emotionally assessed conditions of one's life (frequency of positive and negative emotions). Džuka [10] currently describes 4 streams of research focusing on the relationship of quality of life and subjective well-being, which implies the terminological lack of clarity of both constructs that the various authors identify differently. In our contribution we decided to start from the 4th stream in which subjective well-being is an indicator of the quality of life. This approach is represented by the theory of Diener [4] which we come out of, and according which, the subjective well-being consists of two components.

The emotional component is expressed by the frequency of positive and negative emotions. It comes out of the circular model of affective reactions, which distinguish two dimensions: positive emotions (represents by adjectives of positive emotions – pleased, active), negative emotions (represents by adjectives of negative emotions – angry, worried) [17]. It is measured by the personal statement of experience frequency of negative or positive emotions. It is based on homeostasis principle (the possible change is emended to the original level which is typical for that specific person).

Cognitive – evaluative component is expressed by the cognitive evaluating personal satisfaction with one's own life (the content is nearly identical with the human well-being and it functions on the principle of psychological equilibrium – after possible change it can be emended on different level as well) it is measured on base of person statement, which through cognitive processes evaluates how the person is satisfied with one own life in general and also in its specific areas.

For example, Fahrenberg [13] characterizes life satisfaction as an individual assessment of past and present conditions of life and the expected life perspective. The author distinguishes satisfaction with life as a whole and also the satisfaction with these specific areas of life of each of us: health, work and occupation, financial situation, leisure, marriage and partnership, relationship with one's own children, self-satisfaction, sexuality, friends, acquaintances and relatives and housing.

Overall life satisfaction is considered to be a linear additive satisfaction function in different areas of life [1]. Health satisfaction has a direct impact on life satisfaction, but this does not apply to the impact of job satisfaction [4]. Abel and Frank are the best known for the theories of physical well-being.

Abel, according to [3], coming out of WHO concept, which distinguishes between physical, mental and social well-being and claims that subjective well-being has demonstrable effects on human thinking and action. According to this author, there may be an interaction between positive emotional mood, thinking and action of the person to update the three types of variables (mediators) that affect the person's condition: general current mediators (physiological – psychological activation associated with a positive mood), specific current mediators (deliberate thought, processes and activities) and long-term mediators (self-empowerment, reciprocity). Abel assumes that there are two components forming physical subjective well-being:

1. evidence of difficulties (perceived difficulty status),
2. evidence of physical abilities.

Frank, empirically – based on several journal entries related to the positive physical state of mind, asked some volunteers, who were able to recall the situation when they felt physically positive to indicate what their positive mood was, what they felt. She has classified the forms of described emotions into 15 summaries, to whose she has created five fundamental dimensions. These dimensions were used to design „The current physical subjective well-being questionnaire", and by the factor analysis she came to 7 physical well-being factors:

1. satisfaction with the momentary physical state,
2. comfort and relaxation,
3. vitality and joy of life,
4. pleasant fatigue,
5. release of enjoyment and feelings of pleasure,
6. ability to concentrate and react,
7. briskness and pleasant body feelings.

The main structural elements of physical subjective well-being are, according to this model, the currently experienced positive body feelings. In this theory, the question of habitual physical well-being remains open compared to Becker's model.

Aim of Study

In our research, we were particularly interested in the question whether there is a relationship between subjective adolescent well-being and sporting activity. On the basis of theoretical analysis, we assumed the existence of a statistically significant correlation between the level of sporting activity and the frequency of experiencing positive and negative emotions. In accord with older research by Abel and Frank according to [3], on physical well-being, we expect sporting activity to lead to more positive emotions. At the same time, we expected a positive correlation between sporting activity and life satisfaction. Based on the findings that physical activity can increase human immunity and

health, we expect it to positively influence cognitive judgment about respondents' own lives.

Material and Methods

The research sample consisted of 380 undergraduates – 150 men and 230 women aged 17 to 23, studying at different types of universities across the SR. The average age was 20.81. Based on the respondents' sporting activities, the research group was divided into 4 groups – passive sport, sport at non-professional level, sport at national level and sport at the top (representative) level.

The following questionnaires were used to collect data: SEHP – The emotional habitual subjective well-being questionnaire [9]. It is a brief tool for measuring emotional habitual subjective well-being, which distinguishes positive and negative aspects of living emotions, while integrating body . It does not measure the intensity of surviving current emotions, but it detects the frequency of survival of individual states in a longer period of time, which the authors of the questionnaire divided into a positive mood and a negative mood [9]. Positive mood: joy, happiness, enjoyment, briskness. Negative mood: fear, guilt, sadness, pain, anger, shame. The questionnaire consists of 10 questions and respondents express their response to the frequency of experiencing a particular emotion on a 6-degree.

The so-called Life Satisfaction Questionnaire [13, 16] is intended for objective assessment of overall life satisfaction and satisfaction with life in individual areas. The questionnaire consists of 70 items that are assigned to 10 areas identifying satisfaction with a particular area of life: health, work and employment, financial situation, free time, marriage and partnership, self-confidence, sexuality, friends, acquaintances and relatives, living conditions and children. As each area was identified separately, we have for our purposes taken out the item „satisfaction with own children" because of the simple reason that most of the respondents do not have their own children yet.

In the first phase of data processing, we used Kolmogorov–Smirnov test of normality in Lilliefors modification, based on which we used nonparametric statistical methods in further calculations, from which we gained the further research findings. As it was mainly the determination of interrelations, the main method was the correlation analysis – Spearman coefficient of correlation. To identify the significance of differences (among several groups of adolescents in terms of sporting activities levels) the Chi-quadrat was used.

Results

There are represented only the tables containing the most significant differences between the groups of adolescents divided according to the level of sport activity. As shown in Tables 1 and 2, our findings clearly support the assumption that sports activity contributes significantly to increasing the frequency of experiencing positive emotions.

We found that respondents active at non-professional levels compared to passive athletes are more likely to experience a sense of physical freshness (χ^2 = 28***), that naturally comes with sport, and which may increase with sport and physical activity increasing. These respondents are also more likely to experience enjoyment (χ^2 = 16.8***). On the other hand, the nonsporting respondents are more likely to experience fear (χ^2 = 21.3***) and pain (χ^2 = 13.5***), which may be associated with worse immunity and it is clear that the immunity can be improved by doing sports.

Table 1. The significance of variants in emotional component of subjective well-being (SEHP) from the viewpoint of sports activity among the respondents passively engaged in sports and those actively engaged in sports on a non-professional basis

Variable SEHP	Chi-Square	df	p
Briskness	**28.0**	**3**	**0.000**
Fear	**21.3**	**3**	**0.000**
Pleasure	**16.8**	**3**	**0.000**
Pain	**13.5**	**3**	**0.000**
Positive emotions	**11.0**	**3**	**0.001**
Negative emotions	**7.4**	**3**	**0.012**
Guilt	5.0	3	0.17035
Shame	4.6	3	0.20097
Sadness	3.6	3	0.30293
Anger	3.5	3	0.32035
Joy	0.7	3	0.88289
Happiness	0.1	3	0.99454

To get the most valuable analysis of relation between subjective well-being and sporting activity the corelative analysis has been done with the outcomes of the research.

Table 2. Correlation coefficients expressing the relationships among the emotional component of subjective well-being and the degree of sports activity

Variable SEHP	0	1	2	3
Pleasure	**–0.225*** **	**0.351*** **	**0.401*** **	**0.221** **
Physical briskness	–0.125	**0.435*** **	**0.335*** **	0.065
Joy	–0.149	**0.446*** **	**0.488*** **	0.145
Happiness	**–0.285** **	**0.322** **	0.153	0.268
Anger	0.058	**–0.336*** **	**–0.288*** **	0.147
Gilt	0.112	– 0.255	–0.022	**0.324** **
Shame	0.157	– 0.153	–0.069	**0.339** **
Fear	0.185	**–0.458*** **	**–0.427*** **	–0.088
Pain	0.078	0.029	0.037	0.047
Sorrow	0.058	**–0.221** **	–0.145	–0.185
Positive emotions	0.046	**0.425*** **	**0.388*** **	0.899
Negative emotions	0.024	**–0.364*** **	**–0.315*** **	0.135

0 – passive sportsmen
1 – active non-professional level sportsman
2 – active sportsmen at the national level
3 – professional sportsman

*p <0.05
**p <0.01
***p <0.001

Our findings clearly confirm the correlation coefficients between active sports and the frequency of positive emotions (r = 0.425***), namely joy (r = 0.446***), bodily freshness (r = 0.435***), enjoyment (r = 0.351***) as well as between active sports and happiness (r = = 0.322**). On the other hand, negative correlations were found in the relationship between active sporting and experiencing negative emotions (r = 0.364***), especially anger (r = –0.336 ***), fear (r = –0.458***), and sadness (r = –0.221**). In the case of a higher level of sports performance (active sportsman at the national level), we found significant negative weak to medium close relationships with the frequency of experiencing the negative emotions (r = –0.315***) in particular anger (r = –0.288***) and fear (r = –0.427***). On contrary, significant positive medium close relationships were shown to experience (r = 0.388***) especially the body briskness experiencing survival (r = 0.335***); pleasure (r = 0.401***) and joy (r = 0.488***). In the case of relationships between top sports and the emotional component of subjective well-being, we found a weak to medium relationship with the experience of pleasure(r = 0.221**); guilt (r = 0.324**) and shame (r = 0.339**).

The cognitive component of subjective well-being and physical activity relations are presented in Tables 3 and 4.

Table 3. The significance of differencies in cognitive component of subjective well-being (SEHP) from the viewpoint of the sports activity among the respondents passively engaged in sports and those actively engaged in sports on a non-professional basis

Variable DŽS	Chi-Square	df	p
Own personality	**18.8**	**3**	**0.000**
Health	**17.4**	**3**	**0.001**
Job and occupation	**9.8**	**3**	**0.012**
Life satisfaction	6.4	3	0.092
Marriage or partnership	6.3	3	0.098
Sexuality	5.9	3	0.117
Friends, relatives	3.6	3	0.314
Financial situation	3.2	3	0.364
Living condition	3.0	3	0.397
Free time	1.6	3	0.665

Table 4. Correlation coefficients expressing the relationships among the cognitive component of subjective well-being (DŽS) and the degree of sports activity

Variable DŽS	0	1	2	3
Health	**–0.343*** **	**0.389*** **	**0.471*** **	**–0.213** **
Job and occupation	0.016	0.058	**0.187** **	0.027
Financial situation	0.013	**0.352***	**0.281** **	0.048
Free time	0.022	**0.313***	**0.214***	0.042
Marriage or partnership	0.075	0.012	–0.113	0.114
Own personality	**–0.198** **	**0.458*** **	**0.424***	**0.359***
Sexuality	0.049	**0.447*** **	**0.423***	**0.414***
Friends, relatives	0.092	**0.241** **	–0.088	–0.017
Living condition	0.027	0.005	0.168	0.131
Life satisfaction	**–0.351** **	**0.455** **	**0.389** **	–0.015

0 – passive sportsmen
1 – active sportsmen at the non professional level
2 – active sportsmen at the national level
3 – professional sportsmen

*p < 0.05
**p < 0.01
***p < 0.001

We are able to state that sporting activity positively leads to increased life satisfaction, confirming a number of correlations between active non-professional sports and overall life satisfaction (r = 0.455***), as well as health satisfaction (r = 0.389***) or personal satisfaction (r = 0.458***). On the other hand, the nonsporting respondents are less satisfied with their lives as well as (r = –0.351**), with themselves (r = –0.198***) and also with their health (r = –0.343***). We found a significant medium relationship between overall life satisfaction and the level of activity at non-professional (r = 0.455**) and also active athletes at the national level (r = 0.389**). In both cases, medium significant positive relationships with self-satisfaction and sexuality were found. Interesting but also logical is the finding that neither non-sportsmen respondents nor top-level respondents are satisfied with the area of their health condition (r = –0.213**).

Discussion

The reason why the level of dissatisfaction with own health condition is the same or similar with non-sportsmen or with professional sportsmen at the top levels can be explained by these factors: the difficulty, extent and frequency of sporting activity among top athletes compared to active athletes at unprofessional or semi-professional levels, as well as the injuries that top athletes often have. Other research findings confirm that any sporting activity leads to the satisfaction of adolescents with the area of sexuality, to the satisfaction of their own person, and positively affects self-confidence, which we consider to be a significant determinant of performance motivation.

Conclusions

The results of statistical calculations clearly confirmed that physical activity in the "active sportsman" (non-professional) and "active sportsman at the national level" (semi-professional) clearly increases the frequency of experiencing positive emotions (especially joy and physical freshness) and reduces the frequency of experiencing negative emotions (especially fear and anger). The emotional state can be considered as a projection of the intellectual stimulation results, while the physical state as a projection of emotional processes results [14]. Our research findings have confirmed that physical activity, even in a very rare frequency, increases the subjective well-being of adolescents as well as self-satisfaction and contributes to more frequent positive emotions or increased adolescent life satisfaction. The sporting activity is a way of spending free time, which also increases the physical condition and also contributes to the formation of the body – improving the physical appearance, which is a very important part of the self-image for this age group. The physical education teacher with his attitude has also a very significant impact on participation in physical activity [15]. All of this is likely to have an impact on the formation of a positive self-consciousness and, consequently, being able to be successful and vital in the areas of the study, work or sport.

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