

The Quality of Life of Children Swimmers

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Abstract

The aim of this study was the assessment of the quality of life of children swimmers, aged 7-11 years (N=31, 16 girls and 15 boys) from two swimming clubs in Zagreb. The assessment was conducted with the Kidscreen – 10 questionnaire. The results showed a very high quality of life experience where the highest estimated values were obtained for variables related to education, health, family, school and friends, and the lowest variables were those related to low mood and loneliness. The results of the Mann-Whitney U test showed no statistically significant differences in the dimensions of the quality of life in regard to gender.

Key words: *Mann-Whitney U test; swimming practice; the perception of the quality of life.*

Introduction

Quality of Life

Quality of life is an ambiguous term because it encompasses a variety of biological, psychological, social, environmental, geographic, health and other aspects. It describes the social, emotional and physical human well-being and the ability to successfully perform daily life activities (Rakovac & Heimer, 2007). Quality of life denotes a perception of life positions of the individual in the context of the culture and value systems in which individual lives, and also in relation to its objectives, interests, standards and expectations (World Health Organization, 1998, as cited in Anđelković, Vidanović, & Hedrih, 2013). Cummins (2000), as cited in Vuletić and Misajon (2011), defines quality of life as multi-dimensional, which implies a subjective and an objective component. The subjective quality of life is made up of seven domains: emotional well-being, material well-being, safety, health, productivity, intimacy and community, and the objective quality of life includes culturally relevant measures of objective well-being. With the development of society and technology, a human loses the activity

of work, is less mobile, and free time is not actively pursued, which affects the health status and quality of life (Bartoluci, 2007).

Individuals can use their free time for various activities after they have fulfilled their professional, family and social obligations (Dumazedier, 1972, as cited in Perasović & Bartoluci, 2008). It is a fact that physical activity has a positive effect on certain aspects of the quality of life, and also on the improvement of general health, the mental and emotional state (Rakovac & Heimer, 2007). Health is considered to be the foundation for the quality of life, so good health is the foundation of all human activities and physical exercise can directly contribute to the improvement of a subject's health, especially children (Findak & Neljak, 2007). Due to the frequent absence of sufficient amounts of physical activity during childhood, a lower quality of life may occur, which is manifested by the appearance of various risk factors such as obesity, health problems and problems in communication with the environment. Therefore, it is necessary to work on creating a habit of physical exercise, both at home, and at school. It is very likely that those children who are engaged in some sport at school, will continue doing these activities later in life (Bobić, Trošt, & Juraković, 2008). Habits acquired during childhood and continued in the adult life, indicate the importance of involving schoolchildren in regular sports and recreational activities. According to Bobić, Trošt, & Juraković (2008), who refer to Paavola, Vartiainen, and Haukkala (2004), there is a positive correlation between regular dietary habits and the routine of practicing sports – recreational activities.

School is an indispensable factor for creating habits of doing physical activity, but what is more, doing physical activity can contribute to success in school. Sports may act as a motive for a child athlete to successfully complete school obligations, especially if it is a sport that the child likes (Karković, 1998, as cited in Lorger, 2011). It is very likely that the discipline and persistence, required by practicing a sport, will transfer to school success. However, if a child athlete cannot successfully harmonize school and sports, school obligations and practice may be an additional burden that can lead to feelings of dissatisfaction (Lorger, 2011). According to Zečević (2005), sports have a strong influence on the education of a young person - from introducing young athletes in social life, solidarity with others, to teaching them how to win and how to accept defeat. Sports help in the formation of certain attitudes and behaviors, and enrich their own personalities. While doing sports, a child athlete will fulfill the need for belonging, security, love (Milanović, D. & Milanović, M., 1992). Doing sports should contribute to the development of positive psychological characteristics such as: higher levels of self-esteem (Hardman, 1997, as cited in Lorger, 2011), introducing young athletes to the ways of proper nutrition, training of self-control and building humane relationships (Findak, 2003), all of which can improve the quality of life of children athletes. Besides the mentioned factors, the support of their families, schools, peers and the environment in which the child athlete is growing up is extremely important. The influences of environmental factors may not be necessarily positive. However, parents have the most important role in the life of a child athlete. The basic needs of the child

athlete are fulfilled in the family. Parents of the child athlete should be supportive and they should actively participate in all the stages of sports growth of their child. This is why communication between them and the sports club is important (Milanović, D. & Milanović, M., 1992). Research by Greblo and Lorger (2006) on parental support for children in team and other sports shows that younger children have a greater need for parental support, care and acceptance. The intensity of parental support gradually weakens as children get older. It also showed that the intensity of parental support for children varies depending on the type of sport children are practicing. Parental support for children who are engaged in team sports, is less pronounced. The need to seek parental support is reduced by the fact that team sports provide, in a greater degree than other sports, the ability to form social support among members. Parental support is positively associated with the child's enjoyment in physical activity while negatively associated with competitive anxiety (Anderson et al., 2003, as cited in Greblo & Lorger, 2006) but is also crucial in the decision on whether to engage in sports activities (Howard & Madrigal, 1990 as cited in Greblo & Lorger, 2006).

Children Swimmers

“Swimming is one of the healthiest activities that can be used for recreation, rehabilitation, prevention and revitalization of thought processes” (Papec, Lovrić, & Čule, 2014, p. 393). Teaching swimming programmes plays an important role in children's educational process (Keškić, 2014) and affects the development of self-confidence, physical and mental development of the child, the child's socialization and fills a child's free time (Zegnal & Breslauer, 2014). How important swimming is in everyday life of modern man is evident in the increase in attention that is being given to the training of nonswimmers. The trainer has an extremely important role. A trainer should be a good educator, and a good instructor to encourage a child's motivation for learning and swimming practice training (Rupčić, Vučetić, Pavlović, & Lukenda, 2008). Accordingly, work with young swimmers should be based on the content that can be implemented through game and socialization, while the adopted skills and knowledge of swimming can have a great effect on the positive perception of the quality of life.

Research Aim and Hypotheses

The aim of this study was to examine the experience of the quality of life of children swimmers and examine possible differences in the perception of the quality of life in regard to gender. The psychometric characteristics of the Croatian version of the Kidscreen – 10 questionnaire (The Kidscreen Group Europe, 2006; Lorger, 2011) in a sample of children swimmers will also be analyzed.

Following the aim, and taking into consideration the developmental characteristics of children at this age, significant differences in the quality of life of children swimmers in regard to gender are not expected.

Research Methods

Participants

The quality of life testing was conducted in two swimming clubs in Zagreb. The study included 31 children swimmers, from the first to the fifth grade (7 to 11 years, N boys=15, N girls=16). Data was collected in the period from February to May 2014 at the swimming pools “Mladost” and “Utrine” in Zagreb. During data collection the code of ethics in work with children was respected (*agreement to participate in the study, signed agreement by a parent* were obtained). Participation in the survey was completely anonymous and voluntary.

Instruments and Variables

Using the Kidscreen Questionnaire, a questionnaire for the quality of life of children and adolescents, the quality of life of children swimmers was estimated (The Kidscreen Group Europe, 2006; Lorger, 2011). The Kidscreen Questionnaire assesses the construct of the quality of life, and includes observation of the quality of life through physical, social, emotional and behavioral well-being. The Kidscreen Questionnaire contains ten dimensions which are used to draw conclusions about the experience of the quality of life and identify any segment that impairs the quality of life of the child and adolescent (The Kidscreen Group Europe, 2006; Lorger, 2011). There are three different Kidscreen instruments for assessing the quality of life of children and adolescents aged 8-18 years (Kidscreen - 52, Kidscreen - 27 and Kidscreen - 10). For the purpose of this study, the questionnaire Kidscreen - 10 index was used, which was developed from a longer version of Kidscreen - 27 and has no subscales. To the knowledge of the author, this is the first study conducted in Croatia using Kidscreen - 10 questionnaire on this sample. Participants, while completing the questionnaire, marked the items (form, energy, low mood, loneliness, personal time, leisure time, family, friends, school, education, health) on a scale from one to five (Likert scale) expressing the level of their agreement with the statement. The questionnaire consisted of ten items. The variable related to the assessment of the health, which is also an integral part of the questionnaire, was a separate variable. Variables related to age and gender were added to the header of the questionnaire.

Data Processing

The analysis and interpretation of the results of measurements were conducted using the program STATISTICA 7.0. Using descriptive statistical methods, the descriptive parameters were calculated, the normality of distribution was tested and the basic metrical characteristics were calculated.

Since the K-S test showed significant deviation from the normal distribution, the significance of differences for the perception of the quality of life on the basis of gender was tested by a non-parametric statistical method, i.e., Mann-Whitney U test.

Results

Basic Statistical Parameters of the Croatian Version of the Questionnaire of Quality of Life for Children and Adolescents Kidscreen – 10

Table 1

Descriptive parameters and shape distribution of the results on the whole sample: mean (M), minimum (Min) and maximum (Max) score, standard deviation (SD), value permitted deviations (max D), Kolmogorov-Smirnov test for the normality of the distribution (K-S)

	Whole sample	M	Min	Max	SD	max D	K – S
1	Form	3.935	2.00	5.000	0.772	0.275	0.01
2	Energy	4.129	2.000	5.000	0.619	0.357	0.01
3	Low mood	1.387	1.000	4.000	0.667	0.396	0.01
4	Loneliness	1.161	1.000	2.000	0.374	0.506	0.01
5	Personal time	4.290	2.000	5.000	0.973	0.315	0.01
6	Leisure time	4.032	2.000	5.000	0.836	0.226	0.10
7	Family	4.613	2.000	5.000	0.761	0.436	0.01
8	Friends	4.516	2.000	5.000	0.811	0.402	0.01
9	School	4.516	3.000	5.000	0.677	0.375	0.01
10	Education	4.742	3.000	5.000	0.514	0.466	0.01
11	Health	4.645	3.000	5.000	0.551	0.418	0.01

Given the stated values, a very high quality of life experience has been shown. The highest values were estimated variables relating to education, health, family, school and friends. Slightly lower values, i.e., relatively high values, were estimated variables related to personal time, energy, leisure time and form. Low values were estimated variables relating to low mood and loneliness. Accordingly, it can be concluded that young swimmers in this sample perceive their quality of life as very satisfactory, i.e., the assessment of their quality of life is very high. Values of standard deviation (SD) are relatively uniform and low which indicates high homogenization results. The Kolmogorov - Smirnov test (KS) for the normality of distribution shows that all items significantly deviate from the normal distribution at a significance level of 0.01, except for item number six, which has a normal distribution and is related to leisure time.

Descriptive Parameters of the Kidscreen - 10 Questionnaire Items on a Sample of Girls (N=16)

The results obtained on the sample of girl swimmers are very similar to the results obtained for the whole sample, i.e., the value of the mean of all items, with their values, report high satisfaction in the quality of life. Girl swimmers estimated the items that describe the school environment, i.e., school performance extremely high, so it is possible that swimming practice helps in the fulfillment of school obligations in terms of persistence, full implementation of their obligations and motivation to work (learn). Except for school environment, assessment of the quality of health is very high, which may point to the experience of swimming as a healthy sporting activity on a sample of girl swimmers.

Table 2

Descriptive parameters and shape distribution of the results on a **sample of girls swimmers**: mean (M), minimum (Min) and maximum (Max) score, standard deviation (SD) value permitted deviations (max D), Kolmogorov-Smirnov test for the normality of the distribution (K-S)

	Girl swimmers	M	Min	Max	SD	Max D	K – S
1	Form	4.000	2.000	5.000	0.894	0.250	0.20
2	Energy	4.063	2.000	5.000	0.680	0.401	0.01
3	Low mood	1.375	1.000	2.000	0.500	0.398	0.01
4	Loneliness	1.125	1.000	2.000	0.342	0.518	0.01
5	Personal time	4.188	2.000	5.000	1.223	0.372	0.05
6	Leisure time	4.063	2.000	5.000	0.929	0.223	0.20
7	Family	4.500	2.000	5.000	0.894	0.399	0.01
8	Friends	4.438	2.000	5.000	0.892	0.361	0.05
9	School	4.813	4.000	5.000	0.403	0.492	0.01
10	Education	4.875	4.000	5.000	0.342	0.518	0.01
11	Health	4.750	4.000	5.000	0.447	0.462	0.01

Descriptive Parameters of the Kidscreen - 10 Questionnaire Items on a Sample of Boys (N=15)

Table 3

Descriptive parameters and shape distribution of the results on a **sample of boy swimmers**: mean (M), minimum (Min) and maximum (Max) score, standard deviation (SD) value permitted deviations (max D), Kolmogorov-Smirnov test for normality of the distribution (K-S)

	Boy swimmers	M	Min	Max	SD	Max D	K – S
1	Form	3.867	3.000	5.000	0.640	0.316	0.10
2	Energy	4.200	3.000	5.000	0.561	0.373	0.05
3	Low mood	1.400	1.000	4.000	0.828	0.419	0.01
4	Loneliness	1.200	1.000	2.000	0.414	0.485	0.01
5	Personal time	4.400	3.000	5.000	0.632	0.295	0.15
6	Leisure time	4.000	3.000	5.000	0.756	0.233	0.20
7	Family	4.733	3.000	5.000	0.594	0.473	0.01
8	Friends	4.600	3.000	5.000	0.737	0.440	0.01
9	School	4.200	3.000	5.000	0.775	0.249	0.20
10	Education	4.600	3.000	5.000	0.632	0.403	0.05
11	Health	4.533	3.000	5.000	0.640	0.367	0.05

On a sample of 15 boys, a very high quality of life experience was also observed. While the highest values, on the sample of girls, were estimated variables related to education and school, the highest values in the sample of boys were estimated variables relating to family and friends. Low mood and loneliness, the same as in the sample of girls, were reported as low values, i.e., low level of sadness and loneliness was confirmed.

Table 4

Differences in dimensions of the quality of life in regard to **gender** shown by Mann-Whitney U test

	Rank Sum Group 1 (girls)	Rank Sum Group 2 (boys)	U	Z	p-value
Gender	99.00	21.00	11.00	1.37	0.17

The results of the Mann-Whitney U test have shown that girl and boy swimmers, in regard to their gender, in this sample are not significantly different, i.e., their experience of the quality of life is very similar.

The average value of items of the questionnaire in regard to gender are presented in Figure 1.

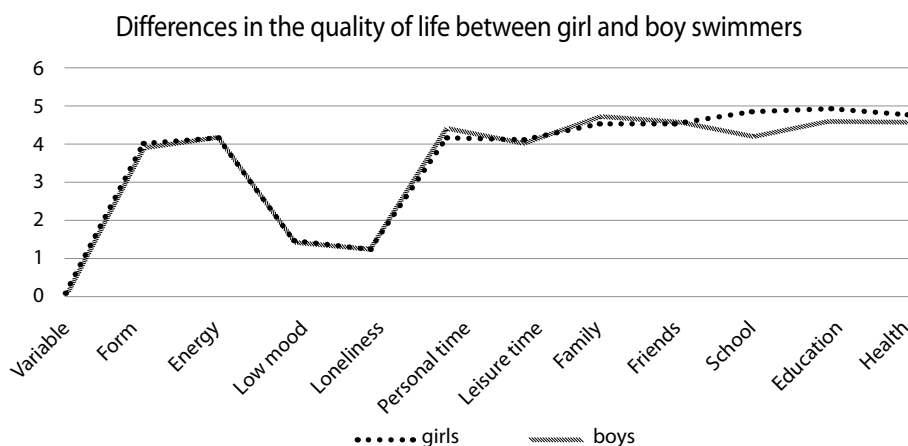


Figure 1. The average value for boys' and girls' items

The results of the Mann-Whitney U test supported by the graphic overview show where the curve values of items are almost identical. The small difference can be seen only in item number nine, whose content is related to school, i.e., success in school. Girls estimate this item with slightly higher values than boys, but not higher enough to make the difference statistically significant.

Discussion

The results of this study have shown a high quality life experience of children swimmers, and the highest values were estimated variables related to education, health, family, school and friends. Slightly lower values of variables were related to personal time, energy, leisure time and form. These results were consistent with some studies which confirm the welfare impact of sport in terms of the development of social skills (Fraser - Thomas et al., 2005), belief in personal abilities and better training motivation (Barić, 2007), better coping with stress (Pešut, 2007) and using positive experiences in other areas of activity such as school, family or leisure time (Barić,

2007). Competitions and organized physical activity stimulate higher level of girls' and boys' physical activity (Saar & Jürimäe, 2007) and also adoption of healthy habits and concern about their own health care (Findak & Neljak, 2007; Videmšek et al., 2002). Moderate physical exercise also results in beneficial effects, therefore, Powell and Prat (1996) point out the connection between regular physical exercise and better health status, and Vuori (2004), and Warbuton et al. (2006) talk about the impact of physical exercise on reducing the risk of certain diseases. Besides health benefits, the role of peers in identity formation of young athletes is extremely important (Black & Smith, 2007), along with the importance of family support in order to create foundations for an active and versatile lifestyle (Dowda et al., 2007) which is consistent with the results of this research. In fact, it has been shown that children swimmers in this sample find meaningful use of leisure time and socializing with friends as very important, with the elimination of feelings of loneliness, but also satisfaction with school and family environment. Therefore, sport can be a significant factor in the development of living and working promotion of an individual, but also the development of the whole society, so it is understandable that the inclusion of children and youngsters in sports should be approached with a lot of attention (Lorger, 2011). This study has not shown a significant difference in the quality of life in regard to gender, which confirms that this group of young athletes experience the quality of life in a very similar way.

Conclusion

The results of the research focused on children swimmers showed a high experience of the quality of life of children swimmers. The results of the Mann-Whitney U test have not shown statistically significant differences in the experience of the quality of life between young male and female swimmers, indicating a very similar perception of the quality of life.

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Kvaliteta života djece plivača

Sažetak

Predmet ovog istraživanja bila je kvaliteta života djece plivača u dobi od 7 do 11 godina (N=31; 16 djevojčica i 15 dječaka) iz dva zagrebačka plivačka kluba. Procjena kvalitete života provedena je Upitnikom kvalitete života za djecu i adolescente (The Kidscreen – 10). Rezultati su pokazali vrlo visok doživljaj kvalitete života, pri čemu su najvišim vrijednostima procijenjene varijable vezane uz nastavu, zdravlje, obitelj, školu i prijatelje, a najnižim varijable vezane uz loše raspoloženje i usamljenost. Rezultati Mann-Whitney U testa pokazali su da nema statistički značajne razlike s obzirom na spol u dimenzijama kvalitete života.

Ključne riječi: Mann Whitney U test; percepcija kvalitete života; trening plivanja.