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**SUBJECTIVE HEALTH ASSOCIATED WITH THE QUALITY OF**  
**LIFE OF ADOLESCENTS**

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*Abstract*

Quality of life (QoL) of children and adolescents represent challenges, the breadth and scope of which health institutions and stakeholders need to deal with. Adolescence is characterized by important phases of physical, psychological and social development, and adolescents, being at a vulnerable stage, are exposed to risks. Thus, this study aimed to evaluate the overall quality of life perceived by adolescents as well as related dimensions such as health, feelings, humor, self-perception, free time, family / environment, economic issues, friends, school environment, provocation / bullying. This is a quantitative, descriptive and exploratory profile study in which 567 adolescents between the ages of 10 and 17, attending the second and third schooling cycles of a Grouping of Schools in the Central Region of Portugal participated in. A sociodemographic questionnaire and a QoL assessment scale were used in to collect the data from the adolescents (Kidscreen-Portuguese version, Gaspar et al., (2006). The results showed that the global QoL perceived by adolescents is very positive (M = 79.42) and is higher in boys (M = 80.18). The highest values are related to dimensions of bullying, economic issues, family and friends. The lowest values are related to self-perception and leisure management. The evidence found in this study shows that subjective health associated with the quality of life of these adolescents is positive and confirms the variability found in the different dimensions.

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**Keywords:** Subjective health, quality of life, adolescents, children.



## 1. Introduction

For the World Health Organization (WHO) adolescence corresponds to the lifetime of the individual between the ages of 10 and 19 (World Health Organization, 2002). It is a phase characterized by important stages of physical, psychological and social development, in which the adolescent is exposed to various risks, and great vulnerability. This process of maturation and development has consequences that can be reflected in adult life through imbalances that can condition the future of adolescents (Boots, 2016). Due to the characteristics of variability and diversity of the biological and psychosocial parameters that occur in this stage of life (maturation asynchrony), chronological age, although it is the most frequently used criterion, is often not the best descriptive criterion in clinical, anthropological, or population (Eisenstein, 2015). The 21st-century adolescent faces unprecedented challenges as they will be the first generation to grow in a world characterized by instant global communication, the first generation to compete fully in a global economy, and the first generation in which the majority will pass some time of their childhood, in kindergartens / colleges and living with only one parent (Martins et al., 2017).

These profound transformations, occurring in adolescence, are in fact an evolutionary leap unparalleled in human phylogeny, and the repercussions are only now beginning to become well known. It is also a stage in life where the adolescent strives for good results and many plan for a successful career in the future. This investment predisposes to a possibility of consequences that can be equated, but with special attention to important areas of the adolescent's life, such as the academic course (school life) and interpersonal relations, with a foreseeable impact on the development of his personality and his subjective health (Boots, 2016).

It is in this context that the valuation of quality of life (QoL) is assumed to be of paramount importance and must include a holistic approach to the adolescent. According to data from WHO's 2016 World Health Report, more than 90% of countries did not have mental health policies that included children and adolescents. Therefore, due to the growing concern for the health and well-being of this population, we have seen a growing interest in the context of QoL, both among academia and health professionals, as in everyday life, in advertising, outdoors and in conversations between friends (Górdia, 2012).

Adolescents have variable health needs, depending on the quality of interaction between the biological, psychological and social spheres, according to the stage of development. In addition, Rother & Rempel (2017) tells us that, despite all the resilience that children and adolescents are capable of, compromising their normal development carries greater risks of health problems, which may be irreversible, contrary to adults who are already constituted.

The QoL of adolescents is described as a construct that encompasses components of well-being and physical function, as well as emotional, mental, social and behavioural components and how they (the adolescents) are perceived by themselves and by others (Gaspar et al, 2006; Martins et al., 2015). Wallander (2011) defines QoL in children and adolescents as the combination of subjective and objective well-being in multiple domains of life considered salient in their own culture and in their historical time within the scope of universal standards of human rights. This definition also has the merit of being part of a perspective that is now dominant, with most professionals acknowledging that QoL is a multidimensional construct (although there are discrepancies in the identification of specific domains),

which incorporates objective and subjective components (santos, 2016). In assessing adolescent well-being, it is essential to take into account subjective experience rather than living conditions, since the relationship between objective conditions and the psychosocial state is imperfect and that, in order to know the experience of quality of life, direct recourse to the individual's own description of what he feels about his life is required (Feliciano & Afonso, 2012).

It has been observed that there are multiple factors that compromise the behavior of adolescents in their lifestyle, being positive for health promotion, as well as negative impairing and triggering situations which are not favorable to their QoL. Factors such as physical activity, family, school, friends, socio-economic status, self-perception and free time are decisive for evaluation as teenagers understand their QoL related to health (Gaspar et al., 2006). The same authors tell us that another relevant factor to be considered is the socioeconomic condition, since this factor triggers in adolescence a low perception regarding its quality of life related to health. There are studies that indicate that the lack of financial resources to do the same things as friends, or do not have enough money for the expenses, are conditions that generate stress and suffering, exposing them to situations of risk to health and well-being - physical, mental and social welfare affecting the stability and the good development of the relationships. Other fundamental factors are also free time and the school environment since these are factors that contribute to the integral development of personality, success and personal fulfillment.

## **2. Problem Statement**

Investigating the quality of life in children and adolescents is fundamental nowadays, as from the knowledge of their levels and influential factors, it is possible identify children and adolescents at risk, in terms of their subjective health, and implement appropriately contextualized and adapted intervention programs.

## **3. Research Questions**

- 3.1 What is the global quality of life perceived by children/adolescents?
- 3.2 What dimensions of quality of life have the greatest impact on total value of quality of life?

## **4. Purpose of the Study**

This study aims to evaluate the overall quality of life related to health in children and adolescents as well as the factors that integrate the scale of QoL Kidscreen.

## **5. Research Methods**

### **5.1. Research Design**

The research design used was quantitative, descriptive and exploratory, aimed at evaluating the subjective health associated with the global quality of life of adolescents, as well the dimensions of health, feelings, humor, self-perception, free time, family, economic issues, friends, school environment, and provocation/bullying.

## **5.2. Participants**

The study sample type was non-probabilistic by convenience, consisting of 567 adolescents, 49.4% males and 50.6% females with ages ranging from 10 to 17 years old with a mean of 12.40 years, and attending the 5th, 6th, 7th, 8th and 9th years of schooling (second and third cycles of studies) of a group of schools in the Central Region from Portugal.

## **5.3. Instruments and Data Collection Procedure**

The instruments used included a sociodemographic questionnaire to gather information on the independent variables) and an evaluation scale of quality of life related to the dependent variable in children and adolescents (Kidscreen - Portuguese version). It is a cross-cultural European instrument, that was adapted and validated for the Portuguese population by the Portuguese team of the project "Aventura Social" of the Faculdade de Motricidade Humana de Trás os Montes in collaboration with other Portuguese universities and research centers (Gaspar et al., 2006). This questionnaire comprises 52 items aimed at the perception of ten dimensions of health-related quality of life (HRQoL). The answers to the items are structured in a Likert-like scale from one to five points, which seeks to identify the frequency of behaviors / feelings or, in some cases, the intensity of specific attitudes, within a one-week recall period, prior to the application of the questionnaire. The final scores equivalent to each dimension are recoded in a measurement scale, with a variation between zero and 100, where the zero is the lowest and the 100 the highest perception of the HRQoL indicator of the dimension in question.

Ethical procedures were complied with, namely the application to the Ethics Committee of the Superior School of Health of Viseu (Opinion nº 20) and to the National Commission for Data Protection (Refº 03.01, Ofício 38790 de 18/12/2017) and a favorable opinion was delivered. Authorization was requested from the General Directorate of Education that granted the reply to the inquiry request Nº 0012100017. Authorization was also obtained from the Principal of the Group of Schools targeted for the study sample. The researchers personally went to the schools concerned and delivered the data collection instruments in envelopes, organized by class, to the head teacher of each school to deliver to each class director an individualized envelope containing the informed consent to be signed by each father/mother and the version of the parents' questionnaire. Another envelope contained the questionnaires for the children/adolescents. The questionnaires (parents/children) were numbered and paired to remain anonymous. After the questionnaires were filled by the parents, accompanied by the informed consent to authorize the completion of the children, each questionnaire was placed in a closed, unidentified envelope. The children returned the parents' questionnaires and the respective consents to the class director. After this step was accomplished, the completion of the questionnaires by the children/adolescents in the classroom was carried out, ensuring the anonymity of the children. Each class director handed the envelopes contained the completed children/adolescent questionnaires to the head of the institution who in turn returned them to the investigator. The data collection took place in January/February 2018.

## 6. Findings and Discussion

The data show that the age of the total sample varies between a minimum value of 10 and a maximum of 17 years, corresponding to an average age of 12.40 years, a standard deviation of 1.591 and a coefficient of variation of 12.83 %, which indicates a low dispersion around the mean. Gender analysis shows that the mean age for females (12.38) is slightly lower than for males (12.41), but with no significant statistical significance. In terms of schooling, we found that the group with the highest percentage representation (22.8%) is attending the 9th grade, followed by the 8th grade with 21.5%. In the third position, we find the adolescents who attend the 6th year (21.0%), the fourth the 7th year with 17.8% and finally the fifth year with 16.9%. The majority (95.9%) of the respondents lived with their parents and siblings (including living alone with the mother or only with their father), with small percentages (4.1%) with other relatives, grandparents and uncles.

The results concerning the QoL (total and dimensions) of our participants are shown in table 1. The values of total QoL can vary between 0 and 100 points, and the higher the value, the better the QoL of adolescents. In our study, the values of the global QOL ranged from a minimum value of 28 to a maximum of 100 points, corresponding to a mean of 79.42 and a standard deviation of 12.54. The analysis by dimensions shows that the highest values are in descending order in the dimensions of provocation / bullying (= 88.09, dp = 17.62), economic issues (= 83.75, dp = 21.85), family (= 83.70, dp = 15.97), friends (= 81.67, dp = 16.13), feelings (= 81.09, dp = 16.21), mood state (= 79.06, dp = 18.26), and health (= 76.49, dp = 16.46).

On the other hand, the dimensions with lower values (although positive) but which translate to lower QoL correspond to self-perception (= 61.28, dp = 13.95), leisure time (= 62.19, dp = 16.21) and school environment (= 71.28, dp = 18.29).

**Table 01.** Descriptive statistics of the dimensions and total of the Adolescent QOL

<i>Dimensions</i>	<i>Min</i>	<i>Máx</i>	<i>Avg</i>	<i>Dp</i>
<b>Health</b>	15	100	<b>76.49</b>	16.46
<b>Feelings</b>	16	100	<b>81.09</b>	16.21
<b>Humor</b>	10	100	<b>79.06</b>	18.26
<b>Self-perception</b>	00	80	<b>61.28</b>	13.95
<b>Free time</b>	00	80	<b>62.19</b>	16.21
<b>Family / environment</b>	16	100	<b>83.70</b>	15.97
<b>Economic issues</b>	00	100	<b>83.75</b>	21.85
<b>Friends</b>	12	100	<b>81.67</b>	16.13
<b>School environment</b>	12	100	<b>71.28</b>	18.29
<b>Provocation / Bulling</b>	00	100	<b>88.09</b>	17.62
<b>QoL TOTAL</b>	<b>28</b>	<b>100</b>	<b>79.42</b>	<b>12.54</b>

The study data show the sample of adolescents for this study are characterized by a relatively low mean age (= 12.40) and a slight predominance of female (50.6%) compared to males (49.4%). The age of the girls ( $\bar{x} = 12.38$ ) is slightly lower than the boys ( $\bar{x} = 12.41$ ), but this difference is not

significant. In terms of schooling, we observed that more than half of the sample (55.7%) attends the 5th, 6th and 7th years of schooling, as expected, considering the mean ages presented, this data being in line with that of the General Directorate of Education (2015) for the same cycles.

We also observed that the vast majority (95.9%) of the adolescents live with their parents and siblings (including living with only the mother or the father) while only a small number (4.1%) live with other family- grandparents and uncles. It should be noted that according to the data published by the National Institute of Statistics (INE) in 2016 about 60 couples divorce per day in Portugal, and Hack & Ramires' (2015) survey point to the relevance of the study of parental divorce and implications for child development. The authors say that the separation of parents often causes discontinuities and breaks in the family holding, generating feelings of loss and helplessness that can seriously compromise the QoL of the adolescent children involved.

The results for overall QOL are very positive ( $\bar{x} = 79.42$ ) as the scale ranges from zero (poor QOL) to 100 (excellent QOL). These results concur with those of Martins et al. (2015) and Górdia et al. (2012), who report that the adolescents in the first cycles of study perceived a higher QOL than those that integrate more advanced study cycles.

Considering the dimensions that make up the scale used to assess QOL, we could verify that (in descending order) the seven most positive ones were: provocation / bullying ( $\bar{x} = 88.09$ ); economic issues ( $\bar{x} = 83.75$ ); family = 83.70); the friends ( $\bar{x} = 81.67$ ); the feelings ( $\bar{x} = 81.09$ ); the mood state ( $\bar{x} = 79.06$ ,  $dp = 18.26$ ) and health ( $\bar{x} = 76.49$ ,  $dp = 16.46$ ). In fact, we could see that these adolescents do not feel provoked and, on the contrary, they perceived good acceptance by the peers, similar to Martins' et al. (2015) study. In economic matters, they feel that their family has purchasing power, which allows them to adopt lifestyles similar to that of their friends and to carry out activities together with their group (Gaspar et al., 2006).

The family subscale evaluates the relationship of adolescents with parents and the environment at home, exploring the quality of interactions between them. We found that the adolescents in our study feel safe, loved and supported by the family, which is fundamental to their development. As Santos (2016) tells us, man constructs his knowledge through relationships and interaction with the socio-cultural environment in which he is inserted. Parents exercise their role as educators, mainly equipped with a continuous interest in caring for their children, seeking to understand and respect their individuality without, however, failing to guide them.

Another dimension, valued by our participants in their QOL are the friends feeling supported and accepted by them, and able to strengthen and make new friendships. The insertion in the groups of friends, as mentioned by Faria & Azevedo (2014), expands adolescents' social universe, because it favors experiences in the face of new ways of seeing the world, from social and affective interactions different from those established with family.

In parallel, they reveal feelings of psychological well-being expressed in positive emotions, happiness, joy and satisfaction with life up to the present moment. These data corroborate those of Bowker (2016) which affirms that young people with more personal and social skills seem to register higher levels of psychological well-being than young people who do not. The data related to the mood

profile ( $\bar{x} = 79.06$ ), is also satisfactory which shows that these adolescents do not experience depressive and stressful feelings and emotions, which again is parallel with data on health / physical activity ( $\bar{x} = 76.49$ ) as it portrays good physical, active and healthy life. These data corroborate the available literature that shows that active adolescents, when compared to sedentary or individuals with a lower level of physical activity, report a better state of humor (Hassmén et al., 2000), with a positive association between health / regular practice of physical exercise and psychological well-being.

Conversely, the subscales with lower values (translating to lower QoL) although with positive values (> 50%) were the Self-perception ( $\bar{x} = 61.28$ ); leisure time ( $\bar{x} = 62.19$ ) and school environment ( $\bar{x} = 71.28$ ). Self-perception ( $\bar{x} = 61.28$ ) is in fact the QOL dimension of these worst classified adolescents which translates to feelings of discomfort with their appearance and low self-esteem. The studies by Faria & Azevedo, (2014) and Bowker, (2016), indicate lower self-esteem in adolescence than in other stages of the life cycle. They explain that this decrease can be related to the marked transformations typical of the adolescence potentially inducing stress. Similarly, leisure time is also associated with lower values ( $\bar{x} = 62.19$ ), which means that adolescents have fewer opportunities to create and manage their social and leisure time. These results reinforce those of Martins et al., (2015) who report that low values in free time translate to feelings of restriction, oppression and dependence in adolescents; important factors for the definition of their identity.

The school/learning explores the adolescent's perception of his / her cognitive ability to learn, school performance and relationship with teachers. The results related to this subscale reveal less positive feelings ( $\bar{x} = 71.28$ ) when compared with other dimensions, which highlights the findings by Gomes & Casagrande (2012) when affirming that the school has been situated within a range of social, political, economic, ethical, religious, cultural, and many other factors that make it slow and unattractive to keep pace with the changes of postmodern society toward adolescents.

## 7. Conclusion

The evaluation of QoL in adolescents seems to us to be of the utmost importance and should be understood, as we could see from the results, from an ecological, developmental and transcultural perspective.

The continuity of interventions should focus on the change of lifestyles, namely, in the management of leisure time, in the cognitive and emotional processes associated with physical aspects, psychological and social behaviors (self-esteem, self-perception and relationship with the school and teachers) as being more vulnerable.

The importance of family, friends and peer acceptance, highlighted in this study, as factors that facilitate emotional growth, health promoters and QoL, should also be highlighted.

The continued pursuit of the balance between the desired and the possible is what should move and develop the ability to overcome situations and maintain the QoL. It has been established that factors such as provocation/bullying, economic issues, family, friends, feelings, mood, health, self-perception, leisure and school environment, among others, can positively or negatively influence the well-being and

QoL of adolescents. Hence, these factors should be focused on in any intervention programmes developed to deal with adolescent QoL.

The work of professionals of all categories, but especially in the health area, and in an interdisciplinary way, with respect to the model of attention to the adolescent focused on the optimization of their quality of life is of crucial importance to ensure that adolescents, an important population, develop in a proper and positive manner so that they can grow to become productive adults.

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