



Jornal de  
Pediatria

www.jpmed.com.br



## ORIGINAL ARTICLE

# The association between healthy lifestyle behaviors and health-related quality of life among Spanish adolescents<sup>☆</sup>

Q1 José J. Muros<sup>a,\*</sup>, Federico Salvador Pérez<sup>b</sup>, Félix Zurita Ortega<sup>c</sup>,  
Vanesa M. Gámez Sánchez<sup>b</sup>, Emily Knox<sup>d</sup>

<sup>a</sup> Universidad de Granada (UGR), Facultad de Farmacia, Departamento de Ciencia de los Alimentos, Granada, Spain

<sup>b</sup> Universidad de Granada (UGR), Facultad de Educación, Departamento de Plan de Estudios y Organización Escolar, Granada, Spain

<sup>c</sup> Universidad de Granada (UGR), Facultad de Ciencias de la Educación, la expresión artística y la expresión corporal, Departamento de Enseñanza Musical, Granada, Spain

<sup>d</sup> Loughborough University, National Centre for Sport and Exercise Medicine, School of Sport, Exercise and Health Sciences, Leicestershire, United Kingdom

Received 18 July 2016; accepted 13 October 2016

### KEYWORDS

Quality of life;  
Physical activity;  
Mediterranean diet;  
Body mass index

### Abstract

**Objective:** The aim of this research was to examine the association between body mass index, physical activity, adherence to the Mediterranean diet, and health-related quality of life in a sample of Spanish adolescents.

**Method:** The study involved 456 adolescents aged between 11 and 14 years. They completed questionnaires on the Mediterranean diet (KIDMED), physical activity (Physical Activity Questionnaire for Older Children [PAQ-C]), and quality of life (KIDSCREEN-27). Body mass index was calculated. Hierarchical linear regression analyses were used to determine whether health-related quality of life could be predicted by the measured variables. The variables were analyzed in a stepwise manner, with Mediterranean diet entered in the first step, body mass index in the second, and physical activity in the third.

**Results:** Mediterranean diet accounted for 4.6% of the variance in adolescent's health-related quality of life, with higher adherence to the Mediterranean diet predicting higher health-related quality of life-scores. Body mass index accounted for a further 4.1% of the variance, with a higher body mass index predicting lower health-related quality of life scores. Finally, physical activity explained an additional 11.3% of the variance, with a higher level of physical activity being associated with higher health-related quality of life scores. Together, these variables explained 20% of the variance in the adolescents' health-related quality of life.

<sup>☆</sup> Please cite this article as: Muros JJ, Pérez FS, Ortega FZ, Sánchez VM, Knox E. The association between healthy lifestyle behaviors and health-related quality of life among Spanish adolescents. J Pediatr (Rio J). 2017. <http://dx.doi.org/10.1016/j.jpmed.2016.10.005>

\* Corresponding author.

E-mail: [jjmuros@ugr.es](mailto:jjmuros@ugr.es) (J.J. Muros).

<http://dx.doi.org/10.1016/j.jpmed.2016.10.005>

0021-7557/© 2017 Sociedade Brasileira de Pediatria. Published by Elsevier Editora Ltda. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

32  
33  
34  
35  
36  
37  
3839  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65**PALAVRAS-CHAVE**Qualidade de vida;  
Atividade física;  
Dieta mediterrânea;  
Índice de massa  
corporal

*Conclusions:* Physical activity, body mass index, and adherence to the Mediterranean diet are important components to consider when targeting improvements in the health-related quality of life of adolescents, with physical activity representing the component with the greatest influence.

© 2017 Sociedade Brasileira de Pediatria. Published by Elsevier Editora Ltda. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

## Associação entre comportamentos de estilo de vida saudável e a qualidade de vida relacionada à saúde entre adolescentes espanhóis

### Resumo

*Objetivo:* O objetivo desta pesquisa foi examinar a associação entre o índice de massa corporal, a atividade física, a adesão à dieta mediterrânea e a qualidade de vida relacionada à saúde em uma mostra de adolescentes espanhóis.

*Método:* O estudo envolveu 456 adolescentes com idades entre 11 e anos. Eles preencheram questionários sobre a dieta mediterrânea (KIDMED), atividade física (Questionário de Atividade Física para Crianças mais velhas, PAQ-C) e qualidade de vida (KIDSCREEN-27). Foi calculado o índice de massa corporal. Análises de regressão linear hierárquica foram utilizadas para determinar se a qualidade de vida relacionada à saúde pode ser prevista pelas variáveis medidas. As variáveis foram introduzidas de forma gradual com a dieta mediterrânea na primeira etapa, índice de massa corporal na segunda etapa e atividade física na terceira.

*Resultados:* A dieta mediterrânea representou 4,6% da variância na qualidade de vida relacionada à saúde dos adolescentes, e uma maior adesão à dieta mediterrânea foi preditiva de maiores escores de qualidade de vida relacionada à saúde. O índice de massa corporal representou um adicional de 4,1% de variância, e um maior índice de massa corporal foi preditivo de menores escores de qualidade de vida relacionada à saúde. Por fim, a atividade física representou um adicional de 11,3% da variância, e um maior nível de atividade física foi associado a maiores escores de qualidade de vida relacionada à saúde. Juntas, essas variáveis representam 20% da variância na qualidade de vida relacionada à saúde dos adolescentes.

*Conclusões:* A atividade física, o índice de massa corporal e a adesão à dieta mediterrânea são importantes componentes para considerar ao visar melhorias na qualidade de vida relacionada à saúde dos adolescentes, sendo a atividade física o componente com maior influência.

© 2017 Sociedade Brasileira de Pediatria. Publicado por Elsevier Editora Ltda. Este é um artigo Open Access sob uma licença CC BY-NC-ND (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

## Introduction

During adolescence, cognitive, physical, psychological, and emotional changes take place that can affect health and well-being.<sup>1</sup> Health-related quality of life (HRQoL) is a multi-dimensional construct that describes well-being in physical, psychological, and social terms.<sup>2</sup>

The World Health Organization estimates that 35 million children in developing countries are overweight or obese.<sup>3</sup> Compared to healthy weight children and adolescents, those who are obese are more likely to develop several chronic diseases, such as an unhealthy lipid profile, insulin resistance, and metabolic syndrome.<sup>4</sup> Also, evidence suggests that adolescents with excess weight report poor overall HRQoL relative to healthy weight adolescents.<sup>5</sup>

Levels of physical activity (PA) have been shown to decline during adolescence, making this an important life-stage during which to focus research.<sup>6</sup> Some of the benefits of PA include reductions in blood cholesterol, hypertension, metabolic syndrome, obesity, and reduced risk of premature death in adolescents. Participation in PA can also be

important for ensuring good mental health.<sup>7</sup> More intense and frequent PA is associated with lower depression, tension, and fatigue in children and adolescents.<sup>8</sup> Although few studies have investigated the relationship between PA and HRQoL in adolescents, some evidence exists relating high PA with high HRQoL.<sup>9</sup>

Establishing healthy nutritional behaviors is also important during adolescence, since the healthy nutrition practices established in this period often persist into adulthood.<sup>10</sup> Following a Mediterranean diet (MD), characterized by high consumption of olive oil, fruits, vegetables, whole grains, moderate to high consumption of fish, moderate consumption of milk and dairy products, and low consumption of meat and meat products has been related with weight loss, reduced abdominal obesity and insulin resistance, and lower risk of diabetes mellitus and cardiovascular diseases. Only a few studies have investigated the association between MD and HRQoL in adults<sup>11</sup> or adolescents,<sup>12</sup> finding MD to be positively associated.

To gain a better understanding of HRQoL during adolescence, it is important to explore factors that predict it. The

66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82  
83  
84  
8586  
87  
88  
89  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100  
101  
102  
103  
104  
105  
106

Download English Version:

<https://daneshyari.com/en/article/8809795>

Download Persian Version:

<https://daneshyari.com/article/8809795>

[Daneshyari.com](https://daneshyari.com)