

for mental health promotion among youth, with physicians actively involved as educators and supervisors.

Methods: There were 7 workshops conducted in 17 classes, with 390 high school students participating. Every workshop was evaluated with Evaluation form, questioning students' opinion on usefulness, satisfaction, content etc. High school students were also given Self-Consciousness Scale (Fenigstein, Scheier, Buss, 1975) and Private Self-Consciousness Scale (Huić, 2009) before and after the project to objectively evaluate benefits on their self-consciousness.

Results: Preliminary results showed a statistically relevant change in all aspects of the Self-Consciousness Scale in the post, compared to prequestionnaires. The biggest improvement is seen in the private self-consciousness part ($t = -3,474$; $p < .01$), but there were also improvements in the parts evaluating emotions ($t = -3,320$; $p < .01$), cognition ($t = -2,336$; $p < .05$), and body image ($t = -2,580$; $p < .01$). Students reported subjective improvement of their mental health and high satisfaction with project.

Conclusion: Peer education should be considered as a powerful framework for active involvement in improvement of youth mental health care, in collaboration with mental health services and efforts from teachers and parents.

Keywords: peer education, mental health promotion, mental health care, youth

KRETANJE POTROŠNJE LIJEKOVA KOJI DJELUJU NA KARDIOVASKULARNI SUSTAV I LIJEKOVA ZA LIJEČENJE ZLOĆUDNIH BOLESTI I IMUNOMODULATORA ZA RAZDOBLJE OD 2004. DO 2017. GODINE U REPUBLICI HRVATSKOJ

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Sažetak

Uvod: Vodeći uzroci smrti u Republici Hrvatskoj su zloćudne bolesti te bolesti kardiovaskularnog sustava. Cilj ovog rada bio je analizirati kretanje potrošnje lijekova iz skupine koji djeluju na kardiovaskularni sustav (skupina C) te skupinu lijekova za liječenje zloćudnih bolesti i imunomodulatori (skupina L) u posljednjih 14 godina.

Metode: Analiza kretanja potrošnje lijekova prema anatomsko-kemijsko-terapijskoj (ATK) klasifikaciji za lijekove koji djeluju na kardiovaskularni sustav i lijekove za liječenje zloćudnih bolesti i imunomodulatore izraženo financijski te DDD/1000/dan u razdoblju od 2004. do 2017. godine u Republici Hrvatskoj. Korišteni su podatci iz izvješća o potrošnji lijekova u Republici Hrvatskoj dostupni na stranici Hrvatske agencije za lijekove i medicinske proizvode (HALMED).

Rezultati: Prema dostupnim podacima o ukupnoj potrošnji lijekova u Republici Hrvatskoj od 2004. do 2017. godine, zamjećuje se porast ukupne potrošnje lijekova prema financijskim pokazateljima s 3.824.758.092,00 HRK 2004. godine na 6.131.627.475,00 HRK 2017. godine te porast s 658,14 DDD/1000/dan 2004. godine na 1.061,11 DDD/1000/dan 2017. godine.

Analizirajući ukupnu potrošnju lijekova prema financijskim pokazateljima za svaku od pojedinih ATK kategorija evidentan je porast troškova svih skupina lijekova izuzev troškova za lijekove koji djeluju na kardiovaskularni sustav (skupina C) čiji su troškovi u 2004. godini iznosili 856.458.507,00 HRK, a u 2017. godini 785.013.401,00 HRK. Istovremeno je za istu skupinu lijekova u navedenom razdoblju porasla potrošnja prema DDD/1000/dan s 251.95 DDD/1000/dan 2004. godine na 386.38 DDD/1000/dan 2017. godine. Relativni udio troškova za lijekove iz skupine C pao je s ¼ ukupne potrošnje svih lijekova (2004. godine 22%, 2005. godine 26%, 2006. godine 26%) na 13% 2017. godine.

Najveći porast ukupne potrošnje lijekova prema financijskim pokazateljima pokazuje skupina za liječenje zloćudnih bolesti i imunomodulatori (skupina L) čiji su troškovi u 2004. godini iznosili 185.263.054,00 HRK, a u 2017. godini 1.321.313.353,00 HRK. Porast ukupne potrošnje lijekova iz skupine L prati i porast potrošnje lijekova prema DDD/1000/dan s 2.30 DDD/1000/dan 2004. godine na 8.38 DDD/1000/dan 2017. godine. Relativni udio troškova za lijekove iz skupine L porastao je s 5% ukupne potrošnje svih lijekova 2004. godine na čak 22% u 2017. godini, što čini najveći porast relativnih troškova svih lijekova. Od prvih deset lijekova prema bolničkoj

financijskoj potrošnji u 2017. godini čak osam lijekova čine lijekovi iz skupine L koji, također, zauzimaju prva četiri mjesta (trastuzumab, rituksimab, adalimumab i bevacizumab).

Zaključak: Analiza dostupnih podataka o potrošnji lijekova tijekom posljednjih 14 godina u Republici Hrvatskoj za lijekove iz skupine C prema ATK klasifikaciji pokazala je kako je došlo do smanjenja troškova za navedenu skupinu lijekova unatoč povećanju definiranih dnevnih doza na 1000 stanovnika za 134.43 DDD/1000/dan čemu uzrok može biti pad cijena lijekova navedene skupine. U istom razdoblju došlo je do značajnog povećanja troškova za lijekove iz skupine L kao i ukupno povećanje definiranih dnevnih doza za navedenu skupinu.

Ključne riječi: kardiovaskularni lijekovi, lijekovi za zloćudne bolesti, financijska potrošnja

TRENDS IN THE RATES OF CONSUMPTION OF DRUGS FOR CARDIOVASCULAR SYSTEM AND ANTINEOPLASTIC AND IMMUNOMODULATING AGENTS FROM 2004 – 2017 IN THE REPUBLIC OF CROATIA

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Abstract

Introduction: In the Republic of Croatia, cardiovascular diseases and malignant neoplasms are the two leading causes of death. The main purpose of this study was to analyse trends in the rates of consumption of drugs for cardiovascular system (group C) and antineoplastic and immunomodulating agents (group L) over the past 14 years.

Methods: Analysis of drug consumption based on anatomical therapeutic chemical (ATC) classification system for the group of drugs for cardiovascular system and the group of antineoplastic and immunomodulating agents in Croatia for the period 2004 -2017 was presented in Croatian kuna (HRK) and in defined daily doses/1000 inhabitants/day.

For this study, we used data from the reports on drug consumption published at the website of The agency for medicinal products and medical devices of Croatia (HALMED).

Results: According to the available data on drug consumption in Croatia from 2004 – 2017, there was increase in total drug consumption from 3.824.758.092,00 HRK in 2004 up to 6.131.627.475,00 HRK in 2017 and increase of drug usage from 658,14 DDD/1000/day in 2004 up to 1.061,11 DDD/1000/day in 2017. Analyzing the total drug consumption by financial indicators for each of the individual ATC group, there is an evident increase in the costs of all drug groups, except in the costs of drugs for cardiovascular system (group C), whose costs were 856.458.507,00 HRK in 2004, and 785.013.401,00 HRK in 2017.

At the same time, the consumption for the same group of drugs by DDD/1000/day increased from 251.95 DDD/1000/day in 2004 up to 386.38 DDD/1000/day in 2017. The relative share of costs for Group C fell from ¼ of total drug costs (22% in 2004, 26% in 2005, 26% in 2006) to 13% in 2017. The greatest increase in total drug consumption according to financial indicators occurred in the group of antineoplastic and immunomodulating agents (group L), whose costs were 185.263.054,00 HRK in 2004 and 1.321.313.353,00 HRK in 2017.

The increase in total drug costs for the Group L is followed by an increase in drug consumption presented in DDD/1000/day from 2.30 DDD/1000/day in 2004 to 8.38 DDD/1000/day in 2017.

The relative share of costs for Group L has increased from 5% of total drug costs in 2004 to as much as 22% in 2017, what makes the greatest increase in relative costs of all drug groups.

Among the top ten drugs with highest total financial consumption in hospitals in 2017, even eight drugs belong to group L of drugs, furthermore, they also take the first four places (trastuzumab, rituximab, adalimumab, and bevacizumab).

Conclusion: Analysis of the available data on drug consumption based on anatomical therapeutic chemical classification system in the Republic of Croatia over the past 14 years, revealed the reduction in the costs of the group C, despite an increase in defined daily doses per 1000 inhabitants for 134.43 DDD/1000/day, what may be caused by drops in prices of the group C. At the same time, there was a significant increase in the costs of the group L drugs, as well as in defined daily doses for the same group.

Keywords: cardiovascular drugs, antineoplastic drugs, health expenditures