

NAZIV DISERTACIJE: UTICAJ ERGONOMSKOG INTERVENTNOG PROGRAMA NA MIŠIĆNO-KOŠTANE POREMEĆAJE UZROKOVANE RADOM KOD ZDRAVSTVENIH PROFESIONALACA**Autor:** Dženan Pleho**Mentor:** Prof. dr. Amra Mačak Hadžiomerović**Datum odbrane:** 10.07.2023.**DOI:** <https://doi.org/10.17532/DD.2023.07>**APSTRAKT**

Uvod: Mišićno-koštani poremećaji uzrokovani radom (engl. Work-Related Musculoskeletal Disorders - WRMSDs) najčešća su oboljenja povezana s radom, a opisuju širok dijapazon degenerativnih i upalnih stanja. WRMSDs pogađaju milione radnika na području cijele Evrope i svijeta, a sami poslodavci zbog njihovih posljedica troše milijarde eura. Zdravstvo kao poseban sektor ima jednu od najvećih prevalenci radom uzrokovanih mišićno-koštanih poremećaja (MKP) u svijetu daleko ispred građevinarstva, rudarstva i proizvodnje.

Hipoteze: Uslovi, način rada i radno okruženje predstavljaju rizik za razvoj mišićno-koštanih poremećaja povezanih s radom kod zdravstvenih profesionalaca. Ergonomski interventni program smanjuje učestalost mišićno-koštanih poremećaja uzrokovanih radom, i povećava radnu sposobnost zdravstvenih profesionalaca.

Ciljevi istraživanja: Utvrditi učestalost MKP povezanih s radom kod zdravstvenih profesionalaca, analizirati utjecaj ergonomske faktora rizika na javljanje MKP povezanih s radom, utvrditi nivo percipirane radne sposobnosti zdravstvenih profesionalaca na početku i na kraju istraživanja, utvrditi efekat ergonomske interventnog programa na učestalost javljanja MKP i radnu sposobnost zdravstvenih radnika, te predložiti model ergonomske-preventivno-promotivnog programa za unapređenje i očuvanje zdravlja na radnom mjestu u zdravstvenim ustanovama.

Ispitanici i metode: U istraživanje bilo je uključeno 177 zdravstvenih profesionalca oba spola koji su svojim radom aktivno uključeni u pružanje zdravstvenih usluga, kategorizirani prema životnoj dobi i vrsti radnih zadataka koje obavljaju u različitim položajima tijela u okviru svojih stručnih službi. Instrumenti koji su se koristili u istraživanju su standardizirani holandski upitnik za MKP (Dutch Musculoskeletal Discomfort Questionnaire - DMQ), standardizirani upitnik za procjenu indeksa radne sposobnosti (Work Ability Index - WAI) i ergonomski interventni program. Istraživanje je trajalo od januara 2021. do oktobra 2021. godine.

Rezultati: Najveća učestalost MKP povezanih s radom kod zdravstvenih profesionalaca prije i poslije provođenja ergonomske interventnog programa bila je u području vrata (83,1% prije, 64,9% poslije), u regiji gornjeg dijela leđa (71,8% prije, 56,5% poslije) te u regiji donjeg dijela leđa (68,4% prije, 55,9% poslije). Prosječna vrijednost indeksa radne sposobnosti prije uvođenja ergonomske interventnog programa iznosila je $35,44 \pm 8,59$, dok se poslije provedenog ergonomske interventnog programa statistički signifikantno povećala i iznosila je $38,40 \pm 7,30$.

Zaključak: Ergonomski interventni program je utjecao na smanjenje učestalosti MKP uzrokovanih radom, i povećanje radne sposobnosti zdravstvenih profesionalaca.

Ključne riječi: Ergonomski interventni program, mišićno-koštani poremećaji uzrokovani radom, zdravstveni radnici.

DISSERTATION TITLE:**Author:** Dženan Pleho**Mentor:** Prof. dr. Amra Mačak Hadžiomerović**Date of defence:** 10. July 2023.**DOI:** <https://doi.org/10.17532/DD.2023.07>**ABSTRACT**

Introduction: Work-Related Musculoskeletal Disorders - WRMSDs are the most common diseases related to work, and describe a wide range of degenerative and inflammatory conditions. WRMSDs affect millions of workers throughout Europe and the world, while employers spend billions of euros due to their consequences. Healthcare as a special sector has one of the highest prevalence of work-related musculoskeletal disorders (MSDs) in the world, far ahead of construction, mining and manufacturing.

Hypotheses: The work conditions, manners and environment pose a risk for the development of work-related musculoskeletal disorders in healthcare professionals. An ergonomic intervention program reduces the frequency of musculoskeletal disorders caused by work, and increases the working capacity of healthcare professionals.

Aims: To determine the frequency of work-related MSDs among healthcare professionals; To analyze the impact of ergonomic risk factors on the occurrence of work-related MSDs; To determine the level of perceived work ability of healthcare professionals at the beginning and at the end of the study; To determine the effect of the ergonomic intervention program on the frequency of MSDs occurrences and the work ability of healthcare professionals; and to propose a model of an ergonomic-preventive-promotional program for improving and preserving health at the workplace in healthcare institutions.

Material and methods: The study involved 177 healthcare professionals of both sexes who are actively involved in the provision of healthcare services through their work, categorized according to age and the type of work tasks they perform in different body postures within their professional services. The instruments used in the study are a standardized Dutch Musculoskeletal Discomfort Questionnaire (DMQ), a standardized Work Ability Index (WAI) and an ergonomic intervention program. The study was conducted in period January 2021 to October 2021.

Results: The highest frequency of work-related MKDs in healthcare professionals before and after implementation of the ergonomic intervention program was in the neck area (83.1% before, 64.9% after), in the upper back region (71.8% before, 56.5 % after) and in the lower back region (68.4% before, 55.9% after). The average score of the working ability index before the introduction of the ergonomic intervention program was 35.44 ± 8.59 , while after the implementation of the ergonomic intervention program it increased statistically significantly and amounted to 38.40 ± 7.30 .

Conclusion: The ergonomic intervention program influenced the reduction of the MKDs frequency caused by work, and increased the working capacity of healthcare professionals.

Keywords: Ergonomic intervention program, Work-related musculoskeletal disorders, healthcare professionals.