

## PROBLEMI SA RUKAMA, VRATOM I/ILI RAMENIMA KOD UNIVERZITETSKIH NASTAVNIKA I ZAPOSLENIH U JAVNOJ UPRAVI U SLOVENIJI

*Alenka Plemelj Mohorič<sup>1</sup>, Katarina Kacjan Žgajnar<sup>1</sup>*

<sup>1</sup> Universa v Ljubljani, Zdravstvena fakulteta, Ljubljana, Republika Slovenija

**Sažetak.** Rad sa računarom često je povezan sa sjedenjem i problemima u rukama, vratu i/ili ramenima, koji se najčešće javljaju kod kancelarijskih radnika. Tegobe ruku, vrata i/ili ramena su mišićno-koštani poremećaji koji nisu rezultat akutne ozljede ili sistemske bolesti. Svrha rada je utvrditi prevalenciju problema s rukama, vratom i/ili ramenima među zaposlenima u Sloveniji, koji uglavnom rade za računarom. Maastrichtski upitnik gornjih ekstremiteta korišten je za analizu tipičnih problema sa rukama, vratom i/ili ramenima u online alatu 1KA. Učesnici su bili univerzitetски nastavnici i službenici javne uprave koji rade sa računarama. Ispitujući prevalenciju problema sa rukama, vratom i/ili ramenima među univerzitetskim nastavnicima ( $N=152$ ) i zaposlenima u javnoj upravi ( $N=92$ ), prevalencija je niža kod kancelarijskih radnika nego kod univerzitetskih nastavnika. Najveća prevalencija među univerzitetskim nastavnicima je u vratu (57%), ramenima (49%) i zglobovima (31%), dok je među službenicima javne uprave prevalencija u vratu i ramenima 48%, a u zglobovima 31%. Prevalencija tegoba gornjeg dijela ruku, vrata i/ili ramena u slovenskim istraživanjima slična je rezultatima stranih studija i češća je na desnoj strani tijela. Dokazi o povezanosti između pojedinačnih faktora rizika i problema sa rukama, vratom i/ili ramenima nisu dovoljno jaki. Poremećaji mišićno-koštanog sistema povezani sa previše rada na kompjuteru predstavljaju javnozdravstveni problem. Uprkos propisima o radu sa ekranom, slovenačke kompanije pokazuju mnoga odstupanja u dizajnu radnog okruženja. Rezultati našeg istraživanja pokazuju na potrebu poduzimanja mjera za smanjenje problema povezanih s kompjuterom i očuvanje zdravlja. Longitudinalna studija bi bila potrebna kako bi se dalje istražili faktori rizika i prevalencija problema sa rukama, vratom i/ili ramenima.

**Ključne riječi:** rad sa računarom, tegobe ruku, vrat i/ili rame, faktori rizika, ergonomija

## **COMPLAINTS OF ARM, NECK AND/OR SHOULDER AMONG UNIVERSITY TEACHERS AND PUBLIC ADMINISTRATION EMPLOYEES IN SLOVENIA**

***Alenka Plemelj Mohorič<sup>1</sup>, Katarina Kacjan Žgajnar<sup>1</sup>***

<sup>1</sup>Faculty of Health Sciences, University of Ljubljana, Ljubljana,  
Republic of Slovenia

**Abstract.** Working at a computer is often associated with sedentariness and complaints of the arm, neck and/or shoulder, which occur most frequently in office workers. Complaints of the arm, neck and/or shoulder are musculoskeletal disorders that are not result of an acute injury or systemic disease. The aim of this paper is to determine prevalence of complaints of arm, neck and/or shoulder among Slovenian employees who work predominantly at a computer. The Maastricht Upper Extremity Questionnaire was used to analyse typical complaints of the arm, neck and/or shoulder in the online tool 1KA. The participants were university teachers and public sector employees who work with computers. Examining the prevalence of complaints of the arm, neck and/or shoulder disorders among university teachers (N=152) and public administration employees (N=92), the prevalence of complaints of the arm, neck and/or shoulder is lower in office workers than in university teachers. The highest prevalence among university teachers is in the neck (57%), shoulders (49%) and wrists (31%), while the prevalence among civil servants is 48% in the neck and shoulders and 31% in the wrists. The prevalence of the complaints of the arms, neck and/or shoulders upper in Slovenian studies is similar to results from foreign studies and is more common on the right side of the body. The evidence for an association between individual risk factors and the complaints of the arms, neck and/or shoulders is not strong enough. Musculoskeletal disorders related to working too much at a computer are a public health problem. Despite the regulations on working with a display screen, Slovenian companies show many deviations in the design of the working environment. The results of our research demonstrate the need for measures to reduce computer-related complaints and maintain health. A longitudinal study would be needed to further investigate the risk factors and prevalence of complaints of the arm, neck and/or shoulder.

**Key words:** working with a computer, complaints of the arm, neck and/or shoulder, risk factors, ergonomics