

LIVING WITH ORTHOPAEDIC IMPLANTS: RESULTS OF AN ONLINE CROSS-SECTIONAL STUDY IN HUNGARY

Áron Hölgyesi¹, Barbara Tóth², Miklós Kozlovsky³, József Kuti⁴, Miklós Weszli⁵, György Balázs⁶, Petra Baji^{7,8}, Levente Kovács⁹, László Gulácsi^{10,11}, Zsombor Zrubka^{10,11}, Márta Péntek^{1,10}

1 Doctoral School of Molecular Medicine, Semmelweis University, Budapest, Hungary

2 Doctoral School of Applied Informatics and Applied Mathematics, Óbuda University, Budapest, Hungary

3 BioTech Research Center, Óbuda University, Budapest, Hungary

4 Antal Bejczy Center for Intelligent Robotics, Óbuda University, Budapest, Hungary

5 Department of Translational Medicine, Semmelweis University, Budapest, Hungary

6 EMKI-CERT Ltd., Budapest, Hungary

7 Department of Health Economics, Corvinus University of Budapest, Budapest, Hungary

8 Musculoskeletal Research Unit, University of Bristol, Bristol, United Kingdom

9 Physiological Controls Research Center, University Research and Innovation Center, Óbuda University, Budapest, Hungary

10 Health Economics Research Center, University Research and Innovation Center, Óbuda University, Budapest, Hungary

11 Corvinus Institute of Advanced Studies, Corvinus University of Budapest, Budapest, Hungary

BACKGROUND AND OBJECTIVES

The number of patients living with musculoskeletal (MSK) diseases is high in the Hungarian population. However, there is still a lack of information regarding:

- the epidemiology of and patients knowledge about medical devices implanted due to MSK health problems,
- the impact of such medical devices on patients' everyday life.

The aim of this study was to examine:

- the prevalence and patients' knowledge of orthopaedic implants (hip-, knee- and spine implants) and fracture fixation devices,
- the impact of such implantable medical devices on patients' everyday lives.

METHODS

- Online cross-sectional study
- 40+ years old population sample, (N=1400)
- Prevalence of implantable medical devices was measured by self-reports

Domains of knowledge about IMD's examined on visual analogue scales (0-10 VAS) were as follows:

- General instructions for use
- Safety requirements
- Problems that need medical control

Statistics:

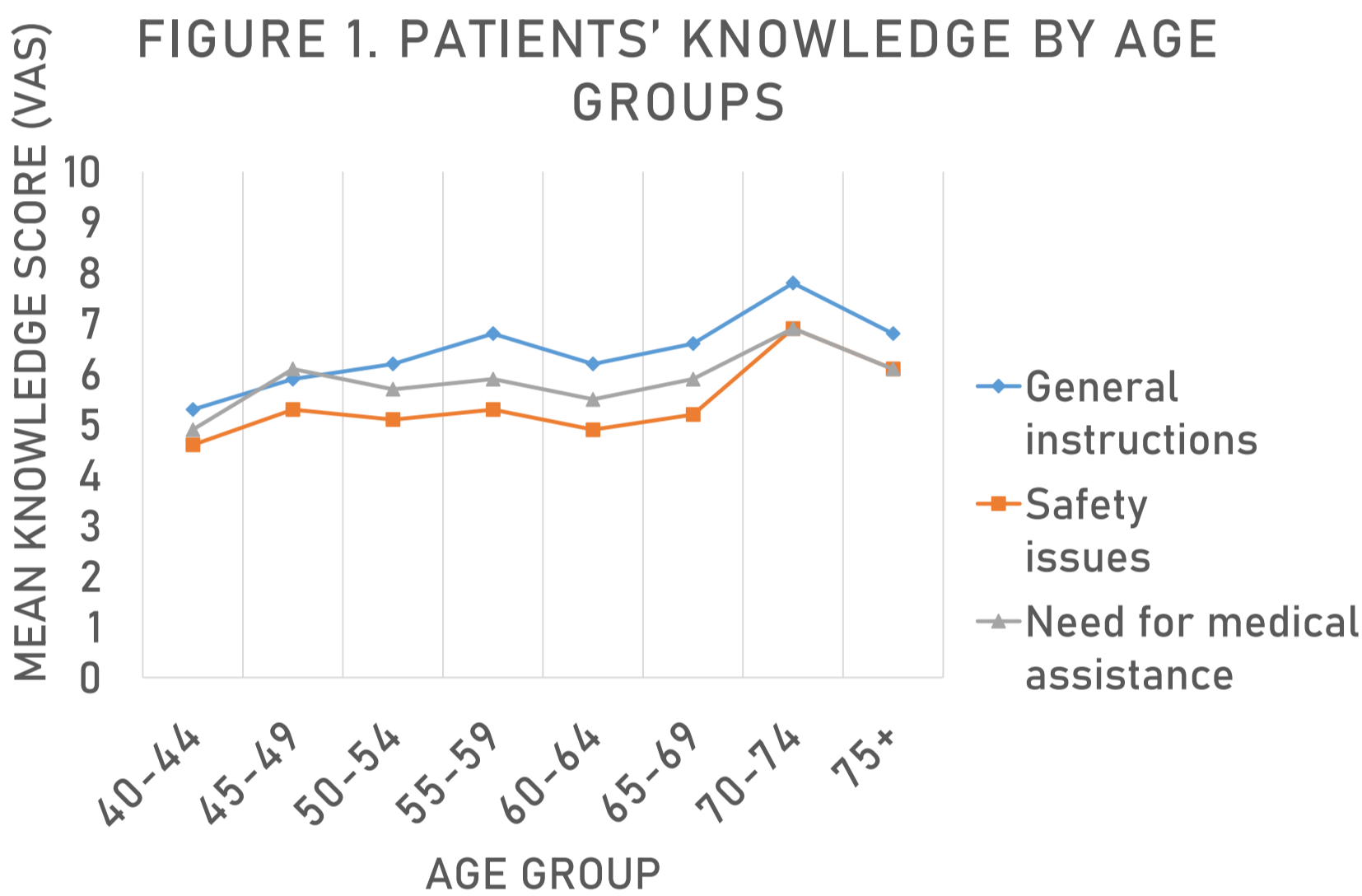
- Descriptive methods were used to examine sample characteristics
- between groups differences were assessed by parametric and non-parametric tests

CONCLUSIONS

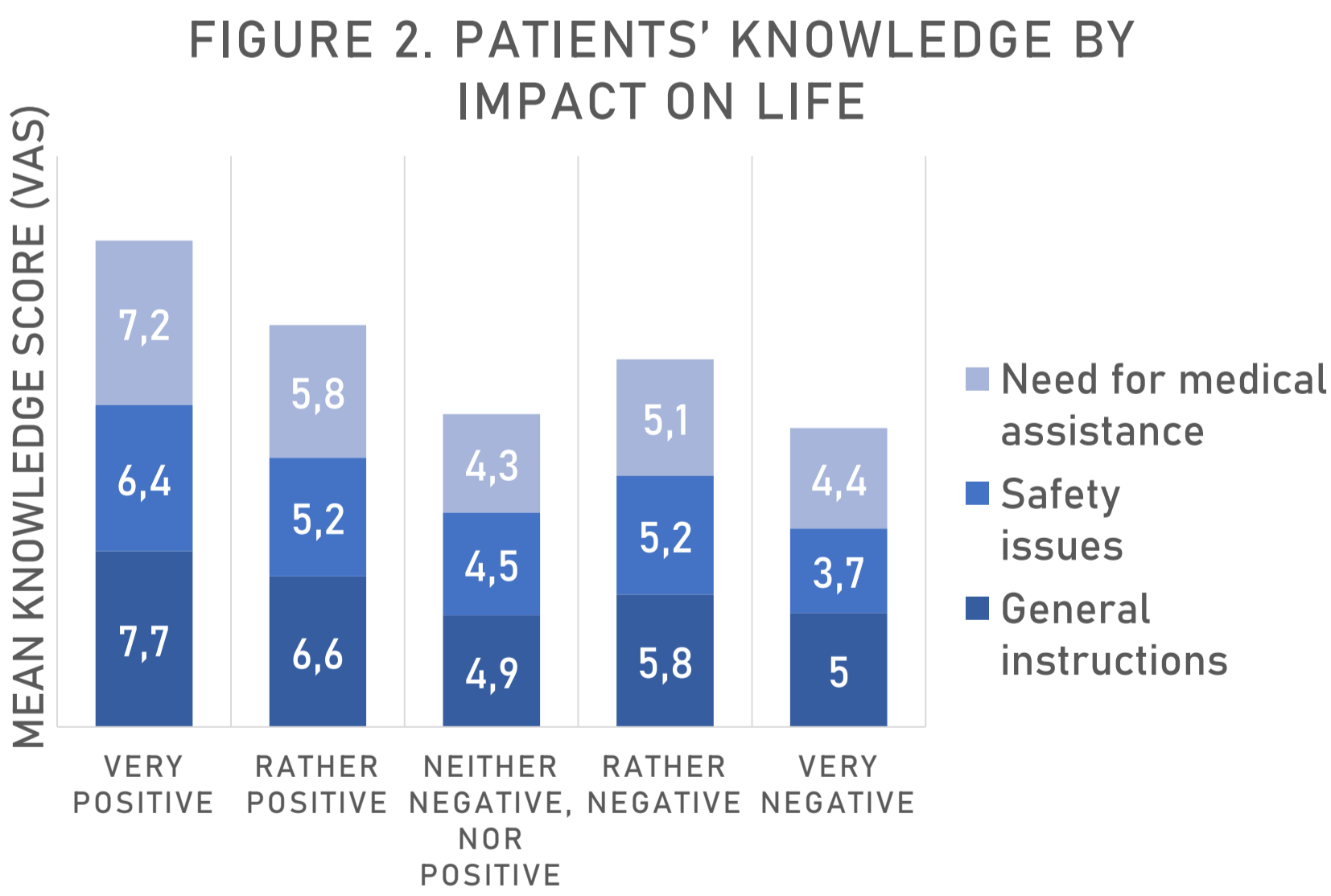
- The prevalence of orthopaedic implants and fracture fixation devices is considerably high in the Hungarian population.
- Patients with higher knowledge about their device experience better self-perceived outcomes.
- Our results draw attention to the importance of patient education.

RESULTS

- Altogether, 131 respondents (9.4%, mean age 62.3 ±11.1 years; 48.9% women) indicated that they were living with at least one orthopaedic implant or fracture fixation device at the time of the survey
- The distributions were as follows: 58.9% had bone fracture device, 24.4% hip-, 14.5% knee- and 13.7% spine implants.
- Patients' level of knowledge was fairly similar as measured on the 1)-3) VAS scales (6.0 SD=3.6, 5.7 SD=3.6 and 5.4 SD=3.5, respectively)
- Significant ($p<0.05$) differences were observed by age groups (Figure 1)



- Higher knowledge was associated with positive life impact of the device ($r=0.2622$; $p<0.01$)
- Patients knowledge numerically differed according to the impact of medical device on patients life (Figure 2)



- The most positive impact on life was reported for hip-, while the least positive for knee implant (Figure 3)

