

CITIZENS' PREFERENCES FOR ROBOT-ASSISTED HIP REPLACEMENT: RESULTS OF AN ONLINE CROSS-SECTIONAL STUDY IN HUNGARY

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BACKGROUND AND OBJECTIVES

The use of robotics has revolutionized surgical procedures, providing several benefits over traditional techniques, especially in the case of orthopedic interventions.

The aim of this study was:

- to examine patients' preferences by measuring their willingness to pay for robotic versus traditional hip replacement surgery.

METHODS

- Online cross-sectional study
- 40+ years old population sample, (N=1400)
- Preferences of respondents regarding the consultation about hip surgery were examined by using self-reports

Willingness to pay (WTP) measurement:

- Participants were put in a hypothetical decision-making situation in which they had to choose between robot-assisted and traditional hip replacement surgery
- Afterwards, they were asked how much they would be willing to pay to have the operation done by the chosen method if they would be offered the option contrary to their choice

Statistics:

- Descriptive methods were used to analyse sample characteristics
- Between group differences were compared with parametric and non-parametric tests

CONCLUSIONS

- In the Hungarian population, more individuals would choose robot-assisted surgery over the traditional procedure
- Safety and effects on life are the most important factors to be considered when it comes to decision-making about hip replacement surgery
- Our study provides substantial insight into societal acceptance of robotic surgery from patients' perspective

RESULTS

- In the total sample, traditional and robot-assisted surgery were chosen by 45.6% (N=638) and 54.4% (N=762) of participants, respectively (Table 1)

TABLE 1. SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE TOTAL SAMPLE AND THE SUBGROUPS

	Total sample	Physician	Robot
N (%)	1400 (100)	638 (45.6)	762 (54.4)
Women	53.7%	58.8%	49.5%
Age, mean (SD)	58.3 (11.1)	58.7 (0.4)	57.9 (0.5)
Tertiary education	32.6%	26.0%	38.2%
Living in the capital	22.5%	20.5%	24.1%

- Respondents' WTP did not differ significantly ($p=0.669$) between traditional and robotic surgery (177 vs. 169 EUR, respectively)
- However, significant differences ($p<0.05$) were found in WTP by age groups (Figure 1) and monthly net income per capita quintile groups (Figure 2)

FIGURE 1. WILLINGNESS TO PAY BY AGE GROUPS

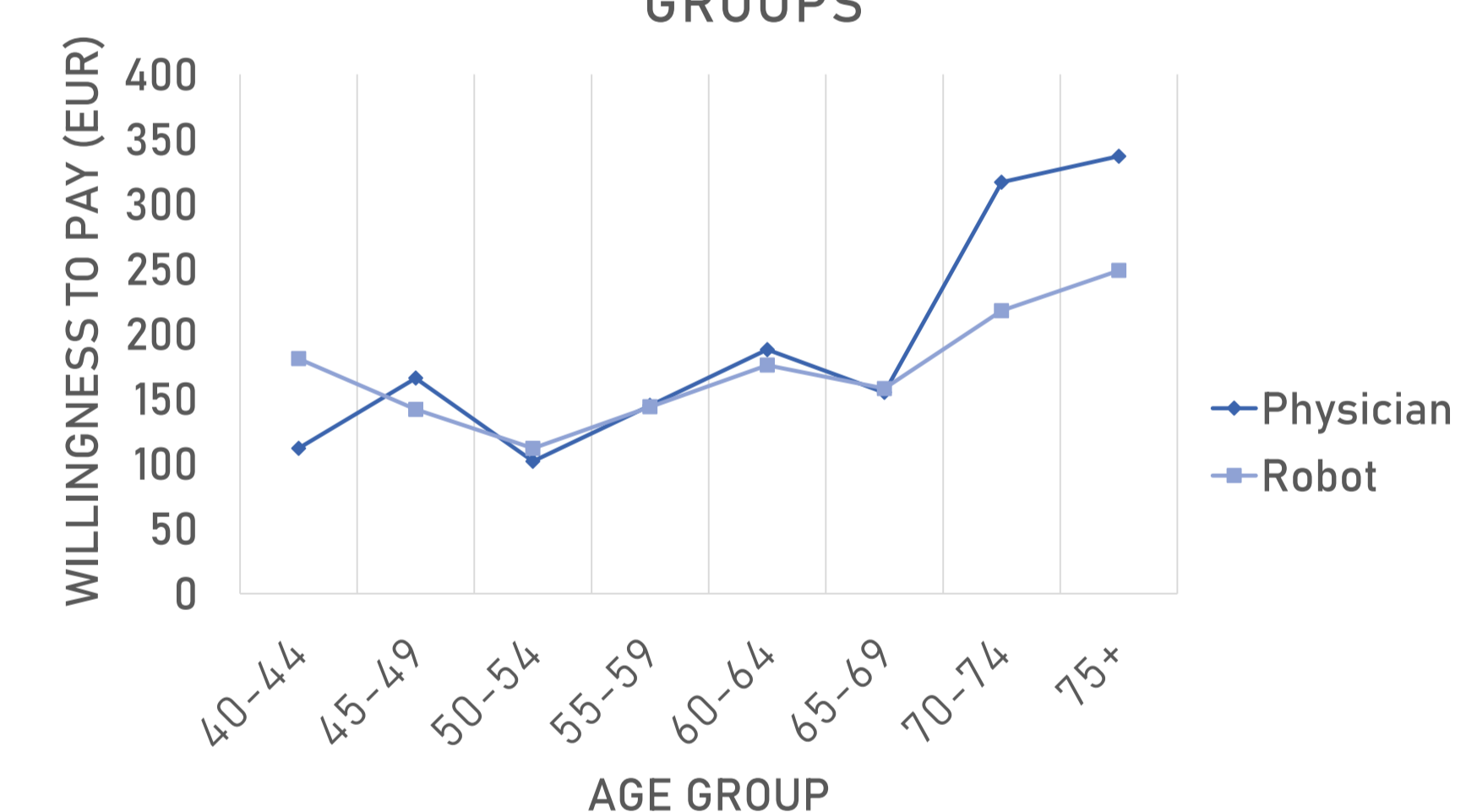
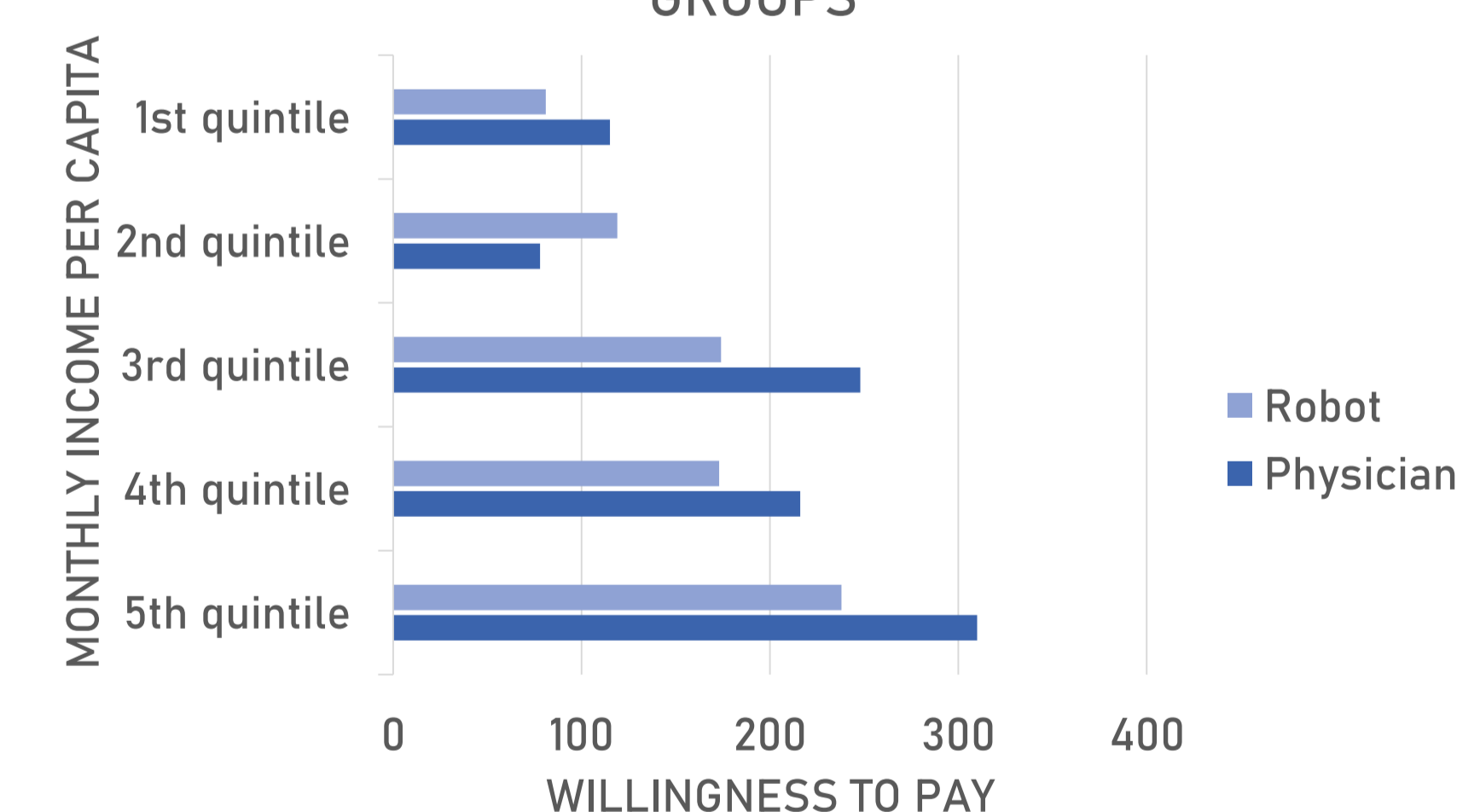


FIGURE 2. WILLINGNESS TO PAY BY INCOME GROUPS



- Procedure's safety and impact on life were rated the highest, while costs and appearance were found to be the least important aspects to be discussed during consultation (Figure 3)

FIGURE 3. RELATIVE IMPORTANCE OF ASPECTS TO BE DISCUSSED DURING CONSULTATION

