



Understanding Preferences of Surgeons for Surgeries Using Discrete Choice Experiment: Take Radical Prostatectomy as an Example

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Background

- Surgeons act as key decision makers in the selection of surgery to offer to the patient.
- The surgeons’ decision is affected by their preferences.
- Given the variety of available surgical methods, it is crucial to understand surgeons’ surgical preferences and how the clinical and non-clinical attributes of surgical methods influence their preferences.

Objectives

- Using a discrete choice experiment (DCE) framework, this study took radical prostatectomy (RP) for prostate cancer as an example to investigate surgeons’ preferences for surgical methods.

Results

- Data for 200 urologists who passed the consistency test were analyzed:
 - All physicians were from department of urology. More than half of the urologists were from Eastern China, which represented the economic advantage region in China.
 - The majority of urologists were between 31-50 years old and had been practicing medicine for no more than 20 years since completing their medical training.
- Surgeons’ choices indicated that when patients had ‘well-off’ economic status, surgery effectiveness impacted most on the surgeons’ preferences, followed by fatigue during the surgery, device availability, and incentives.
- Concerning patients with ‘less well-off’ economic status, surgeons considered surgery cost to be the most important factor, and surgery effectiveness to be the next important.
- There were no obvious differences in weighted importance between the remaining attributes.

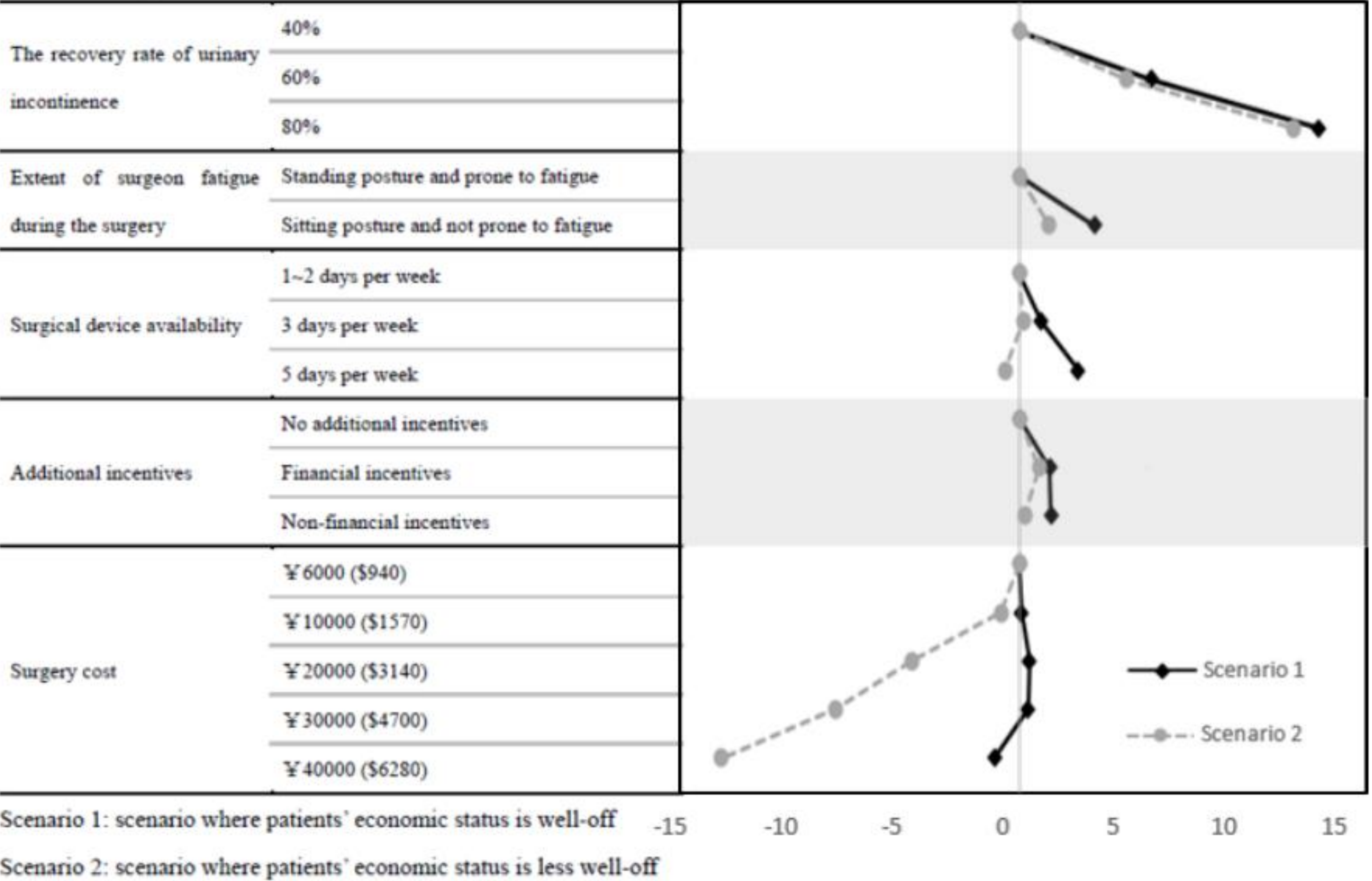
Conclusions

- Regardless of the patients’ economic status, surgeons placed great importance on surgery effectiveness. When the patient’s economic status was ‘less well-off’, surgeons paid extra attention to surgery cost.
- The above results reflect the altruism of surgeons as patients’ agents.
- Additionally, our study found that surgeons also considered the impact of the surgery on themselves, including fatigue during the surgery, and incentives, and device availability.

Methods

- 221 urologists performing RP at 90 hospitals in 26 provinces across China completed an online discrete choice experiment survey in which respondents chose between 10 choice pairs of hypothetical surgeries for several questions under separate scenarios of patients’ economic status being ‘well-off’ or ‘less well-off’.
- The questions described surgeries with 5 attributes: continence recovery rate at 3 months after surgery, surgery cost, extent of surgeon fatigue during the surgery, additional incentives for physicians, and surgical device availability.
- The response patterns were analyzed in STATA using random parameter logistic (RPL) regression model.

Figure 1. The relative importance of attributes in two scenarios.



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