



# Voice-related quality of life in laryngectomies and the next generation of vocal assistive technologies



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## INTRODUCTION

**Total laryngectomy** → loss of voice + altered swallowing + tracheostomy  
→ Psychological consequences: anxiety,

depression,  
hopelessness  
passivity

**Quality of Life (QoL)**

**Voice restoration**

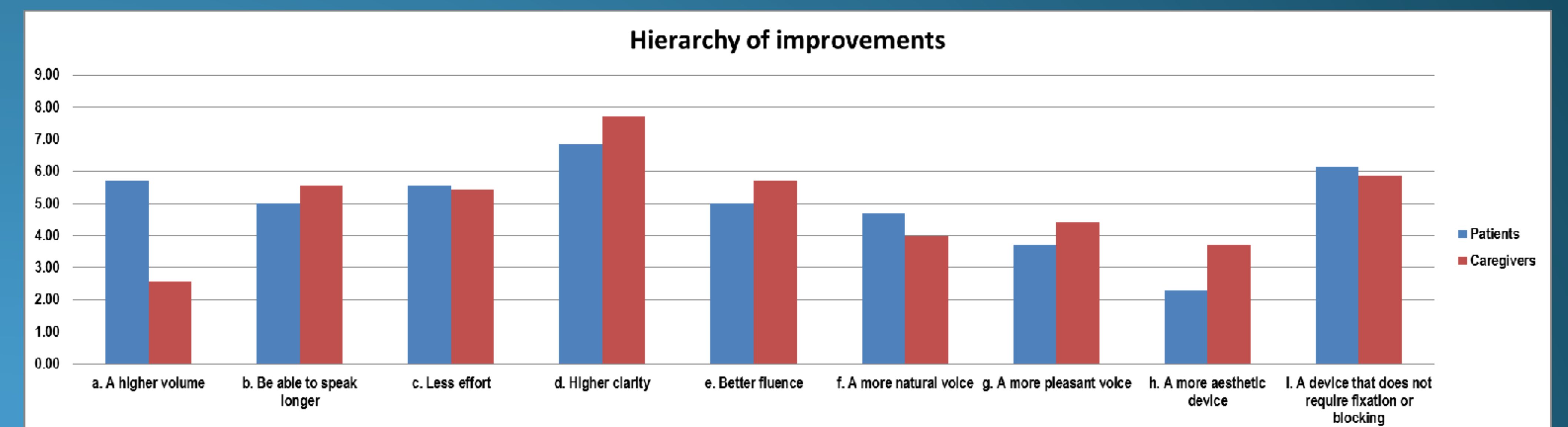
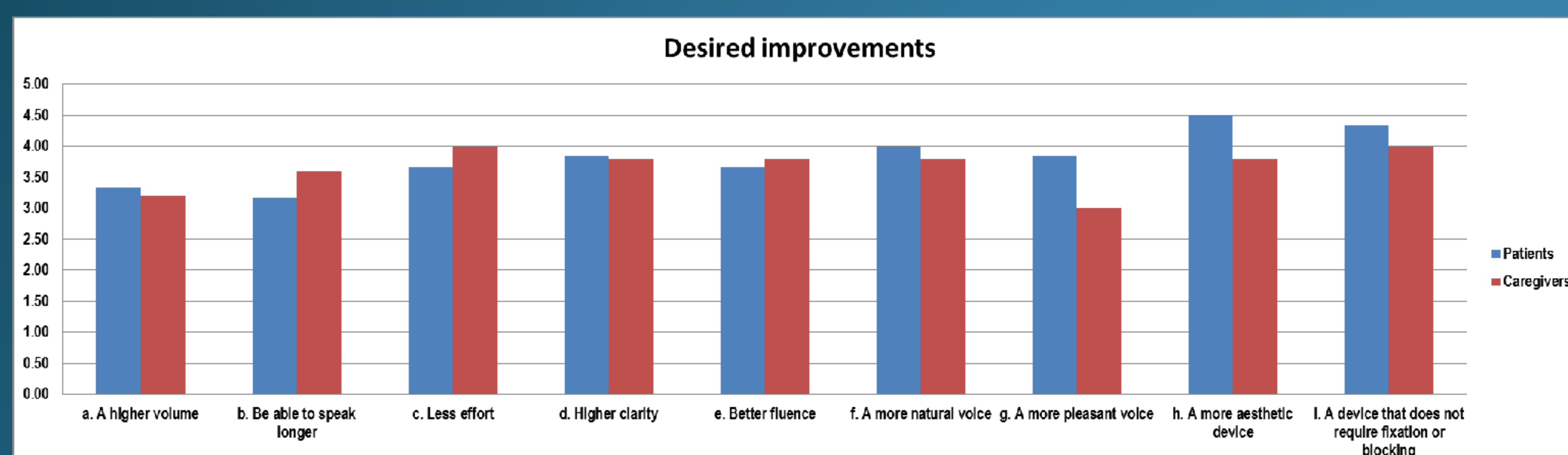
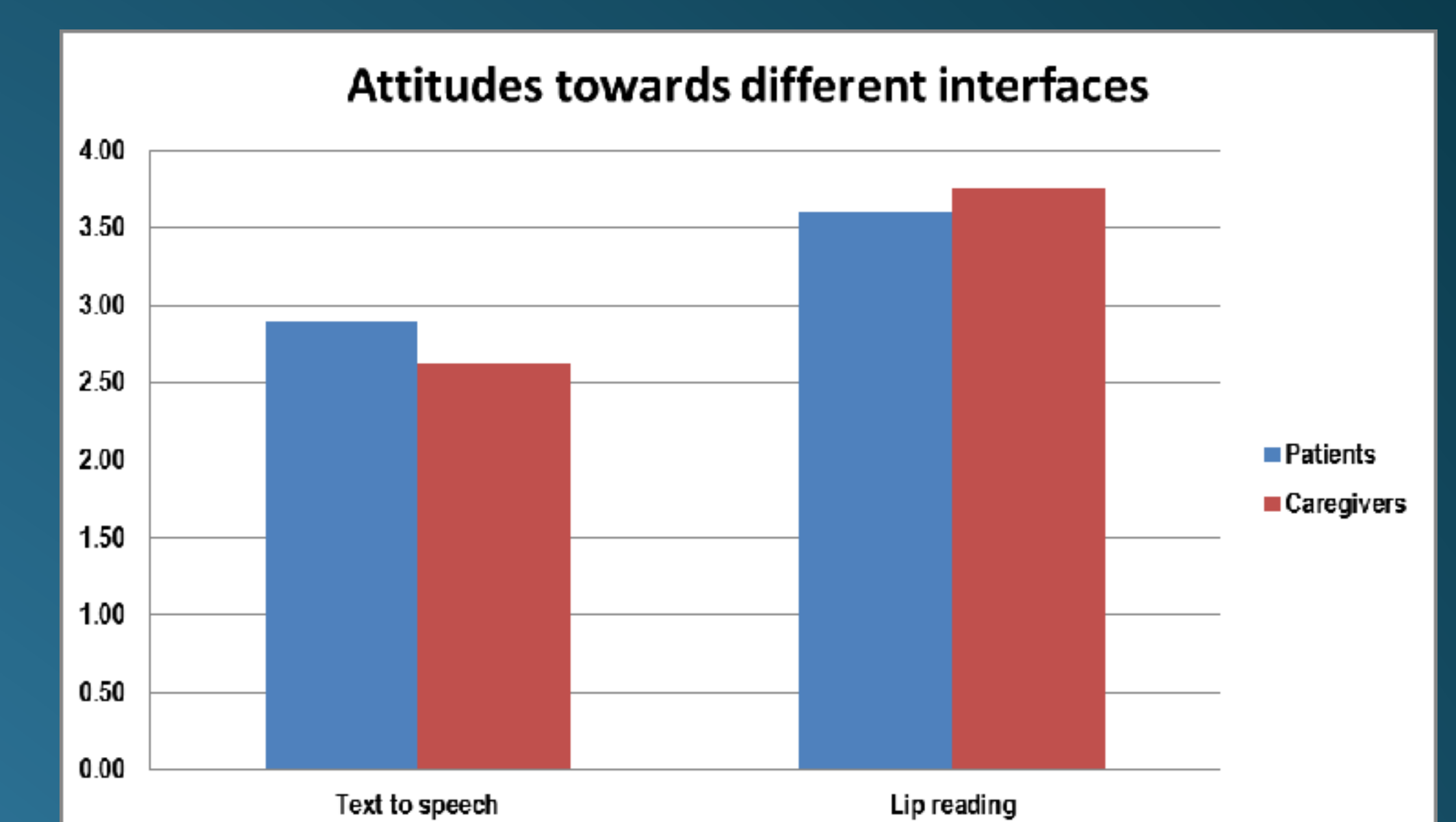
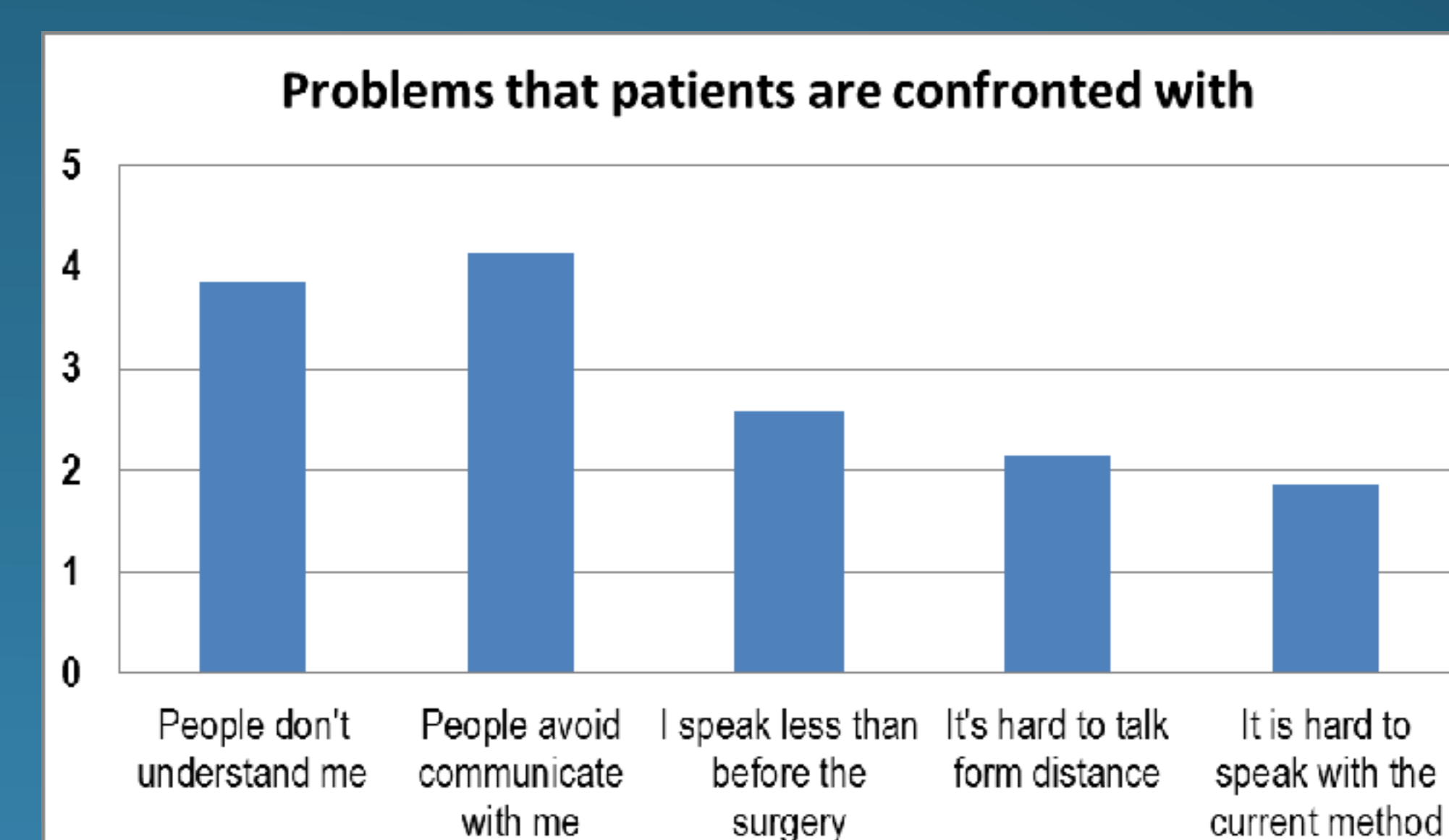
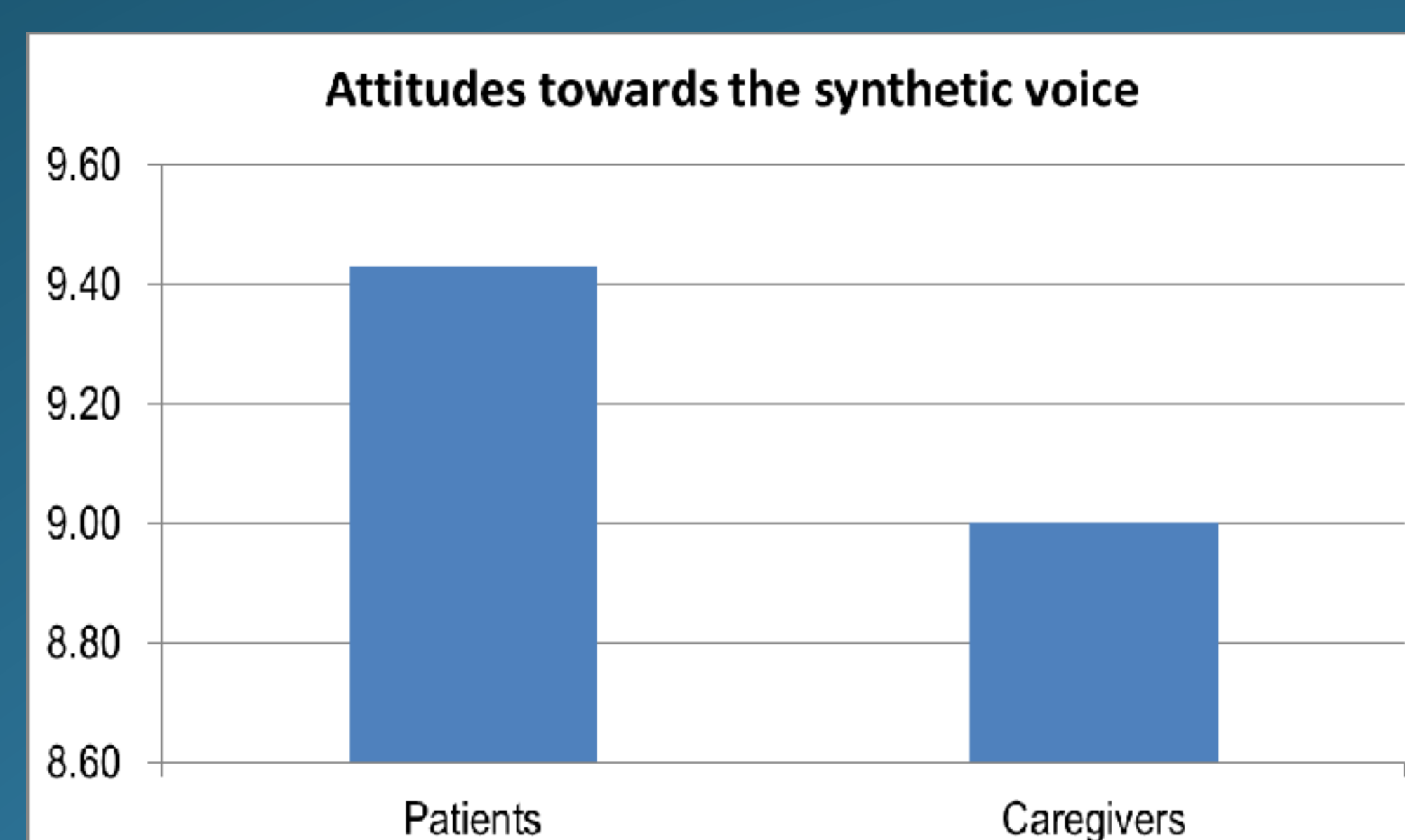
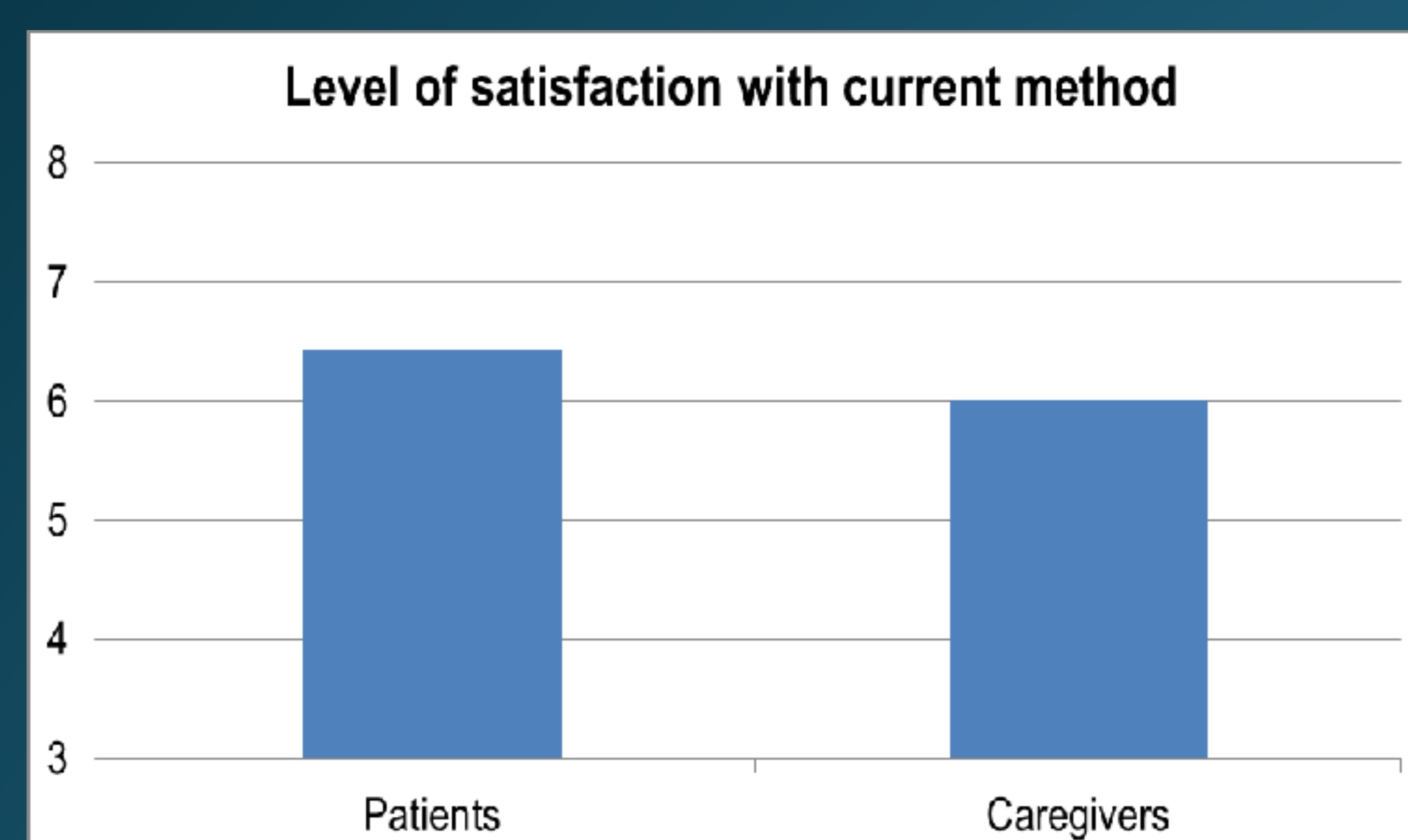
**Objective:** identify the needs that should be addressed by new vocal assistive technologies → SWARA - "Mobile System for Rehabilitative Vocal assistance of patients with Surgical Aphonia"

- Esophageal speech (ES)
- Voice prosthesis (TEP)
- Electrolarynx (EL)
- Laryngeal transplantation

**Voice Handicap Index (VHI)**  
qualitative → focus-groups  
quantitative → online surveys

## METHODS

## Results



**Discussion and conclusion:** Both interfaces proposed by the SWARA project might have a potential for at least some of the patients and each of them could cover at least some of the requirements (e.g., cleared voice, higher volume). Future studies should include larger samples to allow generalization and a clearer classification of their main problems and expected improvements. Also, future studies regarding the different interfaces of technology-based vocal assistive methods should allow the patients to test them and express their attitude based on the experience experience of using one or another of the communication interfaces.

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