

Video Consultations for the Patient with Thyroid Disorder: Perceptions of the Patient and Clinician

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Background

- Telemedicine has gained increasing traction in the recent decade.^[1] One of the many modalities of telemedicine is video consultations (VCs).
- VCs can potentially allow healthcare providers to improve access to medical care and reduce waiting time, travel and costs for patients. In the climate of the COVID-19 pandemic, VCs offers the additional advantage of enabling continued care for patients without unnecessary exposure to the contagion.
- Patients with thyroid disorders are the ideal subjects for a pilot study. Majority of these patients do not require acute medical care as the condition is usually stable.
- Implementation into clinical practice has been slow. A major factor is the perception of adopting a new healthcare delivery model by both the healthcare provider and the patient.
- Hence, the aim of our study is to explore patients’ and clinicians’ perceptions of VCs.

Methods

- Clinicians involved in the care of patients with thyroid disorders at a tertiary care center completed:
 - the Technological Acceptance Model (TAM) questionnaire. The TAM questionnaire assesses a clinician’s perception of VC on items scored on a 7-point Likert scale (1: Strongly Disagree, 7: Strongly Agree)^[2] and,
 - a survey of the perceived suitability of routine tasks performed during an outpatient clinic visit for VCs
- Patients with thyroid disorders completed the Telemedicine Perception Questionnaire (TMPQ). The TMPQ evaluates the perceived risks and benefits of VC on items scored on a 5-point Likert scale (1:Strongly Disagree, 5: Strongly Agree).^[3]

Data Analysis

- Statistical analysis was performed using the statistical software R.
- Descriptive statistics were used to characterize the study population. To compute the aggregated scores, scores from questionnaire items phrased in the negative were transposed.
- Fisher exact test was used to compare the responses between groups.

Results of Patient Survey

Demographic	N (%)
Age	
≤ 49 years	14 (28.0 %)
50 – 75 years	33 (66.0 %)
≥ 76 years	3 (6.0 %)
Duration of follow up	
≤ 2 years	28 (56.0 %)
> 2 – 5 years	12 (24.0 %)
> 5 years	10 (20.0 %)

Table 1. Breakdown of demographics of patient respondents.

A total of 50 patients completed the survey. The mean age of the respondents is 57.8 (SD 13.3) years. The median duration of follow up is 2.0 years (range 0.0 – 10.0 years).

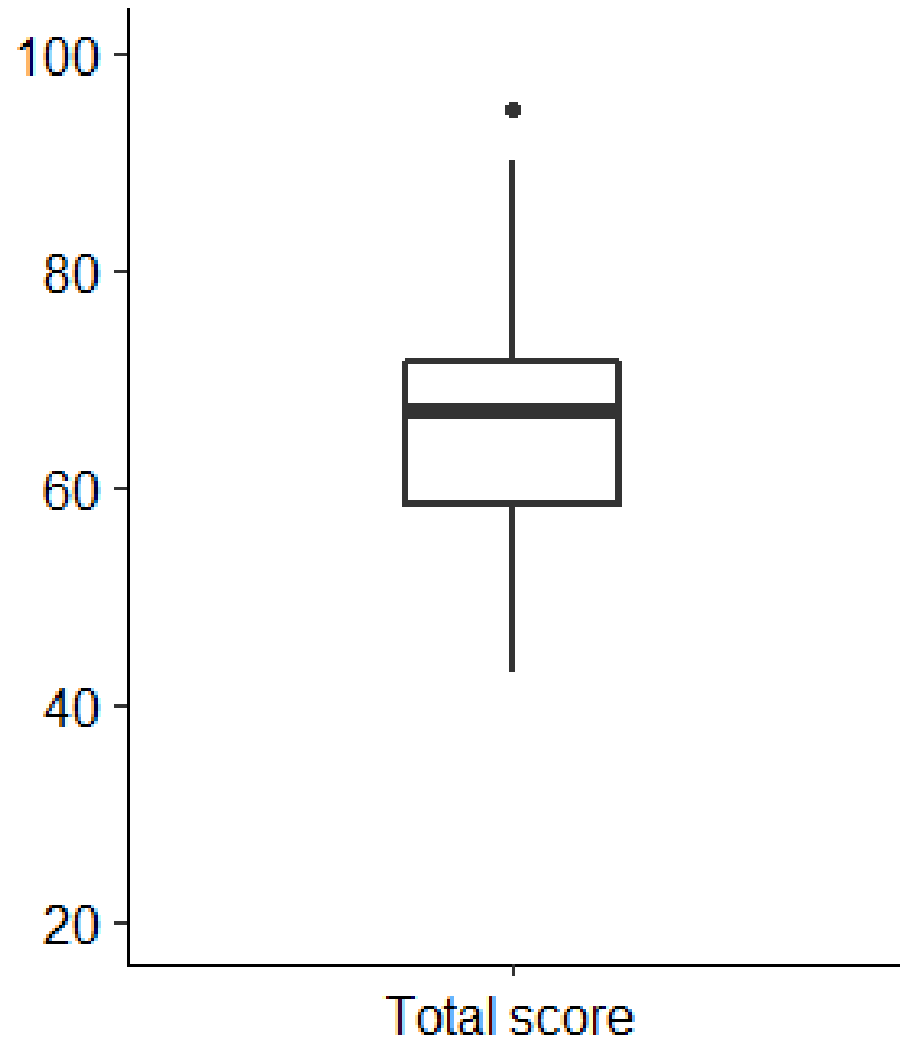


Figure 1. Total patient score for the TMPQ.

The mean total score is 65.78 (SD 10.71) which indicates an overall favourable perception to VCs.

Results of Clinician Survey

Clinical Title	N (%)
Senior clinicians	
Senior Consultants	8 (23.5%)
Consultants	6 (17.6%)
Associate Consultants	3 (8.8%)
Junior clinicians	
Fellows	1 (2.9%)
Registrars	8 (23.5%)
Medical Officers	6 (17.6%)
House Officers	2 (5.9%)

Table 2. Stratification of clinician respondents by clinical title.

A total of 34 clinicians involved in the care of patients with thyroid disorders responded to the survey. Senior clinicians were defined as clinicians who held the title of associate consultants and above, while junior clinicians were defined as clinicians who held the title of fellows and below.

Results of Clinician Survey

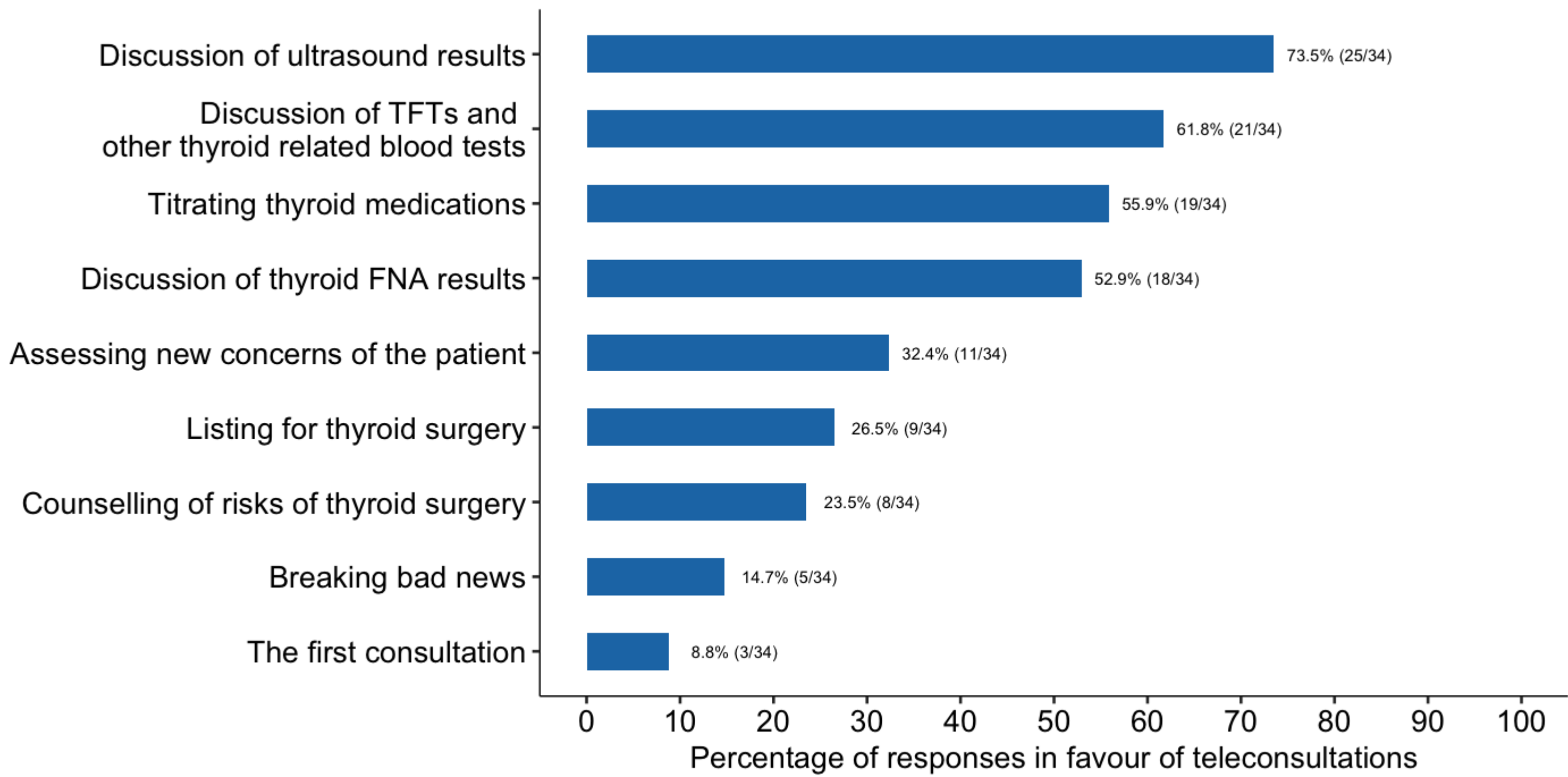


Figure 2. Clinician’s responses to the suitability of tasks performed during an outpatient clinic for video consultations.

Values are given as a percentage of the total number of surgeon responses (N = 34). TFT: Thyroid Function Test, FNA: Fine Needle Aspiration

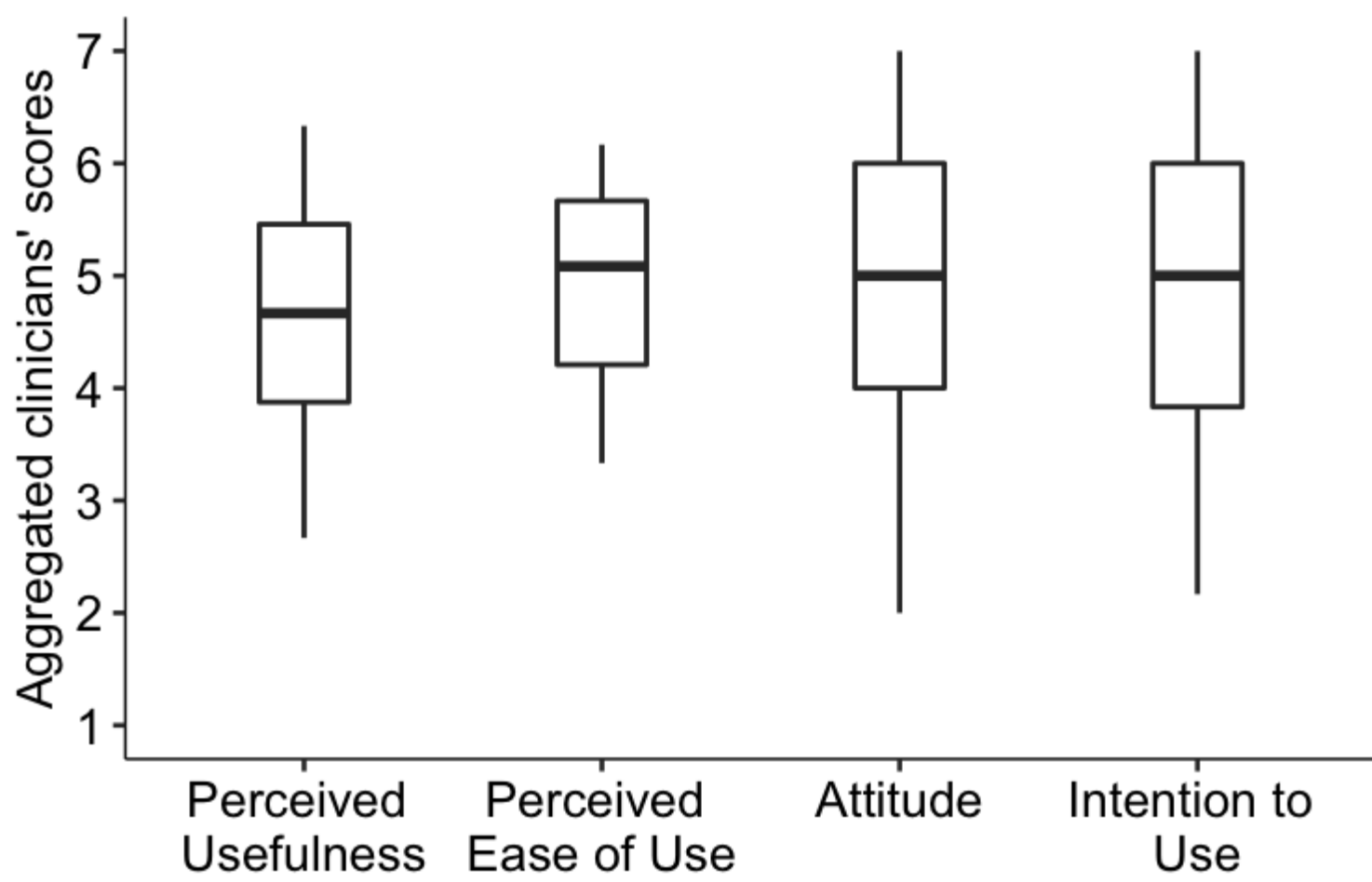


Figure 3. Overall domain scores of the Technology Acceptance Model (TAM) questionnaire for clinicians (Perceived Usefulness, Perceived Ease of Use, Attitude, Intention to Use).

Overall, our clinicians perceive that video consultation platforms will be easy to use (mean = 4.97 ± 0.88) and maintain a moderately positive attitude towards VCs (mean = 5.01 ± 1.16). However, they are ambivalent about the usefulness of VCs (mean = 4.55 ± 1.05) and about intending to use the service (mean = 4.79 ± 1.28).

Conclusion

- The majority of clinicians agree that the discussion of thyroid ultrasound results is a suitable task to be performed over VCs.
- The senior clinician group felt that VCs had less utility for their practice and would be difficult to use compared to the junior clinician group.
- There were differences in the perceived benefits of implementing VCs for outpatient thyroid visits between stakeholders groups (i.e. clinicians and patients), specifically for the potential time-savings of VCs for clinicians to complete patient care.

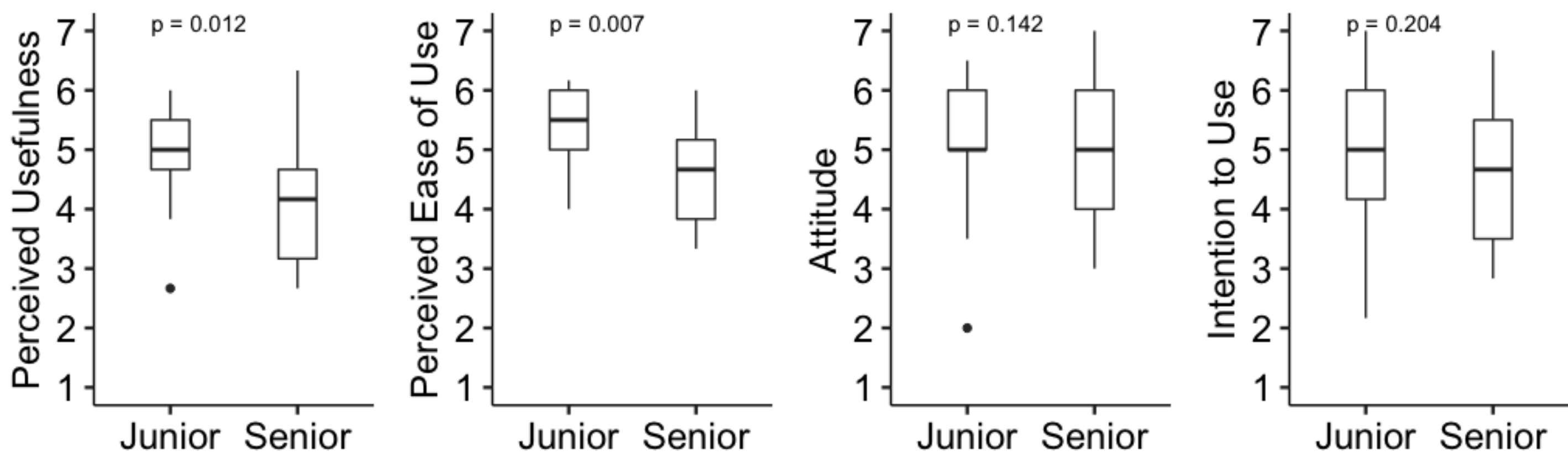


Figure 4. Comparison of the responses of the junior and senior clinicians in each domain.

The junior clinician group (mean 4.94, SD 0.91) perceived VCs to be more useful for their practice as compared to the senior clinician group (mean 4.16, SD 1.06; P = 0.012). The junior clinician group (mean 5.35, SD 0.67) also scored higher for the perceived ease of use of VCs as compared to the senior clinician group (mean 4.59, SD 0.91; P = 0.007). No statistically significant difference was found between groups for the domains attitude (mean 5.18, SD 1.19 [Junior] VS mean 4.85, SD 1.14 [Senior]; P = 0.142), and intention to use (mean 4.98, SD 1.33 [Junior] VS mean 4.60, SD 1.25 [Senior]; P = 0.204).

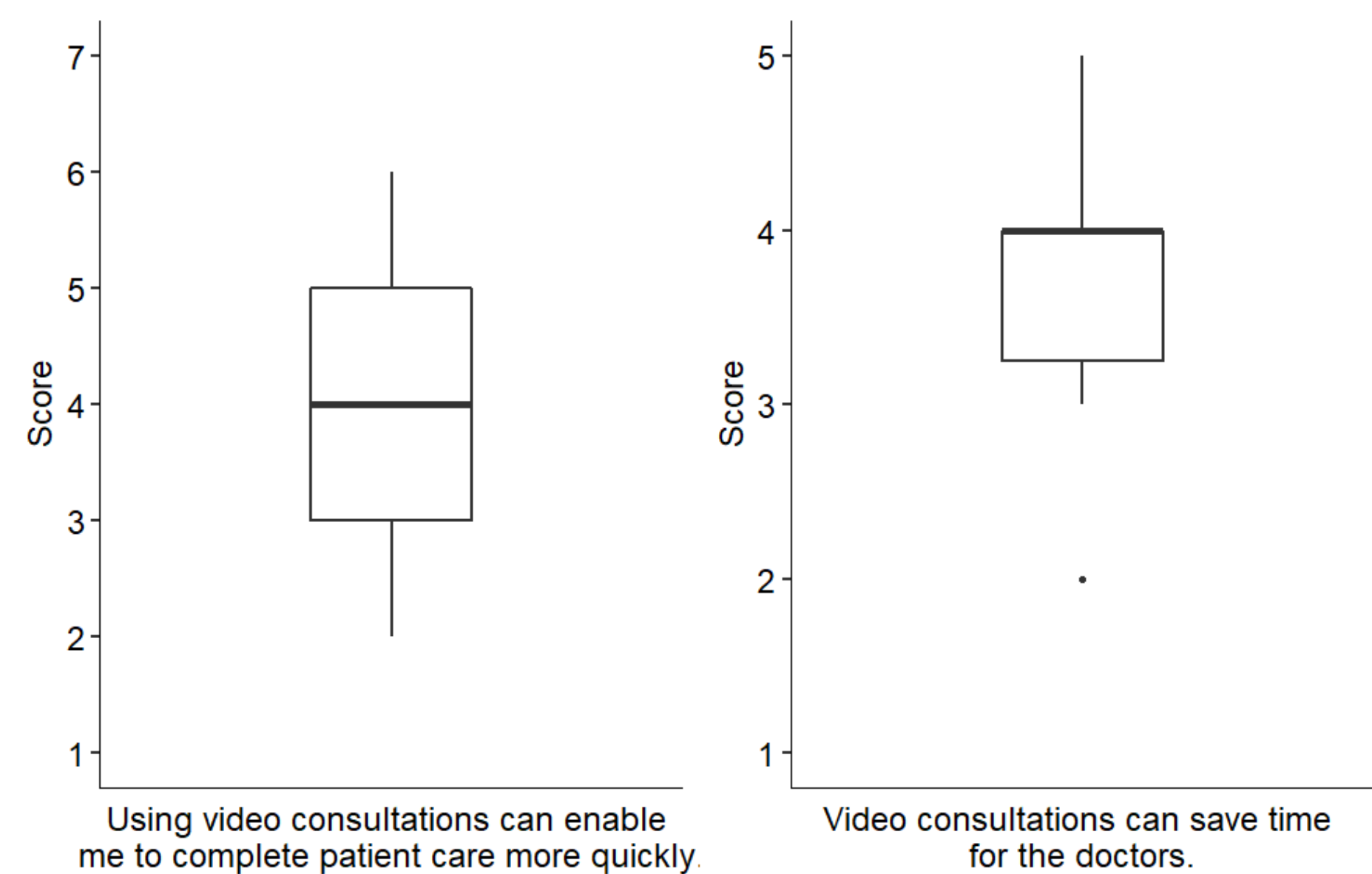


Figure 5. Differing stakeholder perceptions of the potential time savings of VCs for doctors.

In each respective survey, participants’ perception of the potential time-savings of using VCs for doctors.

Left: Clinicians were ambivalent on the time-saving benefits of implementing VCs (mean 4.06, SD 1.37).

Right: Patients agreed more strongly that VCs would save time for the clinicians (mean 3.88, SD 1.16).

References

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