

Evaluating the Efficacy of a Patient-centered Clinical Decision Aid in Enhancing Shared Decision-making in Prosthodontics: A Qualitative Multicenter Study

TONG WAH, LIM

FACULTY OF DENTISTRY, THE UNIVERSITY OF HONG KONG, HONG KONG SAR

Introduction

What is shared decision-making (SDM)?¹

A collaborative process in which healthcare decisions are made based on mutual agreement between patients and healthcare providers.

What are decision aids?²

Decision aids are developed to enhance patients' understanding of their medical conditions, empowering them with the necessary knowledge to make informed decisions.

Challenges¹



Research Gap³

- 2/3 of dental schools in the US & Canada lack structured courses on dentist-patient communication.
- 1/3 of students reported insufficient confidence in presenting treatment plans to patients.
- Supplemental decision aids: mobile applications, leaflets, or information sheets have been suggested.

HKU Dentistry – No courses on communication or decision aids are provided

Objective

To investigate the impact of utilizing a newly developed patient-centered clinical decision aid to facilitate SDM in the **missing tooth replacement** between dental students and their patients at the Faculty of Dentistry, HKU, Hong Kong SAR and UiTM, Malaysia.

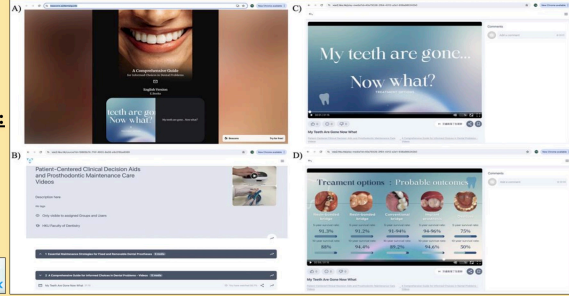
Materials & Methods

i) Development of Digital Clinical Decision Aids

International Collaboration:



Online Platform:



ii) Participants recruitment

Consolidated Criteria for Reporting Qualitative Research & Ethics Approval



- Students - received 15 mins training
- 15 - 20 mins explaining the treatment planning to patients using the decision aid
- The **Assess-Advise-Decide (AAD)**⁴ approach was incorporated to personalize the final patient consultation (the last part of decision aid).

iii) Data collection & analysis

1. A face-to-face interview (20-30 mins) conducted by 2 interviewers
2. Question guides developed based on *Vromans et al.*⁵ & discussion among researchers
3. Interviews were recorded using a digital voice recorder & were translated into English & transcribed verbatim manually.
4. A **Thematic analysis** was performed on the transcripts (manual line-by-line coding)

Results & Discussion

Student Perspective

Communication

- Experience
- Preferences

- "The conversation is not one-sided; my patient can interact by asking questions & providing comments on certain aspects" (St^{HK} 1)
- Several students expressed satisfaction with the use of **photographic illustrations** and **prognosis statistics**.
- Greatly **enhanced the communication experience** between students and patients.^{4,6}

Utilization

- Concept, Impact/usefulness, Clinical application, Suggestion & choices

- The majority agreed that the decision aid facilitated a **systematic** presentation of information to patients.²
- 7 of them found the decision aid to be **lengthy** and contained too much information for patients
- **70%** of the students expressed complete satisfaction with the current format. Some suggested adding more visual aids.

Satisfaction

- Influence on decisions
- Rating

- St^{HK} 5 expressed that this approach was **time-consuming**.
- This outcome emphasizes the effectiveness of the SDM using decision aid in promoting better communication and satisfaction.^{5,6}
- **83.3%** of participants gave a rating of ≥ 8 , indicating a high level of satisfaction

Patient Perspective

Communication

- Experience
- Preferences

- **29** patients were **satisfied** with the conversation.
- "Her presentation and explanation were very detailed, and she also customized the leaflet and explained it according to my presenting complaints" (Pt^{HK} 4).
- "I feel the doctors at private clinics are more knowledgeable" (Pt^{MY} 5)

Treatment Info

- Knowledge
- Treatment choices
- Potential risks

- Able to **gain a deeper understanding** of the treatment options with the inclusion of visuals and statistics.^{5,6}
- "The disadvantages of various treatment options prompted me to think about other perspectives in the treatment, allowing me to consider each option more comprehensively" (Pt^{HK} 10)

Uncertainty

- Prognosis, priority, satisfaction, and suggestions & choices

- **Half** believed that the provided success rates were just a reference and varied between patients.
- The patients scored **7.6/10**, indicating their belief in the prognosis of the treatment applied to their situations.
- Suggestions: physical leaflets & online access

Utilisation

- Influence on decisions
- Applications

- All patients' decisions were reinforced.
- **Increased confidence** in the chosen treatment.
- **Two** patients altered their treatment plans after the interviews.
- The decision aid in this study incorporated a page of **AAD**⁴ summary, which was particularly useful in **customising** treatment plans for patients.

Conclusions

The enhanced communication experience using **Decision Aid**:

- Promoting more **shared decision-making**
- Leading to more **personalized** and **evidence-driven** treatment plans
- Improving **patient care**.

These findings advocate for the implementation of clinical decision aid as a valuable tool in **clinical teaching**.

Future research: involve participants from a variety of backgrounds & long-term impact of using decision aids.

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