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Talking scrubs: Improving the health outcomes of patients with communication disability - a mixed method investigation of feasibility, effectiveness and clinician-patient concordance

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What you need to know

People without recognised speech or written communication experience significant disadvantages in healthcare, including:

- Poorer health outcomes
- Longer hospital stays
- Higher rates of preventable harm
- Reduced opportunity to provide informed consent

Despite efforts to integrate augmentative and alternative communication (AAC), the first-person voice of patients is often not prioritised. Communication frequently defaults to carers or clinician “best guess,” particularly during high-stakes diagnostic interactions.

Clinicians also report low confidence communicating with people with communication disability, affecting diagnostic accuracy, engagement, and shared decision-making..

What is this research about?

The Talking Scrubs project aims to embed visible communication supports into everyday clinical practice. It reimagines the clinical uniform as a communication tool. Scrub tops or vests are printed with key communication icons that:

- Provide a direct communication pathway
- Prompt clinicians to identify and adapt to individual communication methods
- Support consent and shared decision-making
- Embed AAC into routine clinical practice rather than treating it as an add-on

The intervention was co-designed with people with lived experience of communication disability, alongside clinicians and AAC experts, to ensure safety, relevance, and practicality.

What did the researchers do?

This article reports findings on Stages 1–3 of the Talking Scrubs research program and presents the protocol (study plan) for Stage 4.

Stage 1 – National Survey (completed)

- 293 respondents, including 108 clinicians
- 71% rated Talking Scrubs positively
- 61% of clinicians reported communication difficulty as a serious patient safety concern

Stage 2 – Co-design (completed)

- 25 stakeholders including people with intellectual disability, families, and clinicians
- Developed safe-use protocols and refined scrub design
- Co-designed two validated communication self-efficacy tools:
    - SE:CD17 (clinicians)
    - SE:CH17 (people with communication disability)

Stage 3 – Validation and Pilot (completed)

- Validated communication self-efficacy tools

Stage 4- Protocol

This article presents the Stage 4 protocol*, which outlines how Talking Scrubs will be evaluated in real-world healthcare settings.

The protocol describes a mixed-methods study examining:

- Feasibility and acceptability
- Communication self-efficacy
- Diagnostic concordance
- Performance of validated communication tools

*Following funding approval, Stage 4 has been adapted to include children and young people.

Study locations:

- Women's and Children's Hospital
- Adelaide Healthcare GP sites

Participants:

- Children (with or without communication disability)
- GPs and clinicians involved in diagnosis

The study will also include youth co-researchers with disabilities who will contribute to the research process. Stage 4 is currently in the implementation phase, and results are not yet available.

What did the researchers find?

Findings from Stages 1–3 demonstrate that:

- Communication disability is widely recognised as a significant patient safety and equity issue in healthcare.
- Clinician confidence in communicating with non-speaking patients is frequently low. Stakeholders (including people with lived experience) strongly support embedding visible communication supports into routine practice.
- Co-design processes strengthened the safety, acceptability, and clinical relevance of the intervention.
- Purpose-built communication self-efficacy tools (SE:CD17 and SE:CH17) were developed and validated, addressing the absence of matched instruments for clinicians and patients in communication disability contexts.
- Early pilot testing indicated feasibility within clinical workflows.

Stage 4 (currently in implementation) will determine whether Talking Scrubs produces measurable improvements in communication confidence, participation, and clinician-patient concordance in real world settings.

How can you use this research?

- Communication barriers are a recognised safety risk; clinician communication confidence influences behaviour and engagement.
- Talking Scrubs developed validated tools (SE:CD17 and SE:CH17) to measure communication self-efficacy where no matched instruments previously existed for communication disability contexts.
- Measuring communication self-efficacy enables identification of clinician capability gaps and evaluation of intervention impact.
- Broader research demonstrates that clinician communication self-efficacy predicts behaviour and supports patient-centred care (Holden et al., 2017).
- Embedding communication supports directly into everyday clinical environments — rather than relying solely on specialist input — reflects best practice in both healthcare and ECI.
- Related research highlights the value of structured communication supports and communication assistants in improving participation and access (Dee-Price, 2023).

Collectively, this research reinforces that communication access is a shared professional responsibility and central to safe, inclusive, person-centred practice across healthcare, early intervention, and education systems.

Where to from here?

Stage 4 will evaluate whether Talking Scrubs:

- Increases communication self-efficacy for patients and clinicians
- Enhances participation and informed consent during diagnostic interactions
- Improves clinician–patient concordance
- Can be feasibly and sustainably implemented in healthcare settings

About the researchers

Dr Betty-Jean Maria Dee-Price and colleagues are researchers and clinicians with expertise in communication disability, healthcare safety, behaviour change, and implementation science. The interdisciplinary team includes co-investigators with lived experience of communication disability, specialists in speech pathology, medicine, health services research, and biostatistics. The Talking Scrubs project integrates lived experience, clinical practice, and research to develop scalable, evidence-informed communication interventions.

Citation

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https://www.talkingscrubs.com.au/

This Research Snapshot was prepared by Sam Boag, PRECI Committee Member, Physiotherapist and Managing Director, I Can Jump Puddles.

In the spirit of reconciliation PRECI acknowledges the Traditional Custodians of country throughout Australia and their connections to land, sea and community. We pay our respect to their Elders past and present and extend that respect to all Aboriginal and Torres Strait Islander peoples today.