

Anticipating and responding to neurodiversity with cognitive accessibility

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Introduction

Everybody's brain is wired differently, and will fire in different ways. This natural variation is sometimes called **neurodiversity**.

Cognition is "the mental actions or processes of acquiring knowledge and understanding through thought, experience, and the senses".

Excessive cognitive load can result in stress that impairs our decision-making and behaviour.

Cognitive impairment can affect anyone. It can be temporary or permanent. Usually it is **invisible**.

Activity limitations and participation restrictions for people with cognitive impairment can be reduced significantly through better design.

The adoption of **universal design** approaches in policies and services can enable access to and participation in healthcare activities and decision-making.

Research objectives

There is extensive knowledge and guidance on strategies to support participation of people with diverse cognition, but it is yet to be transferred into the design and delivery of mainstream health systems and services.

This is important for **staff and consumers**.

The research objective is to maximise participation and minimise discrimination by reducing cognitive load – **making life less confusing**.

Methods

An international group of people with diverse cognition worked together.

We combined knowledge from theory, research evidence and experience to identify priorities and co-design guidelines. The process involved iterative drafting, commenting and voting.

Results

The guidelines are divided into three sections

1. Motivate: Helping people to engage.
2. Communicate: Helping people to understand.
3. Initiate: Helping people to take action.

Recurring ideas in the guidelines include providing consistency, options, feedback, support, time, and simplicity.

Systems and services that respect neurodiversity offer alternatives and customisation – not a one-size-fits-all approach.



Discussion

ISO 21801-1:2020 Cognitive accessibility — Part 1: General guidelines can be used in the design and evaluation of policies, products and systems used by all people.

Examples include self-service terminals, appointment systems and building navigation systems – these have been identified as problematic.



Limitations

Universal design is iterative – it is never finished and never perfect.

We do the best we can at the time, and strive to continue to improve and be more inclusive.

Conclusion

Working with the concept of neurodiversity is less stigmatising than creating discrete guidance for different populations based on diagnostic or other criteria that are often only loosely connected to functional needs.

Everyone benefits from better design. We should design to reduce confusion and embrace neurodiversity in healthcare.

