

# Sex differences in service utilisation and clinical outcomes of people with acquired brain injury undergoing post-acute neurorehabilitation and disability support, 1991-2020



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## Background and Objectives

Research has shown that after any catastrophic injury, **women are at risk of poorer health and psychosocial outcomes**, have poorer economic quality of life, and are more likely to have unmet health needs following injury relative to men.

This presentation describes differences in:

Service use

Functioning

Long-term outcomes

for female and male clients with acquired brain injury (ABI) at a post-acute brain injury rehabilitation and disability support organisation in Western Australia from **1991-2020**, and considers the **implications** of differing service use patterns.

## Method

All clients aged 18-65 years with ABI admitted to Brightwater Care Group's neurorehabilitation or disability support services between **March 1991 and December 2020** were included in the *retrospective whole-population cohort study (n=1,011)*.

Internal clinical and rehabilitation data was used:

- Demographics
- Quality of life (QOLIBRI)
- Service use data
- Functional independence (FIM+FAM)
- Psychosocial function (MPAI-4)

Plus linked administrative health data from the WA Data Linkage Branch was used:

- Hospital Admission
- Deaths
- Emergency Department admissions

## Findings

Male clients (n=682; 67.5%) outnumbered female clients (n= 329; 32.5%). Key systematic differences included:

### Age

- Female clients (M=44.6 years, SD=18.2) were significantly **older** than male clients (M=41.3 years, SD=15.5) at injury ( $p=0.006$ ),
- and **older** at access to services ( $p = 0.004$ ).

### Functioning

- Female clients presented to services with **poorer functional independence** (FIM+FAM) than male clients ( $p=0.018$ );
- and **poorer quality of life** (QOLIBRI) ( $p=0.039$ );
- Though did not differ in psychosocial outcomes (MPAI-4) ( $p = 0.052$ ).
- Female and male clients **did not differ** on any outcome measure at discharge.

### Service Use & Long-Term Outcomes

- Female clients were 1.4x more likely than male clients to require **more than one episode of care** ( $p=0.017$ );
- Had 40% **greater risk of death** in the ten years following discharge ( $p=0.039$ );
- And were significantly overrepresented in the **accidental and self-harm deaths** category post-discharge (female: 61.5% vs. male: 38.5%).

## Conclusions and Implications

There are a number of systematic differences in service access, service utilisation and clinical outcomes for female and male clients with ABI.

Female clients demonstrate poorer functioning at admission, access services later, and have poorer long-term outcomes post-discharge.

Post-hospitalisation, in-service and post-discharge care for women with ABI needs review to consider the specific needs of women and any barriers to accessing care.