

# Cancer Mortality in Individuals with a Learning Disability: A Mixed-Methods Systematic Review

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## BACKGROUND

- Cancer is a leading cause of death worldwide<sup>1</sup>
- Although survival rates have improved for the general population<sup>2</sup>, people with a learning disability (about 1-2.5% of the Western population)<sup>3</sup> may face **poorer cancer outcomes**
- Evidence points to higher cancer mortality and poorer survival in this group<sup>4</sup>, which may be due to:



**Delayed diagnosis**



**Differences in treatment**



**Barriers to screening**

## OBJECTIVES

### Quantitatively

- Assess whether **cancer-specific mortality** and **overall survival** differ between people with and without a learning disability
- Systematically review the existing literature to determine **mortality** and **overall survival rates** following cancer diagnosis in people with a learning disability compared to the general population

### Qualitatively

- Identify **factors influencing cancer mortality and survival** in this population
- Explore **barriers and facilitators** affecting cancer diagnosis, treatment and end-of-life care for people with a learning disability

## METHODS

### DATABASES

- EBSCO Host (Medline with full text, Cinahl, PsycINFO)
- OVID – Embase
- Scopus

### KEYWORDS

- Cancer
- Intellectual or a learning disability
- Mortality and survival outcomes

### ASSESSMENT

- JBI assessment used for critical appraisal
- JBI convergent segregated approach used for mixed-methods systematic review synthesis
- Thematic analysis for qualitative data synthesis

### INCLUSION CRITERIA

- **Population & exposure:** individuals of any sex and age with a learning disability
- **Outcomes:** cancer-specific mortality & overall survival following a diagnosis of cancer
- **Study types:** quantitative observational studies, qualitative studies, publications from 2000 to 2025

### EXCLUSION CRITERIA

- Editorials, reviews and commentaries
- Incomplete articles or conference/meeting abstracts

### DATA EXTRACTION

- Study characteristics
- Population characteristics
- Cancer-related details
- Effects estimates related to overall survival following diagnosis

## RESULTS & FINDINGS

### Screening Results

- 1928 studies & 11 reports found
- 1824 studies progressed to title/abstract screening after removal of duplicates
- 31 studies & 11 reports progressed to full-text screening
- 22 studies & 6 reports included

### Qualitative findings\*

Only one qualitative ethnographic study was identified,<sup>8</sup> underscoring the limited qualitative research exploring cancer mortality in people with a learning disability. The following themes were highlighted:

Some patients **denied standard treatments**, suggesting possible **discrimination** or **assumptions** about their coping ability.



Carers heavily **influenced treatment decisions**; patient involvement was **minimal**.



Diagnosis often delayed due to symptoms being **ignored, misinterpreted, or unnoticed**, especially in those with limited verbal skills



**Misdiagnosis and difficulty challenging medical opinions led to late-stage cancer detection**

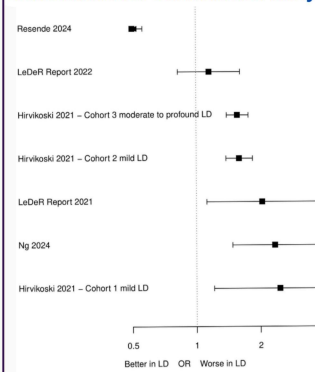
People with a learning disability have approximately a **1.5x higher cancer mortality** compared to the general population (SMR, 1.48; 95% CI, 1.42-1.54)<sup>6</sup>

**1.5x higher cancer mortality**

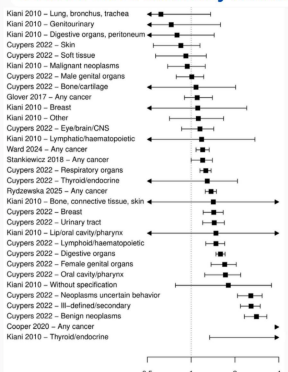
\*Analysis still ongoing - preliminary findings shown

### Forest Plots Showing Effect Sizes

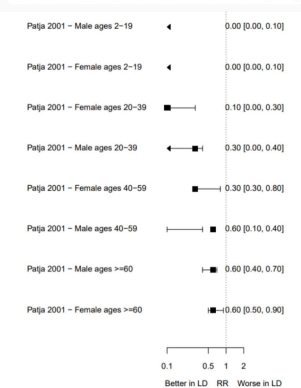
#### Odds Ratios for Survival/Mortality



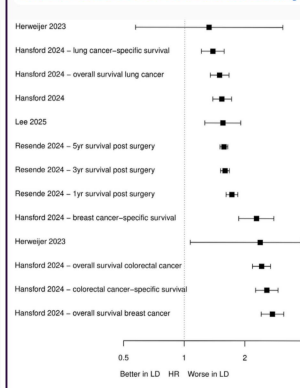
#### Standardised Mortality Ratios



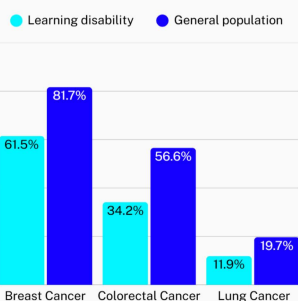
#### Relative Risks for Survival/Mortality



#### Hazard Ratios for Survival/Mortality



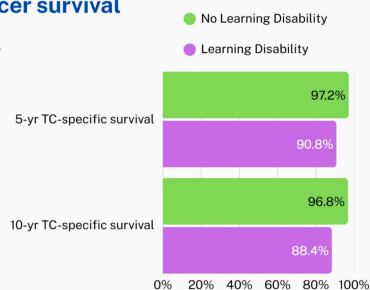
### 5-year survival post diagnosis



People with a learning disability had **poorer five-year survival** compared to the general population for different cancer types<sup>5</sup>

### Testicular cancer survival

Testicular cancer survival is notably **poorer** for those with a **learning disability**, with 10-year survival rates nearly **8.5% lower** and 5-year survival rates over **6% lower** compared to individuals without a learning disability<sup>7</sup>



## DISCUSSION

People with a learning disability experience significantly poorer survival rates across several cancer types, including breast, colorectal, lung, and testicular cancer, when compared with the general population.<sup>5,7</sup> Reported cancer mortality rates are nearly 1.5 times higher in this group.<sup>6</sup> Only one qualitative study was identified, highlighting the limited qualitative research in this area. This study highlighted several barriers which may underpin these disparities including, delayed diagnosis, misdiagnosis, minimal involvement of patients in treatment decision-making, and, in some cases, discrimination within healthcare systems.<sup>8</sup> Such systemic barriers are likely to contribute directly to the survival gap observed. The current body of evidence remains fragmented, with most studies focusing on mortality data and few exploring lived experiences. More in-depth qualitative work is required to fully capture patient perspectives and understand how healthcare processes impact outcomes.

## RECOMMENDATIONS

- **Strengthen early detection:** Improve access to timely cancer screening and diagnostic services for people with a learning disability.
- **Enhance communication and support:** Provide clear, accessible information and actively involve patients in treatment decision-making.
- **Address systemic barriers:** Tackle discrimination and ensure equitable delivery of standard cancer treatments.
- **Expand qualitative research:** Invest in studies exploring lived experiences to better understand how healthcare processes impact outcomes.

## REFERENCES

Scan QR code for full reference list

