



Health inequalities: Physical impairments

Introduction

Physical impairment limits a person's physical capacity to move, coordinate actions, or perform physical activities.

Prevalence and risk factors

People with learning disabilities are more likely to have physical impairments than people without learning disabilities. A population-based study in the Netherlands reported that people with learning disabilities are 14 times more likely to have musculoskeletal impairments¹.

A systematic review of the prevalence of mobility limitation in adults with learning disabilities found that prevalence varied between 3% and 63%, due to differences in measures employed and samples studied². In a representative cohort of adults with moderate to profound learning disability on the Leicestershire Learning Disabilities Register, of 2,453 people 6.0% were non-mobile and 30.2% were partially mobile³. Most people in the non-mobile group also had a profound learning disability (95%; n = 139). A higher proportion of women were described as being partially mobile (35% versus 26%) or non-mobile (8% versus 5%).

With regard to conditions associated with physical impairments, the reported prevalence of cerebral palsy among children with learning disabilities ranges from 8% and 34%⁴. The prevalence of arthritis appears to be marginally lower among adults with learning disabilities⁵. Higher rates of sarcopenia, a syndrome characterised by progressive and generalised loss of skeletal muscle mass and strength, has been reported among older adults with learning disabilities in the Netherlands⁶. Sarcopenia was associated with mobility impairment (OR for wheelchair user 34.23 (95% CI 12.40, 94.51)) and lower Body Mass Index (BMI). A large-scale population-based study in Greater Glasgow incorporating health assessments found a bone deformity prevalence of 15.1% with a higher prevalence in those with profound learning disabilities (OR 2.96, 95% CI 1.87, 4.70)⁷.

Impact on people with learning disabilities

Among adults with learning disabilities, mobility restrictions have been identified as significant risk factors for mortality⁸. In a representative cohort of adults with moderate to profound learning disability on the Leicestershire Learning Disabilities Register, physical impairment was the strongest predictor of mortality, being the only impairment to significantly predict survival in multi-variate analysis. The hazard ratio for risk of death for those who were partially mobile was 2.33 (95% CI 1.84, 2.95) and for those who were non-mobile the hazard ratio was 7.14 (95% CI 4.99–10.21)³. More than a quarter of 20-year olds who were non-mobile died before they were 30 years old. Mobility impairment has also been found to be a significant risk factor for low bone mineral density⁹. People with learning disabilities who have difficulty moving may be at risk of body shape distortion¹⁰ which can have severe and wide-ranging consequences¹¹. Multiple health issues are very common amongst people with severe or profound intellectual and motor disabilities, with a Dutch study reporting common clusters of health issues involving visual impairment, epilepsy, spasticity, scoliosis and constipation^{12 13}.

Healthcare and treatment

Given the association between physical impairments and mortality, it is vital that people with learning disabilities with physical impairments have appropriate access to care which may improve their long-term outcomes and/or quality of life³. It is important that treatments for co-occurring health issues such as epilepsy may have an impact upon issues related to physical impairments, such as bone density^{12 13}.

Appropriate support for carers of people with learning disabilities who are non-mobile is also important³. A substantial proportion of people with severe or profound learning disabilities are likely to have postural care needs. Postural care has been defined as a way of preserving and re-establishing body shape for people with movement difficulties¹⁴. Poor postural care can have severe and life-threatening complications for people who have a limited ability to change position¹⁵. It has been proposed that most people who lack the ability to change their position would benefit from 24-hour body positioning¹⁵. However, despite examples of innovations in practice, there is no research on how best to provide postural care services for people with learning disabilities¹⁶, and some elements of care for people with motor impairments have been reported to be uncomfortable or involving pain¹⁷.

The lack of research evidence to support the efficacy of night time positioning equipment (NTPE) and 24-hour postural care needs to be addressed urgently¹⁶. There is also a lack of research on physical therapy interventions for gross motor skills in people with learning disabilities¹⁸.

However, people with learning disabilities can experience positive physical benefits from exercise therapy interventions, such as increased muscle strength, gains in gross motor skills and functional independence¹⁹.

Research in the Netherlands suggests that for people with profound intellectual and multiple disabilities (PIMD), motor activation plays only a minor part in daily practice by direct support persons²⁰. It is suggested that improvements must be made in the structural implementation of motor activation in the support offered to people with PIMD²⁰, including access to assistive equipment²¹.

Social determinants

The impact of physical impairments may be compounded by social determinants of health including a lack of enabling environments²². Within community settings, social care staff may lack awareness regarding how to support people with physical impairments. However, there do not appear to be any research studies that have explicitly considered social determinants of health in relation to physical impairments for people with learning disabilities.

Resources

Public Health England (2018) [Postural care services and people with learning disabilities](#)

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