

Protecting and improving the nation's health

# Health inequalities: Sensory impairments

#### Introduction

Hearing impairment, visual impairment, and dual sensory impairment are common health problems among older adults in the general population<sup>1</sup>. Sensory impairments can hinder basic daily activities and result in social isolation and loneliness, negatively affecting quality of life<sup>1</sup>.

#### Prevalence and risk factors

The prevalence of visual and hearing impairment is greater in adults with a learning disability than in the general population. Of people known to services in the UK it is estimated that 50,000 have a visual impairment and a further 15,000 are blind, and many more adults with learning disabilities not known to services may have visual impairments or blindness<sup>2</sup>. Approximately 40% of people with learning disabilities are reported to have a hearing impairment, with people with Down syndrome at particularly high risk of developing vision and hearing loss<sup>3</sup>.

It has been estimated that visual impairment is 10 times more prevalent in people with learning disabilities, and hearing impairment is anything from 40 to 100 times above the rate in the general population<sup>3</sup>.

A study of 1,023 adults with learning disabilities in Scotland found that 47.0% had a visual impairment and 26.9% had a hearing impairment<sup>4</sup>. Visual impairment was more common in those with severe learning disabilities (OR 1.80 (95% CI 1.27, 2.57)) and profound learning disabilities (OR 2.57 (95% CI 1.78, 3.70)). Hearing impairment was more common among those with Down syndrome (OR 2.46 (95% CI 1.74, 3.49)) and older people (age 65+ OR 4.59 (95% CI 2.49, 8.46)).

A study of older people with learning disabilities in Ireland found that 40.7% of women and 27.5% of men had a visual impairment; 31.6% of women and 27.8% of men had a hearing impairment; and 17.8% of women and 8.6% of men had a dual sensory impairment<sup>5</sup>.

Sensory impairment can be associated with specific syndromes, for example structural anomalies of sensory organs (for example narrow ear canals, keratoconus) are common in people with Down syndrome<sup>6</sup>. As a result, sensory impairments may

Health inequalities: Sensory impairments

occur several decades earlier in people with Down syndrome than in the general population<sup>6</sup>.

Although there is no research evidence specifically concerning people with learning disabilities, in the general population risk factors such as smoking, diet, physical activity, hypertension and obesity are associated with some conditions such as glaucoma and diabetic eye disease<sup>7</sup>. Many of these risk factors are more likely to be present for people with learning disabilities than the general population<sup>8</sup>.

# Impact on people with learning disabilities

Sensory impairment can have a detrimental impact on sociocognitive and language development<sup>6</sup>. The presence of visual impairment can significantly impair the independence and quality of life of people with learning disabilities<sup>2</sup>. Dual sensory impairment is a major risk factor for falls and injuries<sup>6</sup>. Studies have indicated an association between sensory impairment and challenging and self-injurious behaviours<sup>9</sup>.

Some people with learning disabilities may have unrecognised or undiagnosed hearing loss which may cause miscommunication, frustration or fear, which could then lead to challenging behaviour<sup>10</sup>. People with learning disabilities may be more reliant on others to recognise sensory impairments and seek appropriate referrals on their behalf but sensory impairments may go unnoticed.

# Healthcare and treatment

Lack of awareness of the vision needs of people with learning disabilities among health and social care professionals can act as a barrier to accessing appropriate care and treatment<sup>11</sup>.

Those living independently or with family are significantly less likely to have had a recent eye examination than those living with paid support staff<sup>12</sup>. Carers of people with learning disabilities frequently fail to identify sensory impairments, including cerebral visual impairment<sup>13</sup> <sup>14</sup> <sup>15</sup>. It is vital that family carers and support staff ensure that people with learning disabilities get regular eye tests and are supported to access the full range of eye care services in the same way as their non-disabled peers<sup>16</sup>.

Similarly, undetected hearing loss is prevalent among people with learning disabilities and routine screening for hearing loss should be carried out<sup>17</sup>, with early diagnosis and intervention crucial for those born with hearing loss to optimise the learning of language and communication skills<sup>18</sup>.

Health inequalities: Sensory impairments

Diagnostic overshadowing can occur, with changes in behaviour attributed to the learning disability or to mental health issues rather than to sensory impairment<sup>6</sup>. It can be difficult to recognise sight loss in some people with learning disabilities due to their cognitive limitations and/or communication difficulties<sup>11</sup>.

Training carers and staff to be aware of hearing and sight impairment is a key component to ensure successful long-term management of hearing and sight<sup>6</sup>. In England, a course designed to increase awareness of hearing disorders among carers and paid support staff improved knowledge of hearing impairments<sup>19</sup>. In Scotland, vision awareness training significantly increased health and social care professionals' confidence in recognising the signs of sight loss and recommending eye test referrals for people with learning disabilities they were working with<sup>11</sup>.

A recent pilot study working with opticians increased the number of people with learning disabilities coming forward for an eye check, and some people with learning disabilities aged between 40-60 had their first eye test<sup>20</sup>. Community learning disabilities healthcare teams may benefit from having a 'vision champion' on the team, to offer advice and support on vision-related matters<sup>21</sup>.

## Social determinants

In the general population, socio-economic deprivation may be associated with higher levels of sensory impairment and difficulty accessing sensory impairment services. For example, patients from areas of higher socio-economic deprivation in Scotland presented with more advanced glaucoma<sup>22</sup> and in the UK individuals reporting glaucoma had more adverse socioeconomic characteristics<sup>23</sup>.

Associations between homelessness<sup>24</sup>, unemployment<sup>25</sup> and visual impairment have also been recorded. The quality of social support received by people with learning disabilities may impact on their access to vision and hearing services. However, there does not appear to be any research relating to the social determinants of sensory impairments for people with learning disabilities.

## Resources

SeeAbility <u>Eye care factsheets</u> Easy access page to help people with learning disabilities, families, supporters and eye care and learning disability professionals to find SeeAbility's eye care factsheets and forms.

Turner S, Kill S and Emerson E (2013) <u>Making Reasonable Adjustments to Eye Care</u>
<u>Services for People with Learning Disabilities</u> Improving Health and Lives: Learning
Disabilities Observatory. Resources and examples of good practice in relation to eye care for people with learning disabilities.

Health inequalities: Sensory impairments

## References

\_

<sup>&</sup>lt;sup>1</sup> Tseng YC and others. Quality of life in older adults with sensory impairments: a systematic review. Quality of Life Research, 2018. 27(8): p. 1957-1971

<sup>&</sup>lt;sup>2</sup> Emerson E and Robertson J (2011) <u>The Estimated Prevalence of Visual Impairment</u> among People with Learning Disabilities in England

<sup>&</sup>lt;sup>3</sup> Carvill S. Review: Sensory impairments, intellectual disability and psychiatry. Journal of Intellectual Disability Research, 2001. 45: p. 467-483

<sup>&</sup>lt;sup>4</sup> Kinnear D and others. Prevalence of physical conditions and multimorbidity in a cohort of adults with intellectual disabilities with and without Down syndrome: cross-sectional study. BMJ Open, 2018. 8(2): p. e018292

<sup>&</sup>lt;sup>5</sup> Cleary E, McCallion P and McCarron M. Dual sensory impairment among a cohort of older adults living in Ireland: A nested case-control study of the Irish Longitudinal Study on Ageing cohort. HRB Open Research, 2018. 1(27)

<sup>&</sup>lt;sup>6</sup> Kiani R and Miller H. Sensory impairment and intellectual disability. Advances in Psychiatric Treatment, 2010. 16(3): p. 228-235

<sup>&</sup>lt;sup>7</sup> RNIB. Sight loss: a public health priority. London: RNIB, 2014

<sup>&</sup>lt;sup>8</sup> Rickard W and Donkin A. A fair, supportive society: summary report. London: Institute of Health Equity, 2018

<sup>&</sup>lt;sup>9</sup> Carvill S and Marston G. People with intellectual disability, sensory impairments and behaviour disorder: a case series. Journal of Intellectual Disability Research, 2002. 46(Pt 3): p. 264-72

<sup>&</sup>lt;sup>10</sup> McShea L, Fulton J and Hayes C. Paid Support Workers for Adults with Intellectual Disabilities; Their Current Knowledge of Hearing Loss and Future Training Needs. Journal of Applied Research in Intellectual Disabilities, 2016. 29(5): p. 422-432

<sup>&</sup>lt;sup>11</sup> Dick J and others. Vision awareness training for health and social care professionals working with people with intellectual disabilities: Post-training outcomes. British Journal of Visual Impairment, 2015. 33(3): p. 227-238

<sup>&</sup>lt;sup>12</sup> Starling S and others. 'Right to sight' Accessing eye care for adults who are learning disabled. Journal of Intellectual Disabilities, 2006. 10(4): p. 337-355

<sup>&</sup>lt;sup>13</sup> Evenhuis HM. Prevalence of visual and hearing impairment in a Dutch institutionalized population with intellectual disability. Journal of Intellectual Disability Research, 2001. 45: p. 457-464

<sup>&</sup>lt;sup>14</sup> Kerr AM and others. Medical needs of people with intellectual disability require regular reassessment, and the provision of client- and carer-held reports. Journal of Intellectual Disability Research, 2003. 47: p. 134–45

<sup>&</sup>lt;sup>15</sup> Warburg M. Visual impairment in adult people with intellectual disability: Literature review. Journal of Intellectual Disability Research, 2001. 45: p. 424-438

<sup>&</sup>lt;sup>16</sup> Turner S, Kill S and Emerson E (2013) <u>Making Reasonable Adjustments to Eye Care Services for People with Learning Disabilities</u>. Improving Health and Lives: Learning Disabilities Observatory

- <sup>19</sup> McMillan L, Bunning K and Pring T. The Development and Evaluation of a Deaf Awareness Training Course for Support Staff. Journal of Applied Research in Intellectual Disabilities, 2000. 13(4): p. 283-291
- Codling M. 'Eye Know': translating needs from annual health checks for people with learning disabilities to demand. British Journal of Learning Disabilities, 2012
   Finlayson J and others. An evaluation of vision champion training for community learning disability healthcare professionals. Learning Disability Practice, 2017. 20(5): p. 28-34
- <sup>22</sup> Ng WS and others. The effect of socio-economic deprivation on severity of glaucoma at presentation. British Journal of Ophthalmology, 2010. 94(1): p. 85-7
- <sup>23</sup> Shweikh Y and others. Measures of socioeconomic status and self-reported glaucoma in the UK Biobank cohort. Eye, 2015. 29(10): p. 1360-1367
- <sup>24</sup> D'Ath P, Keywood LJ, Styles EC & Wilson CM. East London's homeless: a retrospective review of an eye clinic for homeless people. BMC Health Services Research, 2016. 16: Article number 54
- <sup>25</sup> RNIB <u>Sight Loss Data Tool</u>

<sup>&</sup>lt;sup>17</sup> McClimens A, Brennan S and Hargreaves P. Hearing problems in the learning disability population: is anybody listening? British Journal of Learning Disabilities, 2015. 43(3): p. 153-160

<sup>&</sup>lt;sup>18</sup> Public Health England <u>Health matters: hearing loss across the life course</u>. Public health matters blog, 5 June 2019