

Literature Review – Supporting people with learning disabilities or severe mental illness within Lifestyles Services.

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Background

People with learning disabilities or severe mental illness are two groups of people who are more likely than the general population to develop lifestyle-related chronic health conditions due to a combination of factors¹. The factors contributing to this inequity consist of genetics, lifestyle behaviours such as more sedentary lifestyles and poorer diets, and healthcare related issues such as medication side-effects, dependence on carers and family and a lack of uptake of screening and other healthcare services. The Torbay Healthy Lifestyles Service aims to improve population health, providing a universal service which is targeted towards those with the greatest need. The service aims to improve diet and nutrition, reduce body mass index, reduce smoking, increase physical activity, improve oral health, improve emotional health and wellbeing and reduce alcohol consumption among the Torbay population.

People with learning disabilities and those with poor mental health are two of the target populations for the Torbay Healthy Lifestyles Service due to the higher prevalence of lifestyle related diseases and a lower capability to change behaviours without external support. For example, people with severe mental illness die, on average, 15-20 years before the general population and are more likely to have a physical health condition, specifically obesity, asthma, diabetes, respiratory disease, heart disease, stroke, and heart failure².

Overall, there have been few theoretically underpinned behavioural interventions evaluated specifically with the learning disabilities population³, or with people with severe mental illness. Furthermore, programmes for the general population do not include or address how to involve caregivers, or how to account for communication challenges, low literacy levels or co-existing mental illness.

In order to tackle health inequalities, it is important that Torbay Healthy Lifestyles Service is designed to provide the most effective service for people with learning disabilities and severe mental illness; this is the subject of this literature review. The major components of the service are the weight management service, support to increase physical activity and the smoking cessation service; therefore, this review focusses on these services.

The aim of this project is to review the published literature on the provision of Healthy Behaviour / Lifestyles service for people with learning disabilities or severe mental illness.

The specific objectives are:

- To identify best practice (peer-reviewed research) in delivering behaviour change interventions for people with learning disabilities
- To identify best practice (peer-reviewed research) in delivering behaviour change interventions for people with poor mental health

¹ [Multimorbidity and lifestyle factors among adults with intellectual disabilities: a cross-sectional analysis of a UK cohort - Tyrer - 2019 - Journal of Intellectual Disability Research - Wiley Online Library](#)

² [Severe mental illness \(SMI\) and physical health inequalities: briefing - GOV.UK \(www.gov.uk\)](#)

³ [Healthy lifestyle behaviours for people with intellectual disabilities: An exploration of organizational barriers and enablers - O'Leary - 2018 - Journal of Applied Research in Intellectual Disabilities - Wiley Online Library](#)

- To identify published national guidelines on how to design healthcare services for people with learning disabilities and people with severe mental illness, and to summarise any relevant aspects for Healthy Lifestyles services

Definitions

In this review, the definition of learning disability is taken from the Department of Health, ‘a significantly reduced ability to understand new or complex information, to learn new skills (impaired intelligence) with a reduced ability to cope independently (impaired social functioning), which started before adulthood.’⁴

The definition of severe mental illness refers to people with debilitating psychological problems which mean that their ability to engage in functional and occupational activities is severely impaired¹. This often includes major depressive disorder, schizophrenia and bipolar disorder, but applies to any mental illness which causes significant functional impairment.

Methods

The search terms identified in Table 1 were searched in Medline and ‘Google Scholar’. Titles and abstracts were reviewed to ensure that appropriate papers were included.

Population	Learning disability*	Intellectual disability*	Severe mental illness	Bipolar disorder / Schizophrenia	Major depressive disorder / severe depression	Anxiety
Intervention	Lifestyles services / Health behaviour services	Weight loss services / weight management services	Smoking cessation services / stop smoking services	Physical activity	Healthy eating / healthy diet / diet and nutrition	
Outcome	Behaviour change	Weight loss / decrease in weight	Smoking cessation / stop smoking	Increased physical activity / increased movement		

In order to identify relevant government guidance, the following website were reviewed:

- NHS England and Improvement ([NHS England and NHS Improvement London](#))
- NICE ([NICE | The National Institute for Health and Care Excellence](#))
- Department of Health and Social Care ([Department of Health and Social Care - GOV.UK \(www.gov.uk\)](#))

Findings

Learning Disabilities

A note on terminology: some papers use the phrase ‘learning disabilities’ and others use the phrase ‘intellectual disability’. The phrasing in this evidence review has maintained the original author’s phrasing for each paper.

⁴ [Definition | Background information | Learning disabilities | CKS | NICE](#)

Overall Service Design

For people with learning disabilities, NICE has produced guidance, 'Arranging services for people with a learning disability and behaviour that challenges'^[1]. This guidance provides general advice on how to design healthcare services for people with learning disabilities. This includes advice that the service should:

- Support person centred planning and provision
- Take a 'whole life' approach
- Be co-produced
- Bring together relevant services and develop a workforce with the right skills, knowledge and qualities, i.e. much closer collaboration with our LD services than there currently where services are co designed

Weight management services

Public Health England have produced specific guidance on obesity and weight management for people with learning disabilities^[2]. This document acknowledges the specific complexities of helping people with learning disabilities to lose weight and recommends the following to support this population to lose weight (not all of these can be influenced by the Healthy Lifestyles service):

- Raising awareness of excess weight with people with learning disabilities and their carers, because it has been identified that people with learning disabilities do not always understand the benefit of partaking in physical activity, nor understand the risks of being overweight
- Ensuring that people with learning disabilities attend an annual health check
- Including that carers (paid and unpaid) are included in weight loss interventions; carers have often been found to have a lack of knowledge about healthy living and may use food and drinks as a reward or means of control
- Ensuring that mainstream programmes are accessible through the provision of accessible information, which will support people to understand the risks to their health
- Involving peer partners, without disabilities, in exercise
- Undertaking appropriate risk assessments to participation in physical activity; the Health Equalities Framework^[3] can help

A systematic review by Willems et al.⁵ reviewed 45 studies on the use of behaviour change techniques for people with intellectual disabilities. The review found that most studies were of low quality and were unable to summarise which behaviour change techniques could be effective for people with intellectual disability.

A paper by Taggart et al.⁶ reviewed type 2 diabetes prevention and self-management programmes aimed at people with intellectual disabilities. The prevention programmes identified was called STOP. This programme is based on the 'Healthy Lifestyle Change Programme' and elements of the 'Theory of Planned Behaviour and Reasoned Action'. The programme focussed on elements of preparatory work with individuals before sessions, self-monitoring, reflection on personal levels of risk, flexing the programme to the needs of the individual and resources for different levels of intellectual disability. Self-efficacy was recognised as a key component of behaviour change, although for people with learning disabilities they are not always responsible for all buying and cooking of food – hence the need

⁵ [Use of behaviour change techniques in lifestyle change interventions for people with intellectual disabilities: A systematic review - ScienceDirect](#)

⁶ [Health Promotion and Wellness Initiatives Targeting Chronic Disease Prevention and Management for Adults with Intellectual and Developmental Disabilities: Recent Advancements in Type 2 Diabetes | SpringerLink](#)

to involve caregivers. The goals of the programme were adjusted from those for the general population to increasing physical activity and reducing sedentary behaviour, choosing smaller portions, and choosing healthier options. The programme consists of one carer session and seven joint sessions. Evaluation was challenging but suggested an improvement in biomedical measures although the sample size was small.

The paper by Taggert et al. also reviewed two diabetes self-management programmes for people with intellectual disabilities. Although not directly within scope of this literature review, there are key themes from the three reviewed programmes which are relevant when delivering lifestyle and behaviour change programmes for people with learning disabilities. The key themes were that the programmes were co-designed with people with learning disabilities and involved carers throughout. However, sample sizes in studies were small and limited evidence of effectiveness of these interventions.

Smoking cessation services

A systematic literature review by Murray et al.⁷ reviewed about how to improve access to smoking cessation for disadvantaged groups, including people with learning disabilities and mental health problems. This systematic review included 45 studies. One key finding from the review is the importance of providing services in a range of settings, and another finding was that drop-in clinics (rather than pre-booked appointments) increased recruitment and quit rates. Overall, however, the quality of evidence was deemed to be low and limited other reviews were found on how to improve access and uptake of smoking cessation services for people with learning disabilities.

Summary

In summary, there is a limited evidence base for weight management services for people with learning disabilities. A few studies were identified which specifically designed interventions targeted to support those with learning disabilities. The overarching findings suggest that for an intervention to support people with learning disabilities to lose weight or engage in physical activity, the intervention needs to involve preparatory work pre-appointment and be specifically designed to involve carers, for example by including one session for carers alone. Co-design of services is also recommended, however specific theories about how to best support behaviour change in this group are lacking.

Very limited evidence was identified about how to design smoking cessation services to support people with learning disabilities; however, the importance of involving carers is paramount and emphasised in general guidance for designing services to support people with learning disabilities, as well as studies on smoking cessation services.

People with severe mental illness

Overall Service Design

A Public Health England guideline⁸ outlines the importance of a 'no wrong door' approach for people with mental health conditions and alcohol and drug use conditions. This is relevant to the provision of lifestyles services because there may be people who access the Lifestyles service but ultimately would be better treated as part of another service – there should therefore be seamless referral between services in Torbay, including the lifestyles service.

⁷ [Improving access to smoking cessation services for disadvantaged groups: a systematic review | Journal of Public Health | Oxford Academic](#)

⁸ [Better care for people with co-occurring mental health, and alcohol and drug use conditions \(publishing.service.gov.uk\)](#)

Weight management services

Overall, there is mixed evidence on the provision of weight management services for people with severe mental illness. A study by Pendlebury et al. identified significant weight loss associated with group lifestyle advice (measurement, discussion, education) provided to 93 patients with severe mental illness. Another study by Muralidharan et al.⁹ evaluated a web-based intervention for weight loss and physical activity for people with severe mental illness and identified a positive effect. These studies therefore indicate that there is value in delivering weight management services to this group. Neither study focussed on specific features which made the interventions specific to the group with severe mental illness, therefore no specific differences to services are indicated.

A systematic review with meta-analysis by Speyer et al.¹⁰ identified a mean weight reduction of 0.63 kg/m² associated with individual lifestyle interventions for people with severe mental illness. However, this effect was not maintained beyond the length of the intervention and there was no specific reduction of cardiovascular risk factors. Therefore, this study concluded little benefit of introducing individual weight loss interventions with people who have severe mental illness.

A systematic review and meta-analysis by Naslund et al. reviewed lifestyle interventions for weight loss for people with severe mental illness. The lifestyle interventions primarily included standard nutrition education, combined with instruction and encouragement to increase physical activity. The programmes were delivered through a variety of providers, including community mental health centres, psychiatric hospitals (for inpatients and outpatients). Several of the included studies described tailoring the education in the programme for people with severe mental illness. Although studies were heterogenous, limiting comparison, the authors do comment that it is important to provide weight management support through inpatient and outpatient psychiatric services as this will be where people with severe mental illness receive most of their care. The methodological quality of the included studies in this review was high, giving some weight to the argument that individual level weight loss interventions can be effective for people with severe mental illness, and that the setting of delivering this service may be paramount in its success.

Smoking cessation services

A systematic review and meta-analysis by Mitchell et al.¹¹ identified that overall, people with severe mental illness received similar rates of smoking cessation advice to the general population, although those with non-severe mental illness were slightly more likely to receive smoking cessation advice than those with severe mental illness.

A systematic review by Peckham et al. found that Bupropion and varenicline (commonly used smoking cessation treatments) are effective for people with severe mental illness¹², but highlights the ongoing high levels of smoking in this population. A review conducted by Banham et al.¹³ included eight studies investigating smoking cessation interventions for severe mental illness and concluded that the same interventions worked for people with severe

⁹ [Impact of Online Weight Management With Peer Coaching on Physical Activity Levels of Adults With Serious Mental Illness | Psychiatric Services \(psychiatryonline.org\)](#)

¹⁰ [Lifestyle Interventions for Weight Management in People with Serious Mental Illness: A Systematic Review with Meta-Analysis, Trial Sequential Analysis, and Meta-Regression Analysis Exploring the Mediators and Moderators of Treatment Effects - FullText - Psychotherapy and Psychosomatics 2019, Vol. 88, No. 6 - Karger Publishers](#)

¹¹ [Do people with mental illness receive adequate smoking cessation advice? A systematic review and meta-analysis - ScienceDirect](#)

¹² [Smoking cessation in severe mental ill health: what works? an updated systematic review and meta-analysis | BMC Psychiatry | Full Text \(biomedcentral.com\)](#)

¹³ [Smoking cessation in severe mental illness: what works? - Banham - 2010 - Addiction - Wiley Online Library](#)

mental illness and the general population. This review included one study which compared a specialist severe mental illness smoking programme with standard group therapy and found no significant difference between the two groups¹⁴.

A randomised controlled trial by Gilbody et al.¹⁵ compared behavioural support from a mental health smoking cessation practitioner and pharmacological aids with extended pre-quit session, cut down to quit and home visits. The usual care group were offered access to local smoking cessation services. This study supports the development of a specific smoking cessation service for people with mental illness. This intervention found an increased change of successful quitting in the intervention group at 6 months, also found an improvement in physical health measured on the SF-12. There were also no differences between the group on measures of mental health – supporting the argument that smoking cessation does not worsen mental health.

Summary

Overall evidence suggests that interventions including nutrition education and support to increase physical activity were effective for people with severe mental illness. Many of the papers identifying positive impact of these interventions were based in outpatient or inpatient psychiatric services, suggesting that this group may respond better to services based in the same location as where the majority of their care is delivered.

At times, it has been suggested that smoking cessation for people with severe mental illness may worsen mental health, but this theory is not supported by the literature. Although some studies suggest that general smoking cessation advice is effective for people with severe mental illness, one randomised controlled trial strongly supports enhanced support for this group. Extra support may take the form of similar content (pharmacological aids alongside counselling and support) but with the added benefit of extra sessions particularly in the 'pre-quit' phase. This extra support may be required to tackle the inequality associated with smoking among people with severe mental illness.

Conclusion

In conclusion, the following recommendations could be considered in the Torbay Healthy Lifestyles service:

- Provision of bespoke support for people with learning disabilities and their carers in the delivery of weight management and physical activity programmes. A similar approach could be considered for smoking cessation.
- In the absence of sound behavioural theory to support behaviour change in individuals with learning disabilities, services should engage in co-design, ensure that carers are involved and provide easy-read information.
- For people with severe mental illness, the service could consider outreach delivery of smoking cessation and weight management services in mental health inpatient and outpatient units.
- For smoking cessation for people with severe mental illness, extra support should be considered in the form of extra sessions in the pre-quit phase.

¹⁴ [A placebo-controlled trial of bupropion combined with nicotine patch for smoking cessation in schizophrenia - PubMed \(nih.gov\)](#)

¹⁵ [Smoking cessation for people with severe mental illness \(SCIMITAR+\): a pragmatic randomised controlled trial - ScienceDirect](#)