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Enabling participation in activities of daily living for people living with obesity

Clinical Practice Guideline
for the Management of Obesity in Adults in South Africa

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SOUTH AFRICAN METABOLIC MEDICINE AND SURGERY SOCIETY

Cite this chapter: Conradie-Smit M, Bhana SA, May W. Enabling participation in activities of daily living for people living with obesity.
S Afr Med J 2025;115(9b):e3573. https://doi.org/10.7196/SAMJ.2025.v115i9b.3573

KEY MESSAGES FOR HEALTHCARE PROVIDERS

- Asking patients about their performance in daily activities, including personal care, mobility and interactions with the built and social environment, will provide valuable information about facilitators of and barriers to engagement in daily activities, including treatment recommendations. This can help healthcare providers (HCPs) to tailor interventions for obesity treatment and management.
- Places and spaces where healthcare service delivery takes place can be made physically accessible, equipped and respectful for use by people living with obesity (PLWO) so that patients can access the full range of primary care services, including assessment and treatment. Consideration of the accessible features surrounding the clinic space, including access to parking, public transport and door widths to accommodate mobility equipment, is also needed.
- Injury prevention, which includes falls risk reduction, is possible via the inclusion of exercises to improve postural control, balance and lower extremity strength. The Falls Efficacy Scale is a psychometrically sound measure that determines an individual's concern about their risk of falling while performing activities of daily living (ADL) that involve walking or moving about.[1]
- Patients who report significant challenges with participation in ADL may benefit from a referral for occupational therapy and/or physiotherapy.
- HCPs should look at the integrity of the patient's skin and the condition of any wounds in order to identify areas of concern such as pressure points, skin breakdown or signs of infection.[2]
- It is important to recognise that PLWO may have experienced stigmatising interactions within healthcare services, which may contribute to increased anxiety around attendance. Discussing and agreeing on expectations at the outset of assessments can be helpful in improving individual comfort within the healthcare environment.[3]
- Appropriate equipment should be made available with recognition of structural dimensions, composition and safe working load. Attendance can be affected by these challenges, and consideration should be given with regard to rescheduling or an alternative virtual appointment.[3]

KEY MESSAGES FOR PEOPLE LIVING WITH OBESITY

- The restricted range of motion, balance and mobility that some individuals living with obesity experience can affect the ability to complete self-care activities such as bathing, getting dressed, bowel and/or bladder management, skin and/or wound care, and foot care. Issues in this area may require adaptation of self-care activities and/or the use of assistive devices, such as dressing aids, a long-handled reacher, long-handled sponges, bath benches, grab bars and mobility aids.[4]
- Some individuals living with obesity experience issues with mobility and are at risk for slips, trips and/or falls. This could interfere with the ability to participate in physical activity and interest in doing so. Be sure to let your healthcare provider know if you have had a fall or are fearful of falling as you go about your day-to-day activities.[5]
- Obesity is linked to other barriers too, such as pain, trouble sleeping or breathing, bowel and bladder continence, being comfortable and feeling safe when active, and physical challenges at home and in personal relationships. Discussing these with your healthcare provider can help them support you and gain access to specialist services as needed.[3]
- Obesity is associated with an increased risk of skin issues that can result in redness, blisters, rashes and open wounds that are resistant to healing. Individuals with obesity should routinely monitor the integrity of their skin and the condition of any wounds in order to identify areas of concern such as pressure points, skin breakdown or signs of infection. Particular attention should be paid to areas in skin folds.
- Your healthcare providers' offices and clinical care spaces should be physically accessible and equipped so that all patients, including those living with obesity, can access the full range of primary care services, including assessment and treatment. Let your healthcare provider know if there are barriers that prevent you from fully participating in and accessing care. This includes access to parking or public transport, elevators, stairs, seating, doorways, washroom accessibility, etc. Advocate to have barriers addressed and spaces modified.[3]
- Consideration should be given to your needs and abilities to manage domestic ADL, i.e. laundry, grocery shopping, etc., and referrals should be sought if necessary.

RECOMMENDATIONS

1. We recommend that HCPs ask PLWO if they have concerns about managing self-care activities such as bathing, getting dressed, bowel and/or bladder management, skin and/or wound care, foot care (Level 3, Grade C).[4]
2. We recommend that HCPs assess falls risk in PLWO, as this could interfere with their ability to participate in physical activity and their interest in doing so (Level 3, Grade C).[5]

Introduction

People living with obesity (PLWO) undergoing treatment frequently experience challenges participating in activities of daily living (ADL), which include the types of physical activity and other programmes required for successful management and treatment of obesity, such as physical exercise and meal preparation. The ability to take care of oneself (including bathing, dressing and accessing healthcare services) is also necessary to engage in treatment for obesity. This chapter provides an overview of the elements of body functions and structures, and personal and environmental factors, using the best evidence available to illustrate how they influence participation in the treatment and management of obesity. The purpose of this chapter is to provide primary healthcare teams with recommendations that will help them to identify factors that their patients may need to have addressed in order for them to participate in ADL, to promote health and wellbeing as well as to take part in obesity management activities. It is our intention that work in this area will continue and more evidence will be generated, especially in our local context, that contributes to improving participation in everyday activities, addressing the functional consequences of obesity and the environmental and social barriers that add to the disability experienced by some PLWO undergoing treatment.

Why consideration of ADL is important

Obesity is a health condition that may be experienced as a disability as a result of restricted participation or activity limitations caused by factors in the built and social environments, personal factors, or dysfunction of body functions and structures. PLWO are experts in knowing what it is like to navigate their day-to-day activities. However, unless the patient is specifically asked about managing ADL, healthcare providers (HCPs) are often unaware of the challenges experienced by PLWO; these difficulties are therefore not addressed, and may be barriers to obesity management.

Being satisfied with the ability to participate in ADL is associated with health-related quality of life by reducing disability as well as supporting PLWO to manage at home and in their communities. Meeting these objectives will contribute to the overall health and wellbeing of individual patients by developing the ability to participate in physical activity, meaningful productivity and social interactions, and providing opportunities for doing so.

Some challenges experienced by PLWO will require services and supports available through multidisciplinary teams, rehabilitation professionals and/or disability services, including financial support for assistive devices, home renovations and accessible parking.

What is the impact of obesity on performance of ADL?

Obesity is associated with increased time spent on self-care activities, indicating that patients may need more time to complete ADL, including bathing, getting dressed and moving from place to place. It has been reported that PLWO spend almost triple the amount of time doing daily activities (dressing, bathing, attending medical appointments, meal preparation) than typically reported in the same age groups in persons without obesity, leaving less time for work, rest and leisure activities.[4] Class 2 and Class 3 obesity are associated with increased odds of impairment in ADL (i.e. getting into/out of bed, dressing, bathing, eating).[4,6] Some PLWO experience limitations in being able to reach areas of their body to perform activities related to personal hygiene.[7]

Mobility impairment

Body mass index is not always an independent predictor of mobility impairment. Muscle strength, assessed using bilateral hand-grip strength measures taken with a dynamometer, has been found to be the best predictor of mobility disability.[8] While not ideal, an alternative to measuring lower extremity and grip strength with a dynamometer in primary care is to ask a patient if they have difficulty climbing one flight of stairs or walking 400 metres on a flat surface in 15 minutes without sitting to rest.[8-10]

Although it may seem logical to assume that body shape or fat distribution (central v. lower body) would have an impact on mobility, one study to date reports no association with lower extremity function or disability.[11]

Risk of falls

The risk of slips, trips and falls increases in all classes of obesity, with an increased risk for injurious falls in adults who have Class 2 or Class 3 obesity.[12-15]

HCPs should assess for falls risk. The Falls Efficacy Scale (FES) is a psychometrically sound measure that determines an individual's concern about their risk of falling while performing ADL.[1] While the FES has primarily been used in populations of older adults, it can serve as a useful guide to ask practical questions and conduct a gross assessment of a patient's self-efficacy with regard to falls and fall prevention.

Class 3 obesity is associated with decreased balance in adults as measured by time of balance maintenance and postural sway at the trunk during one-leg stance on a movable platform.[16] Specific balance training incorporated into a 3-week multidisciplinary body weight reduction programme significantly improved balance and reduced trunk sway more than body weight reduction alone.[16]

Falls risk may be improved with obesity management. Significant weight loss has been shown to improve postural stability in a small sample size of adult men, and the improvement was directly related to the amount of weight lost (average weight lost 12.3 kg after a dietary intervention and 71.3 kg after surgical intervention).[17]

Skin integrity

PLWO can be at increased risk of issues associated with skin integrity due to skin problems, moisture and friction in skin folds, and difficulty with reaching areas of their skin. Specific skin issues include dryness, itchiness, broken skin, redness and rashes.[2] The most commonly reported body sites for skin problems are under the breasts and the limbs, groin, abdomen and thighs, all of which are areas where there may be a greater chance of skin folds or skin-to-skin contact.[1]

The most commonly reported risk factors for skin problems are:

- Hyperhidrosis (excessive sweating) and excess moisture in skin folds, which can contribute to intertrigo and heat rash[2]

Table 1. Assessment of clinical space checklist

Type of space	Considerations
Waiting areas	
Reading material, health promotion posters and artwork	✓ Avoid images and content that could stigmatise, exclude and/or discriminate against individuals with obesity
Seating (chairs, stools and sofas)	✓ Adequate weight capacity (minimum 136 kg/300 lb) ✓ Chairs with and without armrests ✓ 15 - 20 cm spacing between chairs ✓ Chair width greater than 51 cm ✓ Chair seat depth greater than 46 cm ✓ Firm cushions ✓ Seat height minimum 41 cm ✓ Mix of chairs so that there is not a perceived section for people with obesity that is separate from other seating
Washroom	
Toilet	✓ Minimum weight capacity 136 kg ✓ Floor mounted ✓ Ensure enough room surrounding toilet to allow for sitting or straddling of toilet ✓ Professionally installed, wall-mounted grab bars nearby to support getting on and off the toilet ✓ Split (U-shaped) toilet seat ✓ Consider placement of toilet paper roll within easy reach (i.e. not behind toilet)
Specimen container	✓ Urine specimen container with handle
Examination rooms	
Weight scale	✓ Minimum weight capacity 227 kg (500 lb) ✓ Wide standing surface ✓ Supportive handlebars on scale or professionally installed wall-mounted grab bars close by ✓ Built-in ramp for wheelchair or individuals with mobility difficulties ✓ Seating and long-handled shoehorn nearby ✓ Located in an area that provides privacy
Examination table	✓ Minimum weight capacity 227 kg ✓ Firm cushioned surface ✓ Wide enough to support various body shapes ✓ Positioned close to structures such as wall-mounted grab bars
Step stool	✓ Minimum weight capacity 227 kg ✓ Wide surface ✓ Equipped with supportive handlebar(s)
Clinic equipment	
Gowns	✓ Have a range of large sizes available
Blood pressure cuffs	✓ Large and extra-large cuffs readily available
Tape measure	✓ Appropriate length for waist and hip circumference measurement ✓ Available up to 304 cm long
Needles	✓ 5 cm safety needles available for intramuscular injection
Speculum	✓ Large or extra-large speculum ✓ Available with 17.8 cm blade
Phlebotomy	✓ Longer tourniquet up to 81 cm long

- Limited range of motion and the weight of skin folds, which can make it hard to clean all areas of the body and can contribute to the development of pressure injuries[7]
- Malnutrition, which can affect skin healing[7]
- Reaching certain areas of the body can be difficult for PLWO.[7]

Strategies for managing skin integrity in people with obesity

- Keep the skin clean and dry. This may require washing the skin and changing clothes multiple times a day to decrease moisture.[7]
- Use a soft cloth (cotton) for absorbing excess moisture, including in the skin folds, to help minimise skin irritation.[7]
- Dry skin with a fan or a blow dryer on the coolest setting.[7]

HCPs should address skin care as part of routine care of PLWO. As with many clinical enquiries, this will need to be approached with care, as PLWO may feel uncomfortable discussing skin problems because of fear or embarrassment.[2] Refer the patient to skin and wound care experts if a skin issue is not improving or a wound is not healing.

Table 2. When to refer to an occupational therapist

Challenge category	Types of interventions provided by an occupational therapist
Obesity-related comorbidities that affect activities of daily living	• Educate clients on self-management of associated conditions (e.g. cardiovascular disease, diabetic neuropathy, dysphagia, osteoarthritis, obstructive sleep apnoea, skin conditions, lymphoedema)
Mental health	• Apply psychosocial interventions to address the functional impact of mental health disorders on emotions, thoughts and behaviours • Support positive body image • Facilitate social engagement through enhancing social skills or participating in leisure activities • Enable clients to optimise time use through developing routines
Energy management	• Coach clients on how to increase energy expenditure or how to manage limited energy (e.g. self-care, leisure, shopping, work) • Promote energy management for physical activity
Education and skills building	• Collaborate with and coach clients to build skills in the areas of: • Meal planning and food preparation • Occupational and life balance • Occupational engagement • Pain management • Physical activity • Skin care management • Sleep hygiene and positioning • Stress management • Time management
Environment	• Identify and address home accessibility barriers • Identify and address barriers to accessing community resources • Adapt the task or environment to facilitate occupational engagement (e.g. positioning, assistive devices, space organisation)
Equipment	• Assess for and recommend assistive devices (e.g. self-care aids, mobility aids, abdominal supports) • Provide education on appropriate footwear or need for orthotics
Consultation and advocacy	• Consult with and co-ordinate referrals to other healthcare providers or specialists • Advocate for support funding and purchase of assistive devices, participation in community programmes, access to community resources

Interventions for promoting independence with ADL

Ask patients what time of day is best for them to attend appointments and work with them to integrate activities related to obesity treatment into their daily routine, allowing adequate time.

Encourage use of energy conservation strategies

Energy management and balancing activities, including the use of assistive devices for self-care activities, pacing, planning, prioritising, positioning for self-care, meal preparation and household tasks, can help people to manage their daily activities through the day and week.[4] Examples include sitting for meal prep, using a bath seat or dressing aids, planning meals, re-organising the meal preparation area to promote accessibility of cooking utensils and food, and meal planning to manage energy needed for daily cooking. Using energy management strategies for some daily self-care activities can help to reserve energy to enable people to do other daily activities, such as exercise, grocery shopping, attending medical appointments, or social and leisure activities. Energy conservation strategies can also help patients manage their energy for behaviour changes to support obesity management, such as meal preparation and physical activity. It is therefore suggested that HCPs consider energy conservation strategies when prescribing physical activity or therapeutic exercises as part of a treatment plan for obesity.

The use of assistive devices, such as a long-handled reacher, dressing sticks, shoehorns, sock aids, bath sponges and bath seats, addresses challenges with self-care associated with decreased range of motion and strength, and can reduce injuries associated with falls, strains and sprains.

Strategies to improve access to and engagement in primary healthcare

There are a number of recommendations and opinions available that suggest ways in which to make a healthcare environment, such as a primary care setting, accessible, comfortable and respectful for individuals with body sizes and shapes associated with obesity. Suggestions to modify the built and social environments, along with making sure that all medical supplies and equipment meet the needs of PLWO, are based on knowledge about how humans interact with places, spaces and objects in conjunction with patients' opinions about what would make clinical visits more effective and comfortable. Empirical research is not necessary to identify such strategies. Research into the effect of such interventions has not yet been published.

To this end, the following recommendations are made to promote access to places and spaces where primary care takes place. The checklist (Table 1) is intended to guide the assessment of a healthcare setting, such as a clinic space. To use this checklist, walk through your

Table 3. When to refer to a physical therapist (physiotherapist, biokineticist)

Challenge category	Types of interventions provided by a physiotherapist
Challenges with movement, pain or daily function	• Assess, diagnose and manage musculoskeletal issues (e.g. pain, injury, limitations in range of motion, endurance, strength) • Analyse and manage problems with functional mobility (e.g. walking, moving in bed, getting out of a chair, reaching) • Assess physical ability to participate in physical activity or exercise • Address functional issues following significant changes in body weight (e.g. loss of muscle mass) • Assess balance and address falls risk • Prevent further or future health issues (e.g. assess efficiency of movement, mobility to minimise stress on joints)
Obesity-related comorbidities that affect daily function	• Manage and educate on associated conditions (e.g. osteoarthritis, diabetic neuropathy, urinary incontinence*, lymphoedema*)
Energy management	• Provide education on maximising limited energy for activities of daily living • Promote managing energy for activities of daily living, physical activity or exercise • Evaluate recent changes in functional capacity or daily abilities related to energy management
Posture and positioning issues	• Assess posture and provide posture education/correction/exercises • Evaluate concerns with positioning (e.g. pain, sleep apnoea)
Activity counselling needs	• Counsel on functional mobility limitations and activity barriers, beliefs around activity, and root cause(s) of inactivity • Address fear regarding movement and being active (e.g. pain with movement or fear of falling) • Prescribe therapeutic exercise and physical activity • Provide education on health benefits of activity and risk associated with sedentary behaviour
Equipment issues	• Provide education about equipment at home and/or correct use of home equipment • Assess and analyse gait and footwear and educate on appropriate footwear or need for orthotic assessment • Assess need for and prescribe assistive devices (e.g. mobility aids, abdominal support)
Access to community resources	• Consult with and determine need to refer to other healthcare providers or specialists to address physical and functional concerns • Identify physical home environment concerns • Identify physical barriers to accessing community resources (e.g. accessibility of equipment, finding appropriate facility or programming)

*Indicates requires specialised training.

clinical space while considering the interactions your patient may have with the environment throughout their visit.

Gaps in our knowledge: Questions for future research

There are significant gaps in knowledge about what it is like to live with obesity in the context of participating in day-to-day activities, including self-care, leisure (voluntary, enjoyable active or passive activities) and life roles. This is especially true for the diverse ethnic and socioeconomic setting in Southern Africa.[18] Even less is known about the effectiveness of interventions that target known barriers in the built and social environments, including weight bias among healthcare providers, employers and educators, and adaptations to spaces and places where people live, work and play. Much of the existing research involves small convenience samples and individual case studies. The development and evaluation of interventions that address key elements that contribute to participation in everyday life roles are needed; these should focus on body functions and structures, ADL, personal factors (including gender and age) and environmental factors, including the built and social environments. Lack of resources and clear leadership, including monitoring and evaluation and funding for research, has been identified as a challenge in obesity care in South Africa (SA).[19] A better understanding of the factors that influence function, performance and satisfaction in everyday living will enhance the ability of primary healthcare teams to personalise interventions using multidimensional and interprofessional perspectives.

Tips on when to refer a patient for occupational therapy

Occupational therapists promote health and wellbeing for PLWO by facilitating engagement in the occupations of everyday life. However, access to services remains a challenge in SA, specifically pertaining to affordability, availability and acceptability.[20]

Consider referring PLWO to an occupational therapist through a specialty clinic, home care, primary care, outpatient services or private practice.

Referrals for occupational therapy may be indicated for a PLWO who presents with any of the challenges listed in Table 2. The skills an occupational therapist will use are listed in each category.

Tips on when to refer to a patient for physiotherapy

Physiotherapists (and biokineticists) can help PLWO to manage

functional challenges. Again, constraints on global access and ethical dilemmas related to this are a concern.[21]

Use this guide to determine when to consider referring your patient for physical therapy. This may be accessed in a specialty clinic, home care, primary care, outpatient services and in private practice. Physiotherapy/biokineticist referral may be indicated for a PLWO presenting with any of the challenges listed in Table 3. Skills that a physiotherapist may employ are listed in each category.

Acknowledgement. 'Enabling participation in activities of daily living for people living with obesity' is adapted from the Canadian Adult Obesity Clinical Practice Guideline (the 'Guideline'), which Obesity Canada owns and from whom we have a licence. SAMMSS adapted the Guideline having regard for relevant context affecting South Africa using the ADAPTE Tool.

SAMMSS acknowledges that Obesity Canada and the authors of the Guideline have not formally reviewed 'Enabling participation in activities of daily living for people living with obesity' and bear no responsibility for changes made to such chapter, or how the adapted Guideline is presented or disseminated. Therefore, such parties, according to their policy, disclaim any association with such adapted materials. The original Guideline may be viewed in English at: www.obesitycanada.ca/guidelines

Author contributions. MC-S adapted the Canadian guideline and updated the discussion. All authors edited and approved the final version of the chapter.

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