ASSESSMENT & MANAGEMENT OF PHYSICAL ACTIVITY, SCREEN TIME & SLEEP IN CHILDREN WITH OBESITY

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Consider…

- Children with obesity are often victims of bullying and stigmatization
- Fear of judgment can prevent parents from seeking health care support for their children
- Making assumptions about a family's health behaviours can lead to an ineffective intervention

Get acquainted with...

- 24-hour movement guidelines
  - Early Years ages 0-4: Move, Sleep, Sit
  - Children ages 5-17: Sweat, Step, Sleep, Sit
- Negative effects of too much screen time
- Impact of poor sleep and sleep hygiene
- Exercise is Medicine
- Core concepts of Motivational Interviewing


Fewer than ? % of children and youth aged 5 to 17 are meeting physical activity targets.[4]

20%

40%

80%

Assessment of Physical Activity, Sleep, and Screen Time

While there are many ways to assess physical activity, sedentary behaviour, and sleep, many busy clinicians find an interview-based conversation to be the most effective assessment method.

A Day in the Life

Some areas to cover in a physical activity assessment include:

- Active transportation (e.g. walking to school, bike riding)
- Intensity of physical activity (e.g. light, moderate-to-vigorous)
- Presence of pain that limits their ability to move or perform daily activities
- Level of participation in physical activity at school (e.g., gym class, school teams and extracurricular activities)
- What a typical weekday versus a typical weekend day looks like
- Overall activity level of social influencers, such as friends and family (e.g., how active are your patient's siblings, friends)
- Explore all the environments that are encountered throughout the day (e.g., living arrangements, caregivers, school, daycare)

Potential Barriers

- Financial
- Environment/location
- Inconsistent/absence of screen limits
- Poor sleep hygiene
- Deconditioned
- Negative past experiences
- Lack of social support
- Mental health
- Lack of appropriate programming for youth with special needs

Musculoskeletal pain

Is excess weight impacting ADLs and physical activity?

- Can increase stress and tension that can affect bone growth and MSK health
- Pain or a deformity and could lead to a lifetime of limited mobility and diminished QoL

KEY QUESTION TO ASK: "Do you have any pain that is limiting your ability to move or perform daily activities?"

- Asking about pain when climbing stairs or participating in gym class will help you to gain an understanding of pain patterns

- Treatment of these conditions often involves referral to a physiotherapist. Orthotics may also be considered.

Common Conditions responsible for MSK pain in youth with obesity

Condition	Indications
Genu Valgum (knock knee)	Knees angle in and touch each other when legs are straightened. Patients present with pain in the knees, feet, hips and ankles, poor balance, stiff joints.
Pes Planus (flatfoot)	Longitudinal arch in the foot has not developed normally and is lowered or flattened out. Patients may present with foot discomfort and leg aches, however, this condition often presents with no symptoms.
Blount's disease	A disorder of the growth plates in the bones around the knee causing the child to have a bowlegged appearance. Patients present with pain and instability of the knee.

Screen Time

Questions to ask:

- Number of hours of screen time on a weekday vs weekend day
- Types of screen time activities & devices being used
- Screen time use with meals
- Technology in the bedroom
- Current limits or rules & family attitudes

Sleep

Questions to ask:

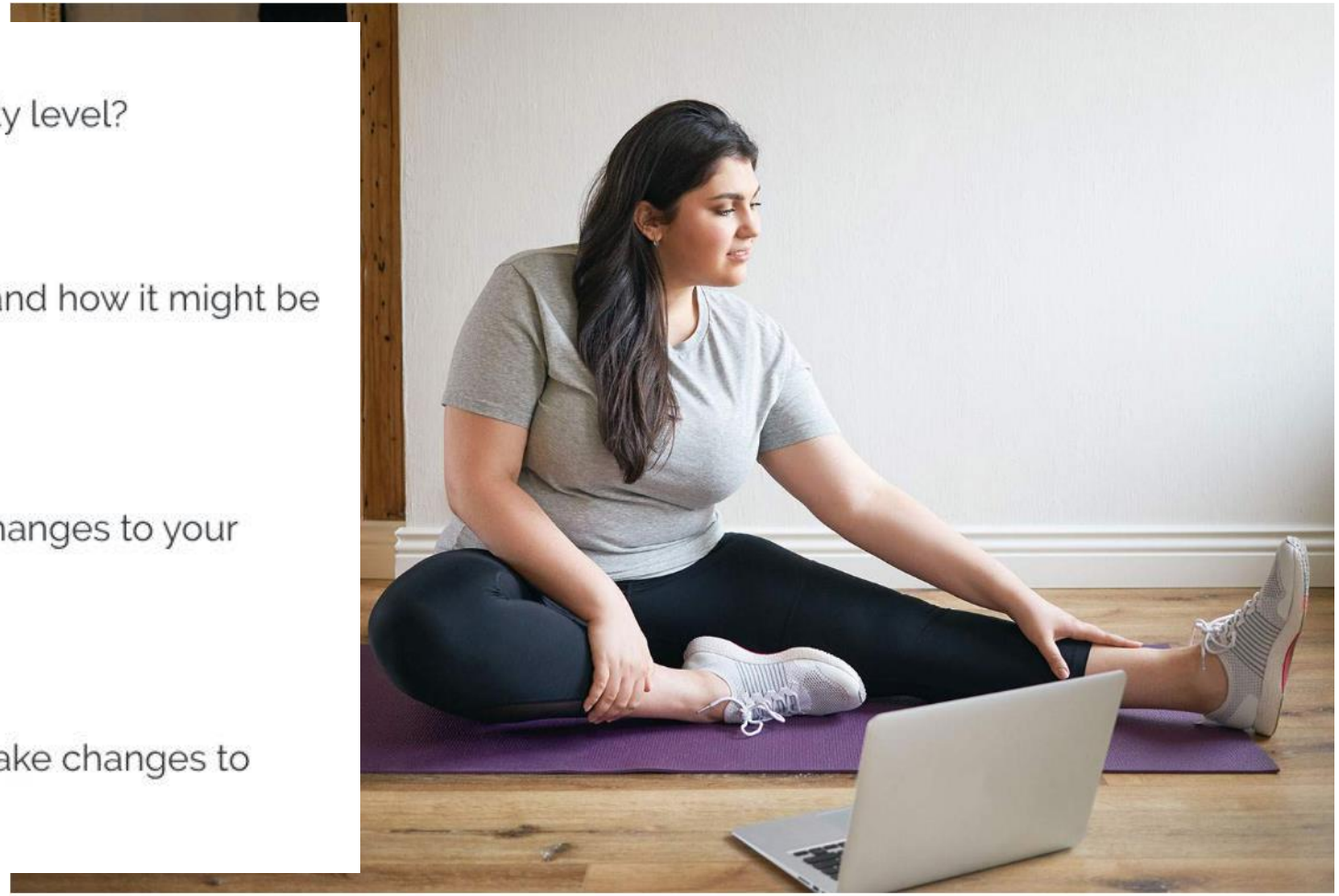
- Bedtime on weekdays vs weekends
- Wake time on weekdays vs weekends
- Amount of time it takes to fall asleep
- Sleep environment (location and tech in room)
- Naps

Management: Physical Activity, Screen Time, and Sleep

MI in action

What question might help you assess your patient's readiness to change?

- [ ] Would it be OK if we talked about your activity level?
- [ ] Are you concerned about your activity level and how it might be impacting your health?
- [ ] Are you interested in talking about making changes to your activity?
- [ ] On a scale of 1 to 10, how important is it to make changes to your daily activity?



Once she's agreed...

You ask Casey how she feels about making a movement or screen time goal. She says she knows activity is important and she definitely felt better when she was more active but she's not willing to reduce her screen time at the moment.

What will you do?

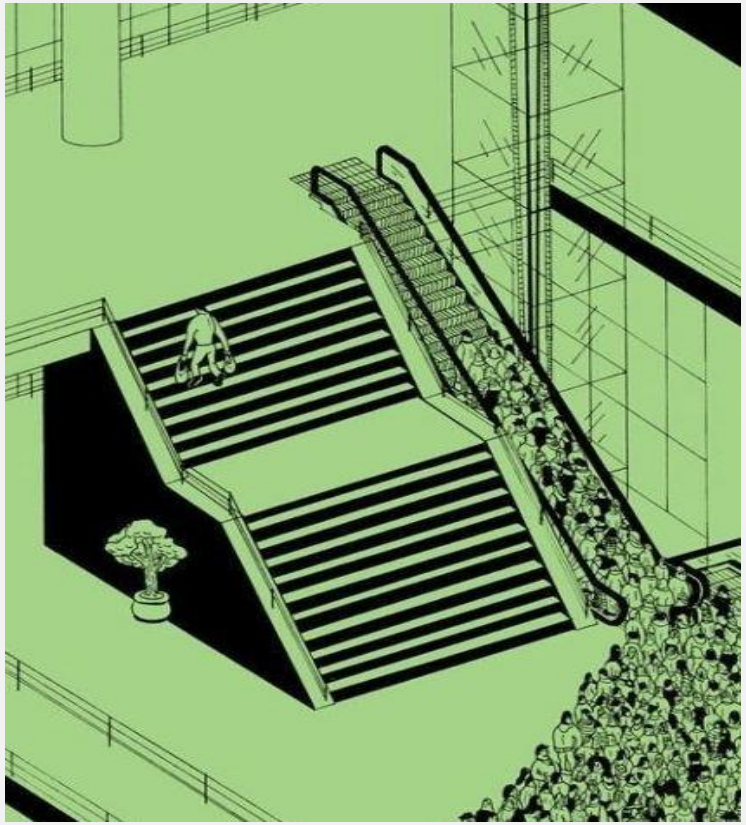
- ◯ Ask her how she thinks she might be able to get more steps into her day
- ◯ Explain the negative effects of screen time on her health and ask her again about setting a screen time goal
- ◯ Suggest jogging before school each day

Keep in mind that these patients may experience a decreased desire to engage in PA to due decreased coordination, lower exercise capacity and lower likelihood of being chosen for sports team

- Prescribe and support the increase of physical activity starting with 20 mins of MVPA daily eventually working up to 60 mins/day
- Family support & family-based interventions are positively associated with children's PA levels
- Identify potential organized activity
  - City/town, YMCA, Churches, after-school programs, Boys & Girls Club, Big Brother Big Sister Big G, Girl Guides, Scouts, Special Olympics

Making your day harder?

- ACTIVE LIVING is a relatively new term that simply means looking at ways of incorporating more steps into your daily routine
  - Parking further away from store
  - Active transport
  - Getting off transit 1 stop early
  - Adding a movement snack whenever possible (between Netflix episodes)
- Great resource to share with your patients is the video 'Make Your Day Harder' by Dr. Mike Evans



Screen Time

Data from >11,000 preschool children aged 4-6 linked increased caloric intake from snacks and sugar-sweetened beverages to increased screen time.[7]

A 2-generation study associated increased BMI with >2 hours of screen time per day for both parents and children.[8]

Keep in mind...

- Recognize the 'norm' of online socializing for tweens and teens
- Most adolescents won't immediately be able to achieve this goal
- Don't subtract without adding

SCREEN TIME HACKS

- Be aware of your screen time
- Tech-free time or hour (meal times)
- Movement break every hour for 5-10 minutes
- Make screen time active (doesn't count towards your total!)
- No screens 1 hour before bed
- Set up an activity break with your online gaming friends (everyone pauses the game)

Sleep

- Have a relaxing bedtime routine
- Always fall asleep in your bed (avoid doing homework and screen time in bed)
- Reduce day time sleep
- Limit screen time before bed
- Avoid caffeine after mid-afternoon
- Get up within 2-4 hours of your usual wake time on weekends
- Create a comfortable sleep environment
- Don't allow electronics in the bedroom
- Prepare breakfast and choose your clothes the night before
- Follow a regular sleep schedule

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QUESTIONS