ParticiPAte CP – Clinical Reasoning Framework

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Before you start, adopt a participation-focused and behaviour-changing “mindset”

- Understand that participation can be the reason for intervention, the means, and the end
- Recognize that physical activity is a health behaviour, and that barriers and facilitators to participation can lie across a spectrum of human health and behavioural domains – not just skills!
- Appreciate that people (incl. children and youth) with disabilities come with motivations, preferences and psychological needs and many of these are the same as people without disabilities

**Intervention process flowchart**

1. Discover preferences and set goals for physical activity participation
   - Children who have little experience of physical activity participation may not understand what “physical activities” are, so consider building in an individually-appropriate explanation and brainstorming session to explore types of physical activity (e.g. formal vs. informal), preferences, current participation and desired future participation (you may like to use pictorial or visual resources)
   - Use a goal-setting tool and/or framework such as the Canadian Occupational Performance Measure (COPM, Law et al. 2014)
   - Align your goals with the Family of Participation-Related Constructs (Imms et al. 2017) (e.g. specify an Attendance and/or Involvement aspect to the goal)
   - Set a small number of goals (3 or less) and a timeframe for review (post-intervention and follow-up later if possible)

2. Explore barriers and facilitators to physical activity participation goals
   - Use a framework to explore barriers and facilitators, such as the Theoretical Domains Framework (Michie et al. 2005, Cane et al. 2012) or the WHO ICF
   - A holistic view of both modifiable and non-modifiable barriers will enable you to select appropriate treatment strategies which will likely differ between individuals and between goals
   - Consider using existing or made-for-purpose questionnaires or an interview to discuss barriers and facilitators if they are not revealed in the goal-setting process
   - Use clinical therapy assessment (observation, standardized or clinical assessments) to explore barriers in skills/activity competence/body structures and functions/participation to each goal
   - Occasionally you may find there are few, if any barriers in the sport-specific skills!
3. **Understand motivational orientation and readiness for physical activity behaviour change**
- Recognize the family’s current physical activity behaviour/s and whether they are ready to change, formally using the Stages of Behaviour Change or similar (Prochaska & Velicer 1997) or informally
- Consider evaluating motivational orientation (intrinsic versus extrinsic) if relevant, using Motivation for Physical Activities Measure – Revised (Ryan et al. 1997)
- Using this information, decide whether the use of communication techniques such as those employed in Motivational Interviewing, Solution-Focused Coaching, Occupational Performance Coaching or otherwise are warranted, to what extent, and when in the intervention process

4. **Select intervention strategies from the toolkit only as they relate directly to achieving the set goals**
- Consider using a clinical reasoning grid or template to line up your strategies with the goal and the barriers/facilitators to that goal
- Be aware that most behaviour-changing techniques are most effective only for barriers present in specific domains of human behaviour (Michie et al. 2008)
- Appreciate how one type of intervention strategy could have effects across multiple barriers (e.g. incremental skills practice may improve skills, but also develop self-efficacy, improve confidence, and increase intrinsic motivation), and use this purposefully in your intervention

**Example clinical reasoning grid or template (using Theoretical Domains Framework and ICF)**

<table>
<thead>
<tr>
<th>Barrier</th>
<th>Category</th>
<th>Strategy</th>
<th>Strategy Category</th>
<th>Goal (aligns to)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor suitability of existing tricycle</td>
<td>TDF (Environmental Context and Resources) ICF (Environment)</td>
<td>Change seat height Pedal modifications Research funding for new tricycle</td>
<td>TDF (Environmental Context and Resources, Knowledge) ICF (Environment)</td>
<td>Ride trike once per week for &gt;20 mins in the park with family</td>
</tr>
<tr>
<td>Family difficulty in scheduling/prioritizing trike riding</td>
<td>TDF (Intentions, Goals, Memory/Attention, Social influences, Behavioural Regulation) ICF (Environment, Participation, Personal Factors)</td>
<td>Motivational Interviewing Strategy Planning Action Planning</td>
<td>TDF (Reinforcement, Intentions, Goals, Memory/Attention, Behavioural Regulation) ICF (Personal Factors, Environment)</td>
<td>Ride trike once per week for &gt;20 mins in the park with family</td>
</tr>
<tr>
<td>Decreased aerobic endurance (insufficient for &gt;10 mins soccer)</td>
<td>TDF (Skills) ICF (Body Structures and Functions)</td>
<td>Soccer-specific endurance training Scaffolded participation Activity modification</td>
<td>TDF (Skills, Environmental Context and Resources) ICF (Body Structures and Function, Activities, Participation)</td>
<td>Participate in game of soccer at Paralympic football program once per week</td>
</tr>
</tbody>
</table>

5. **Apply tools from a behaviour change and goal-directed perspective**
- Ask yourself, how will this (intervention tool/strategy) lead to change in child/family physical activity behaviour and/or to the attainment of set goals?
- If you have chosen techniques that fit into the “Skills” (TDF) or “Activity” (ICF) domains, how will you ensure that there is translation into a participation outcome? How does this tool fit within the broader context of your intervention package?

6. **Re-evaluate and reflect on process and outcomes, plan for sustaining changes in behaviour**
- Score PA participation goals (using COPM or otherwise) to evaluate the success of your intervention package and remember to do this collaboratively
- Consider means to measure success of smaller parts of your intervention (i.e., have there been changes in activity competence? Motivation? Etc.)
- How will changes be sustained? Have you made an explicit or implicit plan for this? Ideally you should make yourself as the therapist redundant!
Other key practice points

• What is your current funding/resourcing framework? Will this intervention fit within that, or be adaptable to suit that? Will you need to advocate for changes to the way your services are funded, delivered or prioritised if you implement this model of service?
  • Consider the need to complete home and site visits with this type of intervention framework – understanding of the context for participation is necessary, not optional
  • Identify intervention strategies such as collaborating with other health professionals, coaching activity service providers, calling around or web searching for information, emailing to request more information about the suitability of an activity, filling out funding applications for equipment etc. which will form a larger part of your total workload in a participation-focused therapy model
• What are environmental and contextual factors that are unique to your population, setting, service, area, community or country? How do these influence the participation of people with disabilities in physical activities within your community?
  • E.g. low-resource settings, population density, accessibility of public transport, environmental design and features, availability of funding and equipment, availability of programs and services etc.

For the full intervention protocol, see Reedman et al. 2017

References

See also:
Reedman S, Boyd RN, Sakzewski L. The efficacy of interventions to increase physical activity participation of children with cerebral palsy: A systematic review and meta-analysis. Dev Med Child Neurol. 2017

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