

# MAXIMISING ADHERENCE TO HOME EXERCISE PROGRAMS FOR PEOPLE WITH STROKE: A GUIDE TO APPLYING A BEHAVIOUR CHANGE MODEL

The information contained in this clinician guide is based on the Behaviour Change Wheel and the Capability, Opportunity, Motivation - Behaviour model, and the synthesis of findings from a qualitative exploration of stroke survivors' experiences of participating in an intensive exercise program. (Michie et al. 2011)



## 1. CAPABILITY

PHYSICAL

Factors to consider during assessment (prior to exercise prescription)	Relevant behaviour change functions and intervention strategies	
Does the person have the physical ability to perform the exercise?	<b>Modelling/Training</b> <ul style="list-style-type: none"> <li>➤ Demonstrate, instruct, and have a practice run of exercises</li> </ul>	<b>Engagement</b> <ul style="list-style-type: none"> <li>➤ Modify and individualise the exercise to ensure the person can perform them</li> </ul>
Can the person move safely around the environment?	<b>Environmental restructuring</b> <ul style="list-style-type: none"> <li>➤ Perform a check of the environment in person or telehealth</li> </ul>	<b>Education</b> <ul style="list-style-type: none"> <li>➤ Educate the person about safety considerations of performing the exercise program and provide clear resources that outline safety aspects</li> </ul>
Does the person experience fatigue?	<b>Enablement</b> <ul style="list-style-type: none"> <li>➤ Discuss strategies to manage fatigue (e.g. a daily planner to ensure person completes exercise at times of minimal fatigue)</li> </ul>	
Does the person experience pain?	<b>Enablement</b> <ul style="list-style-type: none"> <li>➤ Incorporate some pain management strategies into program (e.g. timing exercises with pain relief medication for optimal performance)</li> </ul>	

PSYCHOLOGICAL

Does the person understand the purpose of continuing to perform the exercise program?	<b>Enablement</b> <ul style="list-style-type: none"> <li>➤ Discuss person goals</li> </ul>	<b>Education/Persuasion</b> <ul style="list-style-type: none"> <li>➤ Reinforce principles of neuroplasticity and importance of practice, provide explanatory resources</li> </ul>
Does the person have the cognitive ability to follow instructions and perform the exercises?	<b>Education</b> <ul style="list-style-type: none"> <li>➤ Ensure written instructions are clear, accessible and avoid the use of jargon</li> </ul>	<b>Enablement</b> <ul style="list-style-type: none"> <li>➤ Enlist external support (family, carer or friend) to assist exercise participation</li> </ul>
Will the person remember to perform the exercises?	<b>Enablement/Education</b> <ul style="list-style-type: none"> <li>➤ Utilise memory support strategies (e.g. diaries, phone prompts, alarms)</li> </ul>	
Will the person be able to maintain concentration and attention to enable them to complete the exercises?	<b>Environmental Restructuring</b> <ul style="list-style-type: none"> <li>➤ Reinforce the importance of a quiet environment with minimal distractions, provide a 'short and sharp' program</li> </ul>	



AUTOMATIC

Factors to consider during assessment (prior to exercise prescription)	Relevant behaviour change functions and intervention strategies	
Does the person understand the importance of doing ongoing exercises?	<b>Education / Persuasion</b> <ul style="list-style-type: none"> <li>➤ Reinforce principles of neuroplasticity and importance of practice, provide resources</li> </ul>	
Does the person have adequate strategies to make participation a routine practice?	<b>Enablement / Education</b> <ul style="list-style-type: none"> <li>➤ Utilise support strategies (e.g. diaries, phone prompts, alarms)</li> </ul>	<b>Enablement</b> <ul style="list-style-type: none"> <li>➤ Discuss with person their commitments and problem solve ways to fit exercises into their schedule</li> </ul>
Does the person become frustrated when performing exercises?	<b>Modelling</b> <ul style="list-style-type: none"> <li>➤ Provide person with some strategies for managing frustration (e.g. deep breathing techniques)</li> </ul>	<b>Enablement</b> <ul style="list-style-type: none"> <li>➤ Modify and individualise the exercises to ensure the person can perform them (hence reducing the frustration)</li> </ul>

## 3. MOTIVATION

REFLECTIVE

Is the person motivated to continue with an exercise program?	<b>Persuasion / Enablement</b> <ul style="list-style-type: none"> <li>➤ Consider if the person has intrinsic motivation, and if not consider strategies to motivate extrinsically (e.g. incorporating favourite hobbies into the exercise program, using music to engage)</li> </ul>	
Is the person confident in their ability to participate in an ongoing exercise program?	<b>Persuasion / Enablement / Training</b> <ul style="list-style-type: none"> <li>➤ Does the person have an adequate level of self-efficacy? If not, provide them with reassurance and support and feedback on their performance</li> </ul>	
Does the person have goals?	<b>Enablement</b> <ul style="list-style-type: none"> <li>➤ Set clear goals, including 'pie in the sky' goals, break down goals into steps</li> </ul>	
Does the person understand the consequences of not exercising?	<b>Education / Persuasion</b> <ul style="list-style-type: none"> <li>➤ Reinforce principles of neuroplasticity and importance of practice, provide explanatory resources</li> </ul>	

SOCIAL	Factors to consider during assessment (prior to exercise prescription)	Relevant behaviour change functions and intervention strategies	
	If required, does the person have someone available to assist them with the exercises?	<b>Enablement</b> <ul style="list-style-type: none"> <li>➤ Enlist social support when available</li> <li>➤ If lack of available support, consider alternative supports such as phone reviews or telehealth</li> </ul>	<b>Training</b> <ul style="list-style-type: none"> <li>➤ Provide training to carers who will be supporting the person with their exercises</li> </ul>

## 2. OPPORTUNITY

PHYSICAL	Does the person have an appropriate space to set-up and perform their exercises?	<b>Environmental restructuring</b> <ul style="list-style-type: none"> <li>➤ Perform a check of the environment in person or via telehealth</li> </ul>
	Does the person need any equipment to complete their exercise program?	<b>Training/Environmental restructuring</b> <ul style="list-style-type: none"> <li>➤ Provide equipment as needed and ensure person can use it effectively and safely</li> </ul>
	Does the person have time each day to enable them to perform their exercises? (Consider amount of other commitments)	<b>Enablement</b> <ul style="list-style-type: none"> <li>➤ Discuss with person their commitments and problem solve ways to fit exercises into their schedule, encourage routine practice times</li> <li>➤ Consider use of a weekly planner or diary</li> </ul>



Tamina Levy, Kate Laver, Maggie Killington, Natasha Lannin, Maria Crotty

Michie, S., Van Stralen, M., and West, R. The behaviour change wheel: a new method for characterising and designing behaviour change interventions. Implementation Science, 2011