## **Supplemental material 5:**

## **Details regarding Existing Motivational interviewing intervention**

Women attending the clinic are invited to engage in a 20-minute individual motivational interview on PA, in addition to their routine care appointments. Most women attending their first clinic appointment are in the third trimester at approximately 28 weeks' gestation. The motivational interview consultation takes place at their initial hospital appointment following a diagnosis of GDM. It is delivered by a trained healthcare professional (HCP). Each HCP delivering the motivational interview had completed a certificated two-day training course and eight hours of supervised training. The interview is delivered using a framework, where motivational interviewing micro skills (open-ended questions, affirmations, reflections and summaries) are used in all sessions to progress participants through the processes of change (engagement, focusing, evocation, and planning)(1). It includes person-centred goal setting and activity planning if deemed appropriate for that stage of the interview. Specific information about the benefits and types of suggested PA is discussed. Table 1 outlines the structure of the motivational interviewing delivered and the BCTs used.

Results from a published quality improvement project demonstrated encouraging results (awaiting reference). Self-reported PA levels increased significantly at two-week follow-up, with a mean increase of 75 minutes/week in PA levels and more than half (56%) of the women increasing their activity to meet the PA guidelines(2, 3). The Stay-Active app will seek to build on this initial PA behaviour change supporting women to help maintain their activity levels.

Table 1: Structure of the Motivational interview:

Part	Details	Behaviour changes techniques:
1. Setting the scene & Agreeing the agenda	Establish empathy and rapport and 'goal congruence' from the start, (ii)Manage some expectations of the consultation (iii) Give the person a sense of control over the conversation and agreeing the main focus of the conversation	
2. Exploring a typical day	Understanding of a particular aspect of the patient's life, where activity fits into their lifestyle (ii)Demonstrates non-judgemental, person-centred listening skills. (iii) Listen for any 'change-talk' -indicating that the patient is thinking about change, wants to change, is able to change, has already started to make some changes, etc. (iv)Help them feel heard and understood	
3. Exploring importance	(i)Explore the importance of activity and their reasons for changing their activity levels (ii)Help the person give voice to, and better understand their own reasons for changing (iii) Elicit and develop change talk (iv)Strengthen the other persons readiness to change	Prompt and cues 7.1
4. Sharing information on benefits	Ask -Share-Ask information about benefits of physical activity specifically for GDM	Information about Health Consequence 5.1 Credible source 9.1
5. Sharing specific information/knowledge about activity	Ask -Share-Ask information about type, during and expectations about physical specifically for GDM, Address barriers about activity, discuss type, time, frequency	Information about Health Consequence 5.1 Instruction on how to perform behaviour 4.1 Credible source 9.1
6. Exploring and building confidence	(i) Strengthen their self-efficacy for change.(ii) Elicit and develop change talk.(iii) Share with them what other	Prompts and cues 7.1

	people have found helpful when making the change e.g. glucose control (using ask-share-ask)	Focus on past success 15.3
7. Sharing info about building confidence		Valued self-identity 13.4 Social comparison 6.2
9. The Key question	Help the person decide what to do next	Problem solving 1.2
10. Exploring options	optimism and confidence that change is possible.	Social support 3.1
	Encourage autonomy and personal decision making.	
	Share some of your experience and expertise about what might be helpful (ii) Make progress towards agreeing the way forwards.	
11. Agreeing a plan and goal setting		Goal setting (behaviour) 1.1
		Action planning 1.4
12. Relapse prevention	Help the person explore how their life might be different if they did decide to (and were able to) change, compared	Comparative imaging of future 9.3
	to if they didn't (ii) Haln the nerson better understand	Verbal persuasion about capability 15.1
	without you having to tell them (iii) 'Develop discrepancy' between their current behaviour and their desired future behaviour (iv) Learn more about the	Commitment 1.9
	persons hopes, plans and values (v)Build hope Elicit and	
	develop change talk. (vi)Agree about the need and timing	
	of future conversations (vii)Agree about the medium and location of future conversations –face to face, telephone	
13. Support		Social Support 3.1

The numbers in brackets related to the code for the behaviour Change Technique (BCT) as per the Behaviour Change Technique Taxonomy Version 1.(4)

'The framework and content of the motivational interview (table 1) was developed with the support and assistance from the Academy for Health Coaching <a href="https://learn.academyforhealthcoaching.co.uk/">https://learn.academyforhealthcoaching.co.uk/</a>

- 1. Miller WR, Rollnick S. Motivational interviewing: helping people change. 3rd ed. ed. New York, NY: Guilford Press; 2013.
- 2. Mottola MF, Davenport MH, Ruchat SM, Davies GA, Poitras VJ, Gray CE, et al. 2019 Canadian guideline for physical activity throughout pregnancy. Br J Sports Med. 2018;52(21):1339-46.
- 3. Dipietro L, Evenson KR, Bloodgood B, Sprow K, Troiano RP, Piercy KL, et al. Benefits of Physical Activity during Pregnancy and Postpartum: An Umbrella Review. Med Sci Sports Exerc. 2019;51(6):1292-302.
- 4. Michie S, Richardson M, Johnston M, Abraham C, Francis J, Hardeman W, et al. The behavior change technique taxonomy (v1) of 93 hierarchically clustered techniques: building an international consensus for the reporting of behavior change interventions. Ann Behav Med. 2013;46(1):81-95.