

Health Care Professional Information Sheet

Type 2 Diabetes Exercise Referral Pilot Scheme

Action for HCPs- Can you please let your patient have the date and results of their latest HbA1C

Aims of the Pilot Scheme

1. Patients with diabetes or obesity will have an opportunity to improve their physical and mental health by way of a **FREE**, bespoke, exercise intervention pilot at Solent University
2. Potential improvements in physiological and psychosocial wellness will be recorded and analysed prior to and following an 8-week exercise intervention which will be prescribed and delivered by our qualified clinical exercise science students and staff
3. This programme is supported by Southampton and Southwest Hampshire place, part of Hampshire, Southampton and Isle of Wight CCG. Patients will be consented for data collection which will be used for ongoing, impactful research outcomes such as exercise adherence, affect, enjoyment, and problem areas in diabetes
4. Patients taking part in the pilot will be fully supported, including individualised one-to-one exercise sessions and personalised online support; **with the opportunity to then progress onto the Solent Wellbeing Exercise Referral scheme (TBC)**

To participate patients can self-refer and the scheme is completely **FREE** and is due to commence week beginning **26th July 2021**. Running for 8-weeks from date of starting the programme, and will be based within the **Solent Sports Complex, East Park Terrace, Southampton, SO14 0YN**. Once referred, the patient will be contacted by a member of staff to arrange an initial consultation and pre- assessment brief. **For more information, please contact us via telephone Mon-Fri [9am-5pm] or via our secure email**

Amy Woodford



Health and Exercise Development Officer

Phone: 0238201 3671

Email: amy.woodford@solent.ac.uk

Kevin Busuttill



Course Leader MSc Clinical Exercise Science

Phone: 0238201 3398

Email: kevin.busuttill@solent.ac.uk

What can your patients expect from the pilot scheme?

- A detailed consultation with a clinical exercise instructor to discuss their goals and objectives
- A range of fitness tests and questionnaires to ascertain physical and psychosocial data
- A full induction where they will be shown how to use gym equipment and exercise effectively
- An 8-week, 1-2-1 exercise programme with qualified clinical exercise referral staff
- Help patients achieve the Department of Health's recommendation of 150 minutes of physical activity per week
- Ongoing, professional 1-2-1 and online support throughout the 8-week pilot scheme with follow-up support post-intervention
- A supportive and sociable environment in which to share knowledge and experiences with other individuals with diabetes and associated comorbidities, such as obesity
- A lack of on-going support is often cited as a barrier to continuing exercise, therefore, support plans and adherence strategies following the scheme will be provided

Patient Referrals

Patients can join the pilot scheme if:

- They have Type 2 Diabetes and are currently inactive (< 30 minutes of moderate physically activity per week). But those who wish to improve their physical activity will be accepted
- They are registered with a GP in Southampton or Southwest Hampshire
- Are not a member of a leisure centre
- Have not had a recent heart attack, surgery, uncontrolled hypertension or any other contra-indication to exercise.
- Ready to participate in physical activity and committed to making long-term lifestyle changes
- Aged 18 years and over
- Patients will have an assessment to check they are medically safe to undertake the programme

Pre and Post Intervention Physiological and psychosocial measures

- **Anthropometric measures:**
 - o Stature, mass, BMI, waist circumference (WC), waist-to-hip ratio (WtHR), body fat %
- **Cardiovascular measures:**
 - o Blood pressure, mean arterial pressure (MAP)
- **Blood glucose and lactate measures:**
 - o Capillary blood sampling procedure
- **Questionnaires**
 - o Physical Activity Readiness Questionnaire (PAR-Q)
 - o EuroQol (EQ-5D) generic health index
 - o Problem Areas in Diabetes (PAID) scale
 - o The Feeling Scale (FS)
 - o Physical Activity Enjoyment Scale (PACES)

Physical Activity Readiness Questionnaire (PAR-Q)

A simple self-screening tool used by clinical exercise instructors to determine the safety or possible risks of exercising based on patient health history, current symptoms, and risk factors. It also can help a trainer create an ideal exercise prescription for a patient

EuroQoL (EQ-5D) generic health index

Quality of life (QoL) will be measured before and after the 8-week exercise intervention using the EuroQol (EQ-5D) generic health index. The EQ-5D is a standardised instrument designed for self-completion measuring patient reported outcomes (PROs) and is widely used in clinical studies, health surveys and economic evaluation (Herdman et al. 2011). The EQ-5D can be sub-divided into two components; evaluation and health state description (Whynes, 2008). For the evaluation component, respondents evaluate their overall health status using a visual analogue scale (EQ-VAS). The description component measures health status utilising five dimensions (5D); mobility (walking ability), self-care (ability to wash and dress oneself), usual activities (performance in work, study, housework, family or leisure activities), pain/discomfort (level of pain/discomfort experienced) and anxiety/depression (how anxious/depressed one is). Respondents self-rate their level of severity for each dimension using a five-level (EQ-5D-5L) scale (Hurst et al. 1997). Each of the 5 dimensions is divided into 5 levels of perceived problems: Level 1: *indicating no problem*, Level 2: *indicating slight problems*, Level 3: *indicating moderate problems*, Level 4: *indicating severe problems*, Level 5: *indicating extreme problems* (Herdman et al. 2011)

Problem Areas in Diabetes (PAID) scale

Emotional distress will be measured using the Problem Areas in Diabetes (PAID) scale. Patients will complete the questionnaire before and after the 8-week exercise intervention. It is a 20-item scale developed specifically to measure a range of feelings associated with living with diabetes and treatment. Feelings include anger, guilt, fear, worry and depressed mood. Evidence has shown that the PAID scale had high internal reliability (coefficient alpha = 0.95) and correlated strongly with general psychological distress ($r = 0.63$; Polonsky et al. 1995)

The Feeling Scale (FS)

The Feeling Scale (Hardy & Rejeski, 1989) will be administered to patients before and after the exercise intervention. It is typically used to measure affective response (pleasure/displeasure) during exercise (Frazão et al. 2016). The FS is a single item, 11-point bi-polar scale ranging from the following verbal anchors; -5 to +5 (+5 = very good, +3 = good, +1 = fairly good, 0 neutral, -1 = fairly bad, -3 = bad and -5 = very bad). A number of previous studies have recommended this scale to measure affective responses during exercise (Parfitt et al. 1995; Petruzzello et al. 1997)

Physical Activity Enjoyment Scale (PACES)

Enjoyment of physical activity will be assessed before and after the exercise intervention using the original Physical Activity Enjoyment Scale (PACES; Kendzierski and DeCarlo, 1991). The PACES is an 18-item scale commonly used to assess enjoyment by asking participants to rate "how do you feel at the moment about the physical activity you have been doing" using a 7-point bi-polar Likert scale from 1 (I enjoy it) to 7 (I hate it). The scale consists of eleven negatively worded items and seven items that are positively worded. Cronbach's alpha has been reported as .96 (Motl et al. 2001). The PACES has reported reliability in a variety of groups such as adults (Graves et al., 2010) and adults with clinical disease (McAuley et al. 2007; Motl et al. 2006)