**University of Leicester**

**Future 50 PhD Scholarship**

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**Section 2 – *Project Information***

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| **Project Title** | Adapt and pilot a digital-based self-management programme for young adults with type 2 diabetes and multi-morbidity | |
| **Project Highlights:** | 1. | Carry out a needs assessment to identify priority areas for the self-management of type 2 diabetes in young adults, including a systematic review and an exploratory qualitative study. |
| 2. | Adapt and pilot an age-appropriate digital-based programme to provide tailored support to young adults with type 2 diabetes (18-40 years of age). |
| 3. | Carry out a mixed-method evaluation study. |
| **Project Summary** | | |
| **Type 2 diabetes (T2D)** has become increasingly common in **young adults**. Currently in England and Wales, there are ~122,780 children and young adults living with T2D [1]. Early-onset of T2D (diagnosis before 40 years) has been proven to severely impact health outcomes, including diabetes-related physical complications (such as retinopathy, neuropathy, coronary heart disease, stroke), but also psychological complications, including depression, anxiety and diabetes-related distress. [2-3].  Although programmes are available to all adults with T2D, evidence highlights a strong need to **develop tailored and age-appropriate programmes** that acknowledge the impact of life transitions (i.e. early careers, family planning etc.) on young people’s diabetes management and emotional wellbeing [4].  Based on preliminary findings, there are currently no self-management programmes available for young adults with T2D.  **The aim of this proposal** is to adapt an age-appropriate digital-based self-management programme for young adults. The format of this programme will be based on our digital-based self-management programme for adults with T2D, myDESMOND (https://www.desmond.nhs.uk/modules-posts/mydesmond), which is currently available across the UK and Australia.  **This proposal will consist of 3 work packages (WP):**  **WP1**: Conduct a needs assessment, including: (i) a systematic review to identify key behaviour change techniques; (ii) an exploratory qualitative study to explore barriers and facilitators to diabetes management in young adults with T2D, underpinned by a behaviour change model.  **WP2**: Adapt and refine a digital-based self-management programme informed by findings from WP1, guided by the ADAPT framework [5]. Piloting of the intervention, as per the MRC framework for developing complex interventions [6].  **WP3**: Conduct mixed-methods evaluation to assess the potential effectiveness of the tool and to gather initial feedback on user experience. Data analysis will be based on self-administered questionnaires and biomarkers; and interviews.  The student will be supported by our multi-disciplinary team based at the Diabetes Research Centre, who have a tracked record in digital intervention development and systematic reviews. | | |

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| **References**   1. NHS Digital, Young People with Type 2 Diabetes, 2019-20, 2021. Available: https://digital.nhs.uk/data-and-information/publications/statistical/national-diabetes-audit/young-people-with-type-2-diabetes-2019--20 [Accessed 23 Oct 2022] 2. Davies MJ, D’Alessio DA, Fradkin J, Kernan WN, Mathieu C, Mingrone G, et al. Management of hyperglycaemia in type 2 diabetes, 2018. A consensus report by the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD). Diabetologia. 2018;61(12):2461–98. 3. Lascar N, Brown J, Pattison H, Barnett AH, Bailey CJ, Bellary S. Type 2 diabetes in adolescents and young adults. Lancet Diabetes Endocrinol. 2018;6(1):69–80. 4. Lake A., Bo A., Hadjiconstantinou M. Developing and evaluating behaviour change interventions for people with younger-onset type 2 diabetes: lessons and recommendations from existing programmes. Current Diabetes Reports. 2021. 5. Moore G, Campbell M, Copeland L, Craig L, Craig P, Movsisyan A etc. Adapting interventions to new contexts—the ADAPT guidance. The BMJ Research Methods and Reporting. 2021. 6. Skivington K, Matthews L, Simpson S, Craig P, Baird J et al. A new framework for developing and evaluating complex interventions: update of Medical Research Council guidance. The BMJ. |