Grants Awarded

Bath Institute for Rheumatic Diseases
Supporting arthritis research, education and patient engagement

Project Summary

BIRD Therapeutics PhD Scholarship for the Centre for Therapeutic Innovation, University of Bath

Dr Stefan Bagby (project supervisor) awarded £15000.00 each year for 4 years

A wealth of research evidence supports the health and treatment benefits of regular physical activity for patients with musculoskeletal conditions (1-3). Despite documented health benefits, most patients fail to integrate this important lifestyle behaviour into everyday life. Thus, understanding the mechanisms that underpin the long-term maintenance of physical activity remains one of the most pressing yet unanswered challenges (4). The proposed research addresses this lack of knowledge in ankylosing spondylitis (AS) patients, a population that could gain some of the greatest health and treatment benefits from regular physical activity (5).

Ankylosing spondylitis is a chronic inflammatory arthritis that typically exists within the spine, but can also occur in the peripheral joints. As a consequence, patients experience pain, fatigue, and compromised physical function leading to low health-related quality of life and decreased work productivity (6, 7). The typically early adulthood onset of AS highlights the long-term physical, psychological, and financial cost to both patients and society.

Physical activity has been identified as a core strategy for the treatment of AS (1, 5). However, the majority of AS patients are not sufficiently active to gain these treatment benefits (8). Programs have been successful at increasing levels of physical activity in the short-term, yet the major health-related challenge is sustained engagement. The RNHRD is one of the leading centres for AS in Europe and runs a two week long residential rehabilitation programme that harnesses the benefits that can be obtained from physical activity. Although, once patients finish the programme, little is known about how to effectively support the transition back to everyday life incorporating newly established physical activity behaviours. Further, no research has investigated the motivational mechanisms that support long-term maintenance of physical activity in AS (1).

Self-determination theory (SDT; 9) is a framework of motivation that systematically specifies the mechanisms that underline physical activity behaviour. Within SDT, autonomous motivations (i.e. enjoyment or personal value) have been shown to support greater adherence and maintenance of physical activity compared to more externally driven motivations (i.e. avoidance of guilt or for external reward). Further the identification of three innate psychological needs (i.e. for autonomy, competence, and relatedness) provides a means of supporting adaptive autonomous motivations in AS patients. Research conducted by the lead author highlights the relevance of this framework to understanding how best to support physical activity and wellbeing of patients with musculoskeletal conditions (10-12). Yet, no research has used this framework to investigate the mechanisms that underpin the maintenance of physical activity in AS patients.

This research will test tenets within SDT by examining how support for the basic psychological needs facilitate the sustenance of physical activity when transitioning from an organised NHS residential treatment programme to everyday life.