The Back for Action Program for Increasing Everyday Activity Levels: Its Rationale, Design and Experimental Evaluation with People Over 70 Years of Age

- Volume I -

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This thesis is presented for the degree of Doctor of Philosophy,

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I declare that this thesis is my own account of my research and contains as its main content work which has not previously been submitted for a degree at any tertiary education institution.

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Melanie Sue Burkhardt
Abstract

Population ageing and its impact on government provisions for healthcare has focused attention on the development of appropriate services and policies for older people. Considerable resources are being directed towards health promotion media campaigns which aim to encourage older people to initiate and maintain healthier and more active lifestyles. From a behaviour analytic (or ABA) perspective, improving the health and wellbeing of older people involves arranging supportive environments and applying self-management strategies for long-lasting behaviour change from sedentary to more active lifestyles. This important area of application of ABA principles has so far received surprisingly little attention from behaviour analysts.

This thesis describes the rationale, development and evaluation of the Back for Action Program (BAP), a comprehensive intervention based on ABA principles that aims to increase the everyday physical activities of older people. The main components of the BAP are described, including how it selects, measures and reinforces increased physical activity in people over 70 years of age. The first research study undertaken consisted of 7 single-case experiments that were designed to evaluate the effectiveness of the main components of the BAP: client feedback based on objective measures of daily activities, behavioural consultation including goal setting and problem solving, and self-management strategies for maintenance. The second research study consisted of a repeated measures group design evaluation involving arbitrary allocation of
participants (n = 19) to either the BAP as a package or a ‘control’ condition. The
effects of the BAP were evaluated using a comprehensive set of direct and
collateral dependent measures of health and wellbeing. These covered
participants’ physical, biochemical and psychological health and wellbeing.
Research questions included whether the BAP leads to increases in daily
activity and reduces sedentary behaviours, and whether higher levels of activity
lead to improvements in measures of physical, biochemical, and psychological
health and wellbeing. Results provided strong evidence in support of the BAP
and showed that increasing daily activity levels by 20% to 103% had clinically
significant health benefits even for this older group of people. In so doing, this
thesis provides an overdue account of a comprehensive, effective behavioural
approach to increasing ‘healthy ageing’ activities of free-living older people in
the community.
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He knew that reinforcers are important in maintaining behaviour - especially long, complicated performances - so he made his world as reinforcing as possible. …On one occasion we needed to create a device… for what began as an experiment on autoshaping (see Epstein & Skinner, 1980), and Fred’s idea was to place a small light bulb in the middle of a loop that had a hole punched in it. …For the loop, Fred cut a strip from an old adding machine cover, and for spindles, Fred found some empty spools of thread. I installed a motor and began to wire in the bulb when Fred suggested that we plug the device in the wall. “Why?” I asked, “It’s not finished yet.” “Well, to see it go, of course,” Fred replied, his eyes illuminated. In other words, let’s produce a reinforcer.

David, does this sound familiar?

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