A Pilot Randomized Controlled Trial of a Physical Activity Intervention in a Low Socioeconomic Population: Focus on Mental Contrasting with Implementation Intentions

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Abstract: Low physical activity (PA) levels are a major public health concern in Australia. There is some evidence that PA interventions can increase PA levels via various methods, including online delivery. Low Socioeconomic Status (SES) people participate in less PA than the rest of the population, partly due to poor self-regulation behaviors associated with socioeconomic characteristics. Interventions that involve a particular method of self-regulation, Mental Contrasting with Implementation Intentions (MCII), has regularly achieved healthy behavior change, but few studies focus on PA behavior outcomes and no studies examining the effect of MCII on the PA behaviors of low SES people has been done. In this study, a pilot randomized controlled trial (RCT) will deliver MCII for PA behavior change to individuals of relative disadvantage for the first time. The current pilot study will predict sample size for a future full RCT and test the hypothesis that sedentary participants from areas of relative socioeconomic disadvantage of Sydney, who learn the MCII technique will be more physically active, have improved anthropometry and psychological indicators at the completion of a 12-week intervention compared to baseline and control. Eligible participants of relative socioeconomic disadvantage will be randomly assigned to either the 'PA Information Plus MCII Intervention Group' or a 'PA Information-Only Control Group'. Both groups will attend a baseline and 12-week face-to-face consultation; where PA, anthropometric and psychological data will be gathered. The intervention group will be guided through an MCII session at the baseline appointment to establish a PA goal to aim to achieve over 12 weeks. Other than these baseline and 12-week consultations, all participant interaction will occur online. All participants will receive a 'Fitbit' accelerometer to record objectively. PA as a daily step count, along with a PA diary for the duration of the study. PA data will be recorded on a personalized online spreadsheet. Both groups will receive a standard PA information email at weeks 2, 4, and 8. The intervention group will also receive scripted follow-up online appointments to discuss goal progress. The current pilot study is in recruitment stage with findings to be presented at the conference in December if selected.

Keywords: implementation intentions, mental contrasting, motivation, pedometer, physical activity, socioeconomic

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