

TITLE INACTION AND COPING PLANS AS AN ADJUNCT TO PHYSIOTHERAPY REHABILITATION FOR SOFT TISSUE INJURIES OF THE SHOULDER: A PILOT STUDY



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Introduction

- Adherence to home-based physiotherapy is less than optimal with poor adherence being associated with poor rehabilitation outcomes (Bassett & Prapavessis, 2011).
- The Health Action Process Approach (HAPA; Schwarzer, Lippke, & Luszczynska, 2011) has been used successfully to predict and change health behaviour (Scholz, Sneihotta & Schwarzer, 2005).
- This feasibility study tested the utility of an extended version of the HAPA to explain the attitudinal and behavioural processes contributing to rehabilitation adherence and functional outcomes in physiotherapy patients.

Methods

- Using a one group prospective design, 20 participants with soft tissue shoulder injuries were followed for the first four weeks of their clinic- and home-based physiotherapy.
- Participants were enrolled after their first physiotherapy treatment and completed questionnaires (Scholz et al, 2005) measuring the motivational HAPA constructs (risk perception, outcome expectancies, action self efficacy and behavioural intentions) and the extended HAPA variables measuring the rehabilitation outcomes pain (P4; Spadoni et al, 2004) and shoulder function (DASH; Gummesson et al, 2003).
- Action and coping plans were then made with assistance of the researcher.
- Adherence behaviours were measured throughout the study, and at the end action self-efficacy, the volitional stage HAPA constructs (motivational- and recovery self efficacy, and shoulder function were assessed.
- Data analysis: SPSS version 19, $\alpha = 0.05$, Pearson correlations assessed the relationships amongst HAPA constructs and shoulder function.

Results

- Phase specific self-efficacies mean scores were high at all assessment points.
- Moderate to strong correlations occurred amongst the phase specific self-efficacies; between the self-efficacies and behavioural intentions; between both volitional self-efficacies and adherence behaviours; and between adherence behaviours and post-study shoulder function (Figure 1).

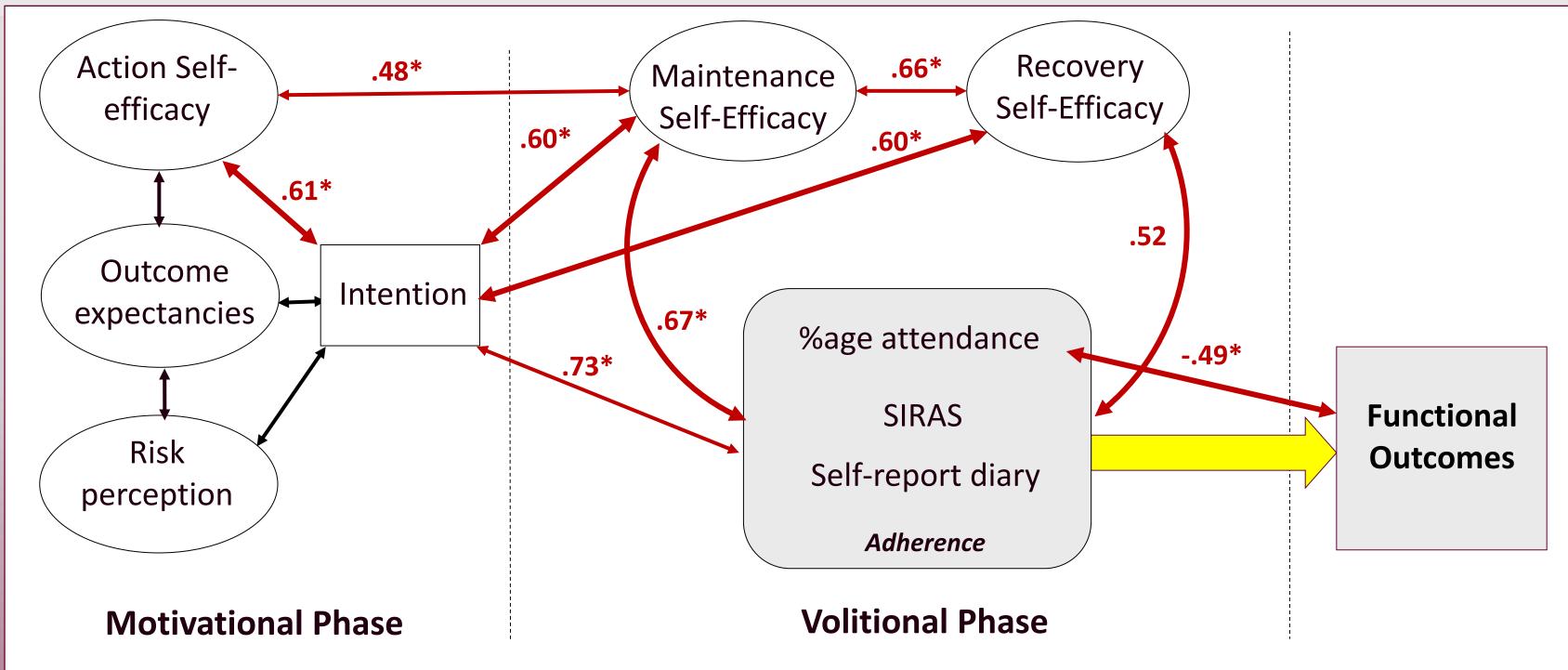


Figure 1. Extended HAPA model with significant moderate to strong correlations displayed

Discussion and Conclusions

- The moderate to strong correlations amongst the three specific self-efficacies and between them and intentions suggests participants felt efficacious about being able to undertake the exercises and overcome any barriers to them. This is similar to other research findings (Lippke et al, 2004; Schwarzer, 2007), and supportive of the predictive ability action self efficacy has with behavioural intentions (Barg,et al., 2012; Scholz et al, 2005).
- The most notable adherence-functional outcome relationship was the significant moderate percentage of attendance-shoulder function correlation, which is consistent with previous research (Bassett & Prapavessis, 2011).
- This study's findings support using an extended HAPA model to explain the attitudinal and behaviour processes associated with rehabilitation adherence and functional outcomes of physiotherapy patients who have shoulder soft tissue injuries. A larger study is required to determine the true worth of the extended HAPA model.

References

Barg, C. J., Latimer, A., Pomery, E. A., Rivers, S. E., Rench, T. A., Prapavessis, H., & Salovey, P. (2012). Examining predictors of physical activity among inactive middle-aged women: An application of the health action process approach. *Psychology & Health*, 27, 829-845. Bassett, S., & Prapavessis, H. (2011). A test of an adherence-enhancing adjunct to physiotherapy steeped in the protection motivation theory. *Physiotherapy Theory and Practice*, 27, 360-372.

Gummesson, C., Atroshi, I., & Ekdahl, C. (2003). The disabilities of the arm, shoulder and hand (DASH) outcome questionnaire: longitudinal construct validity and measuring self-rated health change after surgery. *BMC Musculoskeletal Disorders*, 4(11). **Pages?** Lippke, S., Ziegelmann, J., & Schwarzer, R. (2004). Behavioral intentions and action plans promote physical execise: a longitudinal study with orthopedic rehabilitation patients. *Journal of Sport & Exercise Psychology*, 26, 470-483.

Scholz, U., Sniehotta, F., & Schwarzer, R. (2005). Predicting physical exercise in cardiac rehabilitation: The role of phase-specific self-efficacy beliefs. *Journal of Sport & Exercise Psychology*, 27, 135-151.

Schwarzer, R., Schuz, B., Ziegelmann, J., Lippke, S., Luszczynska, A., & Scholz, U. (2007). Adoption and maintenance of four health behaviors: dental flossing, seat belt use, dietary behavior, and physical activity. *Annals of Behavioral Medicine*, 33, 156-166. Schwarzer, R., Lippke, S., & Luszczynska, A. (2011). Mechanisms of health behaviour change in persons with chronic illness or disability: The health action process approach (HAPA). *Rehabilitation Psychology*, 56, 161-170.

Spadoni, G., Stratford, P., Solomon, P., & Wishart, L. (2004). The evaluation of change in pain intensity: A comparison of the P4 and single-item numeric pain rating scales. Journal of Orthopaedic & Sports Physical.