

# **EXERCISE ADHERENCE – A COMPLEX PROBLEM ... A FEW SOLUTIONS PROVIDED FOR PRACTITIONERS**

Dr Shaun M. Galloway  
University of Wolverhampton,  
United Kingdom.  
Email: s.galloway@wlv.ac.uk

A brief examination focusing on the topic of exercise adherence resulted in 819 hits. From this search there are numerous subtopics. Recently there are two main focus variables being used in conjunction with exercise adherence. These variables are sedentary participants and participants with NCD's. These two sub focuses will fit well with the emphasis of this conference. This presentation will examine the prevailing theories in the field of exercise adherence as well as the application of these theories for practitioners.

## **Self-Efficacy Theory**

Self-efficacy is a key theory used to understand exercise adherence. It has been defined as specific self-confidence (Bandura, 1982) and has proven to be a useful mechanism in increasing adherence (McAuley et al, 1993). It is based on some very useable tenets: performance accomplishments, modelling, verbal persuasion and physiological signals. If these tenets are developed then self-efficacy increases and adherence is assured. However, the interpretation and transference of these principles has not always been realized in physical activity (Conner and Norman, 1995). One such reason for this could be that those who deliver physical activity programs come from a sporting background or at the very least, have taken steps to stay physically active – in comparison to their clients who are most likely sedentary for the most part (Estabrooks et al, 2004). It is hard for the client to relate to the trainer.

## **Self-Efficacy Application**

The application of self-efficacy theory in practice seems to be easy to conduct however, while easy to understand it is often overlooked in detail (Gist & Mitchell, 1992). For example, starting a fitness regime can be a daunting task. Increasing the ability to have success is a balance between psychological environment and task understanding. For example, a squat may be relatively simple to an active physical trainer but to a sedentary participant this exercise highlights everything that is possibly wrong with them in their current shape. Flexibility, strength, coordination and an unpleasant sensation are all at the

forefront whilst doing this exercise (Kasim, 2007). Thus developing a proper psychology environment is very important (McNeill et al, 2006). Consideration of where to do this exercise has to be a premium. Having all the progressions but more importantly the regressions of the task allow the athlete to gain success even if in small increments (Myer et al, 2014).

### **Goal Setting Theory**

Locke and Latham (1990) completed ground breaking research in the area of goal setting. In their paper they highlighted the importance of performance and goals – specifically the manipulation of the difficulty and specificity of a goal. In the main, the use of the SMART acronym: specific, measureable, attainable, relevant and time based is common place (O'Neill, 2000). It is the usual starting place for developing goals.

### **Goal Setting Application**

There are a number research studies in support of goal setting as a tool for enhancing motivation and as a by-product adherence (Wade, 2009, Annesi, 2002, Dubbert and Wilson, 1984). Wade (2009) highlighted that the act of goal setting has other benefits beside the end result of performance. It helps to identify the smaller actions that lead to the whole and from this a coordinated effort can evolve. Annesi (2002) connects goal setting to adherence with the goal setting group having a 30% better exercise attendance rates. However, he does mention that goal setting does have a cost in time as many clients do not know how to set reasonable goals. Dubbert and Wilson (1984) add some clarity to the specificity of goal setting by examining the difference between setting daily and weekly goals in the pursuit of weight loss. Neither group differed in their weight loss – however, both groups had high adherence levels (80%) to the program (both nutrition and exercise). This suggests that weekly goals may be enough to produce adherence and thus lower the cost in terms of time given to goal setting.

### **Goal Setting Problems**

However, there has also been recent research which has pointed out that goal setting has a problem with ... adherence (Sitkin et al, 2011; Ordóñez et al, 2009). Sitkin et al (2011) have pointed out that “stretch goals” – those goals that seem possible – can cause problems with attainment. This would seem to be a problem with precision of the goal being set. How can one set a goal that is specific, measureable and attainable if it “seems possible?” Ordóñez

et al (2009) found further problems with goal setting. Specifically they found that individuals' negative effects can include, "a narrow focus that neglects non-goal areas, a rise in unethical behavior, distorted risk preferences, and reduced intrinsic motivation (p.2)." Being very blunt Ordóñez et al (2009) suggest that goal setters often "lie" about achieving their goals.

### **Goal Setting Solutions**

With these problems identified there has been a couple applied theories that might help the adherence to goals. These two theories are called "If-then" contingency and "perspective". If-then contingency was first introduced by Peter Gollwitzer (1999). Gollwitzer suggests that through implementation intention (IMPs) a participant would be more able to overcome barriers to goals and ultimately performance (Sniehotta, 2009). Implementation intention takes the form of "If-then" construction where by a participant would identify barriers and then apply appropriate responses. For example, "If" I am feeling too tired to do my work out – "then" I will energize myself by listening to my favourite energy music and start to dance to this music. In this way IMP development also connects with self-efficacies most important tenet and that is to create successful performance consistently. While the ultimate goal of working out to a structured plan was not completed the participant mentioned above did do movement (dance) and did do exercise thus the overall goal of exercise was completed and an increase in self-efficacy was accomplished.

Another addition to goal setting which might go a long way to overcoming the problems related to goal setting is the concept of perspective. Perspective is a theoretical structure developed by Botterill & Patrick (1996; 2003). Their theory rests on the idea of developing and understanding three main traits: identity, support and values. Going through and understanding clearly what each of these traits are gives a participant the ability to properly develop goals which connect to the participants key values, who they are and what resources they have to be able to attain the goals that they wish to complete. Botterill (2003, p. 5) states that developing perspective provides, "the capacity to view things in their true relations or relative importance." It would seem that perspective would go a long way to helping a participant determine the starting point of their goals and avoid "stretch goals" which ultimately would lead to failure.

## Conclusion

In conclusion exercise adherence focusing on NCD's relies heavily on self-efficacy theory and goal setting. These theories are not without their problems. It is hoped that the use of IMP's and perspective might help to increase adherence to goals set and as a result adherence to exercise.

## References:

1. Annesi, J. J. (2002). Goal-setting protocol in adherence to exercise by Italian adults. *Perceptual and motor skills*, 94(2), 453-458.
2. Bandura, A. (1982). Self-efficacy mechanism in human agency. *American psychologist*, 37(2), 122.
3. Biddle, S. J. Mutrie, N., & Gorely, T. (2015) *Psychology of physical activity: determinants, well-being and interventions*, London: Rutledge.
4. Botterill, C., Patrick, T., & Sawatzky, M. (1996). *Human potential: Perspective, passion, preparation*. Lifeskills Incorporated.
5. Botterill, C., & Patrick, T. (2003). *Perspective the Key to Life*. Lifeskills Incorporated.
6. Conner, M., & Norman, P. (1995). *Predicting Health Behaviour: Research and Practice with Social Cognition Models*. Buckingham: Open University Press.
7. Dubbert, P. M., & Wilson, G. T. (1984). Goal-setting and spouse involvement in the treatment of obesity. *Behaviour Research and Therapy*, 22(3), 227-242.
8. Estabrooks, P. A., Munroe, K. J., Fox, E. H., Gyurcsik, N. C., Hill, J. L., Lyon, R., ... & Shannon, V. R. (2004). Leadership in physical activity groups for older adults: a qualitative analysis. *Journal of Aging and Physical Activity*, 12(3), 232-245.
9. Gist, M. E., & Mitchell, T. R. (1992). Self-efficacy: A theoretical analysis of its determinants and malleability. *Academy of Management review*, 17(2), 183-211.
10. Kasim, P. (2007). Optimizing squat technique. *Strength and Conditioning Journal*, 29(6), 10-13.
11. McAuley, E., Lox, C., & Duncan, T. E. (1993). Long-term maintenance of exercise, self-efficacy, and physiological change in older adults. *Journal of gerontology*, 48(4), 218-224.
12. McNeill, L. H., Kreuter, M. W., & Subramanian, S. V. (2006). Social environment and physical activity: a review of concepts and evidence. *Social science & medicine*, 63(4), 1011-1022.

13. Myer, G. D., Kushner, A. M., Brent, J. L., Schoenfeld, B. J., Hugentobler, J., Lloyd, R. S., ... & McGill, S. M. (2014). The back squat: A proposed assessment of functional deficits and technical factors that limit performance. *Strength and conditioning journal*, 36(6), 4-27.
14. O'Neill, J. (2000). SMART goals, SMART schools. *Educational Leadership*, 57(5), 46-50.
15. Ordóñez, L. D., Schweitzer, M. E., Galinsky, A. D., & Bazerman, M. H. (2009). Goals gone wild: The systematic side effects of overprescribing goal setting. *The Academy of Management Perspectives*, 23(1), 6-16.
16. Sniehotta, F. F. (2009). Towards a theory of intentional behaviour change: Plans, planning, and self-regulation. *British journal of health psychology*, 14(2), 261-273.
17. Wade, D. T. (2009). Goal setting in rehabilitation: an overview of what, why and how. *Clinical Rehabilitation*, 23, 291.