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Use of the Theory of Planned Behaviour to Predict Adherence to Use of AFOs in People with Stroke

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BACKGROUND

Ankle-foot Orthoses (AFOs) can be used to effectively manage impairments to gait, following a stroke. However, non-adherence to orthoses is an inefficient use of resources, and poor adherence is also associated with poorer outcomes in physical and mental health. Use of a theoretical model of behaviour to understand adherence to AFOs is important because interventions based on theory are more likely to be successful in changing behaviour. One such model, is the Theory of Planned Behaviour (TPB).[1]

AIM

This investigation aimed to examine the utility of the TPB as a model for predicting intention and adherence to AFO use in people with stroke.

METHOD

A prospective design was employed. Forty-nine participants who had been prescribed an AFO following stroke in NHS Lanarkshire, Scotland, completed a TPB postal questionnaire. The TPB constructs of attitude, subjective norm, perceived control, and intention were measured at time 1 and behaviour was measured, one month later. Regression analyses were conducted to identify predictors of intention to use an AFO as recommended and actual use of the AFO. Correlations between the underlying beliefs, their global constructs, intention and behaviour were analysed to identify the most appropriate beliefs which might be targeted in a future intervention to increase adherence to use of AFOs in people with stroke.

RESULTS

Adherence to use of AFOs as recommended was 63%. The TPB was able to account for 57% variance in intentions and 42% variance in use of AFOs as recommended. Attitude was the only significant predictor of intention, and intention was the only significant predictor of behaviour. The attitudinal beliefs positively associated with intention to use an AFO were: using my AFO will; increase my mobility ($r=.50$, $p<.001$); and help me to improve during rehabilitation ($r=.32$, $p=.04$). The attitudinal beliefs negatively associated with intention were: using my AFO as recommended; will be heavy ($r=-.55$, $p<0.01$); cause me pain or discomfort ($r=-.33$, $p=.03$); and requires a lot of effort ($r=-.30$, $p=.049$). Attitudinal beliefs positively associated with AFO use were: the AFO will: increase my mobility ($r=.52$, $p=.01$); and prevent falls/ aid balance ($r=.33$, $p=.045$).

DISCUSSION AND CONCLUSION

The significant amount of variance accounted for suggests the TPB is a useful model for understanding adherence to AFOs in this patient group. This study provides a valuable preliminary strategy for the development of an intervention designed to increase adherence to use of AFOs in people with stroke. A future intervention could promote positive attitudes and intentions towards AFO use, for stroke survivors.

REFERENCES

[1] Ajzen I, Organizational Behavior and Human Decision Processes, 1991; 50(2):179-211.

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