ASSOCIATION OF NECK PAIN, NECK DISABILITY, AND FEAR AVOIDANCE BELIEFS WITH ADHERENCE TO EXERCISE: A QUANTITATIVE ANALYSIS IN OFFICE WORKERS

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Background | Aim

Adherence to exercise is a common problem in occupational health studies.

The aim of this study was to investigate the association of pain-specific and psychological factors with adherence to exercises in a sample of office workers.

Methods | Design and Participants

This quantitative analysis is among a subset of our stepped-wedge cluster-randomized controlled trial "Neck exercise for productivity" (NEXpro).

Office workers from two Swiss organisations without severe neck problems were included (N=69). All office workers were asked to perform a 12-week neck exercise program (Fig. 1) in either spring or autumn 2020.

Methods | Outcomes and Statistics

The construct variable of adherence to exercise was defined as the number of days performing a set of exercises (minimum: 0 days, maximum: 84 days), and was measured by an application on participants' digital devices.

The predictors of neck disability (Neck Disability Index 0-100%), neck pain intensity (Numeric Rating Scale NRS 0-10), neck pain frequency (number of days with neck pain within the last 4-weeks), and fear avoidance beliefs (Fear Avoidance Beliefs Questionnaire 0-18) were collected before intervention commencement.

A linear regression model was fitted to the data to predict adherence to exercise.

Results

The majority of office workers were female (69.9%) and between 25.7 and 63.3 years of age (mean 44.9 years).

Adherence to exercise was 33.2/84 days, with a mean neck disability of 12.1%, a mean neck pain intensity of NRS 2.6/10, a mean neck pain frequency of 7.6/28 days, and a mean fear avoidance beliefs value of 5/18.

We observed a trend suggesting an association of neck disability with adherence to exercise (b=0.379, 95%CI from -0.039 to 0.797, p=0.075).
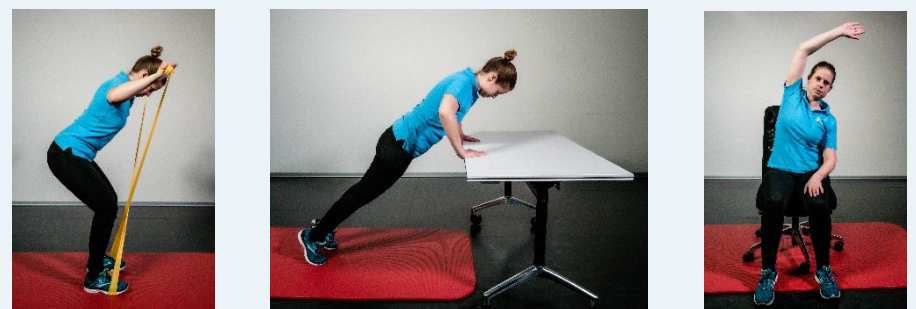

Fig 1: Examples of neck exercises

Conclusion

Participants with higher neck disability tended to demonstrate higher adherence to exercise, as measured by more days on which they performed exercises.

Neck pain intensity, neck pain frequency, and fear avoidance beliefs were not found to be predictive of adherence to exercise.

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References

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