TP-074

POSTURAL ABNORMALITIES IN PEOPLE WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

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Introduction/Aim: Pain is a common problem in people with chronic obstructive pulmonary disease (COPD) and the presence of upper back pain in COPD suggest that postural dysfunction is a potential source. However, the extent of postural deviation in COPD is unknown. The aim of this study was to compare the postural characteristics of people with COPD to those of healthy control subjects and explore the relationship between posture abnormalities and pain in COPD.

Methods: Participants with COPD and age, gender, BMI and comorbidity-matched healthy controls underwent a postural geometric measurement in an upright standing position. 3-D motion analysis was used to generate the coordinates of skeletal structures from anatomical landmarks identified with reflective markers. The postural measures were spinal orientation, Tx kyphosis, scapula and sternal orientation. Postural stability measures were centre of pressure (CoP) in the anteroposterior (AP) and mediolateral (ML) directions. Those with COPD also completed questionnaires related to pain.

Results: Twenty-one subjects with COPD (mean FEV_1 45% pd) and 21 matched controls (mean FEV_1 90% pd) completed the study, with no difference in the presence of comorbidities between groups ($p > 0.05$). Those with COPD had a greater CoPML sway compared to control participants (mean 4.8cm vs 3.1cm, $p < 0.001$), but there was no difference in CoPAP sway. Thoracic kyphosis was greater in COPD (51.8° vs 34°, $p = 0.001$), but there was no difference in pelvic rotation or tilt or C7-S1 spinal alignment (all $p > 0.05$). Those with COPD had increased left ($p = 0.03$) and right ($p = 0.02$) scapula protraction compared to healthy controls. Increased thoracic kyphosis and altered scapula position was not related to back pain in COPD.

Conclusion: Postural abnormalities are evident in COPD compared to those without lung disease, but appear to be unrelated to pain. Further work is needed to identify the contributing factors to these postural deviations.

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DISCREPANCIES IN PERSPECTIVES OF PEOPLE WITH COPD AND EXPERTS IN COPD OR PUBLIC HEALTH MANAGEMENT, CONCERNING FACTORS TO IMPROVE PHYSICAL ACTIVITY, SEDENTARY BEHAVIOUR AND SLEEP

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Introduction/Aim: Whether people with chronic obstructive pulmonary disease (COPD) and experts in the management of COPD or public health share similar perspectives on what is important for people with COPD to achieve optimal physical activity (PA), sedentary behaviour (SB) and sleep (S) is unknown. As the initial round of a four round Delphi survey, this study aimed to identify commonalities and differences between the perspectives of people with COPD and experts.

Methods: Four groups of participants were purposefully recruited; people with COPD (FEV_1/FVC <0.7) from South Australia (SA-COPD) or the Netherlands (NL-COPD) and experts in the management of COPD (COPD-E) or in public health strategies for the general population (Non COPD-E). Using an electronic survey (*Survey Monkey*), participants were invited to respond to the question "What do you think is important to help people with COPD to stay active and participate in more every day activities, to reduce time spent sitting and lying and to improve sleep quality?" Verbatim responses for each group were allocated into common themes independently by two researchers. Commonalities and differences between themes across groups were identified and reported descriptively.

Results: 67 participants completed Round 1 (SA-COPD n = 26, NL-COPD n = 15, COPD-E n = 14, Non COPD-E n = 12), volunteering a total of 387 discreet items (PA = 158, SB =114, S = 115). For each group, the number of themes created for PA, SB and S are presented in the table. Professional support and understanding patients' concerns, fears and expectations were common across groups for optimising physical activity; social support and increasing physical activity/fitness for optimising sedentary behaviour; and sleep hygiene principles for optimising sleep.

	SA-COPD (n=)	NL-COPD (n=)	COPD-E (n=)	Non COPD-E (n=)	Themes common to all groups (n=, %)	Themes unique to one group (n=, %)
Physical activity	14	6	11	9	2 (11%)	5 (26%)
Sedentary behaviour	11	7	11	7	2 (13%)	5 (31%)
Sleep	7	5	7	8	1 (7%)	5 (36%)

Conclusion: Less than 15% of themes were common across groups indicating considerable discrepancies in perspectives between people with COPD and experts. Whether consensus can be achieved in subsequent rounds of the Delphi survey remains to be seen.

Key words: Delphi survey, COPD, physical activity, sedentary behaviour, sleep

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