with LBP who had not received treatment in the PHC in the previous six months and aged >18 years were included. Those with red flag signs, limited mobility and pregnant women were excluded. Participants were stratified into groups: G1) People without referral and assistance (n:23); G2) People referred and assisted (n:15); G3) People who sought care without referral (n:10). We adopted multinomial logistic regression with backward stepwise to investigate whether age, sex, drugs and exams prescriptions, number of exams, consultations with specialists and other interventions adequately classify the groups G1 (reference), G2 and G3. There was no collinearity, and data fit was confirmed by the Akaike criterion. The pseudo-R<sup>2</sup> (Nagelkerke) demonstrated the weight of the variables in the model and the odds ratio (OR) was calculated with a 95% confidence interval (95%CI).

Results: The mean age was 55 years (SD: 13 years), and 75% were women. Of the total, 21% received imaging tests and 10.5% received drug prescriptions. The mean referral time until the first Physiotherapy appointment for LBP treatment (G2) was 99.5 days. The overall average of Physiotherapy visits was 6.5 sessions/person. Gender, age, number of consultations with specialists and other interventions explained 56% of the model (R²). Compared to G1, the chance of being referred (G2) increased with increasing age (OR: 1.11 95%CI: 1.07;1.15), less number of consultations (OR: 0.26 95%CI: 0.10;0.91), less number of other interventions (OR: 0.21 95%CI: 0.05;0.91). The G3 was explained by female gender (OR: 17.1 95%CI: 3.3;88.8), age (OR: 1.24 95%CI: 1.17;1.31), and less number of consultations (OR: 0.06 95%CI: 0.11;0.39).

Conclusion: The time length for people with LBP to be treated after being referred to Physiotherapy was long. Age increments increased between 11% and 24% the chance of being referred and seeking care, respectively. The lower the number of consultations with specialists and other interventions, the greater the chance of being referred to Physiotherapy compared to people who are not referred. Women were 17 times more likely to seek Physiotherapy without a referral. Implications: Our findings contribute to understanding the population profile and factors associated with referral to PHC Physiotherapists. We raise a caution note related to the delay in referral time is highlighted, which can cause deleterious clinical impacts. Keywords: Low back pain, Primary health care, Physiotherapy

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## IMPACTS OF AIR RESISTANCE IMPOSED BY RESPIRATORY FILTERS ON VOLUME AND FLOW VALUES DURING SIMULATED RESPIRATORY PATTERN

Taiwan Roberto Barbosa<sup>1</sup>, Igor Mauricio de Campos<sup>1</sup>, Caio César Morais<sup>1</sup>, Herbert Albérico de Sá Leitão<sup>2</sup>, Geraldo Leite Maia Junior<sup>2</sup>, Márcio Evaristo da Cruz Brito<sup>2</sup>, Armele Dornelas de Andrade<sup>1</sup>, Shirley Lima Campos<sup>1</sup> <sup>1</sup> Department of Physical Therapy, Federal University of Pernambuco (UFPE), Recife, Pernambuco, Brazil

<sup>2</sup> Department of Electrical Engineering, Federal University of Pernambuco (UFPE), Recife, Pernambuco, Brazil

Background: Pulmonary function and respiratory pattern exams are essential for the diagnosis of various diseases, such as COPD and asthma. Most equipment used in these exams is not sterilized, making the use of respiratory filters necessary for biological protection of the

evaluated individual. However, the use of filters with high air resistance can alter the measurement of airflow and air volume during these evaluations. Thus, analyzing the influence of this resistance is important to ensure that the results of these exams can be reliable.

*Objectives*: To analyze the influence of the resistance of a respiratory filter on the flow and volume values collected in an innovative equipment used for the examination of the human respiratory pattern.

Methods: This is an experimental study. The measurement system consists of an Active Servo Lung (ASL) 5000 human breathing simulator; a respiratory filter holder for the KOKO spirometer; a respiratory filter for spirometry; and the Respiratory Diagnostic Assistant (RDA) device, developed by the LINDEF/UFPE laboratory for the evaluation of the respiratory pattern. The ASL 5000 was configured to simulate the normal respiratory pattern of a healthy adult individual. The settings were: respiratory frequency = 10 bpm; inspiratory time 2 s, expiratory time 4 s, I:E ratio = 1:2; tidal volume = 0.5L; airway resistance = 3cmH2O; lung compliance = 100mL/cmH2O; and muscle pressure = 15cmH2O. The breathing simulation was programmed to occur for 3 minutes, and thus, the ASL 5000 produced a total of 30 respiratory cycles, of which the flow and volume curves and respiratory pattern parameters were recorded by the RDA. This same procedure was performed twice, once with the presence of the filter membrane inside the filter holder, and another time without the presence of the filter membrane. The results were subsequently analyzed by the RDA Analysis software.

Results: With the addition of the filter to the system, there was a decrease from 84.46 L/min to 79.76 L/min in inspiratory flow and from 90.25 L/min to 85.76 L/min in expiratory flow, with a consequent reduction from 1323.63 mL to 1285.26 mL in inspiratory tidal volume and from 1293.73 mL to 1270.96 mL in expiratory tidal volume.

Conclusion: By comparing the mean values of inspiratory and expiratory flow and volume in the simulation of a basal respiration, it can be inferred that the resistance imposed by the filter added to the system produced considerable decreases in inspiratory and expiratory flow and volume values.

Implications: The differences obtained in this result are useful for compensation adjustments in the RDA software, aiming to correct this resistance imposed by the filter membrane, necessary during collection. Thus, this result will contribute to ensuring a respiratory pattern exam as close as possible to what the evaluated patient actually presents. It also brings reflection on the need to correct the volume and flow values obtained by other software responsible for the processing of respiratory pattern and pulmonary function data, which require the use of respiratory filters in their execution. Keywords: Respiratory Filter, Respiratory Pattern, Pulmonary Function

Conflict of interest: The authors declare no conflict of interest.

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## AGREEMENT OF PHYSIOTHERAPISTS WITH DIFFERENT TIMES OF CLINICAL PRACTICE IN RELATION TO BODY STABILITY IN THE TRADITIONAL FRONT PLANK: PILOT STUDY

Tamiris Beppler Martins<sup>1</sup>, Tais Costella<sup>1</sup>, Ana Costa Miguel<sup>1</sup>, Luiz Henrique Cabral Duarte<sup>1</sup>, Isis de Melo Ostroski<sup>1</sup>, Gilmar Moraes Santos<sup>1</sup>

<sup>1</sup> Postgraduate Program in Human Movement Sciences — PPGCMH, Posture and Balance Laboratory (LAPEQ). Santa Catarina State