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| **Fidelity of home-based pulmonary rehabilitation for COPD referred from general practice** |
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| **Introduction:** Pulmonary rehabilitation (PR) is a high effective but underutilised treatment for COPD. Pathways to home-based PR from general practice could improve utilisation, but fidelity in this setting is unknown.  **Aim:** Describe the fidelity of home-based PR (HBPR) for people with COPD delivered in primary care.  **Methods:** Secondary analysis of intervention-group data from a two-arm cluster RCT (RADICALS) involving 43 general practice clinics. RADICALS was an interdisciplinary intervention including smoking cessation support, home medicine reviews and HBPR. HBPR consisted of one home visit (Week-1) and 7xweekly phone calls (Weeks 2-8) to progress exercise training and facilitate self-management education. Intervention fidelity was assessed by the extent to which aerobic and resistance training were prescribed according to protocol. The proportion of individuals who completed ≥70% PR sessions was recorded and contributing factors determined.  **Results**: 107 participants (68% of intervention group) were referred to HBPR, of which n=75 (70%) commenced the program.  Aerobic training was prescribed according to protocol for 74% of participants in Week 1(≥20minx 3/week) and mean(SD) 89(8)% of participants in Weeks 2-8 (≥30minx3/week). Aerobic training goals were achieved by 50(5)% of participants in Weeks 2-8. Resistance training (≥2x/week) was prescribed according to protocol for 98% of participants in Week 1, and 88(5)% of participants in Weeks 2-8. Resistance training goals were achieved by 91(6)% of participants in Weeks 2-8. Most participants (93%) received at least one education session (median 4, IQR 2-5).  Rehabilitation completers (n=57, 76%) had less severe disease (Completers mean FEV1 68%predicted vs non-completers 55%predicted, 95%CI 2 to 24), were 26 times more likely to have attended the Week 2 phone call (Exp(B) 26.2, 95%CI 1.953 to 352.273).  **Conclusion:**  PR program fidelity can be maintained when delivering HBPR to people with COPD referred directly from general practice. Early engagement with PR may be key to supporting rehabilitation completion. |
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