

Breathwork Interventions for Adults with Chronic Conditions: Preliminary Results from a Scoping Review

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1. Background

- Chronic diseases are the leading cause of death and disability, making up 74% of all deaths globally (1).
- People living with chronic conditions experience higher rates of anxiety, depression, other comorbidities, and reduced quality of life (2,3).
- These conditions are a pervasive global health challenge and are associated with significant socioeconomic challenges (1,4).
- Breathwork has been shown to improve health and wellbeing in healthy populations, prompting an increasing interest in exploring breathwork as an adjunctive therapeutic modality in individuals with chronic conditions (5,6).
- However, there remains uncertainty in how breathwork interventions are delivered, what harms and safety precautions have been identified, and their impact on evaluated outcomes across chronic conditions.

2. Objectives

- Describe the breathwork intervention protocols for adults living with chronic mental or physical conditions that have been evaluated in randomized controlled trials (RCT)
- Describe the outcomes that are measured in these RCTs of breathwork interventions
- Assess the effectiveness of the most commonly evaluated outcomes of breathwork interventions compared to control.

3. Methods

Search Strategy

- Comprehensive search of electronic databases (CINAHL, EMBASE, MEDLINE, PsychINFO, and SCOPUS) from database inception to November 3, 2023

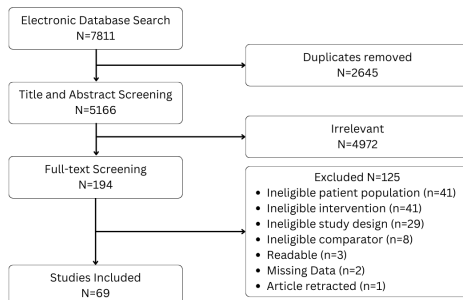
Data Selection and Abstraction Process

- Independent reviewers completed title and abstract screening, full-text review, and data extraction with a 3rd reviewer as an adjudicator

Eligibility Criteria

- Population** - Adults (18+) living with a chronic condition (>1 year)
- Intervention** - Breathwork intervention, exercise or practice
- Comparison** - Non-breathwork control condition
- Primary Outcomes** - Breathwork intervention protocols (i.e., type, duration, safety precautions)
- Secondary Outcomes** - Evaluated outcomes of breathwork interventions (i.e., objective measures, patient-reported measures, adverse events)
- Study Design** - Randomized controlled trials

Figure 1: PRISMA Flow Diagram



Acknowledgments

We would like to thank Ben Vandermeer and the Alberta SPOR Support Unit (ABSPORU) for support with statistical analysis.



References

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4. Preliminary Results

Figure 2: Chronic Conditions

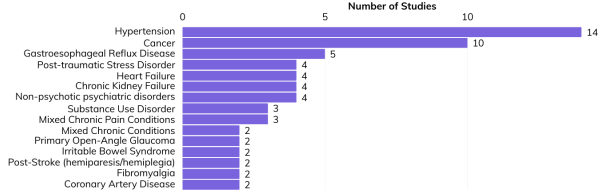


Figure 3: Breathwork Interventions

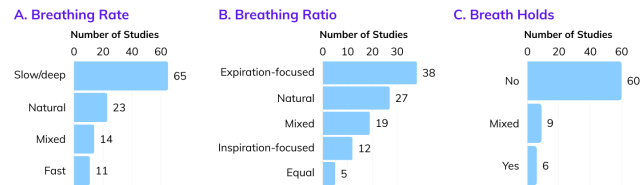


Figure 4: Breathwork Protocols

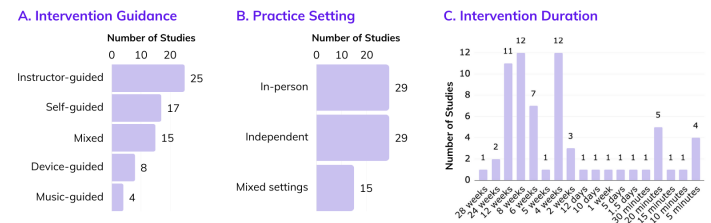
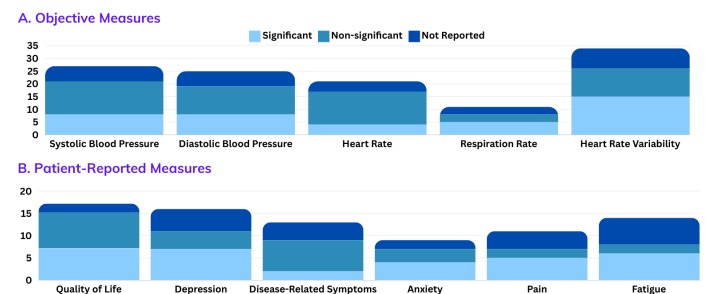


Figure 5: Most Commonly Evaluated Outcomes



5. Preliminary Conclusions

- Hypertension, cancer and GERD were the most commonly studied conditions
- Breathwork interventions with a slow or deep breathing rate and those that had a breathing ratio that emphasized expiration were most frequently used
- Breathwork protocols were most commonly instructor-guided, practiced in-person, included some form of training, and lasted 4 or 8 weeks in duration
- Safety precautions and adverse events are inconsistently reported within the literature, making it difficult to assess safety
- Respiration rate, heart rate variability, depression, anxiety, pain and fatigue were the most commonly evaluated outcomes that were reported significant more frequently than non-significant

6. Potential Implications

- The results provide a comprehensive summary of the current breathwork interventions and protocols being evaluated in various clinical populations, as well as current gaps and areas for further exploration.
- While the impact of breathwork interventions on outcomes is still being analyzed, there are a diverse range of outcomes evaluated, highlighting the potential for this easily accessible intervention to make an impact on a variety of chronic conditions and health-parameters.