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An ode to the primal tonic of dance—congratulating the Life of Breath project

Lesley Ann Saketkoo, Helene Alexanderson, Matthew R Lammi, Daphne LeSage, Kelly Jensen, Mary Beth Scholand, Elizabeth R Volkmann, Anne-Marie Russell

New Orleans Scleroderma and Sarcoidosis Patient Care and Research Center, New Orleans, LA, USA (LAS, MRL); University Medical Center, Comprehensive Pulmonary Hypertension Center and Interstitial Lung Disease Clinic Programs, New Orleans, LA, USA (LAS, MRL); Louisiana State University School of Medicine, Section of Pulmonary Medicine, New Orleans, LA, USA (LAS, MRL); Tulane University School of Medicine, New Orleans, LA 70112, USA (LAS, KJ); Karolinska Institutet, Myositis Unit, Physiotherapy Unit, Stockholm, Sweden (HA); Patient Research Partner, New Orleans, LA, USA (DL); Department of Medicine, Oregon Health and Science University, Portland, OR, USA (KJ); Division of Pulmonary Medicine, Pulmonary Fibrosis Center, University of Utah, Salt Lake City, UT, USA (MBS); Department of Medicine, Division of Rheumatology, University of California – Los Angeles, Los Angeles, CA, USA (ERV); University of Exeter, College of Nursing, Exeter, UK (A-MR); and European Pulmonary Fibrosis Foundation, Gentbrugge, Belgium (A-MR)

In a Spotlight in *The Lancet Respiratory Medicine*, the journal again invites spirited conversation in medicine.¹ The Life of Breath project propelled the exploration of breathlessness through the humanities with research and therapeutic possibilities, such as the Dance Easy programme.^{1,2}

As clinicians, we embrace exercise as a method to safely decrease inflammation, insulin-resistance, fatigue, pain perception, and cardiovascular risk, while improving sleep quality, joint health, and mental health. Dancers experience muscle endurance, aerobic capacity, and strength exceeding that of other athletes.^{3–5} Dance introduces powerful, multifaceted horizons into the phenomenology (the study of the subjective lived experience prior to scientific theorisation) of navigating life with a breath-limiting health condition.⁶

Beyond enhanced efficiency of physicality and breath-phrasing to support large, expansive, or weighty movements, dance promotes a complex interplay of skills, coordination, and sensitivity that confers an articulate, strength-receptive, and diffusely physically conditioned

lsaketk@tulane.edu.

For the **documentary Dance your Way to Health** see <https://www.youtube.com/watch?v=4bFluoXKMrA>

For more from Living Well: **Heart, Lung, Muscle & Mind** see <https://www.youtube.com/channel/UCRgvkbyzep-Q3LGBiAksQZw/videos>

For the **3-3-1 exercise tutorial** see <https://www.youtube.com/watch?v=zsBRxmkzAnM&t=2s>

For more on the **Life of Breath project** see <https://lifeofbreath.org/2020/03/dance-easybreathe-better-and-feel-good/>

For the **Move Towards Health: UMC CPHC Instructional Booklet on Safe Home-based Dance Practice** see <https://doi.org/10.13140/RG.2.2.25576.49927>

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body. A confluence of softening and strength foster freedom and ease on a continuum of deeper coordination, mobility, propulsion, balance and off-balance challenges that often heighten respiratory demand.

Practicing ease and sensitivity through movement cultivates a relaxed, spacious thorax and soft, receptive abdomen; encourages diaphragmatic amplitude and excursion; postural accommodation of inspiratory and expiratory capacity; and intrinsic core and lower back strength. We hypothesise that movement programmes enhance, enrich, and sustain pulmonary rehabilitation effects.

For the past decade, our patients were prescribed dance and movement to optimise cardiopulmonary or physical conditioning and transplantation candidacy. A participant's quote on our instructional pamphlet, "it's grandma's dancing time!" illustrates its far-reaching benefits. Local, national, and international patient workshops further confirmed patients' global pleasure and rehabilitative joy derived from the mindful body in motion. Recent years brought funding to investigate dancers' premiere athleticism and to deconstruct the precise, targeted acceleration of intrinsic and global strength, aerobic resilience and physically freeing techniques of Martha Graham, Anna Halprin, Lester Horton, José Limón, and Lynn Simonson—techniques informed by nature and a pan-cultural experience of dance—as well as Iyengar-based yoga, Kundalini yoga, and Pilates—and their applications in heart, lung, and autoimmune diseases.

Our Dance Rehab and Yoga Rehab programmes took form, predominantly attended by participants with interstitial lung diseases or pulmonary hypertension. Online sessions during the COVID-19 pandemic have allowed the extension of the programme beyond Europe and to other heart and lung conditions including COVID-19 recovery. A kind community evolved online, with participants interested in and concerned for each other, and friendships formed across countries and health conditions.

Safety instructions provide participants with activity modifications (including scale, speed, and intensity) and supplemental oxygen management. Brief intermittent "knowledge to power" rest breaks impart to participants applied anatomy, physiology, and mindful extension to life activities. All participants engage in Adaptation Immersion, whereby ability-graded variations from sitting or lying progressing to standing with or without support; keeps everyone moving and promotes the body awareness necessary to self-accommodate other fitness and life activities.

Sensate connection is the crucial driver of strength and endurance in our practice. The fortifying pleasures of weight-shifting are seen through falls, rebounds, truncal succession; neuromuscular re-sensitisation for strong, responsive feet and ankles; re-kindling ambrosial awareness of the body moving through space; and re-emergence of upper-body levity against the weighted introversion of symptomatic illness. This experience is the practice of dance, all dance, whether seated or standing, complex or simple, dance is a healthful experience of connection with self, other, and community.¹⁻⁶

Siân William's videoed encouragement to clinicians: "some ideas", simple is sufficient and meaningful, and "convene and participants will come";¹ compel us to support similar work,

global conversation, and collaboration on embodiment strategies in breathlessness. Qualitative research into participants experiences,^{1,2,6} followed by clinical trials will define safety, minimum intensity, duration, and frequency of pleasurable, accessible, and feasible sessions.^{1-4,6}

On a final note, the Life of Breath funding period is complete. Its seeds of humanistic evaluation and exploration of breathlessness as a lived experience are now sown and shared. Tender saplings, shoots, blossoms, and blooms call to a wider ecosystem for cultivation, sustainability, and diversity. We join with others to keep this fathomless garden tended, flourishing, and unfurling.

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References

1. Williams S. Dance group enriches lives of people living with breathlessness. *Lancet Respir Med* 2020; 8: 763–64. [PubMed: 32763204]
2. Malpass A, Dodd J, Feder G, et al. Disrupted breath, songlines of breathlessness: an interdisciplinary response. *Med Humanit* 2019; 45: 294–303. [PubMed: 31371484]
3. Alexanderson H, Boström C. Exercise therapy in patients with idiopathic inflammatory myopathies and systemic lupus erythematosus—a systematic literature review. *Best Pract Res Clin Rheumatol* 2020; 34: 101547. [PubMed: 32819833]
4. Koch SC, Riege RFF, Tisborn K, Biondo J, Martin L, Beelmann A. Effects of dance movement therapy and dance on health-related psychological outcomes. A meta-analysis update. *Front Psychol* 2019; 10: 1806. [PubMed: 31481910]
5. Liederbach M, Kremenich IJ, Orishimo KF, Pappas E, Hagins M. Comparison of landing biomechanics between male and female dancers and athletes, part 2: Influence of fatigue and implications for anterior cruciate ligament injury. *Am J Sports Med* 2014; 42: 1089–95. [PubMed: 24595401]
6. Carel H. *Phenomenology of illness*. Oxford, UK: Oxford University Press, 2016.