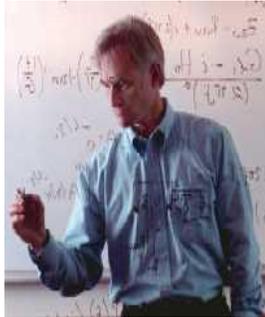




Breath Biofeedback System and Method

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Overview

Breathing, relaxation and awareness training significantly ameliorate respiratory symptoms and dysfunctional breathing compared to usual care¹. However; consistent, safe and effective delivery of this training is difficult and costly due to the lack of available expertise at an affordable cost, the intermittent nature of the disease, competing priorities of patients, and the lack of tools that both engage the patient and are cost-effective.

The Invention

RespirGames has developed a novel means of delivering breath training and awareness through the use of interactive, breath-controlled games. This system provides both diagnostic and therapeutic benefit, while addressing the key historical weaknesses that have limited the adoption of breath training to date. Key features of this platform include:

- Compelling experience that safely engages and motivates the user to explore her capabilities, understand symptoms, and comply with the training regimen.
- Pervasive access by leveraging consumer-grade mobile computing platforms (e.g. iPad, Android).
- Expanded and augmented data collection and analysis that can be used to correlate symptoms with location, time of day, weather, pollution and other mitigating factors.
- Data integration with primary/specialist care and electronic health records to enable effective, long-term coordination of care that is consistent with emerging ACO standards.

Applications

- Supplement and possibly eliminate traditional drug treatments currently used to treat asthma and other chronic lung ailments
- In conjunction with networked video games in public places
- Organizations concerned with obesity: Pediatrics, Family Medicine, Cardiology/Internal Medicine
- Augment effective management of migraine headaches, behavioral, sleep and mood disorders
- Athletes would benefit from breath control regimes to improve cardiovascular efficiency, thus performance

Advantages

- Increases autonomy of individual user through structured incentives
- Adaptable to currently existing technology
- Working prototype and clinical data available

Patent Status

Issued Patent # 7,618,378, one additional active US application # 12/619,306

Keywords

CTK, Video games, heart rate, exercise, child, obesity,

Contact Information

For more information and licensing opportunities, contact UVM's Office of Technology Commercialization at: Phone (802) 656-8780; email: innovate@uvm.edu

¹“Integrated breathing and relaxation training for adults with asthma in primary care: a randomized controlled trial”, Thorax, Holloway, 2006