

# Constructing a Dance Pathography: Integrating the performing arts, multimedia and digital medical humanities

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## 1. INTRODUCTION

The role of dance in society has become increasingly interdisciplinary and transformed through the use of technology. This expands its possibilities as a means of non-verbal communication. Similarly, the integration of the arts and humanities with medical science expands the range of possibilities offered to researchers of all disciplines to communicate about the experience of illness as well as contribute to treatment.

One illness that is made more complex by its history and social stigma is adolescent bipolar disorder (ABPD). Similar yet distinct from adult-onset bipolar disorder, ABPD exacts a toll on the patients and the people around them. At the same time, early intervention is possible and potentially effective. Yet there are still few narratives created about ABPD that can educate the public about the need for empathy and early intervention— a gap that could potentially be filled by dance and other creative arts.

This short paper describes the author's process for creating a virtual reality (VR) dance pathography prototype. The process will form the basis for a participatory research workshop.

## 2. BACKGROUND

The initial choreographic research for this project began with the author's 2005 solo, *Empty Shell Over Borrowed Time*, about coming to terms with initial diagnosis. This piece was followed by seven more dance pathographies created from 2006 - 2015. Each work was based on the emotions and experiences of an actual patient but not necessarily performed by said patient. Over time, it was realized that each dance was actually a pathography as defined by Hawkins (1999) and

other medical humanists – patient narratives about illness created by either patients or third parties.

Some of the works were accidental pathographies and others were purposely designed as such. Written audience feedback in 2010 and informal verbal feedback in 2015 showed that there was concern about revealing one's self as a patient by attending a performance, assumptions by the audience that the topic was not relevant to their personal situation, and preconceptions about what being bipolar should look like. This raised the question of whether the viewing experience should become a more private one with the narrative showing more facets of the illness.

## 3. PROTOTYPE PROCESS

### 3.1 Theoretical foundation

To rethink the choreographic process, the author examined the following case studies:

- Eli & Kay (2015) – Workshops using dance to help anorexia patients communicate their experience.
- Weitkamp and Mermikides (2016) – *bloodlines* – Interdisciplinary theatre piece about leukaemia treatment with follow-up user surveys.
- Turner (2016) – *Witness* – Dance theatre piece based on the choreographer's own experience with bipolar disorder.
- Smith-Nunes & Neale (2017) – *[Pain]byte* – VR ballet about chronic pain with follow-up user testing.
- Wadley et al. (2018) – *Virtual Reality Therapy for Youth Mental Health* – VR environment replicating triggering environments to help patients practice coping with rumination.

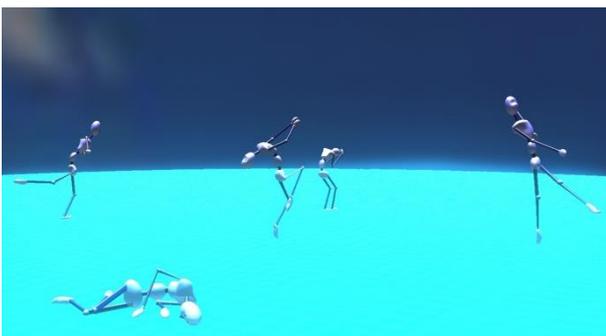
After examining the case studies, the author decided to use data from phenomenological studies of ABPD to create a more structured and abstract narrative. The following symptoms were selected from various reports (Axelson 2006; Craney 2003; Malhi 2014): irritability, racing thoughts, anger/aggressiveness, and elated mood. The symptoms were selected for their suitability to be expressed through physical movement. This data was supplemented by anecdotes from reports by Carlson (2006) and Craney (2003).

### 3.2 Choreographic and technological process

This data is expressed using contemporary and somatic dance movement. Each symptom is represented by a movement phrase that can be looped and digitally manipulated. The movement was performed by the author and recorded by the MetaObjects company as motion capture data. The motion capture data and three-dimensional models were then imported into Unity. When the viewer moves close enough to a figure, it triggers the animation; moving away a certain distance would then stop it.

### 3.3 Overall environment

The environment was inspired visually and aurally by water. This is in reference to experiments on lithium (common treatment for bipolar disorder) levels in water and use of water to commit suicide. The figures were scattered around the environment to indicate that symptoms can co-exist but are not necessarily dependent on each other. The audio is a mixture of ocean waves, whispered words related to the symptom as well as echoes and whooshing sounds.



**Figure 1:** Mock-up of the dancing figure and environment.

## 4. NEXT STEPS

After the initial display of the prototype in April 2018, the author will collect feedback from a range of viewers for at least six months in order to refine the pathography creation process. This feedback will be used to refine the prototype and then create

a second pathography focusing on coping with treatment and daily life. The two pathographies will then go through another round of user testing in 2019. A third component portraying positive outcomes of treatment and support will then be created to complete the series. The choreographic and technological processes will ultimately be packaged as a toolkit for other creators to use and repurpose.

## 5. REFERENCES

- Axelson, D., Birmaher, B., Strober, M., Gill, M. K., Valeri, S., Chiappetta, L., Ryan, N., Leonard, H., Hunt, J., Lyengar, S., Bridge, J., and Keller, M. (2006) Phenomenology of Children and Adolescents With Bipolar Spectrum Disorders. *Arch Gen Psychiatry*, 63:1139–1148.
- Carlson, G. A., and Meyer, S. E. (2006) Phenomenology and Diagnosis of Bipolar Disorder in Children, Adolescents, and Adults: Complexities and developmental issues. *Development and Psychopathology*, 18:939–969.
- Craney, J. L., and Geller, B. (2003) A Prepubertal and Early Adolescent Bipolar Disorder-I Phenotype: Review of phenomenology and longitudinal course. *Bipolar Disorders*, 5:243–256.
- Company Chameleon. (2016) *Witness 5 Minute Promo*. <https://vimeo.com/189671754> (retrieved 14 October 2017).
- Eli, K., and Kay, R. (2015) Choreographing Lived Experience: Dance, feelings and the storytelling body. *Medical Humanities*, 41, 63–68.
- Hawkins, A. H. (1999) Pathography: Patient narratives of illness. *Culture and Medicine*, 171:127–129.
- Malhi, G. S., Bargh, D. M., Coulston, C. M., Das, P., and Berk, M. (2014) Predicting Bipolar Disorder on the Basis of Phenomenology: Implications for prevention and early intervention. *Bipolar Disorders*, 16:455–470.
- Smith-Nunes, G., and Neale, C. (2017) [pain]Byte VR Storytelling & Classical Ballet. *Proceedings of EVA London 2017*, pp. 415–419.
- Weitkamp, E., and Mermikides, A. (2016) Medical performance and the 'inaccessible' experience of illness: an exploratory study. *Medical Humanities*, 42(3):186–193. DOI [10.1136/medhum-2016-010959](https://doi.org/10.1136/medhum-2016-010959)
- Wadley, G., Alvarez-Jimenez, M., Bendell, S., Loveridge, B., Lederman, R., and Gleeson, J. (2018) Virtual Reality Therapy for Youth Mental Health. <https://networkedsociety.unimelb.edu.au/research/projects/2016/virtual-reality-in-health/virtual-reality-youth-mental-health> (retrieved 14 March 2018).