

Considerations of DMT Assessment: What to assess and how? Findings from an international trial of an iPad app

Kim Dunphy and Sue Mullane, Making Dance Matter consultants
and Phoenix Institute, Melbourne, Australia

www.makingdancematter.com.au

Laura Allen, Hannah Bailey, Patrick Justin,
Columbia College, Chicago, USA

Abstract

Assessment is an ongoing issue for dance/movement therapists. Questions about what to measure and how to measure it effectively continue to provide the field with significant challenges. This presentation reports on the development and application of an iPad app devised for assessment in dance/movement therapy (DMT) programs. Findings are presented from an international trial across sites in Melbourne, Australia and Chicago, USA, in which the app was utilized in DMT programs with diverse clients, including children with intellectual disabilities and adults with mental health issues. Trial findings elicited a range of issues about assessment in DMT that will be explored in interactive discussion at the conference.

Description

Dance/movement therapists face significant theoretical and practical challenges in providing evidence-based assessment of their programs (Dunphy & Scott, 2003; Karkou, 2010; Snow & D'Amico, 2009). Whilst theories of dance movement therapy inform practice, few therapists have suitable theoretically informed assessment frameworks available to them. In addition, while theory provides specific learning content applicable to client progress, there is a dearth of appropriate, comprehensive assessment frameworks that specifically reflect the growth potential of dance/ movement therapy (Cruz & Koch, 2012; Powell, 2008). This scenario is particularly significant for those who may see large numbers of clients in groups in successive sessions, and are expected to make ongoing thorough and meaningful assessment of those clients.

Specifically, these challenges include finding effective and efficient assessment strategies that:

- are appropriate for expressive therapeutic goals while also fitting requirements of host organizations for client reporting;
- involve summative assessment practices (useful for *end* of assessment period reporting) as well as formative assessment practices (necessary for informing clients as well as therapists about progress *during* the therapeutic process); and
- are meaningful to stakeholders, including other professionals, funders, management, family members, carers and clients themselves.

By improving skills in collecting, recording and comparing information about client outcomes, dance/movement therapists can advance their practice and strengthen the evidence base for DMT. As yet, technological strategies for enhancing assessment practice in DMT have been underdeveloped.

This presentation reports preliminary findings from an international initiative about DMT assessment. Parallel trials of *Marking the Moves*, an iPad app for DMT assessment, were conducted in Melbourne, Australia and Chicago, USA, in a collaboration between Australian researchers, Dunphy and Mullane, and the Department of Creative Arts Therapies at Columbia College, Chicago. The presentation builds on offerings by Mullane and Dunphy at the ADTA Conferences: in 2010, where the theory of the assessment framework underpinning the app was discussed, and in 2012, where the early version of the app was presented and the idea for this collaboration was born.

During 2013 a trial of *Marking the Moves* was undertaken in a large special developmental school in Melbourne, Australia, which caters to students with complex needs aged 5-18 years. Six staff members (the school principal, a leading teacher and four classroom assistants) were given hands-on training in the use of the app for assessment of student progress. The training was followed by application in a ten week term of dance/movement therapy sessions. While this group of users did not have a background in DMT, they were experts in special education and very skilled in understanding their students' needs. Responses from these users were obtained in a range of approaches including structured surveys, informal discussion and participant observation.

In 2014, faculty and students of the Dance/Movement Therapy and Counseling Master's degree program at Columbia College, Chicago, received training on use of the app from the researchers via video Skype meetings and email communication. Eight students experimented with use of *Marking the Moves* to assess clients in live group sessions in therapeutic and clinical settings. Client groups included children and adults with intellectual/developmental disabilities and those facing chronic/ severe mental illnesses. Eighteen students experimented with videotaped footage by viewing and assessing a DMT session twice. While these research participants were less familiar with individuals from their client groups and had less experience with presenting issues for both client groups, they had stronger skills in DMT than the special school staff. After these DMT students used the app, they offered both informal feedback and responses to a formal survey about their experiences of interfacing with the technology.

The special school trial confirmed the app's capacity to systematically and efficiently document students' achievements on a number of pre-determined assessment criteria. Reports of student progress were able to be generated across different periods of learning, including single session and accumulated sessions within a specific reporting period. Staff rated these reports as being

easy-to-read. The quantitative data produced in use of the app substantiated narrative reports of student learning. Other positive outcomes included enriched capacity of classroom assistants to understand and support student learning through dance, and an encouraging response from school leadership because of their recognition of the increased professional capacity of teachers and non-specialist education support staff to effectively assess students' learning in the classroom. Reliability of findings generated through the use of the app and the underpinning *Framework for Dance Movement Assessment* (Dunphy & Mullane, 2014) was documented, even amongst users with different professional skills. Ratings made by an expert dance/movement therapist and non-specialist classroom assistants achieved more than 90% consistency.

The absence of a method for collecting formative assessment data was noted as problematic in this special education context. Additional features of the app that could enable students to comment on their own progress in the therapeutic program were recommended, in order to support client agency, a highly valued aspect of the education program..

Survey responses from Columbia users were reflective of their greater professional skills in DMT. The potential of this type of technology to advance the field of DMT was observed, in the app's capacity to capture and store significant amounts of data that are not typically available to therapists outside the therapy session. Participants reported the potential for assessment to be quick and efficient once assessors were competent with the app. The information collected created a database of evidence that could be used to inform client progress notes, treatment summaries and the evaluation of treatment goals. The app also assisted in the efficient organization of large volumes of data, through use of standard indicators for observation, quantitative measures, and straightforward graphing into visual representations of client behavior. The potential for the app to function as a tool for research was also noted, especially for researchers working from video recordings of DMT sessions. Ecological benefits were also observed, through elimination of the need for use of paper-based assessment.

These two trials of *Marking the Moves* offered inspiration for development of both the content and function of the app, to enable its maximum usefulness across client groups and settings. Recommendations for content expansion included additional global movement indicators such as body part connectivities (Hackney, 1998); indicators that specifically separated the eight Effort Element polarities (Laban, 1988); and further customization of indicators to cater for the different therapeutic needs and treatment goals of other specific client groups.

Functions of the app that were recommended included a 'timestamping' capacity for the therapist to record *when* in a session a behavior or movement response occurred; an option to select and review recorded data from specific time periods of a treatment program; the capacity to compare data between clients; expansion of options for visual representation of data; and problem-solving the storage of large volumes of video data. Also recommended was the need for compatibility

between data generated by the app and host organizations' data management systems. Compatibility was seen to be particularly beneficial in its enabling of on-line sharing of client information between professionals, within the bounds of ethical practice, including video files of program participation and graphs of client progress. Finally the possibility of the therapist being able to draw images (e.g. KMP rhythms, imagery responses, Labanotation symbols) utilizing touchscreen technology, to accompany written notes was suggested.

Summary

This presentation has outlined some findings from an international trial on the use of an iPad app devised for assessment of dance/movement therapy programs. The research, in a range of contexts with different populations across two countries, resulted in findings of the potential of the app for supporting effective and efficient assessment of DMT. The trial identified possibilities for improvement of both content and function of the app.

The process of working together across countries and contexts for the trial stimulated researchers' questions about dance/movement therapists' capacity to assess and report on client progress. These include therapists':

- clarity in understanding what they are assessing and why;
- expertise in assessing client progress during and at the conclusion of therapy;
- confidence in using technology to generate electronic data;
- capacity to interpret collated data and communicate its meaning clearly to relevant parties, including clients;
- ability to obtain insight from data and adjust therapeutic activities reflexively.

The new possibilities for assessment of client progress that arise from the use of this kind of technology, iPads and apps, were perceived as valuable and exciting.

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