Patient-reported outcomes following a drama class for individuals with chronic aphasia

INTRODUCTION

Despite linguistic gains following treatment, people with aphasia (PWAs) experience residual communication problems that significantly impact their daily lives. They report social isolation, loneliness, loss of autonomy, restricted activities, role changes, and stigmatization.[1,2] As a result, there has been increased emphasis on approaches that focus on enhancing the "living of life with aphasia". The major goal of these "Life-Participation Approaches to Aphasia" (LPAA) is to facilitate participation in personally relevant activities to help PWAs achieve and maintain a good quality of life.[3] Consistent with the goals of the LPAA, we used drama and drama therapy to create an innovative communication experience in which individuals with chronic aphasia conceptualized, wrote and produced a play addressing their experiences of having, living with and coping with the effects of aphasia.

Drama therapy has been defined by the National Association of Drama Therapy as the systematic and intentional use of drama/theater processes, products, and associations to achieve the therapeutic goals of symptom relief, emotional and physical integration and personal growth.[4] Drama therapy is an active, experiential approach that facilitates the client's ability to tell his/her story, solve problems, set goals, express feelings appropriately, achieve catharsis, improve interpersonal skills and relationships, and strengthen the ability to perform personal life roles while increasing flexibility between roles. Since drama therapy emphasizes the interplay between thought and speech, and allows communication of ideas through both non-verbal and verbal means, it offers an important authentic medium through which people with aphasia can interact and share their experiences.

In this poster, we describe the rationale and procedures of this creative arts therapy class for aphasia, with a focus on the patient-reported outcomes of a representational group of seven participants.

METHODS

Participants in the drama class met once weekly for 90 minutes over 18 weeks. Sessions were co-facilitated by a speech-language pathologist and a drama therapist. Each session was audio- and videotaped and then transcribed for use in planning and script development. Initially, general theater games and activities provided the foundation to maximize communication opportunities and communication exchanges. Intermediate sessions incorporated improvised storytelling, scene generation, and script development and revision. Later sessions incorporated practice and rehearsal, culminating in performance of a production in front of a live audience.

Subjects

Core group members included 14 (9 male; 5 female; 12 white, 2 black) individuals with chronic aphasia. Mean age was 55.85 years (range: 31-76 years). Etiology was predominantly stroke, with a range of physical residuals and aphasia classifications. Educational, vocational, ethnic,

and socio-economic backgrounds were diverse. Mean time post onset was 6.1 years (range:11 months - 27 years).

A representative sample of seven participants (5 male, 2 female; 6 white, 1 black) were evaluated before and after participation in the theater class. Mean age was 56.7 years (SD=9.71; range 41-73 years). Mean time post onset was 8.29 years (SD=8.6 years; range 3-27 years). Clinically, three participants were characterized as having a mild anomic aphasia (all recovered from Broca's aphasia), while four participants were characterized as having a moderate Broca's aphasia. Etiology was stroke in 6 participants and a gunshot wound in one participant. All but one of the participants was right-handed premorbidly. Mean education level was 15.7 years (SD=3.4 years, range 12-21 years) and premorbid occupations included the following: history professor; janitor; actor; retail store owner; housewife; lawyer; commercial real estate manager.

Patient-Reported Outcomes

Measures of patient-reported outcomes were administered before and after participation in the theater class using selected subscales of the Burden of Stroke Scale (BOSS)[5] and the Communication Confidence Rating Scale for Aphasia (CCRSA)[6]. All testing was conducted by a speech-language pathologist who was independent of the treating speech-language pathologist.

The BOSS is a comprehensive, patient-reported measure of functioning and well-being. It is a 64 item scale, comprising 12 internally consistent and unidimensional scales.[7] The Communication Difficulty (CD) subscale consists of seven items; the Social Relations subscale consists of 5 items, and the Mood subscale consists of 4 items representing a negative mood (lonely, anxious, angry, sad) and 4 items representing a positive mood (confident, happy, calm, optimistic about the future). Each of these subscales has an associated psychological distress scale (communication associated distress; social relations associated distress; mood associated distress). BOSS subscales and questions are listed in Appendix 1.

The CCRSA is a 10-item self-report scale that assesses the PWA's confidence in communication in various situations. Participants indicate their degree of confidence on a horizontal visual analogue scale with markings from 0-100. Preliminary analyses indicate that the CCCRSA is internally valid and reliable.[6] The CCRSA items are included in Appendix 2.

Analysis

Means and standard deviations of each BOSS subscale and CCRSA score were calculated at each assessment period. Because of the small number of subjects, effect size measures were computed from pre- to post-participation in the drama class. Effect size measures the magnitude of a treatment effect and, unlike significance testing, is independent of sample size. Cohen's *d* was calculated for dependent measures using the original means, standard deviations, and correlation coefficient.[8] Effect sizes were benchmarked against Cohen's (1988) definition of effect size as "small, d=0.2,", "medium, d=0.5," and "large, d=0.8."[9]

RESULTS

Table 1 shows the means, standard deviations, and effect sizes. On the CCRSA and the BOSS mood subscale (positive), a positive effect size represents improvement. On all other BOSS

subscales, a negative effect size represents improvement as indicated by a decrease in burden or associated distress.

None of the effect sizes were large; however, several effect sizes demonstrating perceived improvements following participation in the drama class could be benchmarked as medium. These included responses on the BOSS communication burden and communication distress scales and the positive mood scale. Perceived improvements that could be benchmarked as small included increased communication confidence as measured by the CCRSA and decreased negative mood and mood distress.

DISCUSSION AND CONCLUSIONS

Participation in a drama class for aphasia resulted in perceived improvements in both communication and mood. Communication changes were indicated by decreases in both communication difficulty and the distress associated with communication, as well as small, but increased communication confidence. Mood changes were determined by moderate increases in positive feelings, and small decreases in negative feelings and the distress associated with these negative feelings and emotions.

Notable improvements did not occur on all BOSS subscales. Interestingly, there were no perceived changes in the participants' difficulty with social relations or associated distress. Such findings are not surprising given the chronicity of the aphasia, and the fact that the PWAs were all living in the community and had previously attended other sessions of community aphasia groups. However, the lack of perceived change in social relations serves to highlight the impact of the drama class specifically on communication and mood. Factors contributing to perceived changes in communication and mood, including use of specific drama therapy techniques that focus on communication skills and the success associated with the live performance, will be discussed.

Finally, patient-reported outcomes have been called the new "gold standard" for many chronic conditions, and there is broad agreement on the importance of incorporating the patient's own perspectives about the impact of treatment.[10,11] Given that aphasia is a chronic condition, the value of the PWAs own self-report and perceptions of their condition should be considered.

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Table 1. Effect Sizes of Patient-Reported Outcomes Following Participation in a Theater Class:

Test	Pre-Participation		Post-Participation		
	Mean	SD	Mean	SD	Effect Size
BOSS					
Communication - Burden	12.29	4.99	10.21	3.83	- 0.46
Communication - Distress	7.00	2.77	5.86	2.19	- 0.51
Social Relations - Burden	7.14	3.44	6.71	3.64	- 0.16
Social Relations - Distress	5.43	3.21	5.64	3.22	0.07
Mood (Negative items)	6.71	4.57	6.14	2.54	- 0.33
Mood (Positive items)	8.29	2.75	9.93	3.01	0.61
Mood - Distress	1.57	1.13	1.71	1.38	0.22
CCRSA	71.71	14.12	74.43	9.13	0.38

Highlighted items indicate a medium effect size.

Appendix A. BOSS items

Communication	
	Because of your stroke, how difficult is it for you to…
1	Talk?
2	Understand what people say to you?
3	Understand what you read?
4	Write a letter?
5	Talk with a group of people?
6	Be understood by others?
7	Find the words you want to say?
	You indicated that you have some difficulties communicating.
DM3	How often do difficulties communicating cause you to feel anxious, unhappy or frustrated?
DS3	How much do difficulties communicating cause you to feel dissatisfied with yourself or your life?
DR3	How much do difficulties communicating prevent you from doing the things in life that are important to you?

Social Relations	
	Because of your stroke, how difficult is it for you to…
1	Enjoy leisure activities with friends or relatives?
2	Keep old friendships going?
3	Maintain your role as a friend or family member?
4	Interact with people you're meeting for the first time?
5	Interact with friends and family members?
	You indicated that you have some difficulties in social situations or relationships.
DM6	How often do difficulties in social situations or relationships cause you to feel anxious, unhappy or frustrated?
DS6	How much do difficulties in social situations or relationships cause you to feel dissatisfied with yourself or your life?
DR6	How much do difficulties in social situations or relationships prevent you from doing the things in life that are important to you?

Mood (Negative)	
	Since your stroke, how often do you feel…
1	Lonely?
2	Anxious?
3	Angry?
4	Sad?
	You indicated that you experience some negative feelings and emotions.
DR8	How much do your feelings and emotions prevent you from doing the things in life that are important to you?

Mood (Positive)	
	Since your stroke, how often do you feel…
1	Confident?
2	Happy?
3	Calm?
4	Optimistic about the future?

Appendix B. CCRSA items

1. How confident are you about your ability to talk with people?
2. How confident are you about your ability to stay in touch with family and friends?
3. How confident are you that people include you in conversations?
4. How confident are you about your ability to follow news and sports on TV?
5. How confident are you about your ability to follow movies on TV or in a theater?
6. How confident are you about your ability to speak on the telephone?
7. How confident are you that people understand you when you talk?
8. How confident are you that you can make your own decisions?
9. How confident are you about your ability to speak for yourself?
10. How confident are you that you can participate in conversations about your finances?