Photocopy and Use Authorization

In presenting this thesis in partial fulfillment of the requirements for an advanced degree at Idaho State University, I agree that the Library shall make it freely available for inspection. I further state that permission for extensive copying of my thesis for scholarly purposes may be granted by the Dean of the Graduate School, Dean of my academic division, or by the University Librarian. It is understood that any copying or publication of this thesis for financial gain shall not be allowed without my written permission.

Signature_____

Date_____

Humor Functions in Aphasia Group Therapy within a Modified Intensive Comprehensive Program Model

By

Melissa Mazzaglia

A thesis

submitted in partial fulfillment

of the requirements for the degree of

Master of Science in the Department of Communication Sciences and Disorders

Idaho State University

Fall 2019

Melissa Mazzaglia

To the Graduate Faculty:

The members of the committee appointed to examine the thesis of Melissa Mazzaglia find it satisfactory and recommend that it be accepted.

Victoria L. Scharp, PhD, CCC-SLP
Major Advisor

Kristopher Brock, PhD, CCC-SLP
Committee Member

Elizabeth Horn, PhD
Graduate Faculty Representative

Table of Contents

List of Figures vi
List of Tables vii
Humor Functions in Aphasia Group Therapy Within a Modified Intensive Comprehensive Program Model 1
Intensive Comprehensive Aphasia Therapy Models & The Meridian Intensive Aphasia Program (MIAP) 2
Multidimensional Assessment and Treatment Models 3
Multi-dimensional Frameworks of Aphasia 6
Impact of Aphasia on Social Relationships 7
Lack of Cohesive Approaches for Aphasia Therapy 8
Group Therapy for Aphasia 9
Benefits of Costs, Support Networking, and Provision of Identity in Group Therapy 11
Group Therapy as a Restorative Approach for PWA 14
Contrasting Viewpoints of Group Therapy for Aphasia 15
Humor as a Life Participation Benefit 16
Method 25
Experimental Design 26
Participants 26
Schedules and Procedures 27
Data Collection 32
Data Analysis 32
Results 34
Constant Comparative Method 35
Application of Sherratt & Simmons-Mackie (2016) Functions 36
Client vs. Clinician Initiation 37
Discussion 39
Comparison with Previous Research 41
Limitations 45
Future Directions 45
Conclusions 48
References 49
Appendix A 55
Appendix B 61

List of Figures

Figure 1 Instances of Humor per Session for Groups A &B ……...…….35

Figure 2 Comparison of Humor Functions between Groups A & B……...…….....36

Figure 3 Comparison of Humor Functions between Groups A & B

(Sherratt & Simmons-Mackie, 2016)……...……..37

Figure 4 Comparison of Humor Functions between Clients and Student Clinicians……..…….39

List of Tables

Table 1 Functions, Initiators and Instances of Humor……..…….21

Table 2 Participant Demographics……..……...27

Table 3 Meridian Intensive Aphasia Program Schedule……..……..29

Table 4 MIAP Assessment Battery……..……..30

Table 5 Descriptive Statistics of Humor Instances for Groups A & B……..……35

Table 6 Group Environmental and Compositional Factors……...……41

Humor Functions in Aphasia Group Therapy within a Modified Intensive Comprehensive Program Model

Thesis Abstract-Idaho State University (2019)

Up to 40% of stroke survivors acquire aphasia, a language disorder that affects communication and social participation. People with aphasia (PWA) benefit from learning compensatory strategies to increase their communication skills and life participation. One potential compensatory strategy is humor. This study identified the functions of humor within group therapy sessions facilitated by speech-language pathology students. A constant comparative inductive coding method identified six functions of humor: improve likeability, bolster togetherness, build rapport, preserve dignity, deflect tension, and unintended humorous instances. Improving likeability, building rapport and bolstering togetherness were the most common humor functions used by both PWA and student clinicians. PWA also used humor to preserve their dignity during moments of communication difficulty. Future studies could consider exploring humor within student-client dyads, comparing humor functions between intensive and distributed group therapy models, and the potential influences of providing facilitator training for supporting humor in group therapy settings.

Key Words: Aphasia, humor, group therapy, modified intensive comprehensive program

Humor Functions in Aphasia Group Therapy Within a Modified Intensive Comprehensive Program Model

Cerebral vascular accidents (CVA), commonly known as strokes, are the fifth leading cause of death in the United States (Monzaffarian et al., 2016). For the individuals who survive a CVA, the medical costs can be astronomical. Based on data from Monzaffarian et al. (2016), the estimated annual costs for cerebral vascular disease and stroke totaled $316.6 billion between 2011 and 2012. Up to 40% of stroke survivors acquire *aphasia* (Dickey et al., 2010). "Aphasia is a multimodality physiological inefficiency with [greater than loss of] verbal symbolic manipulations (e.g., association, storage, retrieval, and rule implementation). In isolated form it is caused by focal damage to cortical and/or subcortical structures of the hemisphere(s) dominant for such symbolic manipulations. It is affected by and affects other physiological information processes to the degree that they support, interact with, or are supported by the symbolic deficits.'' (McNeil, 1982, p. 693). Communication modalities are affected on an individual basis and all cases are different based on diagnosis and severity level. A diagnosis of aphasia at any age can be harmful to the patient's ability to communicate successfully on all levels, especially in social contexts. If a stroke survivor is diagnosed with aphasia, he or she may seek treatment from a speech-language pathologist (SLP) to treat possible concomitant speech and language deficits.

Significant changes are currently taking place in the field of SLP practice. Since the early 1990s, changes based on internal and external forces affect how SLPs meet the daily requirements of their jobs (Chapey, 2001). External forces include aphasia patients being frustrated by unmet needs and unfulfilled goals along with insurance coverage limitations for funding SLP services reducing the total amount of available therapy sessions. Internal influences

comprise a growing interest in clinical service delivery models that produce meaningful real-life outcomes and lead to an enhanced quality of life (QOL). This review of literature will highlight how aphasia group therapy is one treatment option that emphasizes this internal quality of life factor (Chapey, 2001). A shift in the field toward functional outcomes is a likely rationale for why group therapy has had a renaissance since the early 1990s (Elman, 2007). Following the review of group therapy, the use of humor as a compensatory strategy in group sessions will be discussed from the vantage point of promoting QOL. Finally, group therapy's unique ability to promote communication confidence and solidarity amongst group members will be explored (Simmons-Mackie, 2003). The current project will identify instances of humor within group therapy sessions and explore their potential functions. Study results are derived from data collected during one week of student-led group aphasia therapy sessions from the Meridian (Modified) Intensive Aphasia Program (MIAP) at Idaho State University in Meridian, Idaho.

Intensive Comprehensive Aphasia Therapy Models & The Meridian Intensive Aphasia Program (MIAP)

MIAP is an example of a modified Intensive Comprehensive Aphasia Program (ICAP; e.g., Rose, Cherney, & Worrall, 2013). An ICAP is a speech-language pathology clinical service delivery model for people with aphasia (PWA) based on a large dose of therapeutic intervention provided to a cohort of participants. ICAPs seek to maximize outcomes for PWA who have communication impairments that affect their participation in daily living. Rose et al. (2013) define an ICAP as a service delivery model that incorporates several treatment techniques during a period of intensive therapy. An ICAP must target both the impairment and the activity/participation levels of treatment within the World Health Organization's International Classification of Functioning (World Health Organization [WHO], 2001). Rose et al. (2013)

further indicate that a program must offer comprehensive treatment of both language and activity participation constructs for a minimum of three hours per day enacted over a 2-week period, and each participant must begin and end the program at the same time. ICAPs typically have a wide range of reported therapy hours which can vary between 48-150 hours.

Intensity and comprehensiveness are the key constructs that distinguish intensive therapy from traditional outpatient therapy. However, there is not a universal definition of what is considered intensive therapy (Babbitt, Worrall, & Cherney, 2015). Baker (2012) explains that it is unclear what an ideal dosage (i.e. how often or how long) of treatment for intensive aphasia. Baker (2012) suggests the need for a comprehensive evaluation of clinician, patient, condition, and service-condition variables to influence practical application of intervention intensity across intensive programs.

MIAP's modified version of an ICAP combines intensive (e.g., up to 6 hours per day for 5 days) individual and group therapy sessions with social support to target functional communication goals and improved QOL. The potential impact of the use of humor from the patient's standpoint has not been investigated within the scope of an intensive program. Formulating and understanding of the benefits of humor, or lack thereof, would further facilitate the development of tracking measures related to QOL and success within an intensive clinical program.

Multidimensional Assessment and Treatment Models

The World Health Organization's International Classification of Functioning, Disability and Health has conceptually influenced the understanding and dynamics of an aphasia diagnosis. The WHO ICF Model facilitates a greater emphasis on evaluating and understanding the multidimensional diagnosis of aphasia through a lens based on functionality versus classification

as a disease. Health, as defined by the World Health Organization's website (WHO, 2001), is "the complete physical, mental, and social functioning of a person and not merely the absence of a disease." (Kagan & Simmons-Mackie, 2007). The ICF model is a framework comprised of four constructs used to address level of functioning and disability as these constructs relate to the diagnosis of a health condition. The ICF model explains a person's level of function should be an interactive relationship between the patient's health condition, environmental, and personal factors such as QOL.

Dimensions of the WHO ICF model include body structure and functioning, activities and participation, and personal and environmental contexts. Body structure and functioning include the anatomical aspects of the body (e.g., organs) and functionality comprises the physiological or psychological internal workings of the body. For the purposes of communication, this dimension includes the cognitive, sensory and motor skills utilized while communicating. In the ICF model, the body functions and structure domain classify a health condition as one that requires an impairment-based approach. Therefore, SLPs who adhere to this dimension of the model tend to treat patients with impairment-based approaches for aphasia that may include treatment targets such as word finding and syntactic deficits. The activity domain is comprised of life activities (e.g., talking on the phone, sending an email, understanding posted signs) the patient engages in and how their communication impairment poses limitations on day-to-day life experiences. Additionally, treatment that corresponds to this domain considers the context and the environment of the individual. A patient's perceived ability to carry out social roles and join in life situations such as attending a lunch with a friend, or a yoga class would be classified as participation. The conversational partner is considered in devising treatment within this domain (functioning as a member of society or group). Contextual

factors include environmental factors which are outside the individual's control such as barriers or facilitators to participating in their environment (e.g., family support, ability to attend therapy), and personal factors specific to the individual such as age, and their preferred lifestyle.

Clinically, SLPs utilize the WHO ICF Model (WHO, 2001) to guide assessment procedures and later evaluation of the post-treatment effectiveness. Some researchers (e.g., Galletta & Barrett, 2014 & Brandenburg et. al., 2015) consider a multifaceted approach to aphasia treatment to be the most beneficial in supporting positive patient outcomes because an aphasia diagnosis has a detrimental impact on autonomy, socialization, and overall QOL and typically becomes a chronic and life-long disability. According to Gallettta and Barrett (2014), SLPs should not exclusively employ an impairment-based treatment approach based on improving linguistic subsystems, but instead provide treatment that intertwines both impairment-based and functional therapy methods to enhance participation in societal roles. Therefore, goals related to life participation and QOL have received more emphasis in recent years (Brandenburg et al., 2015). QOL can be defined as the individual's perception of their own well-being (Spaccavento et al., 2014). QOL should directly influence the choice of assessment and intervention approaches and be frequently reassessed due to the changes that occur across the lives of all individuals (Kagan & Simmons-Mackie, 2007). In addition, by utilizing a multifaceted treatment approach that is rooted in the ICF model, PWA have a treatment plan that is person-centered versus a solitary focus on repairing prevalent linguistic deficits (Galletta & Barrett, 2014).

Complementing the WHO ICF model, the Living with Aphasia: Framework for Outcome Measurement (A-FROM) is a framework designed to measure outcomes in aphasia treatment with a more conceptually simplistic and user-friendly design. A-FROM incorporates intervention

domains (impairment and participation based) into one cohesive overlapping framework (Kagan & Simmons-Mackie, 2007) versus treating domains separately as in the WHO ICF model. Visually, A-FROM depicts overlapping Venn diagram circles containing *living with aphasia* in the center and *participation in life situations*, *communication and language environment*, *severity of aphasia*, and *personal identity, attitudes and feelings*. These visually interacting domains emphasize the importance of the integrated relationship across all domains for intervention to carry over to relevant dynamic participation outcomes for people living with aphasia (PLWA) (Kagen et al., 2007).

Multi-dimensional Frameworks of Aphasia

To understand the use of humor and the benefits of group therapy, frameworks of aphasia that guide treatment approaches must first be explored. There are multi-dimensional frameworks of aphasia that help to conceptualize a variety of aphasia subtypes corresponding to specific neural lesion locations. *Fluent aphasias*, often called receptive aphasias, are due to lesions that occur in the posterior third of the superior temporal gyrus affecting vascular distribution of the inferior division of the middle cerebral artery. Fluent aphasias are characterized by ease of language formulation. However, spoken words tend to not reflect the intended meaning of the individual and may not constitute real words (Hallowell, 2017). *Non-fluent aphasias* are characterized by a difficulty expressively formulating language due to inefficient word finding and these individuals typically have minimal observable deficits for understanding language. Lesions for non-fluent aphasia are in the lateral frontal lobe and within the superior division of the middle cerebral artery.

Two primary diagnoses of aphasia are *Broca's aphasia* and *Wernicke's aphasia*. A diagnosis of Broca's aphasia is characterized by marked difficulty in word retrieval and a

reduction in the formulation of grammatical sentences with a lesion oftentimes in Brodmann's areas 44 and 45 in the frontal lobe. However, patients can have a nonfluent aphasia without a lesion in these areas (Hallowell, 2017). Broca's aphasia is defined as a non-fluent aphasia and patients are typically aware of their communication deficits. Patients diagnosed with Broca's aphasia have restricted natural speech with relatively intact comprehension, but with added complexity their comprehension can decline. In contrast, Wernicke's aphasia, often affecting Brodmann's area 22 in the superior temporal lobe, is a fluent aphasia defined by a lack of awareness related to communication deficits, poor language comprehension, and fluent speech that is typically nonsensical (Hallowell, 2017).

The benefit of using this multi-dimensional approach to aphasia is that the explicit recognition of patterns of behavior reflected in the brain can affect a person's communication in somewhat predictable ways (Hallowell, 2017). In contrast, the unidimensional framework recognizes the interconnectivity of brain structures used for language and that each person living with aphasia has a unique set of difficulties affecting her ability to communicate successfully. Therefore, knowing the site of lesion helps guide clinicians down the right path for plausible treatment approaches. However, the interconnectivity of brain structures must be properly conceptualized in order to plan treatment tailored to a specific individual's needs (Hallowell, 2017).

Impact of Aphasia on Social Relationships

Aphasia can have an overwhelming effect on a patient's life. An aphasia diagnosis often causes emotional distress leading to depression, and potential social isolation as a result of the sudden loss of their language functions. Davidson, Howe, Worrall, and Hickson (2015) highlight how PWA witness their ability to confidently and efficiently communicate depreciate; and

family and friends are also negatively impacted by this disorder. Social functioning effects are related to the inability to make new friends, communicating with fewer current friends post-stroke, and smaller social networks which typically result in depression (Davidson et al., 2015). Relatives reported that friendships often end post-stroke because friends do not know how to communicate with the PWA (Davidson et al., 2015).

PWA report negative changes in their interpersonal relationships after their stroke. For example, increased efforts are required to make new friendships. Patients lose the means for making social contacts, and a reduction in the initiation of contact by friends frequently occurs (Davidson et al., 2015). Davidson, Worrall, and Hickson (2003) identified that PWA have the most obvious participation limitations during group discussions related to the news or current affairs because this domain of conversation requires the individual to express complex opinions on social issues. Parr (2007) reported improvement of communication during group discussions related to current news events may facilitate a reduction in the social isolation experienced by PWA. A reduced social network relates to an extensive reliance on family members and health care workers (Davidson et al., 2003).

Lack of Cohesive Approaches for Aphasia Therapy

The overall efficacy of aphasia treatment has been studied extensively (e.g., Brady, Kelly, Godwin & Enderby, 2012). However, inconsistent findings throughout the literature date back to Darley (1972) and continue within more current research (e.g., Allen, Mehta, McClure, & Teasell, 2012). Speech-language pathologists depend on evidence-based recommendations related to treatment intensity and approach (e.g., group vs. traditional) to guide patient plans of care. Moreover, Winans-Mitrik et al. (2014) identified varying results regarding the influences of treatment intensity on treatment response. PWA can make functional gains in their

communication skills and QOL following a variety of clinical service delivery models and therapeutic approaches (e.g., Allen et al., 2012). However, there exists an overall lack of generalization, based on specific intensity levels within treatment approaches. Therefore, we know PWA can make improvements in functions of daily living, but the most reliable measurable approaches and intensity levels for clinical service delivery still need to be defined. Regardless of what evidence-based treatment approach clinicians use to work with patients living with chronic aphasia, they should always keep one principal goal in the forefront of their mind: "the improvement of communication in real-world situations, thus facilitating generalization of the skills beyond the clinical setting must be a key objective of intervention" (Nickels, McDonald & Mason, 2012, p. 2). Group therapy is a method of real-world communication practice and it is advantageous that it also adheres to the A-FROM and ICF models.

Group Therapy for Aphasia

According to Elman (2007), aphasia group treatment has seen a resurgence since 1990, and this renewed interest is due to 1) the potential observed benefits from working in a group, 2) a lack of trained communication partners to facilitate traditional individual treatment for aphasia, and 3) changes in insurance reimbursement for therapy services. Elman (2007) further states that aphasia groups and aphasia centers provide treatment aspects that individual treatment approaches cannot fulfill. Groups connect PWA to one another and are one way to build a community that accepts and fosters encouragement. In addition, group therapy can be used as a vehicle for addressing communication in a social context. Groups are not established in one recommended way within the literature, but a group clinical service delivery model does have a central commonality for providing an environment for self-evaluation of identity. This required element of the group therapy approach provides patients the opportunity to verify personal

identity traits previously accepted prior to their stroke, develop an understanding of perceived changes post-stroke, and aids in acceptance from peers (Elman, 2007).

The purpose of an aphasia group can vary according to a variety of factors. These factors include content, structure, leader credentials, participant characteristics, focus of treatment, level of interaction, and the degree to which participants have a role in directing group activities (Kearns & Elman, 2008). Kearns and Elman (2008) describe several feasible approaches to group treatment. These include speech-language treatment, psychosocial adjustment, counseling, or some measure of each. Language-focused treatment groups foster an environment where the patient is placed in a passive role and the clinician is viewed as the expert who is facilitating language repair strategies to develop language competence from each of the patients. Therefore, the patients typically view themselves as lacking on some form of a continuum and language competence is the sole focus of this design (Elman, 2007). Inclusion of peers is instrumental regarding feedback of the patients' language performance.

The group psychosocial approaches for PWA typically implement problem solving compensatory strategies relatable to everyday life in addition to interactional strategies amongst group members (Kearns & Elman, 2008). Group approaches emphasize the importance of improving communication skills and increasing self-efficacy. Members are further encouraged to acknowledge their negative self-evaluations and seek to adjust negative feelings by utilizing learned communication strategies that can reduce feelings of communication incompetence but may require further treatment from a professional counselor. Group interventions, facilitated by counseling professionals, further the work completed in psychosocial groups (Kearns & Elman, 2008). Group counseling intervention focuses on social adjustment and necessary problem-solving skills with an explicit focus on improving pre-existing relationships and addressing

specific kinds of social interactions (e.g., ordering food or interactions at the grocery store). Within a group therapy dynamic, language deficits are only addressed if there is perceived interference with social and emotional development (Kearns, 1994). Further benefits of group therapy will be highlighted in the following section.

Benefits of Costs, Support Networking, and Provision of Identity in Group Therapy

Consistent positive outcomes of group therapy for PWA include financial benefits (e.g., more cost-effective option compared to one-on-one treatment) and support networking. According to Aten, Caligiuri, and Holland (1982) and Kearns (1994), group treatment is a cost-effective approach to treating individuals living with chronic aphasia when compared to traditional treatment because less money is funded from established health insurance payors. However, clinical service providers acknowledge that the administration of groups has several elements to consider aside from cost effectiveness (e.g., consideration of multiple goals when designing activities). Elman and Bernstein-Ellis (1999) state since aphasia is a chronic disorder, group treatment is a way to continue receiving structured communication practice and support for lifetime communicative and functional hardships for PWA. Improvements in psychosocial functioning through provision of a supportive environment is fostered by group therapy. Group therapy also offers a mechanism to communicate with others who are living with aphasia and helps offer opportunities to troubleshoot potential life adjustments (Elman & Bernstein-Ellis, 1999). The most salient characteristic of aphasia is the reduced ability to communicate. This reduction in communicative ability also damages a person's sense of self-identity and feelings of belonging (Simmons-Mackie & Elman, 2011). The communication deficits for PWA can make developing and sustaining social connections difficult. Group therapy is designed to facilitate

forming connections with others. Elman (2007) also added how humor can be a critical facet of group therapy that leads to positive outcomes between participating group members.

Communicative abilities can be evaluated via conversational discourse measures as well as standardized tests with defined quantitative results. Pre and post measures of self-worth and belonging within the context of group therapy are attainable. However, feelings of belonging and self-worth can only be measured indirectly via patient report based on self-disclosure. Relatable benefits to self-worth are difficult to identify, which further reduces the cohesive level of understanding clinicians can obtain, define and implement in their therapy (Elman, 2007).

Evaluating identity-enhancing interactions may assist clinicians facilitating group therapy sessions to not only enhance communication skills but also to further improve attendees' sense of identity and self-esteem. Simmons-Mackie and Elman (2011) identified the relevance of studying discourse to enable patients' understanding of other people's views of themselves and others in a structured social environment. This method did not require self-disclosure from patients, but rather careful analysis of the interactions among members. For example, by identifying gestures and how group members were seated in the group, researchers gleaned knowledge about how members felt about each other and each member's perceived level of inclusion in the group. Simmons-Mackie and Elman (2011) used data obtained via videotaping group therapy sessions to formulate a sociolinguistic interactional qualitative analysis that evaluated the role of identity in group therapy sessions. Prior to data analysis, the primary investigator evaluated the videos to identify an index of discourse sequences that revealed member roles, values, and beliefs the patients had about themselves and other group members. Segments were further examined to identify similarities, contrasts and identifiable patterns. Investigators analyzed what happened prior, during, and after therapy to determine the function

of the discourse behaviors associated with identity for the additional purpose of categorization and construction of themes.

Pertinent findings from Simmons-Mackie and Elman (2011) included gestural body movements demonstrating members were heard (e.g., communication partners facing each other), solidarity within the group (e.g., shared instance of humor that reinforces the sense of togetherness within the group), and the promotion of personal identity (development, establishment and maintenance of a person's sense of self) was valued. An additional marker of group identity was made visible via discourse that referenced both member inclusion as well as non-member exclusion (e.g., participant counting off the members of the group who had a stroke excluding the clinician). Evidence of each categorization of identity discourse was explained via a conversational content analysis. For example, "Clinician: will you bring us the menu where you can get the breakfast for three bucks?" (e.g., person was leaning forward gazing at conversational partner). This is an example of "being heard." (Simmons-Mackie & Elman, 2011, p. 316)

The main conclusion from Simmons-Mackie and Elman (2011) is that PWA are internally compromised while attempting to be effective communicators. These internal battles are defined as the result of a reduced ability to relate between social factors, individual thought, and behaviors reflected in their environment. PWA, like all human beings, reflect on how they project themselves to others based on the level of interaction they are capable of in social environments (Simmons-Mackie and Elman (2011). Social outcome benefits are evident for PWA, however, there is an open question as to whether group therapy is a viable restorative approach for observable language deficits versus QOL outcomes.

Group Therapy as a Restorative Approach for PWA

Evidence of the potential benefits of restorative group and traditional language therapy is specified in previous research (e.g., Chapey & Hallowell, 2001). Studies about the effectiveness of therapy for aphasia, especially group therapy, is an understudied area in the literature. A systematic review is a form of literature review that is specifically designed to provide a comprehensive summary of the current research within the scope of a research question using specified methods to ensure quality. One systematic review (Allen et al., 2012) reported group therapy to be one of several effective methods for treating patients living with chronic aphasia. Studies that were included in the analysis required at least 50% of the study participants to have acquired aphasia due to stroke and were at least six months post-onset. All included studies were randomized controlled trials (RCTs) available in English, and studies that did not disclose the mean time post-onset were not included. A literature search produced 744 studies but only 21 studies were identified to meet the inclusionary criteria. Therefore, twenty-one RCTs were selected to determine the efficacy of aphasia treatments initiated six months post-stroke.

Overall, the methodological quality of the selected studies was determined to be good. After utilizing the PEDro Scale (Verhagen et al., 1998), fifteen studies were determined to be of "good" quality and 6 were deemed of "fair" quality. With the exception of only four papers, the included studies compared treatment outcomes with baseline performance. Allen et al. (2012) report evidence that substantiates several generalized effective treatments and components for treatment beyond the acute and subacute stages of stroke. Evidence was available to demonstrate the effectiveness of computer-based treatments, constraint-induced aphasia therapy (CIAT), group language therapies and training conversation partners within the context of community-based aphasia programs. Some patients demonstrated improvement in their communication after

participating in therapy that employed alternative communication modalities such as drawing, gesturing or using a computer.

Although studies included in this review were generally positive (Allen et al., 2012) there were several therapies previously demonstrated to be effective in the acute stage (6 months post-stroke) that had not been properly studied within the chronic phase. A primary limitation included that specific treatments for word retrieval deficits were not specified in the review. An additional limitation was that sample sizes across studies were typically small and with a wide range from 7 to 66 participants. Characteristics of study populations varied significantly including age (range of 36.3-69.5 years) and time post onset (9 months-102 months). The systematic review did not limit inclusion based on aphasia type (fluent vs. nonfluent), therefore a wide range of aphasia subtypes were included making participant groups more difficult to compare. Only RCTs were included in this review and consequently several potentially valuable studies may have been excluded. Other limitations included the heterogenous nature of the treatments, the limited number of RCTs for each intervention, and the wide range of time post-onset. Therefore, the authors could not recommend one treatment over another. The primary conclusion that could be drawn was that effective treatment for aphasia extends significantly into the chronic stage of recovery with demonstrated success utilizing a variety of interventions including group therapy.

Contrasting Viewpoints of Group Therapy for Aphasia

The majority of the research in group therapy for aphasia is predominantly statistically insignificant, and group therapy for aphasia is understudied in general. However, the greater part of the research indicates positive data trajectories for functional and social outcomes of group aphasia therapy. A systematic analysis by Goff, Hinkley, and Douglas (2012) illustrates the

typical representative studies of group aphasia therapy as a treatment for chronic patients. Goff et al. (2012) reported half the protocols used for studies on group therapy for PWA cannot be replicated as conducted in the original studies, consistent variability in frequency and duration of the group sessions, small sample sizes, and a large range of average time post onset (e.g., 4 weeks and up to 98 months). Of 81 original articles, only 13 studies met the requirements for the review. The review suggests that there are short-term benefits of group treatments (e.g., social support, increased confidence within the group itself) but there is not enough evidence to conclude any significant conclusions of positive long-term outcomes.

Humor as a Life Participation Benefit

Patients and researchers conclusively report that group therapy for PWA is beneficial socially. Measures of restorative gains within language contexts are less exhaustive and inconclusive (Hallowell & Chapey, 2008). The A-FROM framework for aphasia (Kagan, & Simmons-Mackie, 2007) conceptualizes aphasia severity not in terms of quantifiable tasks performed in a clinic room, but instead from an impact focus on a person's well-being. Aphasia is therefore viewed as a condition affecting people across their lifespan and is exemplified in day to day life experiences. Hallowell and Chapey (2008) state that PWA benefit from learning compensatory adaptive strategies to increase their overall life participation. One such compensatory strategy is the use of humor interwoven throughout group therapy sessions by clinicians and the patients themselves.

Humor and laughter are fundamental components of conversational activities (Norris & Drummond, 1998). Humor and the subsequent laughter from others are linked with lower levels of depression and anxiety, and overall increased mental strength (Bennett & Lengacher, 2008). Bennett and Lengacher (2008) further explain that since depression and decreased social

confidence are common attributes of PWA, humor is thought to facilitate the success patients experience in group therapy settings. Group therapy for aphasia is further centered around increasing communicative effectiveness while participating in conversations, adjusting to living with aphasia, as a facilitation method to regain confidence and a sense of identity, and used as a setting to further encourage self-advocacy (Sherratt & Simmons-Mackie, 2016). Sherratt and Simmons-Mackie (2016) further suggest that humor itself can be used as a method of treatment for PWA due to an extensive list of benefits. Thus, when all four components of the A-FROM network are targeted during group treatment, humor can play an integral role in the positive communication exchange between members (Kagen et al., 2008).

Benefits of humor correspond to an increased sense of overall communication confidence and solidarity amongst any group of individuals (Simmons-Mackie, 2004). Social benefits include the relief of embarrassment and tension corresponding to word-finding deficits, mitigation of self-deprecating feelings related to depression, heightened motivation, and an increased sense of connection among communication partners. Francis et al. (1999) "consider humor to be an in-group phenomenon because an insider's understanding of the situation is required to understand why something is funny" (p. 159). Simmons-Mackie (2004) also explored the potential neuropsychological benefits of humor in a traditional therapy setting with results pointing to a potential improvement in learning and memory after enhancement of cognitive-linguistic association areas in the brain. Humor may increase right hemisphere neural activation allowing bilateral cortical processing of language and humorous conversation may increase a patient's focus. PWA often have little to no difficulty understanding humor, sarcasm, or figurative language unlike those who have had right brain damage (Lehman-Blake, 2010).

The benefits of humor have been previously investigated primarily through the lens of traditional individual therapy, although not exhaustively. Some analytical methods have included investigating the use of conversational analyses based on specific communication indices such as initiation and facial expressions. Elman (2004) and Simmons-Mackie et al. (2007) suggest that the study of the use of humor within the context of groups should focus on heightening communicative efficacy within conversations, inspiring self-advocacy, adapting to living with aphasia, and helping to facilitate a reconstruction and validation of one's own identity. Group leaders who target these components are therefore facilitating the A-FROM network (Kagan & Simmons-Mackie, 2007) and are providing an individualized and comprehensive therapy model.

Simmons-Mackie and Schultz (2003) examined transcription data derived from videotapes of eight individual therapy sessions and from interviews with therapy participants to determine the role humor played amongst participants. Findings from the qualitative analysis were verified during ethnographic interviews with therapists and a re-evaluation of taped sessions. Overall, humor was found to be a helpful tool to increase solidarity, suppress embarrassment, and promote cooperation with various tasks. Critically, researchers found the use of humor was constructive and lacked negative connotations or uses (e.g., mock or ridicule). Humorous instances were labelled based on the following categories: mild teasing, self-deprecating humor, making fun of a task or stimulus item, joking about a complaint, evaluation, or disagreement, and laughing at something unexpected within the context of therapy.

Therapists were found to be the primary initiators of verbalized humor (87%). Additionally, 50% of the non-verbal humor was initiated by the patients and a mere 13% of non-verbal humor was enacted by the clinician. In contrast, Simmons-Mackie (2003) explored the aphasia group dynamic and found results indicating group members initiated the humorous

antidotes and sarcasm either in verbal or non-verbal forms while around their peers. This difference could indicate how positive levels of comfortability experienced by PWA when amongst their peers affects the identifiable number of instances of verbalized humor. Additionally, the perceived level of power prescribed to the clinician in individual sessions from the PWA may correspond to a decreased level of comfortability to express humor openly.

In a later study, Sherratt and Simmons-Mackie (2016) sought to investigate conversations and the naturally occurring instances of humor with respect to functionality, modalities (e.g., speech, facial expressions, gestures), and the roles of the initiators from a well-established aphasia group. Ten 90-minute sessions were video recorded over the course of a year and a qualitative analysis was completed. However, the sessions video-recorded for analysis were only a snapshot of the group meetings. The group met 32 times a year on a weekly basis and consisted of 8-10 PWA (6 females and 4 males) aged 47-82 years. The time post onset of diagnosis ranged from 18-204 months. Two student clinicians and two experienced aphasiologists participated in the study. Laughter was defined as an audible non-linguistic production of a single “heh” or multiple “heh, heh” (Jefferson et al., 1987). An instance of humor was identified when a minimum of two PWA laughed out loud; simple smiling or nodding was not permitted in the data collection. Authors indicate that humorous tales or antidotes were not directly or implicitly taught or explained within conversation, but that humor was spontaneously interwoven throughout the sessions regardless of the topic.

During data coding and analysis, researchers used Strauss and Corbin’s (1994) constant comparative method of grounded theory, a general methodology for developing theory based in data that is systematically gathered and analyzed. Strauss and Corbin’s model is centered on grounded theory as initially presented by Glaser and Strauss in *The Discovery of Grounded*

Theory (1967). Glaser and Strauss believed that theory would emerge through qualitative data analysis and a central feature of this method is constant comparative analysis. Researchers conduct several stages of collecting, refining and categorizing data. The constant comparative method is used by the researcher to develop concepts from the data by coding and analyzing at the same time (Taylor & Bogdan, 1998). The constant comparative methodology includes four stages "(1) comparing incidents applicable to each category, (2) integrating categories and their properties (3) delineating the theory, and (4) writing the theory" (Glaser & Strauss, 1967, p. 105). Therefore, the similarities and differences between each new instance of humor were identified until no new information materialized. The first author and five expert research clinicians coded the initial third of the videos. Some instances of humor were coded for more than one function in the beginning stages of analysis and were later coded again with increased precision based on the overall predominant function that was agreed upon by the researchers.

Seventy-two instances of humor were identified and coded utilizing the constant comparative method (Sherratt & Simmons-Mackie, 2016). Six functions of humor were established and included: demonstration of solidarity, managing identity, saving face, a method of avoiding inappropriate topics, attempts to increase likeability, and mitigating disagreements (see Table 1) (Sherratt-Simmons Mackie, 2016). Results were reported in relation to the functions of humor, modalities used to express each instance, and if the participant or a clinician was the initiator.

Table 1. *Functions, Initiators and Instances of Humor*

Function of Humor	Functional Definition	Initiator(s)	Percentage of Instances
Increasing Likeability	Using humor in a way to demonstrate likeable personal qualities	Group members	33%
Demonstrating Solidarity	Humor was used to emphasize togetherness based on member familiarity, as individuals with aphasia, and on their shared group experiences.	Group members	31%
Managing Identity	Use of self-deprecating humor by joking about negative traits of ones-self or the group	Group Members	15.3%
Saving Face	Used to demonstrate coping, change of topic, invite humor from other members on their behalf after minor errors.	Group Members	13.9%
Avoiding Inappropriate Topics	Disagreement was couched in humor to avoid giving offence to the speaker.	Group Members and Clinicians	4.2%
Mitigating Disagreements	Cushioning, mitigating and deflecting complaints, confrontations and disagreements to avoid problems	Group Members	3%

Table 1. Adapted from Sherratt & Simmons-Mackie (2016)

A verbal expression of humor was the most frequently employed modality. Of the identified instances of humor, 58% were initiated by group members and 42% by student and professional clinicians. The frequency of humorous instances varied based on the topic

discussed. Humor was more frequent during less serious topics but was also noted within topics that had a more negative impact on the speaker (e.g. price increases).

Group members and SLPs also used some non-verbal modalities (e.g., gestures and facial expressions) to either express humor or to support the other speaker's humor. Nonverbal communication was used on its own or together with verbalized humor varying in functionality. Since both group members and clinicians expressed non-verbal humor, the choice to utilize this communicative method did not appear to coincide with level of communication ability. Using both verbal and non-verbal modalities together was a common finding, however, people with more severe aphasia needed to use more non-verbal means to express humor. For example, one group member diagnosed with a moderate-severe aphasia and apraxia of speech indicated the size of a pony in relation to himself by miming how he had to bend down to pat the pony.

Although understudied, humor appears to play a role in engaging patients in conversational activity and assists in rapport building amongst members, increases motivation, and facilitates participation among members. Sherratt and Simmons-Mackie (2016) conclude by saying that "humor, instead of being an accompaniment to talk, should be woven unobtrusively into the fabric of group therapy" (p. 1053). Sherratt and Simmons-Mackie (2016) suggest that humor will present itself after a successful therapeutic relationship has been developed that results in engagement from the client. These researchers discuss that a successful therapeutic relationship can be obtained through various strategies and skill sets such as flexibility, open mindedness, the ability to laugh at oneself, and a treatment setting that promotes these aspects is crucial.

Kovarsky, Curran & Zoebel Nichols (2009) examined how laughter functioned as a marker of engagement level to further exemplify how laughter contributes to a successful

therapeutic relationship. The authors examined laughter as a marker of engagement by exploring video-recorded group interactions involving adults with traumatic brain injury (TBI) over the course of an 8-month period at the Gateway Café. The Gateway Café is a place where adults with TBI meet to socialize and interact with students in a speech-language pathology training program. Occasionally supervising SLPs are included in the group sessions. Authors defined engagement as "the intensity and manner of interpersonal involvement displays by participants in social situations, and it reflects the extent to which they are mutually engrossed in, and alive to, the unfolding interaction," (Kovarsky et al., 2009, p. 27).

A three-hour video recording of one gathering that included six individuals with TBI, two students, one supervisor, an aide, and a few family members who came in and out throughout the recording was obtained. Individuals from across the state in which the Gateway Café was housed participated in the program on a volunteer basis. Researchers stated that it was not possible to obtain formal diagnoses and assessments of the patients because of the voluntary status of the participants. Therefore, the nature and extent of the participants' brain injuries was undefined. Five of the six participants with TBI were frequent visitors of the Café. Due to familiarity with this subset, the authors chose to assess them using the Ranchos Los Amigos Cognitive Scale (RLAS) (Hagen, 1998). The RLAS is a widely accepted medical scale used to determine cognitive and behavioral patterns in patients as they recover from brain injury. All participants received a score of less than or equal to seven. This score indicates characteristics of higher functioning individuals who can demonstrate success in communicative interactions (Kovarsky et al., 2009).

The three-hour video from the interaction was transcribed and resulted in 1716 utterances. This introduces a large contrast to the 72 instances from the Sherratt & Simmons-

Mackie (2016). The authors, two of which were graduate student staff members who ran the Café, met to review the video recordings and the written transcripts. The authors played the tapes together and stopped the recording each time they identified an instance of humor in order to discuss their rationale for including a given instance of humor. Videos were analyzed on the basis of the function of laughter through examination of their sequential placement in the interaction, the semantic content, and the tone of the utterances surrounding the instances of laughter.

Categorization of the functions of humor in the Kovarsky et al. (2009) study was less specific than the Simmons-Mackie and Schultz (2003) study. Functions of laughter were limited to preservation of face and the promotion of group solidarity and rapport building when combined with teasing (Kovarsky et al., 2009). In addition, Simmons-Mackie and Schultz (2003) also utilized a larger variety of settings, more therapists participated with varying levels of skill (e.g., professionals and graduate students), and a larger variety of different types of aphasia and other diagnoses resulting from brain injury (e.g., dysarthria) were represented among the seven participants who completed the study. Critically, both studies suggest that humor can serve as a way to build comradery amongst members of an aphasia group.

Kovarsky et al. (2009) indicated that the main function of laughter served to support the face of public self-image of those diagnosed with TBI in order to foster rapport and closeness among all group members. These authors also compared a portion of their results with the Simmons-Mackie and Schultz (2003) study. Comparison revealed that “the distribution of laughables” (e.g., comments and gestures that ignite laughter) (p. 31) may be responsive to the level of discourse inequality between participants (e.g., laughter functioning as a point of solidarity between those with TBI and created distance between members and the SLP).

Humor is a common factor for the provision of social support within aphasia therapy groups. Examining the functions of humor generated via group therapy sessions during MIAP 2018 will help to determine if the same types of humor functions are evident throughout a modified intensive clinical service delivery model as have been demonstrated in a more distributed traditional weekly group therapy model. The number of identifiable instances of humor within the MIAP groups may also serve as an indicator of whether or not these student-led group sessions promote a positive and supportive atmosphere where participants feel comfortable engaging and participating with peers. Based on the review of the literature, it is highly likely that there will be instances of humor demonstrated throughout the group therapy sessions. The following hypothesis statements were developed for the current study:

Thesis: What function(s) of humor can be identified during group sessions for patients with chronic aphasia during a modified intensive clinical service delivery model?

Hypothesis Statements:

H0: There are no identifiable functional instances of humor during group therapy for individuals with chronic aphasia who participate in one-week of the Meridian Intensive Aphasia Program.

H1: Functional instances of humor can be identified during group therapy for chronic aphasia patients who participate in one-week of the Meridian Intensive Aphasia Program.

Method

Based on the literature review, the methods for the current study included generating a frequency count of instances of humor. Identifiable instances were obtained from video-recorded interactions in group therapy sessions consisting of patients diagnosed with aphasia, one client with an anoxic brain injury, and student clinicians during the first week of the 2018 MIAP program. Once each instance of humor was identified and timestamped and discrepancies were

addressed, two researchers independently assigned functions of humor to each instance (e.g. building rapport) using two distinct approaches.

Experimental Design

This study was a retrospective, between groups cohort design.

Participants

Participants were adults (at least 18 years of age) who were diagnosed by a medical professional with aphasia, TBI or other neurologically based communication disorder. Inclusion criteria included: Native English speakers; normal or corrected to normal visual and hearing acuity; confirmed neurological damage via CT/MRI scan and/or evaluation report that indicates a diagnosis of aphasia or traumatic brain injury by a medical professional; at least 4 months post onset of neurological damage; a T-score above the cut off for impaired on the Comprehensive Aphasia Test Cognitive screening (Swinburn, Porter, & Howard, 2004). Exclusion criteria included less than 4 months post onset of neurological damage; current alcohol or substance abuse; less than 18 years of age; uncorrected vision or hearing acuity; current diagnosis from a medical professional of a cognitive or degenerative neurological disease process; a T-score below the cut off for impaired on the Comprehensive Aphasia Test Cognitive screening (Swinburn et al., 2004).

There were 18 students in the 2018 online speech language pathology graduate cohort. The MIAP program was designed to have a 1:1 student to client ratio, therefore, 18 participants were recruited. The participants were divided into two groups of 8-10 based only on which week best fit his/her schedule. Since space and interest permitted, a couple of clients were allowed to participate both weeks

Table 2
Participant Demographics

Participant	Week #	SLP Diagnosis	Age	Post Onset (in months)	Education Level (in years)	Race	Gender
1	1 & 2	Fluent aphasia, mild apraxia of speech	78	68	--	White	M
2	1 & 2	Nonfluent aphasia, apraxia of speech symptoms	67	25	12	White	F
3	1 & 2	Nonfluent aphasia, oral and verbal apraxia	58	44	12	White	M
4	1 & 2	Fluent aphasia, apraxia	57	2	13	--	M
5	1	Nonfluent aphasia, dysphagia, apraxia	60	19	12	White	F
6	1	Fluent aphasia, mild apraxia of speech	60	28	18	White	F
7	1	Nonfluent aphasia	60	16	16	White	F
14	1	Spasmodic Quadriplegia, profoundly affected cognitive-linguistic abilities	29	N/A	12	White	M
12	1	Fluent aphasia	65	43	16	White	M

Schedules and Procedures

Informed consent procedures. All participants completed the ISU Clinic intake protocol which includes an information sheet, authorization for the release of PHI (protected health

information), and consent to receive treatment. In addition, the approved informed consent form was reviewed section by section with each potential participant. During and after the informed consent review process the participants were asked if they have any questions or concerns. To confirm consent, the participants signed in the presence of the student clinician along with either the student's supervisor or the participant's family member. Following consent procedures, each MIAP group therapy session was recorded using a stationary video camera.

Risks. The risks to the client were consistent with the risks associated with participating in traditional speech-language pathology therapeutic intervention. Due to the intensive nature of MIAP, there was a risk of fatigue. The licensed and certified SLPs who provided supervision at least 25% of the time to all student and client interactions were all highly skilled at identifying fatigue and intervened as needed to provide breaks. Students who provided the therapy were toward the end of their cumulative clinical training and had already had the benefit of a multi-week clinical experience at the Pocatello Speech and Hearing Clinic in addition to 1-2 off site clinical placements in their home state. Students should have been able to identify signs and symptoms of fatigue and were advised to contact one of the clinical supervisors if there was a concern of fatigue that would preclude continuing with the session activities.

There was also a risk of breach of confidentiality. ISU Speech-Language and Hearing Clinic procedures were followed to prevent a breach of confidential information including but not limited to the Video Audio Learning Tool (VALT) recordings which are password protected. Additionally, hard copies of the participant's information and data were kept in a locked filing cabinet in the research mentor's lab which required a key code to enter. The only individuals who had access to the research lab completed the Health Insurance Portability and

Accountability Act and Collaborative Institutional Training Initiative training modules (HIPPA, 6th ed.).

Program schedule. Each week of MIAP included a separate group of student-client pairs. As shown in Table 2, Monday was a half-day commitment for the clients and included a large group orientation and individual diagnostic sessions. Tuesday through Thursday included a mix of 50-75-minute individual and group sessions. Friday offered one more set of individual and group therapy sessions that included post-test measurements. On Friday afternoon, the clients presented a PowerPoint presentation about their stroke story with the support of their student clinician in front of all program participants and available family members. MIAP participants received approximately 1260 total minutes of treatment across the five-day program period.

Table 3
Meridian Intensive Aphasia Program Schedule

Time	Monday	Tuesday	Wednesday	Thursday	Friday
9:00		Group	Group	Group	Group
10:00		Individual	Individual	Individual	Individual
11:00		Computer Lab	Group	Computer Lab	Group
12:00		Lunch	Lunch	Lunch	Lunch
1:00	Group	Individual	Individual	Individual	Presentations & ice cream social
2:00	Individual	Group	Group	Group	Home
3:00	Home	Home	Home	Home	

Diagnostics. Diagnostic sessions were capped at approximately 1.25 hours. With the limited time for assessment procedures, diagnostic tasks included screening measures and subtests of larger batteries (see Table 4). Diagnostic procedures were comprised of tasks that assist in classifying the severity of aphasia, measured the magnitude of word finding deficits, and measured the informativeness of connected speech. In addition, questionnaires were given to the client and a communication partner (e.g., spouse or caregiver) to assess each person's perception of the impact of aphasia on life participation. Diagnostic tasks were provided on day one, day 5, and following 8 weeks of no treatment. Post-test measurements sought to mirror the initial diagnostic sessions.

Table 4
MIAP Assessment Battery

Pre-treatment	**Post-treatment**
National Outcomes Measurement System Admission Form [A]	National Outcomes Measurement System Discharge Form [A]
Subtests from the Comprehensive Aphasia Test [B]: • Cognitive Screen • Naming Objects and Actions • Repetition • Comprehension of Spoken words	Subtests from the Comprehensive Aphasia Test [B]: • Cognitive Screen • Naming Objects and Actions • Repetition • Comprehension of Spoken words
AphasiaBank Picture Descriptions [C]	AphasiaBank Picture Descriptions [C]
Communication Confidence Rating Scale for Aphasia [D]	Communication Confidence Rating Scale for Aphasia [D]
Apraxia Battery for Adults [E]	Apraxia Battery for Adults [E]

[A]ASHA NOMS, 1998; [B]CAT; Swinburn, Porter, & Howard, 2004; [C]MacWhinney, 2011; [D]CCRSA; Babbitt & Cherney, 2010; [E]ABA; Dabul, 2000; [F]Aphasia Bank

Individual treatment sessions. Individual treatment sessions throughout MIAP were rooted in evidence-based approaches to aphasia rehabilitation (e.g., Archibald et al., 2012) and

lasted between 50-75 minutes. One of the clinical hallmarks that crosses all subtypes of aphasia is a word finding or naming deficit. Therefore, all PWA received a treatment approach that targeted this impairment. Impairment-based approaches for word finding deficits were complemented by compensatory treatment approaches targeting strategies to supplement verbal expression with other communication modalities (e.g., Rose et al., 2013). The communication impairment profile and needs of the PWA that were determined via the diagnostic process drove the individualized treatment plans for each program participant.

Group treatment sessions offered an opportunity for the clients with aphasia to practice the skills fostered via individual treatment sessions (e.g., Elman & Bernstein-Ellis, 1999; Simmons-Mackie, 2001). Two groups were established, and participant-student pairs were randomly placed into either Group A or Group B. Student clinicians led the 50-75-minute group therapy sessions and provided structured opportunities for generalization in a supportive social context. An example of a group session early in MIAP included facilitated verbal presentations regarding information about group members (e.g., favorite vacation, what helps support communication with others) to the group with assistance from student clinicians. Participants were encouraged to draw aspects of events to help with visualization and verbal output. Semantic as well as phonemic cues were provided to clients during moments of word-finding difficulty. Participants engaged in 1-2 group therapy sessions per day.

Social Support. MIAP is designed to offer diverse opportunities for PWA to be supported by a community of skilled communication partners and to engage with individuals who have the same diagnosis. Family members or friends of the MIAP program participants were welcome to participate in the individual and group therapy sessions alongside the PWA. A portion of the group therapy sessions offered education about secondary stroke prevention,

aphasia advocacy, and living with aphasia. In addition, ISU's Counseling Department facilitated two group sessions for the family members or friends of the PWA during the program. MIAP culminated with presentations by program participants about a topic of their choosing and an ice cream social.

Data Collection

A stationary camera recorded all of the group sessions for MIAP 2018 and was the only source for the data collection.

Data Analysis

Data analysis consisted of a frequency count of audibly and visibly identifiable instances of humor from video recorded group therapy sessions during the first week of MIAP. A total of 8 group meetings were recorded lasting between 50-75 minutes in duration. A definition previously utilized by Sherratt and Simmons-Mackie (2016) was originally selected to define laughter and humor due to the narrowness and practicality implicit within the definition. "Laughter is defined as an audible non-linguistic production of a single "heh" or multiple "heh, hehs" (Jefferson et al., 1987, p. 162). An instance of humor was to be identified when at least two PWA laugh out loud; simply smiling or nodding was not to be identified as an instance of humor (Sherratt & Simmons-Mackie, 2016).

However, after viewing the first video, the primary researcher chose to redefine the boundaries of humorous instances. When two people with aphasia laughed out loud was determined to be too restricting based on various limitations of the video recordings. Limitations included a single stationary camera positioned behind the group and at an angle too great a distance to capture all responses. In addition, seating arrangements were not optimal for participant proximity to one another or the group leader. Utilizing the Sherratt and Simmons-

Mackie (2016) definition requiring that two PWA must be recorded laughing aloud would have likely resulted in a limited number of instances for further analysis even though each video was replete with humor. Therefore, the primary researcher chose to redefine and extend the parameters of inclusion. Current notations of laughter are based on the more inclusive definition that at least one PWA must be observed having a humorous response to include audible or visible laughter and/or smiling.

Two student researchers independently examined eight videos of recorded group sessions from the first week of MIAP 2018. Both researchers notated the times for all humorous instances when they either heard or visibly observed a humor. All instances included a corresponding transcription, who responded (e.g. clinicians and/or PWA), and a general topic relating to each instance (e.g. favorite vacation setting). Once all of the videos were independently timestamped by the researchers, the second researcher completed a side-by-side comparative evaluation of the instances to confirm that the times, transcriptions, and responders corresponded. The two student researchers met and discussed the six differences in the total number of individual instances identified and came to consensus on the total number of instances to be coded. Appendix B contains a finalized chart of the 220 identified instances of humor. Appendix B also includes several missed opportunities where only the clinicians responded to the humor for future research purposes.

After the list of instances were finalized, researchers independently designated a function to each instance based on Strauss and Corbin's (1994) constant comparative method of grounded theory previously employed by Sherratt and Simmons-Mackie (2016). The second researcher was blinded to previous research and functions of humor from Sherratt and Simmons-Mackie (2016). A third rater reviewed the 28 discrepancies or and served as a tiebreaker for the 12.7% of

the data that generated discrepancies between the two raters. After the third rater determined a dominant function for any discrepancies between rater one and two, all three raters reviewed the results to achieve consensus on a dominant function for each instance.

Once the functions from the constant comparative method were determined, the second researcher was provided Sherratt and Simmons-Mackie (2016) for review and both student researchers subsequently assigned functions of humor based on their six functions of humor. The two approaches (constant comparative method and Sherratt and Simmons- Mackie) were applied to further reduce bias in determining whether the aforementioned six functions of humor were represented in the current students.

Results

The following results include: the determined functions of humor, the modalities used to express humor, a comparison of the number of instances between groups, who initiated the humor (i.e. client or student clinician) and a comparison of the number of instances across the week for each separate group. A total of 220 instances of humor (78 in group A, 142 in group B) occurred during recorded group sessions. See Figure 1 for a comparison of the number of humorous instances by session number between Group A and B. Descriptive statistics of the instances of humor for both groups are provided in Table 5.

Figure 1
Instances of humor per session for Groups A and B

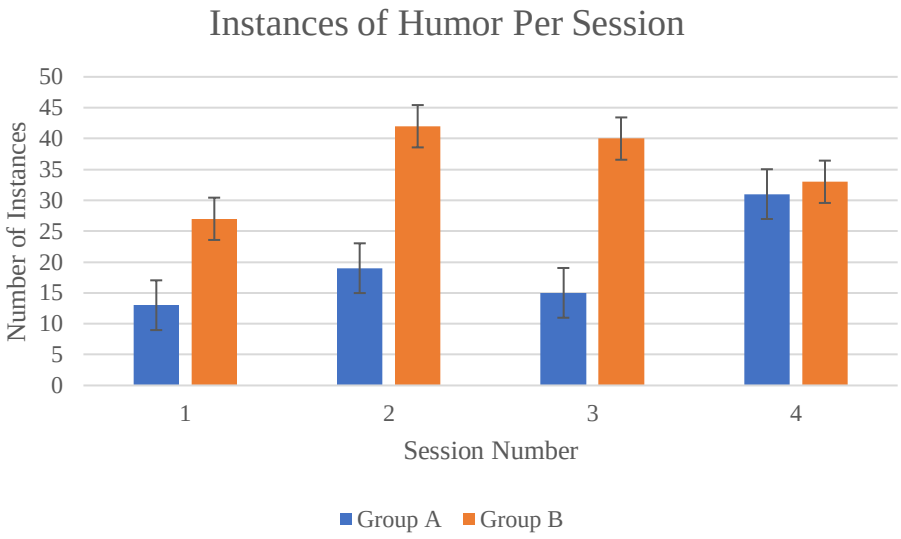


Table 5
Descriptive Statistics of Humor Instances for Groups A and B

	Group A	Group B
Total Instances	78	142
Mean (SD)	19.5 (8.1)	35.5 (6.9)
Range	13-31	27-42

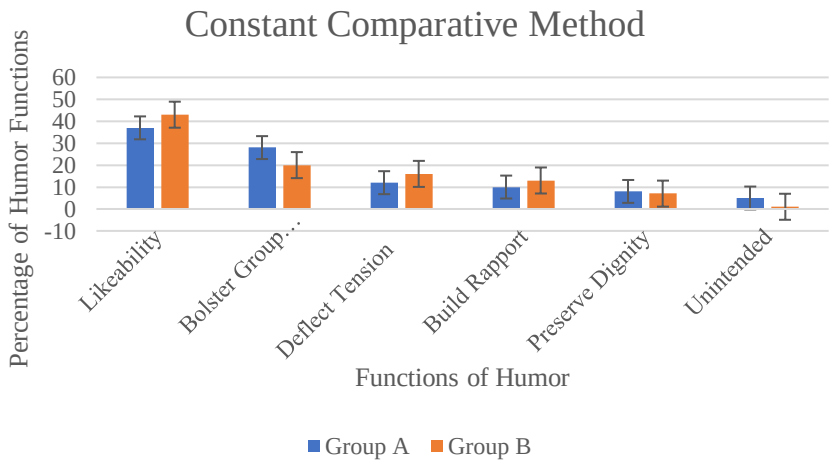
An independent samples *t*-test was conducted to determine if there were significant group differences in the total number of instances generated by each group throughout MIAP. There was a significant difference between the total number of humorous instances generated by Group A (M = 19.5, SD = 8.1) and Group B (M = 35.5, SD = 6.9); $t(6) = -3.02$, $p = .02$.

Constant Comparative Method

This first set of primary functions of humor are a result of the inductive reasoning process undertaken by two student researchers. Each researcher analyzed all instances of humor, and notated perceived functions without any prescribed definitions in place. Final functions were

derived from grouping several synonyms and descriptions with similar meanings. For example, “bolster group togetherness” consisted of grouping other terms such as “comradery, “unifying the group”, “increasing group motivation”, and “group enhancement” among several others. A total of six functions were identified using the constant comparative method. Functions included: likeability, bolster group togetherness, deflect tension, build rapport, preserve dignity and some instances were deduced to be without an intended humorous function (see Figure 2).

Figure 2
Comparison of Humor Functions between Groups A and B



Increasing likeability was the dominate function for all humorous instances across groups and methods of analysis and initiators (i.e. participants and student clinicians). Because Group B had more instances in general, this corresponded to a higher number of instances per function overall. However, Group A had more instances of bolstering togetherness and Group B had higher instances of building rapport. Definitions of the functions of humor and specific examples from the transcripts are located in Appendix A.

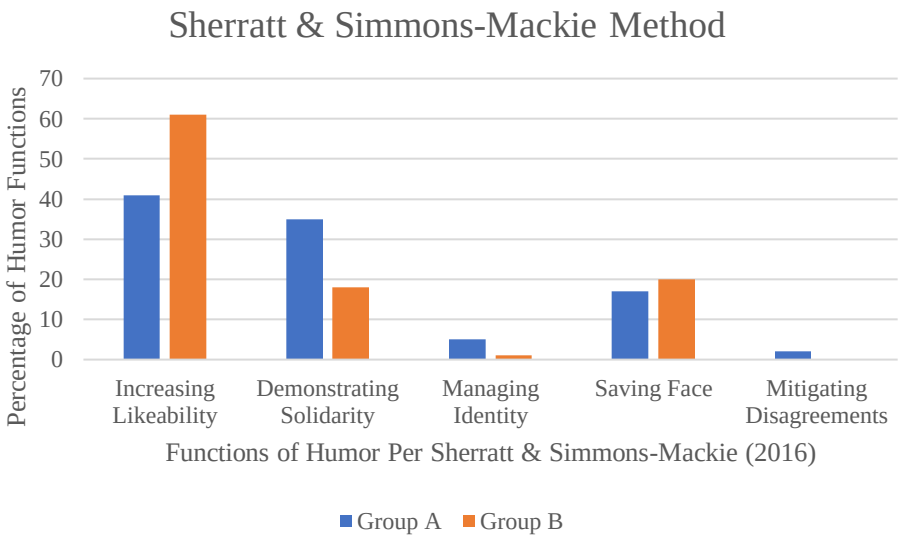
Application of Sherratt & Simmons-Mackie (2016) Functions

To extend the findings and provide a more direct comparison of the current study to prior humor work, student researchers applied the six functions of humor from the literature to the

current study's instances (see Figure 3). Instances where clients used humor to make themselves be viewed as likeable corresponded directly to the bottom-up constant comparative method. Demonstrating solidarity encompassed building rapport and bolstering group togetherness and was still either the second or third most commonly used function of humor across both groups. Sherratt and Simmons-Mackie (2016) functions of saving face and mitigating disagreements corresponded to the bottom-up analysis functions of preserving dignity and was primarily used by the participants across groups and analysis formats. Sherratt and Simmons-Mackie (2016) did not have an unintended category. These corresponding functions between the bottom-up and top-down approach indicate a likelihood that similar humorous functions are easily discernable within the context of group therapy for PWA across data analysis approaches.

Figure 3

Comparison of Humor Functions between Group A and B (Sherratt & Simmons-Mackie (2016)



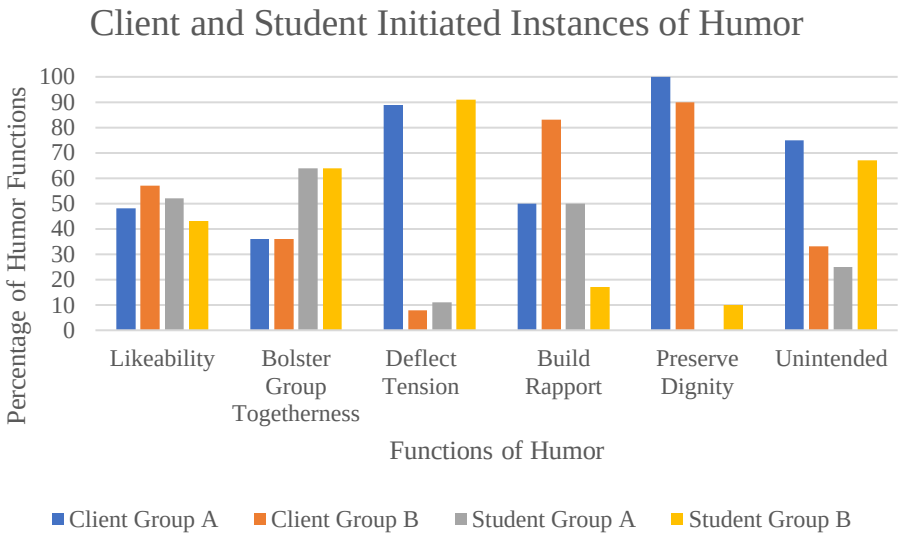
Client vs. Clinician Initiation

Unlike the Sherratt and Simmons-Mackie (2016) study, both participants and student clinicians were actively engaged in the activities and games during group sessions. This is evident in the results. Fifty percent of the instances of humor in Group A were initiated by

clinicians and the other half were initiated by clients. Group B was fairly consistent with Group A in that 56% of the humor was initiated by clinicians and 44% by the clients (see Figure 4). Clinicians were likely motivated to utilize group therapy as a time to continue building rapport with their assigned client, project themselves as likeable clinicians and support positive engagement with other group members. Clients were also likely motivated to feel they fit in with their peers by projecting themselves as likeable and wanted a good relationship with their clinician. These similar motivations were captured in the results for humorous functions of likeability and building rapport for both groups.

There were some variations when comparing initiators of humor functions between groups. Preserving dignity/saving face was a function utilized almost entirely by the participants. PWA use humor to demonstrate they are coping with their diagnosis and often invite others to laugh with them to decrease the significance of difficult communicative moments. During MIAP 2018, PWA used humorous face-saving strategies (e.g. use of swear words) during relatively minor erred productions, to exaggerate the implied silliness and possible embarrassment of being asked to use a gesture in front of peers (i.e. gesturing licking an ice cream cone), and several others. The majority of the face-saving humor was utilized by the PWA, which was an expected finding based on previous research on humor for group therapy.

Figure 4
Comparison of Humor Functions between Clients and Student Clinicians



Discussion

Humorous instances were plentiful within the MIAP 2018 group sessions and this exemplifies how social participation groups often promote humor (Bernstein-Ellis & Elman, 2007; Simmons-Mackie & Damico, 2009). Group B demonstrated more instances of humor when compared to Group A, however, the proportions of humor functions were similar between groups. Therefore, even though one group had more instances, humor functioned in similar patterns across both groups. Side by side comparisons of the context of jokes and initiators of humor across groups and sessions is indicative of the level of engagement and overall atmosphere and cohesiveness of the two participant groups. Marshall (1999) identifies cohesion as the act of forming a united whole and relates cohesiveness to "the attractiveness of the group and its members and is analogous to trust" (p. 11). Groups who are cohesive work together and develop a chemistry as a working unit (Marshall, 1999).

Table 6 is a list of environmental and group composition factors that likely influenced the results of the study. This list of factors is derived from prior group therapy literature and specific

constraints or observations within the current study. Broadly, these factors can be categorized into the following themes: group leadership, environmental constraints, personality and demographics, study design, other health factors, and other contributing factors.

Table 6 *Group Environmental and Compositional Factors*

Group Leadership
Student clinicians were not coached on the positive correlation between humor and group cohesion (Marshall, 1999).
Activities selected by the student clinicians
Role differences between the group leader and participants (Simmons-Mackie & Schultz, 2003)
Environmental Constraints
One stationary camera
Personality and Demographics
Participant personalities (introvert vs. extrovert qualities)
Personality or potential age differences between the group leader and participants
Both sexes in each group (some topics may have been more easily discussed in single sex groups). (Marshall, 1999)
Mixed severity-levels (Marshall, 1999)
Spotlight effect of having to report answers to the group (Savitsky, Epley & Gilovich, 2001)
Other Health Factors
Participant fatigue (Sherratt & Simmons-Mackie, 2016)
Concomitant diagnoses (e.g. hearing impairment & apraxia of speech) (Duffy, 2013)
Other Contributing Factors
Client's sometimes misunderstood a verbalization and/or gesture and laughed inappropriately
How long the participants knew each other prior to MIAP 2018 (Sherratt & Simmons-Mackie, 2016).
Participant absences

Despite these potentially influential factors listed in Table 6, the current study contributes to the limited literature base. This is the first study to examine humor within the context of a modified intensive comprehensive aphasia program. Two forms of analyses (top-down and

bottom-up) were applied to reduce bias in applying functions to humor. Humorous functions were similar across two separate groups and the functions directly corresponded with Sherratt and Simmons-Mackie (2016). Based on these results, group therapy delivery (i.e. traditional or modified intensive) and the structure of group sessions (i.e. more language-focused format or open-ended format) does not appear to impact the functions of humor in social participation groups for aphasia.

Comparison with Previous Research

The ten individuals who participated in the Sherratt and Simmons-Mackie (2016) study met regularly for four years to engage in unstructured group conversations involving two SLPs and a student clinician (two for each of the four blocks of treatment). As previously mentioned, the group in that study utilized a social participation framework dedicated to the facilitation of emotional adjustment to living with chronic communication difficulties. A client-centered philosophy was promoted, and both the clients and the clinicians were viewed as experts. Subsequently, the clients led the groups. Some topics that procured humor within these sessions included pet ownership, discussion of another aphasia group, use of honey as skin balm and the shooting of fur seals. All of these topics that led to humorous instances naturally developed and progressed through open discussion. PWA were the primary participants in the groups, therefore they were the ones initiating the humor. Five of the six functions were only initiated by the participants. However, there were some moments where an inappropriate topic needed to be avoided so the clinician used humor to deflect the issue and change topics.

In comparison, the participants in the current study had only one week of group sessions within the context of a modified intensive program (full days that included individual sessions) and engaged in more structured group activities facilitated by student clinicians. The MIAP 2018

cohort ran the group sessions with a 1:1 client to participant ratio. Certified SLPs observed all group sessions providing at least 25% supervision but did not actively participate. Each student facilitated one session with more structured topics and facilitation methods compared to Sherratt and Simmons-Mackie (2016). Topics for discussion included introductions, descriptions of favorite vacations, and games led by a clinician (e.g. Jeopardy, Scattegories and Family Feud).

Aforementioned activities required participants to break away from the larger group and work with their assigned clinician to find answers to later share aloud. Breakouts from the larger group may have unintentionally created a sense of work and internalized anxiety and/or frustration regarding deficits (e.g. word-finding and using complete sentences) interrupting the organic flow of more typical group therapy sessions. This group design may have corresponded to clients experiencing the spotlight effect (citation). The spotlight effect has been demonstrated in research as an overestimated understanding of how much one's contributions to a group are noticed and how much their potential poor performance is recognized by other members (Savitsky, Epley & Gilovich, 2001). The spotlight effect can be a detrimental perception for anyone, but especially for those diagnosed with a language disorder, such as aphasia, where the person's ability to communicate is impaired. Participants diagnosed with Broca's aphasia are also more aware of their deficits compared to other aphasia subtypes. In terms of humor functions, a participant with a Broca's subtype might be more apprehensive when obliged to speak in front of a group and use humor as a face-saving strategy to preserve their dignity.

Purposes behind group therapy include fostering a more natural and supportive environment where clients can communicate with more independence from their clinician. PWA may be better communicators when they are more relaxed, and conversation can develop more naturalistically in a group setting. The setup of a more activity-based group therapy approach led

by the student clinicians may have made the PWA picture group therapy more as an individual therapy session where clients provide their answers in front of their peers (Sherratt & Simmons-Mackie, 2016). Future studies could approach the group therapy sessions from a different perspective. For example, there are techniques and strategies in which the leader functions only as the facilitator of group conversation stepping in to provide specific feedback and model strategies only if needed. In addition, a group model could allow clients to choose the topics and take the lead (e.g., Aten, 1991 & Marshall, 1999). These alternatives could offer a different type of group therapy experience for both clients and student clinicians potentially providing more opportunities for humor.

Although the activities required obligatory participation, the majority of the clients had met previously and engaged in group therapy sessions at the Idaho State University Speech and Hearing Clinic over the course of several years. Although the group sessions were not continuous across each year as in Sherratt and Simmons-Mackie (2016), the participants had more shared experiences, knowledge of one another (e.g. severity levels related to diagnoses) and a higher likelihood of comfortability to laugh at themselves amongst a supportive atmosphere than if they had never met prior to group participation. All of the clients in Group A and three of the five participants in Group B had previously participated in group therapy at ISU. Although time together does correspond to a higher likelihood for people to engage in a comfortable manner, Group B had considerably more humorous instances overall even though 40% of members were not previous ISU clients. This indicates how multifaceted the makeup of therapy groups for aphasia are (e.g., personality of members and clinicians, group leader style, severity levels of clients). Isolating one reason as to why humor occurred more within one group would be decidedly difficult to conjecture.

An aphasia diagnosis has a detrimental impact on autonomy, socialization and overall QOL. That being said, aphasia groups offer the opportunity for clients to connect with one another, to build a community that accepts and fosters encouragement, is a safe environment for clients to reflect on their self-identities, and a place to further self-advocacy and independence (Elman, 2007). While it is possible that the impact of the diagnosis of aphasia for participants negatively affected participation in the group sessions, the frequency and ease with which humor was expressed reflected a positive and supportive atmosphere in both groups.

The framework and topics of discussion also appear to influence humor opportunities in a group setting. Sherratt and Simmons-Mackie (2016) utilized a social participation framework. Therefore, the emphasis of the group dynamic focused on facilitating social and emotional adjustments to living with communication difficulties. Authors employed total communication strategies and encouraged self-advocacy. These contexts may have corresponded to group members functionally using humor to demonstrate solidarity and increase likeability. The group sessions analyzed for the current study were primarily language-focused treatment groups. Therefore, the clinicians were viewed as experts and the clients were in a more passive role (Elman, 2007). Although increasing likeability and demonstrating solidarity were strongly utilized functions of humor within the current study, these structural differences in the group design may have reduced the occurrence of these two functions.

The student clinician dynamic, which constitutes less experience and understanding of aphasia groups, may have corresponded to an atmosphere less conducive to laughter. For some or all members, participation in an aphasia group may have been a novel experience. Reduced participation and engagement could have occurred and potentially stemmed from the novelty of the shared group experience and/or personality factors (e.g., shyness) that are beyond the scope

of this investigation. It is generally recognized that time spent together, and the discovery of shared experiences corresponds to being comfortable amongst a group and a greater likelihood of friendships forming. Friendships likely formed or were further developed for participants with prior relationships with one another, as the week progressed during this intensive program.

Limitations

Due to the intensive nature of MIAP 2018, fatigue may have impacted both the response and initiation of humorous instances. Seating arrangements within the group sessions also did not provide the opportunity for all clients to be near one another or have close proximity to the student leader. These arrangements may have decreased the number of opportunities participants with hearing impairments or attention and/or comprehension difficulties had to participate in these humorous exchanges. However, hearing aids were worn by those individuals with hearing impairments and student clinicians were using multimodal communication techniques to try and enhance participant comprehension (e.g., drawing and writing). A single stationary camera was placed behind the participants which also reduced equal visibility of the participants. In fact, one participant who was always positioned to the top left of the camera view was never captured audibly or visibly responding to humor due to the position of the camera.

Future Directions

Facilitating effective group therapy requires significant experience understanding PWA and the group design (Marshall, 1999). The context of groups should focus on heightening communicative efficacy within conversations, inspiring self-advocacy, adapting to living with aphasia, and helping to facilitate a reconstruction and validation of one's own identity (Elman, 2004 & Simmons-Mackie et al. (2007). Humor is one compensatory strategy that can help promote the components of the aforementioned ICF network model (interactive relationship

between the patient's health condition, environmental, and personal factors) (Kagan & Simmons-Mackie, 2007).

Student clinicians from MIAP helped foster a comfortable group environment conducive to laughter. A positive environment is only one of many possible rationales (e.g. personal factors such as personalities of group leaders and clients) behind why participants invited humor on their own behalf during difficult moments and as a strategy to demonstrate altruism to their peers in similar situations. It is likely that all components of the ICF model contributed to the number of humorous instances, their functions and the missed humorous opportunities. Personal factors such as personality differences are often difficult to measure, but many avenues of future research on group therapy for PWA and humor can continue to be explored. The following are only a few of the plausible future directions for research that will assist further promotion and success of individualized and comprehensive group therapy for PWA.

Research suggests that homogenous groups are more likely to establish cohesion over heterogeneous groups. Homogenous groups have members who share common features and attributes (e.g. similar diagnoses, severity level, age, gender) (Marshall, 1999). Homogenous groups reach cohesiveness sooner than heterogeneous groups, because they empower members to support one another (Marshall, 1999). Both of the groups in the current study were more heterogeneous in nature based on their personal and clinical characteristics. For example, a member of Group B, who had a mild diagnosis of aphasia, dominated the humorous exchanges both as an initiator and a responder. Due to his mild diagnosis he may have been able to both comprehend and initiate humor more frequently than the other group members. His participation strongly contributed to the higher number of instances in Group B. Comparisons of group

member characteristics could be completed to provide additional insight into the potential influences of heterogeneity in the current study.

Humor has the capability to increase self-confidence, create a more positive sense of self and greater mental resilience, provide a method to convey emotions, and promote overall well-being (Askenasy, 1987; Simmons-Mackie, 2004; & Veselka et al., 2010). None of these factors were directly or indirectly measured in the current study. Clients did complete the Communication Confidence Rating Scale For Aphasia (CCRSA) (Babbitt & Cherney, 2010) pre and post MIAP, but this scale targeted the entire MIAP experience and did not directly measure the group therapy portion (or the humor within the social dynamic of group therapy). A future study could explore participant satisfaction with group therapy and whether or not using and responding to humor increased communicative self-confidence and/or overall feelings of satisfaction.

Student clinicians were not specifically instructed on the positive correlation between humor and the development of a cohesive group dynamic prior to leading group therapy during MIAP 2018. As previously mentioned, PWA may be more effective communicators when they are more relaxed, less stressed, and not having to try so hard (Sherratt & Simmons Mackie, 2016). Student clinicians were facilitating group therapy sessions for the first time in their training. In the future, additional training could support students in selecting group designs that promote open-ended discussions, remove themselves from the leadership role, and help to support deliberate opportunities for humor during group therapy sessions. Student clinicians likely employed more structure to assist in the facilitation of participation; seeking to avoid the potential awkwardness of leading an open discussion if members didn’t voluntarily participate.

Future research should seek to investigate an intensive program run by experienced SLPs and compare the functions of humor from both the clinicians and the participants.

Identified humorous instances between student clinician and participant dyads were excluded from this study if the instance did not occur during group facilitation. However, the 1:1 interaction within a larger group context could be explored as they frequently resulted in humor in the current study but were intentionally excluded from the analysis. For example, Session 2 for Group B had 88 total instances, and 31 of those instances (38%) occurred between the dyads and were not analyzed in the current study. Participants were likely more comfortable with their assigned clinician based on time spent together building rapport in individual sessions and this sense of comradery carried over to group therapy. Future research could investigate the functions of humor between clinicians and clients within a similar intensive model led by students and/or professional SLPs.

Conclusions

This study analyzed humor functions within group therapy sessions during a modified intensive comprehensive program. Humorous instances were abundant for two participant groups resulting in 220 instances. Group B demonstrated significantly more instances of humor when compared to Group A, however, the proportions of humor functions were similar between groups. In addition, the functions of humor identified in the current study were parallel to the prior literature related to humor and aphasia. Living with aphasia can have a considerable impact on functional communication skills and QOL. Future studies can examine the role of humor in enhancing life participation as well as satisfaction of PWA in social situations. Ultimately, using humor may provide more opportunities for PWA to engage with others leading to increasing feelings of inclusion and a greater sense of independence.

References

Askenasy, J. (1987). The functions and dysfunctions of laughter. *General Psychology*, *114*(4), 317-344.

Allen, L., Mehta, S., McClure, J. A., & Teasell, R. (2012). Therapeutic interventions for aphasia initiated more than six months post stroke: A review of the evidence. *Topics in Stroke Rehabilitation, 19*(6), 523-535. doi:10.1310/tsr1906-523

American Speech-Language-Hearing Association (ASHA). (1998). National Outcomes Measurement System (NOMS): Adult speech-language pathology training manual. Rockville, MD.

Archibald, E. M., DeLuca, T., Bedard, B. M., Gianino, A. C., & Agam, Y. (2012). Providing individuals with aphasia with both individual and group-based therapy could lead to better outcomes, but further research is needed. *Evidence-Based Communication Assessment & Intervention, 6*(2), 84-87. doi:10.1080/17489539.2012.699730

Aten, J., Caligiuri, M., & Holland, A. (1982). The efficacy of functional communication therapy for chronic aphasic patients. *Journal of Speech and Hearing Disorders*, *47*, 93-96. doi:10.1044/jshd.4701.93

Aten, J. (1991). Group therapy for aphasic patients: Let's show it works. *Aphasiology*, 5-6; 559-561.

Babbitt, E. M., & Cherney, L. R. (2010). Communication Confidence in Persons with Aphasia. *Topics in Stroke Rehabilitation*, *17*(3), 214–223. https://doi.org/10.1310/tsr1703-214

Babbitt, E., Worrall, L., & Cherney, L. (2016). Who benefits from an intensive comprehensive aphasia program? *Topics in Language Disorders*, *36*(2), 168-184. doi: 10.1097/TLD.0000000000000089

Babbitt, E., Cherney, L., & Worrall, L. (2015). Structure, processes, and retrospective outcomes from an intensive comprehensive aphasia program. *American Journal of Speech-Language Pathology, 24*, 854-863. doi:10.1044/2015_AJSLP-14-0164

Baker, E. (2012). Optimal intervention intensity in speech-language pathology: Discoveries, challenges and uncharted territories. *International Journal of Speech-Language Pathology, 14*(5). doi.: 10.3109/17549507.2012.717967

Bennett, M.P., & Lengacher, C. (2008). Humor and laughter may influence health: III. Laughter and health outcomes. *eCAM*, 5, 37-40. doi:10.193/ecam/nem041

Bollinger, R., Musson, N., & Holland, A. (1993). A study of group communication intervention with chronically aphasic persons. *Aphasiology, 7*, 301-313. doi.org/10.1080/02687039308249512

Brady, M.C., Kelly, H., Godwin, J., & Enderby, P. (2012). Speech and language therapy for aphasia following stroke. *Cochrane Database of Systematic Reviews, 5*(CD000425). doi: 10.1002/14651858.CD000425.pub3

Brandenburg, C., Worrall, L., Rodriguez, A., & Bagraith, K. (2015). Crosswalk of participation self-report measures for aphasia to the ICF: What content is being measured? *Disability and Rehabilitation, 37*(13), 1113-1124.

Brown, S., & Levinson, P. (1987). Politeness: Some universals in language use. Cambridge, UK: Cambridge University Press.

Cable, A., & Wiemer, H. (2018). Apraxia of Speech (Acquired). *CINAHL Rehabilitation Guide*. Retrieved from http://search.ebscohost.com.libpublic3.library.isu.edu/login.aspx?direct=true&db=rrc&AN=T708586&site=eds-live&scope=site

Chapey, R. (2001). Language intervention strategies in aphasia and related neurogenic communication disorders. Philadelphia, PA: Lippincott Williams & Wilkins.

Chapey, R. & Hallowell, B. (2001). Language intervention strategies in adult aphasia. In *Language intervention strategies in adult aphasia* (p. 472-486).

Cherney L. R., Patterson J. P., Raymer A. S. (2011). Intensity of Aphasia Therapy: Evidence and efficacy. *Current Neurology and Neuroscience Reports*, *11*(6), 560–569. doi:10.1007/s11910-011-0227-6

Coelho, C. A., McHugh, R. E., & Boyle, M. (2000). Semantic feature analysis as a treatment for aphasic dysnomia: A replication. *Aphasiology*, *14*(2), 133-142.

Darley, F. (1972). The efficacy of language rehabilitation in aphasia. *Journal of Speech and Hearing Disorders*, *37*, 3-21. doi:10.1044/jshd.3701.03

Davidson, B., Howe, T., Worrall, L., Hickson, L., & Togher, L. (2015). Social participation for older people with aphasia: The impact of communication disability on friendships. *Topics in Stroke Rehabilitation, 15*(4), 325-340. doi: 10.1310/tsr1504-325

Davidson, B., Worrall, L. & Hickson, L. (2003). Identifying the communication activities of older people with aphasia: Evidence from naturalistic observation. *Aphasiology, 17*(3), 243-264. doi: 10.1080/729255457

Dickey, L., Kagan, A., Lindsay, M. P., Fang, J., Rowland, A., & Black, S. (2010). Incidence and profile of inpatient stroke-induced aphasia in Ontario, Canada. *Archives of Physical Medicine and Rehabilitation, 91*(2), 196-202. doi: 10.1016/j.apmr.2009.09.020

Donabedian, A. (1966). Evaluating the quality of medical care. *Milbank Memorial Fund Quarterly, 44*(3). doi: 10.2307/3348969

Duffy, J. R. (2013). *Motor speech disorders: Substrates, differential diagnosis, and management.* (3rd ed.). St. Louis: Elsevier-Mosby. ISBN-13: 978-032307107

Eales, C. & Pring, T. (2007) Using individual and group therapy to remediate word finding difficulties. *Aphasiology*, *12*(10), 913-918. doi: 10.1080/02687039808249459

Elman, R.J. (2007). The importance of aphasia group treatment for rebuilding community and health. *Topics in Language Disorders, 27*(4), 300-308.

Elman, R.J. (2004). Group treatment and jazz: Some lessons learned. In J. Duchan & S. Byng (Eds.). *Challenging aphasia therapies: Broadening the discourse and extending the boundaries*. Hove: Psychology Press.

Elman, R., & Bernstein-Ellis, E. (1999). The efficacy of group communication treatment in adults with chronic aphasia. *Journal of Speech, Language & Hearing Research*, *42*(2), 411-419. doi: 1092/4388/99/4202-0411

Fillingham, J.K., Sage, K., Lambon, R. (2006). The treatment of anomia using errorless learning. *Neuropsychological Rehabilitation*, *2*, 129-154. doi: 10.1080/09602010443000254

Francis, L., Monahan, K., & Berger, C. (1999). A laughing matter? The uses of humor in medical interactions. *Motivation and Emotion, 23,*155-174. doi: 10.1023/A:1021381129517

Gallettta, E., & Barrett, A. (2014). Impairment and functional interventions for aphasia: Having it all. *Current Physical Medicine and Rehab*, *2*(2) 114-120. doi: 10.1007/s20141-014-0050-5

Glaser, B., & Strauss, A. (1967). The discovery of grounded theory: Strategies for qualitative research, Chicago: Aldine.

Goff, R., Hinckley, J. & Douglas, N. (2012, May) *Systematic Evaluation of the Evidence on Aphasia Group Treatments.* Paper or poster session presented at the Clinical Aphasiology Conference, Lake Tahoe, CA.

Goodglass, H. & Wingfield, A. (1997). Word-finding deficits in aphasia: Brain behavior relations and clinical symptomatology. In H. Goodglass & A. Wingfield (Eds.). Anomia: Neuroanatomical and Cognitive Correlates (p. 3-30) San Diego: Academic Press

Hagen, C. Levels of Cognitive Functioning. Rehabilitation of the Head Injured Adult: Comprehensive Physical Management. Downey, CA: Professional Staff Association of the Rancho Los Amigos Hospital; 1998.

Hallowell, B. (2017). *Aphasia and Other Acquired Neurogenic Language Disorders: A Guide for Clinical Excellence*. San Diego, CA: Plural Publishing.

Hallowell, B., & Chapey, R. (2008). *Introduction to language intervention strategies in adult aphasia.* In R. Chapey (Ed.), Language intervention strategies in adult aphasia (p. 3-19) Williams and Wilkins.

Howard, D., Patterson, K., Franklin, S., Orchard-Lisle, V., & Morton, J. (1985). Treatment of word-retrieval deficits in aphasia: A comparison of two therapy methods, *Brain, 108,* 817-829.

Jefferson, G., Sacks, H., & Schegloff, E. A. (1987). Notes on laughter in the pursuit of intimacy. In G. Button & J. R. E. Lee (Eds.), *Intercommunication series, Vol. 1. Talk and social organization* (p. 152-205). Clevedon, England: Multilingual Matters.

Kagan, A., Simmons-Mackie, N., Roland, A., & Huijbregts, M. (2008). Counting what counts: A framework for capturing real-life outcomes of aphasia intervention. *Aphasiology, 22*(3), 258-280. doi: 10. 1080/02687030701282595

Kagan, A., & Simmons-Mackie, N. (2007). Application of the ICF in Aphasia. *Seminars in Speech and Language, 28*(4). doi: 10.1055/s-2007-986521.

Kagan, A., & Simmons-Mackie, N. (2007). Beginning with the End: Outcome-driven assessment and intervention with life participation in mind. *Topics in Language Disorders, 27*(4). doi: 10.1055/s-2007-98651

Kearns, K. & Elman, R. (2008). *Group therapy for aphasia: Theoretical and practical considerations*. In R. Chapey (Ed.), Language intervention strategies in aphasia and related neurogenic disorders (5th ed., p. 376-400). Philadelphia: Lippincott, Williams & Wilkins.

Kearns, K. (1994). *Group therapy for aphasia: Theoretical and practical considerations*. In R. Chapey (Ed.), Language intervention strategies in adult aphasia (3rd ed., p. 304-321). Baltimore: Williams & Wilkins.

Kovarsky, D., Curran, M., Zobel Nichols, N. (2009). Laughter and Communicative Engagement in Interaction. *Seminars in Speech and Language, 30*(1).

Lehman Blake, M. (2010). Communication deficits associated with right hemisphere brain damage. In J.S. Damico, N. Muller, & M. J. Ball (Eds.), *The handbook of language and speech disorders* (p. 556-576). Chichester, West Sussex: Wiley-Blackwell.

Leonard, C., Rochon, E., & Laird, L. (2008). Treating naming impairments in aphasia: Findings from a phonological components' analysis. *Aphasiology, 22*(9), 923-947. doi.org/10.1080/02687030701831474

MacWhinney, B., Fromm, D., Forbes, M., & Holland, A. (2011). AphasiaBank: Methods for studying discourse. *Aphasiology, 25*(11), 1286-1307.

Marshall, R.C. (1999). Introduction to Group Treatment for Aphasia. Woburn, MA: Butterworth-Heinemann.

McNeil, M.R. (1982). The nature of aphasia in adults. In N.J. Lass, L.V. McReynolds, J.L. Northern, & D.E. Yoder (Eds.), *Speech, language, and hearing: Vol. III. Pathologies of speech and language* (pp.692–740). Philadelphia, PA: W.B. Saunders.

Mozaffarian, D., Benjamin, E. J., Go, A. S., Arnett, D. K., Blaha, M. J., Cushman, M., & Mackey, R. H. (2016). Heart Disease and Stroke Statistics-2016 Update: A Report from the American Heart Association. *Circulation, 133*(4), e38-e360. doi:10.1161/CIR.0000000000000350

Nicholas, M., Sinotte, M., & Helm-Estabrooks, N. (2010). Using a computer to communicate: Effect of executive function impairments in people with severe aphasia. *Aphasiology, 19*(10-11), 1052-1065. doi: 10.1080/02687030544000245

Nickels, L., McDonald, B. & Mason, C. (2012). The impact of group therapy on word retrieval in people with chronic aphasia. *NeuroRehabilitation, 39*(1), 21-95. doi: 10.3233/NRE-161340

Norris, M.R., & Drummond, S.S. (1998). Communicative Functions of laughter in aphasia. *Journal of Neurolinguistics, 11,* 391-402. doi: 10.1016/S0911-6044(98)00026-8

Parr, S. (2007). Living with severe aphasia: Tracking social exclusion. *Aphasiology, 21*(1), 98-123, doi:10.1080/02687030600798337

Rose, M.L., Cherney, L.R., & Worrall, L.E. (2013). Intensive comprehensive aphasia programs: An international survey of practice. *Top Stroke Rehabilitation, 20*(5). doi: 10.1310/tsr2005-379.

Savitsky, K., Epley, N. & Gilovich, T. (2001). Is it as bad as we fear? Overestimating the extremity of others' judgments. *Journal of Personality and Social Psychology, 81,* 44-56.

Sherratt, S., & Simmons-Mackie, N. (2016). Shared humour in aphasia groups: "They should be called cheer groups."*Aphasiology, 30*(9), 1039-1057. doi:10.1080/02687038.2015.1092495

Simmons-Mackie, N. & Elman, R. (2011). Negotiation of identity in group therapy for aphasia: The aphasia café. *International Journal of Language and Communication Disorders, 46*(3), 312-323. doi: 10.3109/13682822.2010.507616

Simmons-Mackie, N., Elman, R.J., Holland, A.L., & Damico, J.S. (2007). Management of discourse in group therapy for aphasia. *Topics in Language Disorders: Explorations in Clinical Discourse, 27,* 5-23, doi: 10.1097/00011363-200701000-00003

Simmons-Mackie, N. & Schultz, M. (2003). The role of humour in therapy for aphasia. *Aphasiology, 17*(8), 751-766. doi:10.1080/02687030344000229

Simmons-Mackie, N. (2001). Social approaches to aphasia intervention. In R. Chapey (Ed.), Language intervention strategies in aphasia and related neurogenic communication disorders, 4, 246-268.

Spaccavento, S., Craca, A., Del Prete, M., Falcone, R., Colucci, A., Di Palma, A., & Loverre, A. (2014). Quality of life measurement and outcome in aphasia. *Neuropsychiatric Disease and Treatment, 10*, 27-37.

Swinburn, K., Porter, G., & Howard, D. (2004). *Comprehensive aphasia test* (Vol. 40). Hove: Psychology Press.

Taylor, S.J., & Bogdan, R. (1998). Introduction to qualitative research methods: A guidebook and resource. (3rd ed.) New York: Wiley

United States. (2004). *The Health Insurance Portability and Accountability Act (HIPAA)*. Washington, D.C.: U.S. Dept. of Labor, Employee Benefits Security Administration.

Veselka, L., Schermer, J., Martin, R., & Vernon, P. (2010). Laughter and Resiliency: A behavioral genetic study of humor styles and mental toughness. Published online by Cambridge University Press, Volume 13, Issue 5. doi: https://doi.org/10.1375/twin.13.5.442

Verhagen, A.P., de Vet, H.C., de Bie, R.A., Kessels, A.G., Boers, M., Bouter, L.M., & Knipschild, P.G. (1998). The Delphi list: A criteria list for quality assessment of randomized clinical trials for conducting systematic reviews developed by Delphi consensus. *Journal of Clinical Epidemiology, 51*(12), 1235-1241.

Wertz, R., Collins, M., Weiss, D., Kurtzke, J., Friden, R., Brookshire, R., Pierce, J., Holtzapple, P., Hubbard, D., Porch, B., West, J., Davis, L., Matovitch, V., Morley, G., & Resurreccion, E. (1981). Veterans administration cooperative study on aphasia: A comparison of individual and group treatment. *Journal of Speech and Hearing Research, 24*, 580-594.

Winans-Mitrik, R. L., Hula, W. D., Dickey, M. W., Schumacher, J. G., Swoyer, B., & Doyle, P. J. (2014). Description of an intensive residential aphasia treatment program: Rationale, clinical Processes, and outcomes. *American Journal of Speech-Language Pathology, 23*(2), S330-S342. doi: 10.1044/2014_AJSLP-13-0102

Appendix A

Humor Function Definitions and Examples

Improve Likeability

Sherratt and Simmons-Mackie (2016) describe humor as a way to demonstrate likeable personal qualities (e.g. easy-going, funny, approachable). As evidenced from the recorded sessions, both the student clinicians and the participants wanted to be perceived in a positive light and used humor accordingly. Clinicians in Group A used humor for likeability more than the participants. Group B was the reverse. This denotes a difference in possible personalities of members of the group or the context or dynamic of the sessions. Clinicians and clients alike used humor to improve their likeability in several ways to include sarcasm to disagree, making jokes about seemingly taboo topics (drinking beer) and many others.

Example 1: A student clinician (SC 2) is discussing going to the movies with a participant in the group. (C 6) and asks if she ever “sneaks candy into the movie theater” also utilizing a gesture of her hand over her mouth to further exaggerate the negative connotation of being dishonest. C 6 responded with "No. I usually. No, I don't usually do that.” The humor is derived not only from the well-known fact that people sneak candy into the theater, but how the participant is admitting it with hesitation. Both the participant and the client are revealing their easy-going natures and corresponding willingness to bend the rules.

Example 2: Day one of the program for Group B included discussing favorite vacations. After hearing about fishing in Mexico, and watching bison roam in Yellowstone, SC 5 said, “I need a timeshare.” His relatable sarcastic remark was well timed and received among all members of the group (clinicians and PWA) because most all people can identify with the desire to have the personal freedom to travel at their leisure.

Bolster togetherness

Humor was used to bolster a feeling of group togetherness in several ways (e.g. altruistic acts, revealing shared knowledge of one another) and across both groups. Participants helped their peers find or produce intended words, and topics were reintroduced after one participant revealed something she enjoys especially if it was viewed as taboo (e.g. drinking alcohol). Demonstrating solidarity was the second most common humorous function among the participants in Group A.

Example 1: On the last day of the program C 2 was visibly distressed trying to say the word “yellow” and C1 provided a direct model while facing her direction. After C 2 produced the word, C 1 said, “you got it! C 2 replied, “thank you thank you!” They both laughed in unison because they can relate to each other’s communicative difficulties. These two clients had participated in previous intensive programs and traditional group therapy at ISU. Consequently, it is also likely that the client who provided the model was familiar with his peer’s difficulties and knew what strategies were effective.

Example 2: Clinicians in both groups also worked to bolster togetherness. In one instance on the first day of the program, the leading student clinician (SC 2) mistakenly made a generalization about the group and the supervising clinician stepped in using humor to bring the group together. SC 2: “We don’t have a lot of cat lovers in this room.” Supervisor: “Oh be careful, we sure do!” The supervising clinician may have had more knowledge about members of the group and wanted to clarify common knowledge about the group in a less formal way.

Example 3: Drinking beer was a topic brought up frequently by members of Group B as a way to be seen as likeable in the first session and the joke continued to be brought up as a way to unify the group. SC 3: "What did you eat or drink while you were there?" C 3: "Beer." C 5: "I

like that guy." Three members of the group and all of the clinicians laughed at this humorous exchange.

Example 4: After C 3 had difficulty getting his words out, a peer sitting adjacent to the left (C 5) turned towards him and used humor to emphasize their togetherness as individuals with aphasia. C 5: "I understand how you feel." Then she laughed a little after the comment to invite peers to share in this moment with them.

Preserve Dignity

Humor was used by group members as a strategy to demonstrate they were working through their communication difficulties and would often invite humor as a way to lighten the mood.

Example 1: In the following example a participant is being asked if she wants to try and answer a question posed to the group. SC 6: "C6, do you want to take a stab at a guess. No pressure" C 6: "With scissors? No just kidding." This is a great example of a participant using sarcastic humor to deviate attention and make light of her word-finding and speech production difficulties.

Example 2: During group facilitation, two participants started talking about their preferred animals and one participant kept asking if the communication partner has a horse in addition to a dog. C 6: "I prefer dogs." C 12: "But do you have your horse too?" C 6: "I don't have that either." C 12: "Then what do you do?" The participant continued to question whether C6 had a horse and C6 was visibly confused. C6 kept laughing because she was trying to alleviate the pressure of not understanding what C12 was asking her.

Example 3: Gestures also provoked laughter from members of both groups and this modality often corresponded to a more concrete understanding of the humor. In the following example a participant is trying to explain how to eat ice cream and cannot get her words out. Her

clinician offers the opportunity for her to pantomime eating ice cream to assist her explanation and fellow members encouraged her. SC 6: "Want to show them how you eat it?" C 6: "Yeah sure show us!" SC 6: "You show us!" C 6:"No, you." SC 6: "Let's both do it. Let's get ours out, ready? We lick it." Initially, C6 tries to make her clinician do the gesture, but later does the gesture for the group and exaggerates her facial expressions. This participant was using humor to preserve dignity of having to gesture “licking” in front of group.

Building Rapport

Building rapport was determined to be any instance where the clients or clinicians were using humor as a way to get to know each other or demonstrate their knowledge of one another to the group.

Example 1: Student leader: "And C2, what was your word?" C 2: "Roses." Student leader: "Roses. I love that." SC 6: "Another flower." SC 2: "Surprise. She's like the flower lady." Calling C 6 the “flower lady” was a display of how her clinician knows her and is sharing this information with the group.

Example 2: During the second session for group B the student leader is facilitating a game of Scattegories. The clients were working on a list of items to bring on a camping trip. During C7’s turn to speak she says, "Coffee." SC 5: "I knew it!" SC 5 is the leader and by saying “I knew it” he is trying to demonstrate his awareness what she likes and is continuing to build a relationship with her.

Deflect Tension

Deflecting tension was a difficult function to distinguish from preservation of dignity because many of the instances in this category did involve those face-saving strategies (e.g., using humor to divert from mistakes). However, deflecting tension involved responses to lack of

motivation to further engage in activities or the clinicians would use funny comments or gestures to deflect the preconceived notion of anxiety upon having to provide answers to the group.

Example 1: In the following example the clients are playing a game that requires generating words based on the last letter of the deemed “best word” from the previous round. C 2 is keying into the fact that she is going to have to come up with more words that begin with “y” and is not thrilled at the redundancy factor of using this letter from previous rounds. Student leader: “Another word that begins with “y.” C 2: "Another one?" Student leader: "Another one."

Example 2: After a break-out session between the clinician/client dyads in Group B, the student leader announced that it was time for the group to share their answers and gestures his hands as if he is ringing a bell while saying “ding dong ding dong” SC 5: "Times up" (bell sound).” It is likely that the student leader did this to deflect tension regarding any apprehensions the group members might have about sharing their answers aloud to the group.

Unintended

Instances where laughter occurred sometimes corresponded to unintended humor. One participant from group B had a hearing impairment and raised the volume of his voice to peers across the room. Oftentimes his one-word answers were mistaken for a raise in prosody sparking unintended laughter from clinicians and other participants. Another client in the group used eye gaze to select icons on a computerized alternative augmentative communication device (AAC) to communicate. If his eyes were not lined up properly to his chosen selection the icon chosen by mistake would produce voice activated words that did not fit the context of the conversation. This too procured laughter from the group that may have been utilized to dispel awkwardness and make light of the participant’s error.

Example 1: C 14: "Here's my iPad. Here's my iPad." Here the AAC device repeats a message unintended by the participant when he is attempting to answer a question for the group.

The group may have thought the repetition was funny or may have thought to make light of his error by laughing.

Appendix B

	Time	#	Topic	Transcription	Responders/miss opportunities	Triggers/ initiators	Current Study/Bottom up	2nd Researcher Bottom up	2nd Researcher Top down
A	.30-0.36	1	Yellowstone - place to visit	C5: "I love doing…driving ATVs around, all around."	C7	Repetition of "all around" no prosody change	Preserve honor/laugh with her	Likeability-repetitiveness of "around, all around"	Demonstrating solidarity
	0.45-.50	2	What you see in Yellowstone	C5: "Buffalos and elk and deer"	C4	Word finding	Preserve dignity	Likeability/easy going	Increasing likeability
	3.53-4	3	Montana and Mississippi being near one another	SC3: "We're kind of the same accent over there."	SC3, MO	Leader compares her accent to Jonathon's	Build rapport	Relatability/likeability/building connections	Demonstrating solidarity
	5.45-5.48	4	Outdoor activities in Idaho	SC3: "Well you don't even need to leave; you have everything XXX."	SC3, C7 smiles	Ironic that everything he loves to do is in his current state	Build rapport	Irony-don't need to leave for vacation since it's all here	Increasing likeability

5.54-5.56	5	Hunting and fishing as hobbies	SC3: “Well you and Russ will get along.”	C4	Both like fishing	Connecting clients-rapport building	Irony/bringing together clients	Demonstrating solidarity
6.00-6.05	6	Favorite place to go	SC3: “C3 where is your favorite place to visit?” C3: “Oh..um..Mexico!”	C5 is the loudest—possibly covering up laughter of others. All clients are smiling	Mexico! Said louder. Not intended as funny.	Inappropriate laughter-client is just answering the question-louder due to hearing loss	Unintentional, but group laughed at prosody/exaggeration	Increasing likeability
6.08-6.09	7	What you like to do in Mexico	SC3: “What do you like to do in Mexico?” C3: “Fish.”	C5 is the loudest—possibly covering up laughter of others. All clients are smiling	Fish. (said louder and due to likelihood of group knowing he fishes A LOT.) also inappropriate laughter because client has hearing impairment.	Unintentional-raise in prosody procured laughter	Unintentional, but group laughed at prosody/exaggeration	Increasing likeability
7.13-7.16	8	Travel	SC5: “I need a timeshare.”	Group. Can see everyone smiling hard to	Everyone enjoys travel and wants to do more.	Group enhancement	Joking for likeability	Increasing likeability

				determine laughter				
7.37-7.40	9		SC3: "We're going to play Jeopardy, but minus the music that makes you feel pressured."	C5 & C4 are loudest. Everyone is smiling	"but minus the music that makes you feel pressured."	Increasing motivation/ Comfort in group	Likeability, lightheartedness, reduce any stress	Increasing likeability
9.12-9.14	10	Picking the category for first round	SC3: "Any requests about what category?"	C4-awkward independent laughter	C4 laughs because no one is responding?	Fill the void (silence)	Inappropriate, default to laugh during awkwardness, lighten the mood	Saving face
10.00-10.12	11	First clue	SC3: "This state is known for their potatoes."	C7 and C4	They are in the potato state	Emphasize togetherness	Irony-current state	Demonstrating solidarity
14.54-14.56	12	Answer to the King of Rock question	C7: "Elvis Presley."	C7	C7 seems happy that she got the target	Preserve dignity	Proud/lighten the mood after struggling/deflect attention	Saving face
19.32-19.38	13	C14's AAC page his mom created	Caregiver14: "I created it. I created it." Directed to C7 whom gives sassy	Group smiles and laughter, can audibly hear SC7 and C4	Inferenced: "Wow you are a great mom to C14's mom	Building rapport	Fake anger/joking to build relationships	Demonstrate solidarity

			look in amazement.					
20.55-21.02	14	Value for question selected	C3: “500.”	Everyone is smiling and laughing C5 and C4 loudest	C3 picks the largest Jeopardy amount	Increase likeability	likeability	Increase likeability
23.07-23.12	15	C7 changed the right answer to a wrong answer	SC3: “I saw Cindy write it right away.” SC7: “XXX.”	C7	C7 got the answer quickly (happy)	Preserving dignity	Proud/lighten the mood after struggling/deflect attention	Saving Face
33.15-33.21	16	Listed characteristics of older phones	C5: “Wires, cords, receiver. But I’m old school.”	Group-caregivers, clinicians and clients-can hear and see C4 & C5	Term old school	Self-deprecating	Sarcasm/Joking to increase likeability	Increase likeability
33.43-33.51	17	Listed characteristics of older phones	SC3: “Well, cell phones are smoother. I guess the phones you use Susan have all of the big buttons.”	C5 and SC7 audible	Traits of old (C7description) vs. new phones(C3’s description)	Building rapport	Joking to increase likeability	increase likeability

33.53-34.06	18	Gestured characteristics of older phones	F. Caregiver C14: "Sundial." C5: "I remember doing that." C4 gestured turning a dial to C5: "exactly."	C4 and SC7 audible	Gestured turning of a sundial	Building group togetherness-similar knowledge	Joking to increase likeability	increase likeability
35.17-33.24	19		C14: "Relax in bed."	C7 and SC7	Being lazy	Project himself as easygoing/likeable	Joking to increase likeability	increase likeability
35.43-35.44	20		C7 laughs while group waits for C14 to choose icon on AAC device	C7	silence	Inappropriate laughter	Inappropriate, default to laugh during awkwardness, lighten the mood	Saving face
38.11-38.50	21	Male caregiver of C14 explains how there are 5 stooges	SC3: "Who knew there were actually five stooges?" C3: "What?"	SC3 laughs first, others begin to laugh as male caregiver 14 explains, C7 also laughs	Ironic that there is actually 5 stooges vs. 3	Bringing the group together	Confusion, unintentional prosody to suggest joking	Increasing likeability
38.46-	22	Leader offers bonus	SC3: "Bonus points if you get all five."	Male and female caregivers	Missed opportunity to laugh at	Unifying the group-by working	Joking to increase likeability	Increasing likeability

38.50		points parameters		of C14 laugh loudest but everyone is smiling	the leader's suggestion of bonus points	towards more points as a team		
39.53-40.06	23	Clinician misunderstood 100 for 400	C4:"For 100." SC7: You said 4? C4: "I said 4."	C4	Misunderstanding of what was said	Self-deprecating/	Lightening the mood because of the error	Saving face
43.23-43.27	24	Client provides a wrong answer: C3 laughs because C4 was wrong	C3: "OOOOH, you are wrong!"	C5, C4, see C7 smile	Wrong answer (between R and R)*good prosody for C3	Relief humor	Joking to increase likeability	Increasing likeability
43.27-44.20	25	Jeopardy answer	C3: "Bar of soap."	SC3 & SC7	Correct answer—was difficult to understand initially but now group understands	Sign that they understand the speaker's message	Confusion, unintentional prosody to suggest joking	saving face
44.02-44.20	26	C5 wrote "blanket" as answer	Amy (supervisor): "She should get half!"	Group, C4 is loudest	She had a good answer—funny because	Reinforcing togetherness of the group	Joking to increase likeability	increase likeability

			to the question where the answer was "soap"			point allotment is silly to the group			
	44.37-44.46	27	C3 selects 500 pt. value	SC3: "Common phrases 500." SC7: "He wants maximum points."	Everyone is smiling. Female caregiver C14 and C4 are audibly laughing	SC7 saying C3 wants Max points." (he always picks 500)	Continued joke-realizes people think this is funny-more likeable	Joking to increase likeability	increase likeability
	51.42-51.48	28	What do you fish for?	SC3 asks C3: "what kind of fish do you fish for in the ocean?" C3: "Baracuda."SC4: "Was it a big barracuda?" C3: "Yes."	C4 and C5	The word barracuda (louder voice)	Inappropriate laughter	Confusion, unintentional prosody to suggest joking	Increase likeability
G 2nd half	0.04-0.16	1	Trying to say "ocean"	C7: "Tu tu much.. tumultuous." SC3: "That's the best	C4 and SC7	Word-finding, also it is a big word for anyone to say	Bolster client after difficulty getting words out	Lightening the mood because of the error/shock of the higher-level vocabulary	Saving Face

of A				adjective tumultuous."					
	0.42-0.43	2	Clinician reuses the word tumultuous	Side convo during group portion that is overheard	C4	Reuse of the previously funny word	Reinforce the group dynamic-reuse of humorous initiator	Likability	Increase Likability
	1.22-1.31	3	Make a sentence category	SC3: "Then you will have to make a sentence with a verb." Sound of apprehension from someone follows. SC7: "You've been doing that all week. "	F. Caregiver 14, SC7 MOX2	Joking about the extension of disliked work in individual sessions	Bolster togetherness as all people with aphasia working on similar goals	Lighten the fear of failure	Saving face
	3.51-3.58	4	Category "Make a sentence"	C7: "Make a .. Make a sentence."	C4	Difficult task	Alleviate awkwardness	Lighten the fear of failure	Saving face
	4.02-4.10	5	Requesting bid for "make a	SC3: "Make a sentence for 300."	SC5 and C7-clients are making skeptical	MO clinicians laughing at client skepticism	Clinicians trying to lighten the apprehension	Lighten the fear of failure	Saving face

		sentence ”		sounds (tsk tsk)	regarding task difficulty	bolster confidence		
7.25-7.43	6	C7’s response when provided the verb “try”	C7: “Jim tries yoga.” SC4: “Is Jim your husband?” SC3: “Do you make him do yoga with you?”	SC7 and C7	Inside joke for C7 only because her husband hates yoga (she’s laughing to herself)	Inside joke between clinician and client-group may not know her husband hates yoga	Likeability/inside knowledge-making fun of her husband in a friendly manner/building rapport	Demonstrating solidarity
7.47-755	7	Trying fishing	C4: “I would try fishing.”SC3: “Well you don’t even have to try fishing, do you?” Right? Cause you fish so often.” C4: “I would try it still.”	C4 and SC7	The word “try” because C4 fishes all of the time and the word “try” implies a task you might not be able to complete.	Client is being humorous “play on words” to make others laugh—seen as funny.	Irony	Increase likeability
8.44-8.51	8	Richard picks a category	SC3: “Okay C4 you choose the category.” C4: “Sports.” SC4: “Do you even need to ask?”	C4 and SC4	“Do you even need to ask?” implies C4’slove for sports and his clinician’s	Building rapport	Irony/already know what he likes/”dumb” question	Demonstrating solidarity

					familiarity with his interest in this area			
8.55-9.02	9	Selecting a category	SC3: "Are you ready C3?" Russ: "sports for 500." SC4: "Can you do this because we are trying to catch up with you."	C4	Choosing sports again????	Inappropriate laughter	Inappropriate laughter/default laughter	Increasing likeability
10.23-10.32	10	Tennis and kickball use same term of "love"	C7: "Kickball." SC3: "Oh kickball that's right I've never played that but good to know that they keep score the same way as tennis." C7: "Yeah."	SC7	Surprise at knowing another sport uses the term "love" for a zero pt. value	Using laughter to diminish perception of lack of knowledge--	likeability	Increasing likeability
10.55-11.02	11	Picking a category	SC3: "Antonyms for 500." C3: "Yes."SC3: "XXX wants	SC3, SC4 and SC7 no clients MO	Funny because C3 picks 500 again	Perceived as likeable/funny	Likeability	Likeability

			the 500,doesn't care XXX"		(highest amount)			
12.12-12.25	12	Student clinician makes a mistake (said question backwards)	SC3: "C3, the opposite of follow…." C3: "Is follow."SC3: "Oh sorry."	Everyone is smiling only see C4 and clinicians laughing	Clinician makes an error. Should be "what is the opposite of lead"	Preserve dignity	Lighten mistake made	Saving face
12.43-12.55	13	Asking for more points	SC5: "So do we get double the points?" Female caregiver 14: "no." SC7: "Double..?"	Entire group audible	A clinician who often tries to be funny continues to push the envelope.	Enhance togetherness of the group	Likeability	Increasing likeability
13.38-13.43	14	Guilty pleasures	SC7: "Like bacon?" SC3: "Yes, something like that. Overeating. Things like that."	SC7 MO	SC7 gives an example (likely her guilty pleasure—resulting in her independent laughter.	Look likeable by providing an example she thinks others will agree with	Likeability-taboo	Increase likeability
17.04-17.07	15	Guilty pleasures	C3: "Watching sports and beer."	C4	Something Russ jokes about often	Seen as likeable using "adult humor"	Likeability-taboo	Increasing likeability

I (1st part of B)	6.16-6.23	1	Fred's word was elephant	SC 12: "Did Kat do that or did you?" C 1: "I did it." SC 1: "I didn't do anything."	SC1 MO	Fred picked a big word and Robert's clinician didn't believe he could	Bolster client's self-esteem	Likability/teasing	Increasing likeability
	6.45-6.54	2	Fred chose his word to win	SC 1: "Which one do you like the best?" C 1: "X elephant X"	SC 1, SC 6, SC 2, and Heather	Fred picks his own word	Increase likeability	Irony-pick own word as best	Increasing likeability
	11.15-11.21	3	Voting on the best word	SC6: "Then C1 gets two."	C2 and all clinicians	Knowledge of Fred	Bolster group togetherness	Joking for likeability/trying to engage all clients	Demonstrating solidarity
	13.40-13.44	4	Nonverbal	Non- verbal, written on the board was "YES!!!!"	Mumbling laughs from clinicians, C2 smiles	Written trigger word by Melissa on white board with exclamation points response to someone's answer	clients to laugh at the emphasis of the exclamation point-used to bolster group	"Prosody" from text/likeability	Increasing likeability
	13.59-14.10	5	C1 modeled target for C2	C 2: "Y-" C 1: "Yellow" C 2: "Yellow" C 1: "You got	C1 and C2 laugh	Fred giving a model for Linda on word "yellow"	Altruism/comradery	Comradery	Demonstrating solidarity

			it!" C 2: "Thank you thank you."		and they are both happy.			
14.40-14.44	6	Dr. Scharp goes to check on fred, and "scares" Linda	C2: "Uh. Oh."	C2	Scharp and C2 have a good relationship- I'm in trouble the person in charge came over. Scharp is really there to see if C1 in too much pain to continue	Play on that Scharp is the "boss" but that she is really nice/helpful—irony- divert possible tension	Fake scare/divert tension	Saving face
15.54-15.58	7	Points allocation	SC 1: "Are we supposed to be XXX? Oh okay"	C2, C1 smiles	Asking about denoting points	Facilitate equal participation	Irony/reduce protentional competitiveness	Saving Face
20.58-21.02	8	Tie breaker?	Someone says: "Uh oh." Heather: "We might- we might have a tie breaker."	Soft giggles – cannot determine who	No winner/ all 4 participants picked their own word—so it's unlikely that there would be a tie breaker because everyone	Reduce competition	Irony/reduce protentional competitiveness	Demonstrating solidarity

					voted for themselves			
25.30-25.42	9	Word: raspberry (like or don't like?)	C6: "XXX but I like razwaiter…raspberry better."	C1 and C2	Word-finding	Bolster self-esteem	Comradery/laugh to reduce feeling of "loser" because someone else's word is better	Managing identity
26.17-26.35	10	Linda's word choice	Heather: "And C2, what was your word?" C 2: "Roses" Heather: "Roses. I love that." SC 6: "Another flower." SC 2: "Surprise. She's like the flower lady."	C2 and all clinicians	Calling C2 the flower lady—display of how her clinician knows her	Dyad rapport building	Irony/inclusion with personal knowledge/building rapport	Demonstrating solidarity
27.36-27.42	11	Robert picks his "R" word	Clinician leading: "So you want to pick your name, Robert? Okay fair enough."	Soft clinician laughter	Robert picks his own name	Sarcasm-be seen as likeable and having a sense of humor	Irony/inclusion	Demonstrating solidarity
28.00-	12	Word finding	C6: "These. These."	Clinicians and C6	C6 laughs to herself because she	Self-deprecating-defense	Deflect from self-error	Managing identity

28.05					can't find the word	mechanism to deflect from communication error		
28.28-28.34	13	Fred's favorite word	Clinician leading: "And Fred what is your choice?" C 1: "Raspberries."	Clinicians only	Missed opportunity for group members because Fred picked his own word again.	Irony/repetition of same issue	Demonstrating solidarity	
29.46-29.50	14	Comment on the pause	Heather: "It's a little bit harder when we've done the words once. Hard to come up with those second ones."	SC6	Transcript is trigger	Bolster group togetherness	Likeability/reduce stress from task complexity	Saving face
31.06-31.14	15	Adding up the scores	Melissa: "C1's got elephant...toy-" C 1: "We won."	C1	C1's jumping the gun on who the winner is	Enhance motivation from others-create competition-bolster group	Self-confidence/proud	Increasing likeability
34.16-34.26	16	Next starting letter	Clinician leading: "And Fred?" C 1: "Yummy" Clinician	SC12 and SC6	They have had to come up with several words that begin with	"Y" is a difficult beginning sound/letter-clinicians were trying to	Likeability/reduce stress from task complexity	Demonstrating solidarity

			leading: "Yummy, alright so that means you have to come up with a third word that starts with the letter Y."		"y" which is a difficult letter.	alleviate the feeling of apprehension through laughter		
34.32-34.37	17	Another word that begins with "y"	C 2: "Another one?" Heather: "Another one."	C2	C2 is keying into having to come up with more words that begin with "y" and not thrilled.	Sarcasm as a defense mechanism to deflect tension from difficult task	Sarcasm/exaggeration of doing more	Saving face
36.45-36.53	18	Favorite word	C 1: "Yuck" SC 6: "Not yummy."	Hear C1 but C2 smiles	Funny words	unintentional	Unintentional	Demonstrating solidarity
38.59-39.03	19		C 12: "XXX"	SC6	Cannot define	NA	NA	NA
39.42-39.46	20	Beginning sound selection	Heather: "So we're going to think of a word that ends or starts with the	C2	Picked a different starting sound for the words. Linda is happy to not	Likeability	Sarcasm/exaggeration/joking for likeability	Saving face

			letter G" C 2: "Yay!"		have to do “y.”			
42.27-42.36	21	Word-Great Grandmother	Melissa: “That would be a double letter in scrabble!”	Soft laughter cannot determine source.	If playing Scrabble the participant would have more points	Bolster group togetherness	Inclusion/praising size of word	increasing likeability
42.43-42.50	22	Fred likes German brown fish	C 1: "German brown" SC 1: "It's a type of fish he likes fishing for. German brown."	SC1 and C1	Inside joke between the dyad about Fred’s love of fishing	Inside joke-dyad-demonstrate togetherness	Irony/not surprising	Demonstrating solidarity
43.08-43.13	23	Fred loves fishing	SC 1: "We've been talking about it all week long. All we are talking about is fishing in therapy."	C1 and C2	How Fred relates everything back to fishing	Inside joke-dyad-demonstrate togetherness	Irony/not surprising	Demonstrating solidarity
45.54-45.59	24	Each client is choosing their own word so there may not	C 2: "Green" Someone says: "Oh."	Clinicians only SC1 loudest MO clients don’t see the underlying humor that	Clients are picking their own words again	Bolster group togetherness	Irony/not surprising	Demonstrating solidarity

		be a winner		they are each picking their own words				
46.03-46.08	25	C1 made it a 4-way tie	C1: “I like German Brown.”	Hear SC 2, C 2, SC 1, C 1	C1 picked his own word	Bolster Group competition/togetherness	Irony/repetition of same issue	Demonstrating solidarity
46.16-46.20	26	SC1 is learning a lot about fishing	SC 6: "Kat you're going to be a professional fisherman" SC 1: "Yeah."	Hear C1, C2 smiles	Professional is trigger-learning a lot about fishing	Bolster relationship building between the dyad	Joking for likeability	Demonstrating solidarity
46.30-46.38	27	Who is the winner?	Clinician leading: "So it looks... like we... have a tie." Melissa: "Everyone voted for themselves!"	C1	Coming back to idea of everyone voting for themselves	Bolster group togetherness	Irony/repetition of same issue	Demonstrating solidarity
46.48-46.57	28	Getting someone to break the tie	Heather: "Yeah, you know…I don't know, Bill might be a little biased." Melissa:	Group laughter. Can only see C2	Bill would be biased to pick C2(his wife)	Include the family member in the group	Joking for likability/irony	Demonstrating solidarity

			"Bill or Dr. Scharp?"					
47-47.26	29	Bill's choice to break the tie	Bill (C 2's husband): "Do I have a preference…. German brown." SC 2: "He's in trouble" Bill: "XXX change my answer."	Group laughter. Can see C1 and C2 laughing	Bill didn't choose his wife's word	Increase likeability- wanted to be seen as funny by the group	Joking for likability	Increasing likeability
47.33-47.41	30	Who should buy ice cream	SC 1: "Ice cream for C1" SC 6: "Ice cream ON C1"	SC1,C1, C2	C1 buy everyone else ice cream since he won or get it. Trigger is the word "on"	likeability	Joking for likability	Increasing likeability
50.47-51.09	31	Is a toilet considered furniture?	SC 1: "C1 wanted to know if the toliet counted as furniture." Heather: "It's functional furniture so there you go."	C1 and C2 smiling	Toilet is functional! Literally toilet humor.	Project likeability—using silly toilet humor	Joking for likability/sarcasm	Increasing likeability

	52.05-52.10	32	Buddy is C6's dog	C 6: "Couch" Heather: "Couch, okay." C 6: "For Buddy."	C6 and SC6	Dyad inside joke—client relates a lot of things to her dog.	Bolster togetherness of the dyad	Rapport building	Demonstrate solidarity
B	6.32-6.52	1	Loved animals	SC12 says she likes donkeys which is C1's animal choice. SC12: "I love that animal. SC1: "Do you really?" SC12: "Yeah." C1: "Do you like them? SC12: "Yeah, do you?" C 1: "They're alright." SC 12: "Fred you don't dislike anything."	Group laughter but see C1 and C2 smiling	C1 already said he liked them and then later says donkeys are just okay.	Humor used as a diversion from his mistake	Joking for likability/sarcasm/prosody from C1	Increasing likeability
	7.03-7.20	2	Group objects to the statement	SC2: "We don't have a lot of cat lovers in this room." Dr.	Soft chuckles and C1	Making SC2 sound like she's in trouble for her	bring group together based on a shared interest.	Joking for likeability/divert from incorrect assessment	Demonstrating solidarity

			Scharp: "Oh be careful SC2, we sure do!"		comment. Rise in intonation at end.			
7.23-7.27	3	Squirrels	Heather: "Squirrel." SC1: "Gets on C1''s nerves."	C2	Squirrels are a nuisance	Project their client as likeable/funny	Joking for likeability	Increasing likability
7.57-7.59	4	C1 likes how Heather's dogs try to catch squirrels	C1: "Oh that's good."	Clinicians only	Ironic because it's really not good that her dog tries to kill the squirrels	Project himself as likeable and funny	Irony	Increase likeability
8.05-8.16	5	SC12 asks C1 if he likes squirrels	C1: "They are alright. I like em. I like all animals."	Clinicians laugh C2 smiles	Funny because he just said he liked that her dogs chased the squirrels	MO for clients missed the discrepancy between C1's two statements	Joking for likability/sarcasm/prosody from C1	Increasing likeability
8.23-8.28	6	SC1 states they need to tell them about his job one day. (C1's)	C1: "Oh really. That's okay."	Hear clinicians laughing, SC 1 is the loudest, C 1 laughs, C 2 smiling	Inside joke---maybe job had something to do with animals.	Divert attention from himself	Divert attention from oneself	Demonstrating solidarity

9.40-9.43	7	Comment occurs after after C1 votes for "donkey" as the best word	C1: "I like donkeys."	C1 laughs after his comment	Laughter to himself because he chose his own word	Increase likeability-show himself as silly	Irony/repetition of same issue	Demonstrating solidarity
9.43-9.50	8	C1's mohawk hair	SC 1: "XXX" uses gesture regarding hair	Group clinician laughter after SC 1 comment - can see C 2 smiling	Silly gesture of a mohawk	Present himself in humorous light-seen as more likeable	Joking for likability	Increasing likeability
9.50-9.53	9	Designating a winner	Leader: "C2 your work won." C2: "Woooo."	Quiet laughter from Dr. Scharp, see C 2 smiling	C2 is being sarcastic about her winning	Self-deprecating humor-joke about own negative traits	Proud/awkward with attention	Demonstrating solidarity
9.57-10.02	10	Were they competitive?	Melissa (running screen: "No you guys weren't a competitive group after all."	Quiet laughter-can't determine source	Funny because they all chose their own words as best but no one kept score	Bolster group togetherness	Irony/repetition of same issue	Demonstrating solidarity

C	3.38-3.46	1	“Have you heard of scattegories?”	C 4: "I have the box."	C4	SC7 (SL) asks the group if they have heard of scattegories. Based on C4’srespons e he has never played it.	Sarcastic humor-wanting to be seen as likeable/funny	Humors to have something but not use it	Increasing likeability
	4.25-4.32	2		SC 5: "So the whole goal is talking as much as possible right. (sound effect using the double pistol gesture)"	C4 & C5	Trigger could have been the funny gesture or the implied sarcasm that the clients have trouble with this task	Relieve performance tension from the clients	Easy going/likability	Increasing likeability
	11.04-11.07	3	Time to share your answers	SC 5: "Times up" (bell sound)	C4	Bell sound	Relieve tension	Easy going/likability	Increasing likeability
	11.21-11.24	4	No one wanted to go first	SC 5: "Not everybody at once."	Clinicians MO	Sarcasm-no one was volunteering - clients missed the sarcastic undertone	Relieve tension	sarcasm	Increasing likeability

11.24-11.25	5		SC 5: "You have a billion?"	C4	Sarcasm	Relieve tension	Sarcasm	Increasing likeability
11.52-12.14	6		C 4: "Hunting gear, knife… Do you want me to keep going?"	C4 and C5	Only supposed to list 3-client was being intentionally funny	Perceived as likeable/funny	Likeability/easy task	Increasing likeability
12.26-12.35	7	3 things to take on a camping trip—fireworks are funny	C 3: "Tent, fireworks, sleeping bag "	Clinicians	Knowledge of the client's love for pyrotechnics	Perceived as likeable/funny	Building rapport/likeability	Demonstrating solidarity
12.39-12.45	8		SC 5: "Why are you taking fireworks? I feel like there's a back story."	Clinicians	SL seeks to bring the joke back up to explain it to the group and the trigger is the transcript	Build rapport	Building rapport/trying to learn more	Demonstrating solidarity
12.47-12.57	9		SC 3: "Have you taken fireworks before?" Client	C4 & C5	Exaggerated head nod of approval	Perceived as likeable/funny	Exaggeration/short response	Increasing likeability

			3:"Yes" (head nod)					
12.58-13.08	10		SC 5: "Are you a qualified professional? " Client 3: "Nope!"	Clinicians	Client had a lot of prosody changes to indicate the intent to be funny (raised voice, higher inflection at the end of the word)—trigger is no one is a qualified professional at lighting fireworks	Perceived as likeable for funny	Exaggeration/short response	Increasing likeablity
13.20-13.30	11	Leading clinician isolated the word “fireworks” for humor	SC 5: "So we've got tents, everybody needs a tent. Sleeping bags, axes… fireworks."	C4	Joke of fireworks again-trigger was the focus on the word and outward hand gesture towards Russ	Building rapport and bolster togetherness	Prosody to increase humor from previous instance/building rapport/likeability	Demonstrating solidarity

13.31-13.35	12	More beer	C 5: "Beer"	C4 and C5	Taboo-brought up frequently	Seen as likeable/funny	Taboo/joke from previous session(s)	Increase likeability
13.49-13.52	13	Leader knew what the client would say	C 7: "Coffee" SC 5: "I knew it!"	C4 and C5	transcription	Building rapport	Prosody/building rapport	Demonstrating solidarity
14.12-14.17	14	Laughs at own joke	SC 7: "So then she can make her coffee with the filters."	SC7	Awkward laughter by her clinician at own joke	building rapport	Awkward filler laughter	Increasing likeablity
14.15-14.17	15	Bottled water keeps you from getting sick	SC 14: "She'll be the only one who won't get sick."	Clinicians	"Good water" is often in bottles	Building rapport	Joking for likeability	Increasing likeablity
14.19-14.21	16	Giardia	SC 5: "Then we would say we have giardia and we XXX"	Clinicians and C7 smiles	Giardia is kind of a funny word—imagery of one sick on water	Bolster group togetherness	Severity of word exaggeration	Increasing likeability
15.07-15.16	17	Where do you go to the bathroo	SC 3: "Where are we going to use the	C4 and C5	Sound effect of the Ehhh	No one likes to go to the bathroom in the woods!!!	Easy going/likability	Increasing likeability

		m in the woods?	bathroom?" SC7: “The forest” with an outward gesture of hands. Clinician of client 5: "Ehh." (sound effect)			Bolster group togetherness		
15.16-15.20	18	If potty items are important to bring list them	SC 5: "You can make your own lists."	C4 and C5	Add bathroom requirements if need be…	Likeability	Joking for likeability	Increasing likeablity
16.02-16.04	19	C4’s task becomes more difficult	SC 7: "Because he's so good at it."	C4	Potential sarcasm to relieve pressure from other clients- Richard was already answering way more.	Relieving tension from clients who might be concerned about task difficulty increase	Laugh off pressure	Saving face
16.05-16.13	20	Task was made more difficult	SC 4: "It’s what you get for doing extra credit."	C4	C4 kept adding more answers beyond the 3 required	Building rapport	Joking for likability/again building off C 4’s previous success	Increasing likeability

		for C4 based on perform ance- all words had to begin with the same letter .(T)						
22.04-22.09	21	“Firetruck”	SC 5: "Curveball firetruck… I like it!"	SC 7	MO Clients did not realize that this was a dissimilar vehicle compared to those previously mentioned	Building Rapport	Inappropriate	Increasing likeablity
22.12-22.17	22	Forms of transportation	C 7: "Uber"	C4	Funny word to many	Be seen as likeable/funny	Unusual selection	Demonstrate solidarity
22.42-22.43	23	Leader comments on C7 responses	SC 5: "Excellent answers"	C7	Client laughs from the praise	Overcome awkwardness	Laugh off attention	Saving Face
23.06-	24	Client fills in the	SC 5: "Go big…" Client	C5	Possible inside joke- client happy	Building rapport	Insider joke/rapport building	Demonstrate solidarity

23.10		carrier phrase from her clinician	5: "or go home"		with rapport with clinician			
23.14-23.21	25	Leader is connecting everyone's answers into on group visual	SC 5: "Then we'll call an Uber to get to the hotel. Take the firetruck to look cool man."	C5	transcript	Bolster group togetherness	inclusivity	Increase likeability
23.33-23.37	26	C3's transportation	C 3: "Elcomino"	C 4 laughing, C 5 and C 7 smiling	Funny word and very specific compared to previous answers	Be seen as likeable/funny	Specific type of transportation	Increasing likeability
24.02-24.10	27	Directed to client 3	SC 5: "You never told us you were cool. Yeah everybody already knew"	C4	Elcomino is "cool" to some especially after that movie "El CO MINO!"	Building rapport	Sarcasm	Increasing likeability
24.37-24.09	28	C4 has Josh's card he left in front of him	C 4: "That's your card"	C4	Client just laughs at his own comment	Client likes Josh/evident from vids-building rapport	Awkward default laughter/inappropriate	Increasing likeability

24.43-24.51	29	C 4 threw his clinician under the bus	SC 5: "Oh it tore" (paper Josh left in front of C4)	C4	Trying to be playful with Josh	Seen as likeable/funny	Joking to be easy going	Increasing likeability
25.07-25.24	30	SC7 wants to increase the complexity for C4 further (all words to begin with “q”)	SC 7: "Give C4 like Q he's XXX."C4: “I’m broken now.	C4	SC7 being playful with C4 to bolster his achievements	Building rapport with client	Joking to build rapport	Demonstrating solidarity
29.40-29.45	31	During breakout, after searching and attempts, C3’s target word was identified	SC 5: "Nailgun" Client 3: "Yes!"	C4 &C5	Everyone is responding in joy for Russ getting the answer. C7 also gives a thumbs up	Deflect negative feelings with word-finding by relieve tension for client	Joy for finding word after much difficulty in word finding	Demonstrating solidarity

31.06-31.09	32	Leader is commenting on side convos occurring	SC 5: "I know side conversations"	SC7	I get what you are doing	Bolster group togetherness	Sarcasm	Increasing likeability
32.28-32.36	33	Misinterpretation of bored vs. board	C 14: "Board" SC 7: "Oh board. I thought he was..."	SC7	Misinterpretation of a word thought client meant he was bored	Perceived as likeable/funny	Misinterpretation	Increasing likeability
34.44-34.49	34	Reiterating answers and making them visual	SC 5: "So yours will be painted and yours will be beautifully oak."	C5	Client's personality is the trigger for his client-way he says things	Bolster group togetherness	Clinician building rapport and giving praise	Increasing likeability
34.50-34.54	35	Building different shelves	SC 14: "We're starting a business over here."	C4	Funny because they are not doing that!	Bolster group togetherness	Sarcasm	Increasing likeability
34.55-34.58	36	Leader being funny about the situation	SC 5: "I'm taking notes for a business model.	Clinicians only	No one laughs at leader's joke	Dispel awkwardness	Joking for likability	Increasing likeability

			Anyway, moving on."					
35.18-35.25	37	Leader comments about C3 finding the word “nailgun”	SC 5: " Yeeeeahhhh and that was our personal breakthrough ! It took all 3 of us and we got there!"	Clinicians and C4 smiles	Making light of word-finding and that it was a nice group effort to find the word	Bolster group togetherness	Lightening the mood from clients difficulty in word searching	Demonstrating solidarity
35.30-35.33	38	C3 chose a “level”	SC 14: "Things won’t fall off his shelf."	Hear C4 and C7 smiles	Level keeps the shelf up-play on meaning of “level”	Build rapport with client	Joking to build rapport	Increasing likeability
35.34-35.38	39	Leader comments on sturdy quality again	SC 5: "Appropriately made, all the stuff will stay on his."	C4 and C5	Continued joke	Build rapport	Continued joke	Increasing likeability
35.49-36.06	40	A LONG LIST	C 4: "…. Drill, paint sand, what? Sandpaper." SC 5:"We're going to have to put restrictions. Excellent problem to have."	C4	“put restrictions’ exact opposite of what should be done with client	Build rapport with client (praises him for job well done through humor)	Praising client in an ‘off’ way	Increasing likeability

36.46-36.54	41	Only given the option 1 or 2	C 14: "3"	Clinicians laugh, C7 smiles	Client picked a number that was not an option	Be seen as likeable/ funny	Potentially unintentional	Increasing likeability
36.59-37.08	42	Misinterpretation of what was said	C 4: "Oh bus, I thought he was saying bug, like a fly."	C4	transcript	Be seen as likeable/funny	Laugh at self-mistake	Saving face
37.32-37.35	43	Who is the tie breaker and why?	SC 3: "Russel's the tie breaker."	Clinicians only	transcript	Bolster group togetherness	Personality of client?	Increasing likeability
37.36-37.39	44	Clinician forgets what she was saying	SC 3: "Do you want things… what was it?"	C4	transcript	Dispel awkwardness	Clinician unintentional error	Saving face
37.57-38.06	45	Joke because C 4 had been saying "catch a bug" not "catch a bus"	SC 7: "A huge net"	C4 smiles	Net=fly and nothing to do with a bus	Build rapport with client	Referencing previous instance with bus not bug	Increasing likeability
42.50-43.09	46	AAC device repeats	C 14: "Here's my iPad. Here's my iPad."	C4	Supposed to be saying something else—and	Could have been an inappropriate moment to	Inappropriate/unintentional	Saving Face

					repetition is funny	laugh—client may have not intended to be funny—client may have been trying to dispel awkwardness		
43.55-44.02	47	Making light of deficits	SC 5: "Let's start with someone who got 7 items… Cindy"	SC7	Clients were only trying to get 3 items	Bolster client self-esteem	Praising client for confidence	Increasing likeability
44.40-44.46	48	Items for riding the bus	SC 5: "A schedule, which is pretty important."	C4	“pretty” (bus schedule would be VERY important)	Bolster client self-esteem for picking a good answer	Sarcasm	Increasing likeability
44.47-44.52	49	Another bus item	SC 5: "And a newspaper because you're going to be there for awhile." WITH A GESTURE	C5	“awhile” sarcasm-might be waiting a long time	Bolster client self-esteem	Sarcasm	Increasing likeability
46.03-46.07	50	Client not paying attention	SC 5: "C4" C 4: "What?"	C4	Playful with clinician leader	Building rapport within dyad	Joking with clinician	Saving Face

46.24-46.37	51	C 4 didn't know why SC 5 said his name when he was trying to prompt his turn	SC 5: "I Iike that you have waving and running to the bus." With a flailing gesture of waving and running.”	C4	Playful with client	wants to be seen as likeable and funny from group	Joking for likeability	Increasing likeability
46.53-46.56	52	Inappropriate answer	C 3: "Motorcycle."	C4 smiles and clinicians laugh	Item C3 uses a lot-something known that he likes and not an item for the bus (inappropriate response)	Not intended to be funny-clinicians might be laughing because it’s a common word he uses and wasn’t in context	Inappropriate response	Saving Face
47.04-47.10	53	Task was "ways to get on a bus"	SC 5: "So when you miss it, you give him a ride."	C4	Directed toward C4 (when he misses the bus) C3 can give him a ride on his motorcyle	Bolster togetherness of the two clients	Playing and joining client stories	Increasing likeability
47.11-47.16	54	Still describing C3 and C4	SC 5: "Then instead of waving for the bus you	C4	Gesture/ image of the two of them on a	Bolster togetherness of two clients	Silly demonstration of unlikely circumstance	Increasing likeability

			on a motorcycle together	can wave as he passes. Goodbye bus. " SILLY GESTURE of waving		motorcycle together			
	47.48-47.56	55	May have been referring to recent use of “motorcycle”	SC 5: "Some hilarious answers."	C4	transcript	Bolster group togetherness	Likeability	Demonstrating solidarity
	47.57-48.04	56	Reference to fireworks	SC 5: "We're not talking sparklers."	C4 and C5 and C7 smiles	C3’s quirky love of pyrotechnics	Build rapport with client	Reference C3’s love of firework type things/building rapport	Demonstrating solidarity
D	13.08-13.18	1	C1 has his hair styled in a mohawk	SC 12: "What's that called C1? C 1: "A ho- ho- a mo- mowhawk"	C12, C2, SC1	Client is older but still wants this typically younger man’s style/struggle to find the word	Self-deprecating-deflect negative light of word finding and bolster likeability	Irony-young hair due/personal preference not intentionally funny	Increasing likeability
	14.39-14.47	2	Where are you from?	SC 2: "Dr. Scharp, where are you from?"	Unknown source	Long pause while Dr. Scharp thinks about	Be perceived as likeable/funny	Lighten mood from disliked sound/noise made	Increasing likeability

			Dr. Scharp: "Hmm let's see…" Unknown source: "She's deciding."		where she is from—normally a question answered quickly			
15.05-15.18	3	Dislike of Michigan	C 2: "XXX" Dr. Scharp: "Thanks C2 We don't have strong feelings about that at all." C 2: "I'm sorry." Dr. Scharp: "No that's okay."	Group - hear the clincians laughing and C 2 (only visible)	Dr. Scharp says she was born in Michigan and C2 says, "I'm sorry." Making fun of where she is from,	Sarcasm-project herself as likeable from humor	Lighten mood from disliked sound/noise made	Increasing likeability
16.49-17.12	4	C 2 likes Arizona, but didn't like Dr. Scharp's Michigan	SC 12: "Hi I'm ----. I'm from Utah, but I also lived in Arizona growing up. Yes, Arizona. I get a nice you get a ..." C 2: "Nice"	Group, C2 visible	C4's clinician says she is from AZ. Linda points to her and says, "nice!" demonstrating she likes that state	Client is trying to build rapport	Irony-Linda vocalizes likes and dislikes	Increasing likeability
18.04-	5	Melissa's	Melissa: "I've lived in	SC6	Facial expression	Sarcasm-likeable as a	Sarcasm	Increasing likeability

18.10		content ment with Boise	Boise my whole life. Been a few places, but happy to stay here."		(really bored of being here).	humorous person		
18.43-18.46	6	Liking Boise	SC 6: "Boise. Good, we like Boise" (gives thumbs up).	SC6 & C6	C6 laughs after the gesture of thumbs up-laughing in agreement	Building rapport	Relatability	Demonstrate solidarity
19.05-19.15	7	Who has been to Texas?	SC 6: "I live in Texas. Who's been to Texas?" C2 raises her hand and says, “woohoo!”	Clinicians and C2 smiling	“woohoo!” Excitement over the state of Texas	Build rapport	Likeability/building rapport	Demonstrating solidarity
24.31-24.32	8	What Fred loves	C 1: "Unlimited fishing. That's it."	SC1, SC12 & SC2	Rise of intonation from Fred when says,”that’s it!” Fred loves fishing soo much that is all he wants to do.	Project himself as funny/likeable	Exaggerate feelings/likability	Demonstrating solidarity
25.32-	9	Travel is cheap or	Dr. Scharp: "That would	Clinicians	Scharp’s response to	Humor used as a way to	Realistic vs. dreams	Increasing likeability

25.35		expensive…?	be expensive."	C2 & C12 smiling	R. saying all he wants to do is travel-after inappropriate silence from clinicians.	deflect away from the inappropriate silence		
25.35-25.55	10	Travel is cheap or expensive…?	C 12: "Naaahh."	Group-can't determine source can see C12 smiling	Possible sarcasm related to the fact that travel is indeed expensive	Project self as contradictory/ sarcastic—increase likeability	Sarcasm/contradiction/witty	Increasing likeability
26.24-26.26	11	Late night hot dog eater	SC 1: "I had two hot dogs at 11 o'clock last night."	SC1 & SC12	Hot dogs are a weird thing to eat late at night… and one clinician's exposure of her roommate (another SC in the room) of her odd eating habits	Bolster likeability of fellow clinician by showing her in a silly light	Awkwardness/building rapport	sAving face
26.42-26.52	12	C2's loves coffee	C 2: "I want coffee every day."	SC12	Rise in intonation at the end of	Increase likeability	Reiteration of love, joking for likability	Increasing likeability

				her sentence.				
29.07-29.08	13	C1 agreeing with SC1 that her dog is cute	C 2: "Uh huh!" (gestures thumbs-up)	C2 smiling and Melissa's shoulder's shake	SC2 says C2's dog is cute and C2 does a thumbs up to her.	Bolster togetherness	Relatability/likeability	Demonstrating solidarity
31.15-31.30	14	Sneaking candy into the movie theater	SC 2: "Do you like go- do you buy your favorite snacks there or what do you- Do you sneak?" C 6: "No I usually no I don't usually do that. No"	Melissa and Dr. Scharp and C6's shoulder's move indicating laughter MO- C6was the only client who laughed-in convo-may not have understood	SC2 puts her hand over her mouth to gesture sneakiness while asking her if she sneaks candy in—against the rules-but everyone does it	Increase likeability of client to be potentially viewed as mildly deviant	Taboo	Increase likeability
35.48-36.01	15	Love Star Wars?	SC 2: "Everyone likes Mark Hamill. Who else loves Star Wars in this room? Who else	C2, SC1 & SC6	C2 shakes her head that she doesn't like Star Wars (dramatic head shake to indicate	Showing herself as an individual not afraid to be different/contrast to popular view—	Exaggeration of dislike/ joking for likeability	Increasing likeabiliy

			loves Star Wars movies? (C2 shakes head no) C2, is that a thumbs down?" Caregiver 2: "She hasn't seen it"		"NO WAY.")	increase likeability		
36.01-36.04	16	How someone feels about when you haven't seen Star Wars	Caregiver 1: "Culturally deprived."	Clinicians	Fred's wife says "culturally deprived" about Linda not seeing Star Wars. Abstract language-MO	Comradery building	Friendly bashing	Increasing likeability
36.11-36.14	17	Star Wars takes you to other worlds	SC 2: "Takes you to other worlds."	Clinicians	Terri gestured "takes you to other worlds" in an emphasized manner (like in the movies)	Sarcasm—clinician wants to be seen as funny (more likeable)	Prosody to joke for likability	Increasing likeability
36.27-	18	Is "Goodbye" a	SC 1: "Was that actually a real show	Clinicians & C1 laughs	C1 says his favorite show is	Bolster impression of Fred as a	Sarcasm/pulling chain/discomfort	Demonstrating solidarity

36.38		real show?	or were you just teasing?" SC 1: "He said 'goodbye'."	while talking	“Goodbye.” And his wife says “he’s full of it” in the background. Laughing at knowledge of C1 being a teaser.	purposefully funny guy (likeable)		
41.40-41.42	19	C2 loves Westerns and adventure shows	C 2: "Love them love them love them."	Clinicians, and C2 laughs as she talks	Melissa says how C2 loves adventure and Westerns (these were missed categories she was figuring out her favorite shows with Melissa). C2’s repetition of the words “love them” for emphasis is the trigger.	likeability	Exaggeration	Demonstrating solidarity

42.25-42.29	20	C 2 was able to repeat target word	C 2: "Longmire" (gives thumbs up).	Clinicians	Linda says, “Longmire” followed by a thumbs-up—indicating she got the word out (after a DM from clinician)	Self-deprecating humor invite humor to deflect from word-finding difficulty-preserve dignity	Exaggeration/deflect attention after struggling	Managing identity
42.58-43.03	21	Fred and Linda love westerns	Caregiver 1: "Shoot Fred you can move in with her."	Clinicians	Linda and Fred should live together because they both love westerns. (could tolerate eachother)	Bolster togetherness of the dyad	Sarcasm/relatability/joking for likability	Demonstrating likeability
43.40-43.51	22	C2 gives Dr. Scharp thumbs up for liking the show she likes	Dr. Scharp: "XXX"	Clinicians, Dr. Scharp & C2	Dr. Scharp likes westerns too but disagrees with C2 on her TV likes.	Building rapport	?	Demonstrating solidarity
43.59-44.02	23	SC12 replies to C1 stating	SC 12: "Thumbs - down"	Clinicians	Robert’s clinician says “thumbs-	Clients missed the emphasis intended with	Likeability/showing ones likes and dislikes	Increasing likeability

			their wifi doesn't work			down" regarding the WIFI not working.	the thumbs-down gesture-how WIFI not working can be soo frustrating-bolster group togetherness on the matter		
E	27.42-27.47	1	Dream vacation	C 4: "Fitser-cation.. can't say it, fits occasion."	C4	Word-finding	Self-deprecating laughter-preserve dignity	Self-deprecating/laugh at self before others do	Managing identity
	29.37-29.43	2	Shot bear with bow and arrow	SC 6: "You must be good because you don't just want to make him mad. You got to make sure you get him, right?"	SC7	If you don't get the bear—he gets you!	Build rapport	Likeability	Increasing likeability
	29.51-29.58	3	C4 talks about how his friend almost shot him	C 4: "He missed me… to close. And the arrow came right by me."	C4, C5 smiles and clinicians	Transcript is trigger	Silly story to be seen as likeable/funny	Lighten mood/divert from scary situation	Increasing likeability

30.05-30.10	4	Friend almost got him	C 4: "He was too close."	C4	Another opportunity same story-trigger is transcript	Silly story to be seen as likeable/funny	Lighten mood/divert from scary situation	Increasing likeability
30.10-30.18	5	Human vs. Bear rug	SC 5: "I don't think his rug would have been as nice looking. Bears have more fur."	Clinicians and C4	Humans don't make nice rugs! *Abstract thinking	likeable	Pulling chain/joking for likability	Increasing likeability
30.20-30.23	6	Human rug	SC 7: "Richard's skins on the wall… XXX"	SC7	Image is creepy/funny	Fill in from awkwardness	Fill awkwardness	Increasing likeability
30.38-30.40	7	C4 scared of the bear	C 4: "And then you get scared and then XXX ahhhh I'm scared."	C4	"ahhh I'm scared"	likeable	Exaggeration/likeability	Increasing likeability
32.45-32.50	8	Favorite vacation	C 5: "And had ice cream… and a few beers."	C5 and clinicians	Taboo topic-drink alcoholic beverage: beer	Been seen as funny/likeable	Taboo	Increasing likeability
32.50-32.55	9	SC agrees with C5 on her	SC 7: "Sounds like a perfect dinner for a vacation."	C5 and clinicians	Agreement with the taboo items	Building rapport	Relatability	Demonstrating solidarity

		food choices						
32.55-32.57	10		SC 5: "Got a few ice cream cones."	C5 and clinicians	Adding to the humor-adding more taboo items	Building rapport	Taboo	Saving face
33.0-33.02	11	MORE beer!	C 5: "And more beer."	C5 and clinicians	Taboo item Repeated joke missed by most of the participants	Be seen as likeable/funny	Taboo	Increasing likeability
34.20-34.28	12	Pic of C5's vacation that her clinician drew	SC 7: "Did you draw C5 ?" C 5: "No, he did, but it look like me."	C4, C5 and clinicians	Emphasis on "he did"—Josh is seen as silly	Build rapport	Rapport	Increase likeability
35.20-35.30	13	Needs a map	SC 7: "Where did you go? Where's your friend's condo? Do you remember?" C 5: "I don't know. I need a… I can look at my… a map and find it."	C4, C5 and clinicians	Word-finding-needing a Map	Alleviate pressure on the client , and self-deprecating by client to preserve dignity	Take of any pressure	Saving face

36.07-36.12	14	Weather in Mexico	SC 3: "What was the weather like?" C 3:"Weather was perfect." Uses gesture of finger pointed up.	C5 and SC7	Gestured emphasis of finger pointed up to indicate high level of perfection	Demonstrate they are listening/build rapport	Prosody for exaggeration	Increasing likeability
36.14-36.25	15	I like someone who drinks beer	SC 3: "What did you eat or drink while you were there?" C 3: "Beer" C 5: "I like that guy."	C3, C4, C5 and clinicians	Taboo beer topic again and C5 saying he likes C3 because he drinks too	Building rapport with C5, and seen as likeable by C3	Taboo/same repetition	Increasing likeability
36.35-36.36	16	Beer	C 5: "More beer."	C3, C5 and clinicians	Increased loudness of the word beer—continuation of taboo joke	Seen as likeable/funny, taboo jokes are working	Taboo/same repetition	Demonstrating solidarity
36.38-34.52	17	Granola bars!!	C 3: "Fucking granola bars"	C3, C5 and clinicians	Group's knowledge of russ's love of granola bars and how he cannot eat them, use of swear word.	Seen as likeable/funny	Taboo	Demonstrating solidarity

37.05-37.11	18	FISH!	SC 3: "Then tell everyone what you did there " C 3: "Fish fish fish."	C3, C5 and clinicians	Additional emphasis placed on the words/repetition was intentional	Seen as likeable/funny	Exaggeration	Increasing likeability
37.17-37.21	19	C3's clinician holds up the picture of C3's vacation	SC 3: "It's not quite Josh"	C5 and C3 smiles	Comparison of her pic to Josh's (skilled vs. unskilled)	Self-deprecating but also build rapport	Sarcasm	Increasing likeability
37.46-37.52	20	C3's big fish	SC 5: "XXX is this a big fish story?"	C5 and C4	Play on words	Build rapport	Pulling chain/building rapport	Increasing likeability
37.57-38.03	21	Russ's big fish	SC 5: "Bigger than the table?" C 3: "Ohhh fuck"	SC7	Use of taboo language	Not intentional humor-uses this word when can't find other words to say	Taboo	Increasing likeability
38.27-38.35	22	Word-finding	SC 5: "I don't know that many fish." C 3:"Fuuuuck"	C4, C5 and C7	Use of taboo language	Not intended as funny-really struggling to come up with word	Taboo	Increasing likeability
38.40-	23	Client says	C 5: "I understand	C5 and C7	They have all been	Comradery building-we	Comradery	Demonstrating solidarity

38.42		understands difficulty of word-finding	how you feel."		there with word-finding-it stinks. Trying to make light of his situation.	all have problems and we are in it together		
39.54-40.02	24	AAC device use	SC 14:"You are going to tell us yes or no. Are you going to bring a bathing suit to the beach?" C 14: "No" SC 14: "What? No bathing suit for the beach?"	C4 and SC7	Sarcasm of asking "what? No bathing suit for the beach?" versus calling attention to his difficulty in more serious way	Preserve client's dignity	Possible unintentional humor	Saving face
41.33-41.52	25	How Jonathon gets to the beach	Caregiver 14: "We also take one of those snow... one of those plastic snowboards and just lay him down on it and then he rides on it	clinicians	Image of client on the board	Preserve client's dignity/make light of situation	Building rapport/likability	Increasing likeability

			while we take him across…"					
41.54-41.58	26	Jonathon's use of snowboard vs. wheelchair on the beach	SC 7: "I'm sure that goes easier through the sand than the wheels."	C5	Image of getting stuck in sand	Build rapport	Building rapport/likability	Increasing likeability
43.10-43.22	27	SC7 lives by the beach	SC 5: "Thanks for rubbing it in."	C5 laugh and C7 smiles	A lot of people want to live by the beach. Sarcasm.	Seen as likeable/ funny	Sarcasm	Increasing likeability
43.30-43.47	28	Slightly bashing CA	Caregiver 14: "He said why in the world would you go to California if you could go anywhere in the word?"	C5 and clinicians	California is local not exotic, and a lot of Idahoans don't look favorably on CA- overcrowded etc.	Seen as likeable/funny in the group	Sarcasm/bashing	Increasing likeability
45.37-45.45	29	C3 doesn't like rhubarb?	C 5: "… rhubarb" C 3: "Oh shit."	Clinicians and C3 smiling	Use of taboo word	Seen as likeable or funny	Taboo	Saving face

	47.12-47.17	30	Response to C5's list	C 3: "What?" SC 7: "Fridge magnet." C3: "Fuck"	C7	Use of taboo word	Seen as likeable or funny or unintentional	Taboo	saving face
	48.54-49.02	31	Supervising Clinician states there are snacks available	Amy Supervisor: "There are snacks back here Russell. There's no beer."	C5 and C4	No beer included-use of previous joke/taboo	Building rapport	Taboo	Demonstration of solidarity
F	2.17-2.22	1	Favorite place	C 12: "My favorite place is Disneyland. The one in California and not Florida."	C2	C2 laughs at this because Disneyland is more for kids than adults—or just to show she is listening	Inappropriate-should have kept to herself	Thinks something is dumb	Increasing likeability
	2.32-2.39	2	Disneyland love	SC 12: "I love riding rides, eating churros, being with my family."	C6	Description is trigger	Build rapport	likeability	Increasing likeability
	2.40-2.58	3	Disneyworld vs. Disneyland	C 12: "These are better." SC 12: "You think so?	Hear SC1 but see C2 and C6	Thumbs down	Build rapport	Building rapport/fake arguing/disagreeing	Mitigating disagreements

			You like DisneyWORLD?" C 12: "Yeah." SC 12: "No way. It's too big" C 12: "They've got big ones." SC 12: "That's why I don't like it, thumbs down."					
3.41-3.44	4	Looking at a map	C 12: "I've been the other one, yeah."	SC1	Robert is calling large geographical areas "other ones" no definitive names- hard for Kat to follow	Humor in unintentional Clincician fills the awkwardness for herself by laughing	Reply doesn't make sense	Saving face
4.05-4.12	5	Costa Rica	C 6: "But I want to go to the… " SC 1: "Costa Rica" C 6: "Yeah" SC 1: "Let's all go."	Clinicians and C6	C6 says she wants to go to the same place as SC1, and lets all go!	Bolster group togetherness	Relatability/joking for likability	Increasing likeability
5.47-5.52	6	C2 gives Ireland a	SC 12: "C2 gives that a	C6, C2 &c12 smile	Thumbs down-C2 hates rain-	Sarcasm-project herself	C 2 continues to use exaggerated gestures to	Increasing likeability

		thumbs down	thumbs down."		openly express opinions	as funny to be liked	express feelings/joking for likability	
5.56-5.58	7	C12 likes	C 12: "Oh yes!"	C6	C12 has good prosody here	Show himself as agreeable-to be liked In group	Prosody for exaggeration/likability	Increasing likeability
6.02-6.07	8	This will take care of the chill in Ireland	SC 2: "You just put one of those warm Irish sweaters on." C6: "That's what we need."	C6 and SC2	Sarcasm from C6-unusual	Showing herself as funny to be liked—less agreeable causes a reaction	Sarcasm	Increasing likeability
8.52-9.02	9	Picking a point value	SC 6: "Which number do you want?" SC 12: "500" C 2: Points to 500 " SC 6:"500 alright."	Dr. Scharp, SC1 &C2 smiling and nodding head	500 again	Picking large pt. value-bolster group togetherness	Likability/irony for always selecting 500	Demonstrating solidarity
9.20-9.26	10	Select a category	SC 1: "XXX" C 6: "Sure" SC 6: "Pick one. Any one."	SC1	Melanie is trying to pick a category-awkward silence	Awkward laughter to alleviate the client's tension	Fill awkward silence	Saving face
9.42-9.53	11	500 again	C 6: "So over here (points to 500)" SC	SC1 &SC2, Dr. Scharp	Selection of 500	Bolster group togetherness	Likability/irony for always selecting 500	Demonstrating solidarity

			6: "Alriiight, bring it on. 500." C 6: "A part in that."	and C6 smiles				
10.35-10.39	12	Are you cheating?	SC 2: "We see you not looking, very honest, very good."	Clinicians, C6 & Dr. Scharp	SC2 jokes about C6 trying to see their board	Bolster group togetherness	Joking for inclusiveness	Increasing likeability
20.06-20.17	13	Take a stab? With scissors!	SC 6: "C6, do you want to take a stab, at a guess. No pressure" C 6: "With scissors, no just kidding."	Clinicians and soft laugh from C6	Stab=with scissors--sarcasm	Deflect tension from answering the question	Sarcasm/divert attention	Saving Face
23.40-23.45	14	Grocery store is the answer	C 12: "Does it matter? C 6: "Good point."	C6	Both sarcastic comments from Robert first and then Melanie	Want to be done with activity and using humor to deflect tension	Sarcasm	Mitigating disagreements
25.40-25.51	15	500 again	SC 6: "And C2, what number?" C2 selects 500	Hear SC1, Dr. Scharp and C6 smiles	500 pts selected again	Bolster group togetherness	Likability/irony for always selecting 500	Demonstrate solidarity
25.56-	16	Tied.. unless someone	SC 6: "Okay we're set. Unless we	C6 & C2	Two teams are tied—but a small	Reduce competition	Lighten the competitiveness	Increase likeability

26.05		gets a daily double	can find the daily double... which there is."		chance of breaking tie if get a daily double			
26.44-26.47	17	Earning points	SC 6: "Cause I'm on that team I can call it… just kidding."	Clinicians and C2	SC12 calls out that the student leader, is on the team who's currently taking a turn	Competitive banter- bolster group vibe	Playing a joke for likability	Increase likeability
32.16-32.30	18	Sauerkraut vs. hashbrowns	SC 1: "Who did thumbs down on hash browns? Linda! You can have my sauerkraut and I can have your hash browns."	Substantial group laughter, C2's husband blocks camera, C2 and C6 smile	People traditionally like hash browns more than sauerkraut	Building rapport	Sarcasm/irony/exaggeration of dispute	Increase likeability
34.26-34.30	19	Info about Robert	SC 6: "Robert has a lot of caffeine."	Clinicians	Funny detail about Robert- prosody indicated humor	Bolster inclusion of client	Exaggeration for likeability	Demonstrating solidarity
34.38-	20	Word-finding moment	C 6: "He takes t-pancake in	C6	Word-finding	Self-deprecating laughter-take	Laugh at self before	Saving Face

	34.45			the mor- (mumbly)"			tension/pressure off	others/self-deprecating	
	36.03-36.10	21	All done!	C 2: "We did it? Ohhhhhh"	Clinicians and C2 and C6 smiles	Happy to be done	Bolster group success/togetherness	Sarcasm	Increasing likeability
	40.04-40.10	22	All winners	SC 6: "Alright we're all winners here."	SC1 & SC2 and C2 and C6	Happy to be done with the session	Bolster group togetherness	Likeability/supportive	Demonstrating solidarity
	40.11-40.18	23	We are all winners	SC 6: "Well thanks for all playing. I'm just going to say, I think we're all winners and I'm not going to keep score."	Clinicians only	Not keeping score—hard task for the clients	Bolster group togetherness	Likeability/supportive	Demonstrating solidarity & increasing likeability
H	2.20-2.37	1	C3's name was misspelled on the board with one "L"	SC 3: "Will you put an extra L on his name?" SC 4: "They spelled it wrong. That's much better. I'm glad we fixed that."	C5 & C7	C3 gets up from his chair in somewhat of a dramatic fashion	Viewed as likeable or funny or likely this was just important to him	Frustration over misspelled name/fixated/potentially not intentionally funny	Saving face

2.46-2.52	2	Tank mechanic is not the best job in the military	C 4: "Mechanic, tank mechanic" SC 5: "Oh you were a tank mechanic? Oh, that's your problem."	C4	Both conversational partners understand this position	Building rapport	Pulling chain/sarcasm	Increasing likeability
3.09-3.15	3	Leader making a joke	SC 7: "So you can make the tank and Russell can put the bomb somewhere." SC 5: "Yeah"	C3 nods head and C4 laughs	Play on knowledge of each other in a funny visual schema	Bolstering group togetherness	Use of previous knowledge/rapport building	Increasing likeability
3.16-3.29	4	Continuation from number 3	SC 5: "We got ammo, we got mechanic, someone’s got to drive it You can drive it. Alright you can drive it. C3 will load the bomb."	C3 and C4	Same as above	Bolster group togetherness	Use of previous knowledge/rapport building	Increasing likeability

3.38-3.41	5	C4 has seen Family Feud but never played it	C 4: "I've watched it."	C4	C4 laughs after his comment	Perceived as funny-don't think he's nervous about playing	Awkward inappropriate laughter/default	Increasing likeability
9.30-9.39	6	Client laughs at personal word finding attempt	C 7: "I- (shakes head no) air - matress"	C7	Self-deprecating-laugh before others do	Deflect awkwardness/ tension	Laugh due to frustration when struggling	Managing identity
10.45-10.56	7	Hot air balloon is not on the list	SC 4: "Hot air balloon, is that right? That is an awesome one, but it's not on the list. But I think that's a X, they should have thought of that because hot air balloon is perfect."	C4 and C3 is smiling	"it's not on the list" the group thinks the list is bogus	Bolster group togetherness	Leading clinicians is placating- good but not on the list	Saving face
11.06-11.20	8	Air compressor guess	SC 4: "Air compressor … that's a good one. Again, it's	C3	"not on the list"	Bolster group togetherness	Leading clinicians is placating- good but not on the list	Saving face

			not on the list, but it should have been." C 5: "No" SC 5: "I'd like to know the XXX"					
12.30-12.38	9	Blimp	C 7: "Blimp" SC 7: "We're getting obscure on you." SC 4: "No, I like it, I'm trying to think if I can tie it into one of these. And I mean it's close"	SC7	"no I like it" This isn't funny but this clinician laughs a lot.	Bolster the clinician's efforts and demonstrate she appreciates her efforts	Clinician just laughs to appear friendly	Increasing likeability
12.55-13.00	10	SC 4 is trying to give the group a point	SC 4: "Floaties…. A blimp's like a floatie. Yes, I am counting it."	C4	Blimp and floatie are funny words and the discussion of including them in something is bizarre	Building rapport	Stretching to give points and credit to clients	Saving face
14.12-14.32	11	C3 cannot stand his name	C 3: Points to board SC 3: "Oh you want me to	C3 & C4	Childish to respond that way but the client was	Client wants to be viewed as likeable/funny	Another fixation with misspelled	Saving face

		being misspelled	fix your… " C 3: "Name." "Okay, can I do it in a minute?" "No" Unknown speaker: "I'll do it" Caregiver of client 14 fixes name C 3: "Yes."		doing it on purpose	-this got a previous reaction	name on a different board	
18.30-18.43	12	Afraid of dentists	SC 4: "Great one. Raise your hand if you're afraid of dentists?" SC 3 raises hand and says, "And I'm married to one."	C4 and SC7	"And I'm married to one."	Clinician wants to be viewed as funny Group togetherness	Irony	Demonstrating solidarity
20.00-20.06	13	Black widows (things people are afraid of)	SC 4: "Black Widows, YES, number 1 on the list." Holds list up and moves the paper in excitement	C4 and silent laughter C3	Gesture—plus black widows are hated by most	Bolster group togetherness by being excited about their efforts	Exaggeration with gesture	Increasing likeability

20.13	14	All spiders are scary	SC4:"I'm just going to write spiders!"	C4	Intonation carried this one in the word "spiders"	Clinician wants to be seen as likeable/funny	"Laziness" to not write entire word	Increasing likeability
21.35	15	Things that scare you	Talker?: "I thought it would be on the list"	clinicians		unclear	Fill silence?	Saving face
22.05-22.15	16	Things that scare you	SC 4: "Dogs…. It's a good answer but not on the list."	SC5	"not on the list" Repetitive trigger	Bolster group togetherness	Leading clinicians is placating- good but not on the list	Saving face
22.49-23.02	17	Things that scare you	SC 4: "Gun, nope."	SC5 & 7 and C4	Said "Gun" but then immediately said "no it doesn't"—in Idaho	Seen as likeable/funny	Bluntness of "nope"	Saving face
23.10-23.18	18	Things that scare you	SC 4: "Dark, number 5 on the list."	Clinicians	Amused by answer	Bolster group togetherness-	Likeability	Likeability
23.56-24	19	Scary things	SC 14: "A dentist is another person…. I'm just saying." SC 4: "Ehhh that's true, valid point."	C4	Repeat of past joke	Seen as likeable, funny to repeat a joke	Reference to joke made prior/irony	Increasing likeability

24.12-24.14	20	Bosses are scary	SC 4: "And their boss" C 4: "Boss"	C4	Just about everyone can admit to being afraid of their boss at one point	Perceived as likeable or funny	Not expected but makes sense	Increasing likeability
24.35-24.42	21	What you bring on a date	SC 4: "On a date, what you would bring." SC 7: "Keep it clean C3"	C4	“keep it clean C3”	Be seen as likeable or funny-by including perceived universal understanding of client included in joke	Application that C3 always has taboo responses	Increasing likeability
26.57-27.13	22	One group overhears the other	C 14: "Credit card" SC 3: "Ooo!" SC 4: "No cheating." SC 14: "You can't take it."	C4	Concept of cheating in this atmosphere is highly unlikely	Bolster group togetherness	Joking by saying they may cheat	Increasing likeability
28.32-28.45	23	Bring on a date	C 7: "Flowers"	C4	Unclear-maybe because the speaker is a woman-untraditional to bring flowers	encouragement	Inappropriate laughter	Saving face
28.52-	24	Beer on a date	SC 4: "Susan,	C4 and C3	Taboo related to	Seen as likeable and	Taboo/running joke	Demonstrating solidarity

28.57			what's something you would bring on a date?" C 3: "Beer" SC 4: "I know what C3's bringing."		bringing beer and tying the knowledge of C3 in	funny, 2nd should be building rapport		
29.17-29.23	25	Someone else is bringing beer	SC 4: "C3 I know what you're going to say so go ahead and say it." C 3: "Beer" SC 4: "Russ is bringing beer on his date."	C4 and C5	Beer on a date	Building rapport	Taboo/running joke	Demonstrating solidarity
29.57-30.09	26	Number one answer	C 5: "I'll say makeup" SC 4: "Makeup" SC 5: "XXX" SC 4: "Lipstick yes, lipstick is the number one answer."	C4	Odd that lipstick is number one	Expressing his disagreement with the answer	Unexpectedness of #1	Saving Face
30.47-30.50	27	C4 thinks lipstick is a bad answer	C 4: "We'll take a vote"	C4	Doesn't agree with answer	Seen as likeable/funny	Laugh at own unknown joke?	Increasing likeability

32.53-33.01	28	Bingo!!!!	SC 4: "Nice outfit, number 9" C 5: "BINGO!"	C5	Prosody when Susan says Bingo	Bolster togetherness of group	Prosody	Increasing likeability
33.31-33.36	29	Take dad on a date	C 5: "I want to take my father."	C4 & C5	No one would want to take their father on a date	Perceived as likeable/funny	Sarcasm	Increasing likeability
34.01-34.08	30	Things to take on a date	SC 4: "Number 7, this one's funny…. An excuse to leave"	C4	A lot of people "bring" these	Seen as likeable/funny	Unexpectedness of response	Increasing likeability
39.38	31	Bombs are loud	SC 4: "Bombs aren't on the list, but they should be"	C7 smiles	Talked about bombs in group prior	Bolster togetherness of group	Referencing previous joke	Increasing likeability
41.37-41.38	32	For the tie	SC 4: "And that ties it up."	C5	Prosody	Bolster group togetherness	Prosody	Demonstrating solidarity
42.03	33		SC 7: "What… XXX?"	C4	Prosody	Be seen as likeable/funny	Prosody	Saving face
42.22-42.28	34	Never on the list	SC 4: "It's not on there." C5:"Are you kidding?"	SC5 MO-repeated joke	Repeat of every guess is not on the leader's list	Bolster togetherness of the group	Prosody, frustrated for not getting one	Saving face

42.39-42.45	35	Never on the list	SC 4: "Dogs. It's good but it's not on here."	SC14-camera angle is bad		Build rapport	Leading clinicians is placating- good but not on the list	Saving face
43.08-43.17	36	Who is winning now?	SC 4: "Train, number 9 on the list. Team Richard, Team Susan just pulled ahead. They came from behind."	Clinicians only	verbiage	Bolster group competition/togetherness	Praising one group	Demonstrate solidarity
43.20-43.22	37	Play on words	SC 5: "Carrying the weight of this team."	SC14	verbiage	Building rapport	Sarcasm	Increase likeability
43.42-43.47	38	Touching his head… mimicking a mind reader?	C 4: "Let's figure out what this is." (with thinking gesture)	C4	gesture	Seen as likeable/funny ,in this case he knows the answers	Laugh at own unknown joke?	Increase likeability
43.58	39	Never on the list	C 4: " Not on here, huh?"	C4	Sarcasm/repeated joke	Seen as likeable/funny	Leading clinicians is placating- good but not on the list	Saving face
44.19-	40	More loud items	SC 4: "Okay, a Harley Motorcycle."	C5 and C7 smiling	Well known that Russ	Seen as likeable/funny	Previous knowledge of client	Demonstrating solidarity

	44.57			C 5: "Loud." SC 4: "It is very loud, but not on the list."		likes motorcycles			
	45.58-46.02	41	Same as above	SC 4: "Whistle." C3 says a whistle. Noooo!"	C4	prosody	Seen as likeable/funny	Prosody	Increasing likeability
	47.19-47.34	42	In-laws	SC 4: "Okay this last one's really funny. Number 8: "In-Laws"	C4 and C5	A lot of people can relate to in law difficulties	Bolster group togetherness	Relatability	Increasing likeability
J	4.50-4.54	1	Helping group member find a word	C 12: "You know it."	Dr. Scharp	Transcript follows the leader asking if everyone was ready to start the session-client's response taken as friendly sarcasm but really giving encouragem	Actual intention was to encourage fellow member	Inappropriate laughter/misunderstanding	Increasing likeability

					ent to a fellow peer			
5.12-5.26	2	Two clients talking about animal preferences	C 6: "I prefer dogs." C 12: "But do you have your horse too?" C 6: "I don't have that either." C 12: "Then what do you do?"	C6	C12's continued questions about whether C6 has a horse	C6 is trying to alleviate pressure of not understanding what Robert is asking-feeling awkward	Confusion/awkwardness	Saving face
5.45-5.50	3	C6's' dog	C 12: "That's nice." C 6: "Yeah, I love him"	C6	Continued awkwardness of conversation	Suppress awkwardness	Confusion/awkwardness	Saving face
6.56-7.02	4	We get what it's like to have kids	C 2: Oh boy... oh boy" C 6: "That'll keep you busy." SC 6: "I know"	C6	"Oh boy oh boy".underlying understanding of what it's like to have kids	Unity/relatable	Joking for likeability/relatability	Demonstrate solidarity
7.13-7.27	5	Niece dresses like troll doll	SC 12: "And she loves trolls, that's the little thing she has. She bought a matching dress with	C2& C6	Visual image of child dressing like her doll-cute factor	Seen as likeable with clients through sharing silly image	Likeability	Increasing likeability

			her troll's doll."					
8.26-8.47	6	Continued category of someone who is special to you	SC 1: "He catches lobster and fish." C 2: "Ooohh!" SC 2: "Does he bring them home to you? " SC 1: "Oh yeah we eat them all the time." SC 2: "Just call us when dinners ready."	Clinicians, C2 and C6	"Call us when dinner is ready!" None of them live close to her brother who has the lobsters.	Bolster group togetherness	Likeability	Increasing likeability
23.22-23.38	7	C6 gesturing "licking" ice cream	SC 6: "Want to show them how you eat it?" C 6: "Yeah sure show us" SC 6: "You show us!" C 6:"No, you" SC 6:"Let's both do it. Let's get ours out, ready? We lick it."	C2 and C6	First C6 tries to make her clinician do the gesture. Then C6 exaggerates her facial expressions.	Self-deprecating—preserve dignity of having to gesture "licking" in front of group"	Laugh at self to cover embarrassment	Managing identity

24.33-24.39	8	Who got the answer	SC 12: "Who can tell me what it's called?" Mumbling SC 12: "Linda got it."	SC1	Shouting Linda got it!	Build rapport	Likeability/filling space	Increasing likeability
25.20-25.29	9	SC trying to help with word-finding	SC 12: "We all scream for _____ … ice-… Ice..." C 23: "Ice cream"	C6	Word-finding method of assistance	Preservation of client's dignity-	Laugh to fill awkwardness of when another is struggling	Managing identify
25.43-25.56	10	Leader hoarding Bingo chips	SC 2: "She doesn't trust us with those, one at a time."	Clinicians	Leading clinician was holding the bingo chips-they are all adults and could have them on table	Building rapport	Sarcasm/building rapport	Increasing likeability & Demonstrating solidarity
27.38-28.47	11	Continued joke about hoarding the chips	SC 12: "Robert got it." C 12: "But I didn't have anything." SC 12: "Well here you go." C 12: "Oh	clinicians	Sarcasm that the clinician leader is now "giving the chips away" by having them	Seen as likeable or funny	Sarcasm	Increasing likeability

			XXX giving them away."		available to the players			
33.04-33.28	12	Linda has many talents	Caregiver 1: "You outta know that one… yeah… they spent 13 years on the water in the ocean." SC 1: "I didn't know you were a truck driver and " SC 12: "A sailor"	Clinicians	Astonishment that Linda has secret talents the group was unaware of	Building rapport	Showing support/likeability	Demonstrating solidarity
36.46-36.52	13	Linda wants an ink dobber	SC 2: "She just wants one of those stamper thingys instead of these little things." (gesture used)	C2 and Dr. Scharp	gesture	Seen as likeable/funny	Covering “complaint”	increasing likeability
38.01-38.10	14	Competitiveness	Caregiver 1: "Awh that didn't help him." SC 2: "Oh good."	C2	Good that word “watermelon” didn’t increase points	Bolster group unity through competition	Joking for likeability	Increasing likeability

					because SC2 is on the opposing team			
40.31-40.45	15	Stacking the cards	Caregiver 1: "I was going to help you Fred, I was going to give this one to someone to be next." SC 2:"Oh she's stacking the cards"	C1 and C2 smile	Friendly banter about cheating	Bolster group unity through competition	Joking for likeability	Increasing likeability
41.10-41.23	16	And the winner gets a…	SC 6: "I'm pretty sure I just got … " SC 12: "Cassidy got BINGO!" SC 2: "Yaaaay!" SC 12:"Guess what? You get this baseball picture?" SC 6: "Should we do a runner up?"	clinicians	Not an exciting prize for winning--sarcasm	Bolster group unity through competition	Sarcasm	Increasing likeability

44.59-45.10	17	C1 is done playing	C 1: "A bee (yawn)…. A bee a bee" SC 12: "A bee what?" C 1: "A bee hive!"	C1, C2 and C6	C1 is tired and over the game—rise in volume with the yawns triggers the laughter	Used humor as a way to indicate he wants the clinician to stop asking him questions	Identifying lack of interest/show he was done with the activity	Saving face
46.38-46.41	18	Gesture of itching due to hives	Caregiver 1: "Well if it was on there (point to BINGO board), but it could be here (point to hands)"	clinicians	Itching with hives-isn't truly funny but everyone can relate	Care giver wants to be viewed as funny/likeable to group	??	Saving face
46.55-47.10	19	"Frogs eat bugs and we eat frogs"	C 1: "Lives in the water. He eats bugs and he likes… We eat them." Caregiver 1: "We eat him." SC 12: "Okay… he eats bugs, we eat him."	C1	Eating Frogs is a non-traditional American food item-often thought of as "gross"—and the play on words	Caregiver and clinician want to be viewed as likeable/funny	Play on words/confusion regarding people eating frogs	Saving face
47.20-47.40	20	Husband and wife banter	SC 2: "But I wouldn't eat them." Caregiver 1:	C1	Banter between Fred and his wife	Not intended as funny—	Sarcasm/pulling chain/joking for likeability	Demonstrating solidarity

			"You gotta, it's a delicassy." SC 2: "Some people eat frogs" Careiver 1: "Frog legs" C 1:"I eat them, they're good." Caregiver 1: "Well they do, they, they jump around in the pan." C 1: "No they don't, they take care of that."		(knowledge of their relationship)			
48.22-48.30	21	Good… or just alright?	SC 12: "Are they yummy?" C 1: "They're alright."	C6 and C2	C1 changes his mind from that he likes frogs to "they are alright." He does this often.	Not intended as funny	Contradiction of clients words	Saving face
49.40-49.59	22	Baseball or basketball?	SC 12: "What is it C1 ?" C 1" B- BINGO" SC 12:	C1	C1 doesn't want to work harder to say the right	Deflect from how much client wants to be done with the activity	Identifying lack of interest/show he was done with the activity	Saving face

"What is it?" C 1: "A baseball" SC 12: "Not a baseball" C 1:"A basketball"	word… sighs because he is done with the game.