THE MEMORY BOOK AS AN AUGMENTATIVE TOOL TO INCREASE UTTERANCES IN ALZHEIMER AND TYPICAL ELDERLIES

A thesis submitted to the

Speech-Language Pathology Program

of Universidad del Turabo

in partial fulfillment of the

requirements for the degree of

Master of Science in Speech-Language Pathology

in the School of Health Sciences

by

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May, 2015

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THE MEMORY BOOK AS AN AUGMENTATIVE TOOL TO INCREASE UTTERANCES IN ALZHEIMER AND TYPICAL ELDERLIES

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ABSTRACT

This study measures and describes changes in utterance productions of Alzheimer's patients in comparison with typical elders when exposed to a Memory Book.

The data was obtained throughout a pre-post intervention design with four treatment sessions. The participants recruited for this research was a typical elder and an Alzheimer's disease elder of 60 years of age or more. The researcher described each participant's productions in terms of: 1.) amount of utterances, 2.) length of utterances, 3.) on-topic and off-topic responses, and, 4.) the use of grammar elements (adjectives, verbs and substantives). The results of this study concluded that the use of the Memory Book increases and improves utterance production in typical elders and in Alzheimer's disease elders. It is important to implement treatments that help improve communication between elders and family, preventing frustration, anger and depression (Weiner, 1996; Orange & Colton-Hudson, 1998; Small, et. al, 1998).

DEDICATION

I dedicate this research first of all to God, my family and husband for their unconditional support. They have guided me, accompanied me, and given me the strength needed to reach my goals. I also dedicate this research to all elders, who once remembered, and talked about their family and friends with much love and today they are far away from their memories, to all Alzheimer's disease patients and to all elders in general who give us love and support our life's. Last but not least, I dedicate this to Dr. María Centeno, for her patience and trust, for her guidance and support. Thank you all for being part of this process and for being a vital part of my life.

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CHAPTER I

INTRODUCTION

Alzheimer's disease is an irreversible, progressive brain disease that slowly destroys memory and thinking skills and, eventually even the ability to carry out the simplest tasks of daily living (NIH, National Institute of Aging, US Department of Health & Humans Services, 2010). Alzheimer's disease is the most common cause of dementia among older people. Dementia is a common consequence of several degenerative central nervous systems diseases; it is marked by diffuse impairment of memory, intellect, and cognition (Brookshire, 2007). The World Health Organization (a specialized agency of the United Nations with primary responsibility for international health matters and public health) defines dementia in the International Classification Of Diseases (ICD-10) as a syndrome due to disease in the brain, usually of a chronic or progressive nature, in which there is disturbance of multiple higher cortical functions, including memory, thinking, orientation, comprehension, calculation, learning capacity, language, and judgment. Impairments of cognitive function are commonly accompanied, and occasionally preceded, by behavior, or motivation. Dementia produces an appreciable decline in intellectual functioning, and usually some interference with personal activities of daily living, such as washing, dressing, eating, personal hygiene, excretory and toilet activities (ICD-10; World Health Organization, 1992).

According to the law of Puerto Rico "Ley Habilitadora para implantar el Plan de Alerta Silver" of 2009, approximately 70,000 elderlies, suffer from Alzheimer's disease (AD). In the United States an estimated 4.5 million Americans suffer from AD in the year 2000 (Herbert, Scherr, Bienias, Bennett, & Evans, 2003), there were an estimated 411,000

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new cases of AD. For 2010, that number was estimated to be 454,000 (a 10 percent increase); by 2030, it is projected to be 615,000 (a 50 percent increase from 2000); and by 2050, 959,000 (a 130 percent increase from 2000) in the United States. By 2025, the number of people age 65 and older with Alzheimer's disease is estimated to reach 6.7 million, a 30 percent increase from the 5.2 million age 65 and older currently affected. By 2050, the number of people age 65 and older with Alzheimer's disease may triple, from 5.2 million to a projected 11 million to 16 million, barring the development of medical breakthroughs to prevent, slow or stop the disease (Hebert et al., 2003). AD can manifest itself in many ways, some of the symptoms include language problems, changes in behavior, and the most common and primary symptom of AD is memory loss (Alzheimer's Disease Education & Referral (ADEAR) Center, National Institute on Aging). AD consists of three main stages: the early stage, moderate, and severe. In the early stages of AD, people often have memory loss and small changes in their personality. They may forget recent events or the names of familiar people or things. In the moderate or middle stage of AD, here memory loss and confusion become more obvious. People have more trouble organizing, planning, and following instructions. In this stage of the disease they might have trouble recognizing family and friends, they may not know what day or year it is. In the third stage, people often need help with all their daily needs. They may not be able to walk or sit up without help. They may not be able to talk and often cannot recognize family members. They may have trouble swallowing and refuse to eat. (National Institute on Aging, 2009).

Besides memory loss in elderly due to AD, or other dementias, we can also find age related memory decline in typical elders. Concerns of declining memory ability are one of the top complaints in older adults (Levy-Cushman & Abeles, 1998). Even in the absence of

a diagnosable disorder of cognition, the perception of increased forgetfulness and declining memory function is a clear source of distress, embarrassment, and low self esteem in the elderly (Onhof, Wallhagen, Mahner- Imhof, & Monch, 2006). According to the National Health Institute (NHI), memory loss is unusual forgetfulness. You may not be able to remember new events, recall one or more memories of the past, or both. In normal age related memory decline, a person may have problems learning something new, or may need more time to remember things. Some characteristics of what can be considered as normal age related forgetfulness could be; forgetting where you left things you use regularly, such as eye glasses or keys; forgetting names of close people, like family members or friends; forgetting a doctors appointment; or not quite being able to say something that you may have "on the tip of your tongue". The characteristics mentioned before, are some of the experiences with memory dysfunction in elderly adults with normal age related memory decline. In both cases communication can be severely damaged due to the memory impairment. This can be very difficult not only to the person suffering the dementia or memory decline, but also to the family members and caregivers. An individual with AD communication impairment is characterized by difficulties in word finding, production of meaningless sentences, and fewer utterances, than normal ageing individuals.

The American Psychological Association has established in an information brochure titled "Older Adult's Health and Age-Related Changes: Reality Versus Myth", a numerous of normal changes older adults may go through. Some of these common age-related physical changes include hearing impairment, weakening vision, and the increasing probability of arthritis, hypertension, heart disease, diabetes, and osteoporosis. Hearing loss affects approximately one-third of adults 61 to 70 years of age and more than 80 percent of those older than 85 years. Hearing loss impacts communication and functional ability, it

may be under recognized because of its slow development, Dickson & Walling, (2012). According to the National Eye Institute, as you age, you are at higher risk of developing age-related eye diseases and conditions, such as: macular degeneration, diabetic eye disease, cataract, glaucoma, low vision and dry eye. Age-related macular degeneration is a disease that gradually destroys sharp, central vision. A cataract is a clouding of the lens in the eye. Glaucoma is a group of diseases that can damage the eye's optic nerve. Dry eye occurs when the eye does not produce tears properly.

According to the American Speech- Language and Hearing Association (ASHA) in their Position Statement: The Roles of Speech-Language Pathologists Working With Individuals With Dementia-Based Communication Disorders, Speech Language Pathologists (SLP's) play a primary role in the screening, assessment, diagnosis, treatment, and research of cognitive communication disorders, included those associated with dementia. SLP's are knowledgeable about normal and abnormal neurological functioning and related aspects of communication (American Speech-Language-Hearing Association, 2005). Some of the roles of the SLP's working with communication and dementia are: identification of people in risk of dementia, administration of an appropriate approach, intervention, researching, and other important roles. It is important to provide effective communication skills to patients suffering any kind of memory loss or memory decline, due to our dependence on communication, to accomplish most of life's tasks (Ostuni & Santo, 2003).

There are many ways to help a patient with memory decline to improve communication. Some can be the following examples; making changes to the physical environment; regulating stimulations, such as visual and tactile; enhancing positive social interactions; using different augmentative and alternative communication (AAC) aids. An

example of AAC could be; written choice techniques, which can be originally developed using print or pictures to provide communication choices and needs of the patient, like memory wallets, memory cards and labels (Beukelman & Mirenda 2007; Ostuni & Santo, 2003; Weiner, 1996). Family and caregivers often use different communication strategies with their loved ones. Some of the most used are the following: elimination of any distracters, like television or radio; the use of short and simple sentences; the use of "yes or no" questions rather than "open/ ended" ones; and many other ones (Small, Gutman & Beth, 2003). All of these strategies mentioned before, although they are very popular used among family and caregivers, they have not been proven to actually work and improve communication (Small & Gutman, 2002). Other memory aids used by family care givers for those with memory loss are computerized reminder systems, delivering reminders of events, appointments and tasks on the basis of time (Goodman, Brewster & Gray, 2002).

The memory wallet is a memory aid that has been used in AD patients; it is a portable aid that includes personal information and photographs (Ostuni & Santo, 2003). Another memory aid is: the Memory Book (MB). The MB is designed to provide information that the person has trouble remembering (Bourgeois, 1990). The MB was created to stimulate dialogue between people with dementia and their caregivers. The MB involves the assembly of current, pertinent information about the person of his or her present surroundings. The MB also includes references to events and pictures from the past: information of who the person is and was before the illness. The information written or printed on the MB of the pictures or events should be simple sentences (Ostuni & Santo, 2003). The MB has shown an increased in production of utterance, and it has showed a great potential facilitating communication skills (Andrews, Cameron, & Roy, 2003; Hoester, Hickey & Bourgeois, 2001). It consists of visual cues in form of pictures and

sentences related to the picture, which will help the person recall for example, names, events, and places. The MB will provide the necessary aid to improve and enhance communication length utterance, between the patient suffering the memory problem and family and caregivers (Andrews et al., 2003).

Research Problem

The development of memory decline in AD, affects in many different ways the family members and the patient itself. Mild declines can go by unnoticed by family and friends, but when this memory decline starts to become more noticeable it can frustrate, anger, and sometimes depress them (Weiner, 1996; Orange & Colton-Hudson, 1998; Small, Geldart, Gutman, & Clarke Scott, 1998). The most commonly identified stressors within family and caregivers in AD are memory deficits, loss of ability to communicate, and gradual decline of a loved one (Williamson & Schulz). The individual, who suffers of AD, may become limited in his communication. Individuals with AD have well-documented language deficits that impede satisfactory conversations with their family and friends (Fromm & Holland, 1989). They forget words; they have difficulties remembering names of places, people and events. They also forget what to do and do not complete tasks. They tend to repeat questions, they do not follow instructions and they fail in encoding and decoding verbal stimuli (Bourgeois, 2002). They may not find the necessary words to express their ideas or needs. According to Michelle Bourgeois, when this occurs it is important to provide supports that the individual can use to convey the accurate message (Bourgeois, 2007).

Our research aim was to address communication impairments, which are produced in Alzheimer's patients in the middle stage of the disease. A MB was used to measure and describe changes in utterance productions of AD patients in comparison to typical elders.

Research Purpose

The purpose of this research was to measure and describe the changes in utterance productions of Alzheimer's elders in the middle stage of the disease in comparison to typical elders when exposed to a MB.

Hypothesis

The hypothesis of this investigation was that the use of a memory book would help increase changes in the amount of utterances produced by the participants.

Justification

ASHA establishes that it is important to provide effective communication skills to patients suffering any kind of memory loss or memory decline, due to our dependence on communication, to accomplish most of life's tasks. It is important to implement treatment skills that will improve communication. Memory loss can deteriorate the ability to communicate among family and caregivers. Alzheimer's elders that over go through memory decline need memory aids that will help them maintain their communication skills. By helping them improve communication we can prevent frustration, anger and depression.

Variables

An independent variable in this research was the use of the MB by the AD and typical elders in the time not being treated by the investigator. This was an independent

decision of each of the participants. The dependent variable was the changes in utterance productions in response to the use of the MB in between each treatment session.

Theoretical Frame

The theoretical frame for this research was based on the constructivist theory. This theory assumes that the learner will generate his knowledge through experienced-based activities (Roblyer, 2006). The MB therapy sessions helped the participants generate and regenerate information that helped them improve utterance productions and in turn, improve communication.

Chapter II

RESEARCH PURPOSE

The purpose of this research was to measure and describe the changes in utterance productions of Alzheimer's elders in the middle stage of the disease in comparison to typical elders when exposed to a MB.

LITERATURE REVIEW

The dementia in Alzheimer's disease patients is divided in different stages. This classification begins with the early stages, followed by the middle stages also known as the moderate stage and, at its worst stage, is the late or severe one. In the early stages speech communication is not that affected since phonology, syntax and articulation is well preserved (Brookshire, 2007). AD individuals tend to have just a few grammatical errors and their speech in comparison to a normal elderly speaker is almost the same (Brookshire, 2007; Kempler, Curtis & Jackson, 1987). In the early stages of AD the person has typical conversation skills. Moving on into the middle stages of the disease, communication begins to be noticeably impaired. They begin to miss out on words they might want to say, they tend to be less conversational. In this middle stage, worsening of semantic deficits occurs. Also they tend to have difficulties with topic maintenance in conversations, difficulty comprehending complex instructions and tasks. Memory deficits during this stage tend to become worst (Bourgeois, 2002.). In the last stage of the disease, as mentioned by Brookshire communication is severely compromised. Comprehension of spoken material is limited and expressive speech consists of single words and sentence fragments, which lack of meaning and can be very repetitive. At this stage of Alzheimer's these individuals become nonfunctional conversationalist (Brookshire, 2007).

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There are many suggested interventions strategies to help memory decline. These interventions will help these individuals, enhance memory skills and at the same time they will provoke better verbal output, improving communication between them, family and caregivers. Some suggestions are to give visual, auditory and memory enhancing cues. Some visual cues might be: enlarged print, the use of labels to identify, calendars, post it notes and message boards. Some auditory cues are: alarm ringers to remember things they might have to do, and the use of timers. Strategies to enhance memory are: Memory Books (MB), memory wallets (MW), Spaced Retrieval training (SR), Reminiscence Therapy (RT), Augmentative and Alternative Communication (ACC), and more. All of these are made to help increase Alzheimer's patient's communication skills and quality of life, but which one could better enhance expressive communication output?

In SR training, a person has to practice recalling a piece of information over successively longer intervals periods. A number of studies have shown that many people with AD can retain and recall information for a period of weeks to months followed SR memory training (Clare, 2008; Grandmaison & Simard, 2003; Hopper, 2005). In a study conducted by K.E Cherry, S.S & Simmons (2004); they wanted to investigate the long-term effectiveness of the SR techniques for older individuals with probable AD. In order to provide evidence on the effects of long-term benefits of SR training, they re-tested two participants who had been previously exposed to the SR training program 2 years before. The investigators included for comparison purposes two control participants who had not been exposed before to the training. Another aim in the study was to determine if increasing the amount of training sessions provided could have enhanced the benefit of the SR training. The researchers used four adults with cognitive impairments that were from mild to moderate stage of AD. They conducted six one-hour SR training sessions on alternate

days during a two-week period. During the two- weeks they used the same set of target objects as stimuli, this was done to permit direct comparisons in the sessions. The researchers concluded that SR effects are enhanced by the extension of training sessions. In the comparison made between the participants who were exposed previously and those that were not, to the SR trainings, they found no great evidence of the effects of prior training sessions. In general the AD participants benefited from the SR training sessions in the recall of target objects.

Tammy Hopper et al, 2010, conducted a study that reveals great benefits of SR training. The purpose of their study was to assess the effects of SR training on learning of new and previously known associations by individuals with dementia. Adjusted form of SR training was used. The study focused on four primary aims. The first aim was to investigate the learning of a new and previously known but forgotten associations in the SR training. The second aim was to see the effects of tasks during the recall intervals of SR training. The third aim in this study was to see the maintenance of the learning gains achieved during SR training. And the final aim of the study was to investigate the relationship between the severity of the cognitive decline and the learning ability of the participant with dementia. For this study a total of 32 individuals, diagnosed with AD, of whom 25 were females and 7 were males. With their study they concluded that SR training was an effective strategy that can be used to teach individuals with AD new and previously known face and name associations. This study provided more evidence that individuals with moderate dementia can learn and re-learn semantic information under specific treatment conditions and were able to retain the information for a significant period of time.

The RT approach involves discussion of past activities, events, and experiences, with another person or group of people, usually with the aid of tangible prompts such as

photographs, household and other familiar items from the past, music and archive sound recordings. In RT, individuals usually have group meetings in which they talk about past events. They also have individual sessions where they are guided through their life experiences (Woods, Spector, Jones, Orrell & Davies, 2005.)

In a study published by the International Journal of Geriatric Psychiatry, investigator Jing-Jy Wang, 2007, investigated the effects of group RT for cognitive and affective function of demented elderly in Taiwan. The objective of this study was to prove that structured group RT can prevent the progression of cognitive impairment and also that it can enhance affective function of the elderly. To perform this study, a total of 102 elderly people with dementia were used. They were divided into to groups, each consisted of 51 elderlies, and one was used as an experimental group and the other as a control group. They received eight group sessions, one per week, for a period of eight weeks. In each session a different theme was presented, for example: "Childhood experiences", 'Old style music', 'My family', and others. To trig memory; photographs, household, and other familiar items from the past were used. This study demonstrated the effectiveness of group RT; the results support the idea that RT improves cognitive function.

AAC devices are external memory strategies, where low- to high-tech devices may support lexical retrieval or language production. External memory aids include notebooks; wallets; communication boards; calendars; and displays that provide photos, drawings, symbols and words for contextualized, relevant interaction (Murphy & Boa, 2012).

An AAC multimedia communication tool designed to support conversation and social relationships in AD, is CIRCA. CIRCA is a hypermedia-based system where a touch screen database of images, music, and text prompt and support conversation between a person with dementia, his or her care providers, and family (Fried-Oken et al., 2012; Astell

et al., 2010). This approach utilizes hypermedia to address the memory and conversation maintenance problems experienced by people with AD (Astell et al., 2010). This AAC is based on RT. CIRCA provides a range of stimuli to prompt reminiscence among people with dementia in individual or group sessions. In the study by Astell et al., 2010, they recruited 11 people with dementia. The average age of the participants was 83.5 years of age. One of the hypotheses in this study was that people with dementia would initiate topics of conversations more often during CIRCA sessions. The participants received 2 sessions of 20 minutes each and were individual. For the sessions each participant sat with his or her caregiver side by side in front of the touch screen. They were instructed on the use of the system, and then they were left to use it together. They had 3 categories to choose from: entertainment, recreation or local life; they also choose from video, photographs or music. All sessions were video recorded. In conclusion, CIRCA helps support relationship between caregivers and people with dementia providing an engaging conversation maintenance activity (Astell et al., 2010).

Another AAC device is the memory wallet, created by Bourgeois, they are made as a remediation for conversational deficits in AD. Memory wallets contain pictures and written stimuli to prompt factual statements. This external memory aid, has personal information facts that are used during conversation between the Alzheimer patient and a familiar partner. With the use of memory wallets, subjects made more statements and produced more perseverative utterances. Memory wallets have the potential to facilitate and maintain communication skills among people with dementia in conversational contexts, helping them improve their conversations by increasing the amount of intelligible and perseverative utterances (Bourgeois, 1992; Bourgeois & Mason 1996). Bourgeois in her 1990 article publication in the *Journal of Applied Behavior Analysis,* demonstrated in her

study with 3 subjects with middle stage AD, that the use of a communication wallet when conversing with familiar partners increased the number of on-topic statements of fact made during 5 minute conversations and also decreased the number of ambiguous, erroneous, and perseverative utterances said during the same conversation. The purpose of her study was to determine the extent to which her participants, who were in the middle stages of the disease, used the memory aid to provide appropriate statements during conversations. The investigator also wanted to see if the degree of unintelligible utterances were affected by the use of the memory aid. For the investigation, Bourgeois used a communication wallet. In this communication wallet, pictures, prompts, and sentences were written as stimuli. The investigator was assisted by each of the participant's husbands. Two daily treatment sessions were administered. The subjects of study were able to maintained their conversational performances at week 3 and 6 post treatment follow-up sessions. The results of this study investigated by Bourgeois, documented the effectiveness of using written and picture cues to improve conversations of people with dementia.

Bourgeois & Mason (1996) studied the effects of a memory wallet intervention in an adult day care setting. The purpose of their investigation was to evaluate the effects of the memory wallet use on the conversational behaviors of dementia patients. The setting for this study was in an adult day care center. During baseline treatment sessions three general topics were used: family, life, and day. During treatment, the client used the memory wallet to read the written statements and to produce novel utterances. The results of the investigation demonstrated that when the memory wallet was introduced to the AD patients, the number of statements produce increased. These statements were appropriate, and the amount of ambiguous, error, and repetitive utterances decreased during conversations. These results replicate other studies that have been done by Bourgeois.

A MB is also an external memory aid for dementia patients. The use of a MB is a compensatory strategy. This tool targets language expression and comprehension/memory support for persons with middle stage dementia (Bourgeois, 1992). The candidates for this AAC approach should be able to read printed material. MB contains personal information, photographs of family members or familiar locations, printed sentences relating to the person's daily life, or other personal material. The MB provides cues and context for these patients to involve in conversational topics with family and or caregivers (Brookshire, 2007). This increases the number of factual statements made in a conversation (Bourgeois, Fried- Oken & Rowland, 2010). It has been reported that patients who use MB, improve their conversational content. It has been proved that persons who use the MB have showed increased number of utterances during post-treatment conversations (Allen, Bourgeois, Burgio & Dijkstra, 2004).

Allen et al., 2004, in the critical analysis study, *Communication skills training for nursing aides of residents with dementia: The impact of measuring performance,* found that with the use of a MB, improvement of the quality of communicative interactions was observed. Another very important finding, in regards to our future study, was that there was an increase in the quality and quantity of verbal interactions. These interactions were more positive, social and personal conversation.

Many studies with dementia patients have been investigated to prove the effectiveness of the memory aids in enhancing communication skills. MBs help the individual generate conversation using the sentences and pictures that illustrate the life and times of the individual and their family, by triggering long-term memories that are stored in the brain (Wilhelm, 2009).

Bourgeois, Hoerster, & Hickey, have discovered that memory aids help participants make longer utterances in their productions during conversations; increasing their frequency of turns taken in them (Hoerster, Hickey, & Bourgeois, 2001). In this study the authors, investigated the effects of the use of a memory aid, which in this case the one used was the MB, in conversations between the nursing home residents with dementia and the nursing assistants. The study was conducted in a Catholic nursing home, specifically in the participant's room. A MB was used as a memory aid stimuli. The MB's used contained 25 pages of pictures and sentence stimuli. Each one contained individualized information facts in which the participant had memory failures. Each resident was trained in the use of the MB. As baseline in the investigation, participating nursing assistants (NA) participated in 5-minute conversational interactions once a week with the patient. MB was not available in this part of the study. In the fist part of the treatment, MB was introduced. In the second part of the treatment was to try to make the resident produce conversational utterances using the MB as reference. The results of this study demonstrated that all residents had an increase in on-topic statements with the use of the MB treatment; it also helped the participants improve their ability to initiate meaningful conversations with the use of the MB. The number of utterances per turn taken by each pair of communication partners was calculated as an indicator of length of conversational turns. In this study, for most of the communication partners, an increased number of utterances per turn taking were observed when using the MB.

In the study conducted by Andrews et al., 2003, the effect of the use of the MB in individuals with severe dementia was evaluated. In this investigation the authors concluded that the MB facilitates and maintains meaningful interactions even in the case of severe dementia. The use of this external memory aid emphasizes in the remaining communication

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skills (Andrews et al., 2003). For this study, four female subjects with severe dementia were selected. This research was conducted in a residential facility. To construct the MB, information was gathered from family members of the participants. Two topic areas were selected: "My Life" and "My Family". To evaluate the effects of the use of a MB on the communication skills of the severe AD participants, a multiple baseline design across communication behaviors was used. The treatment consisted of six baseline sessions, 6 sessions in which the first topic was presented, and six sessions in which the two topics were presented to the participant. Sessions were conducted three times a week. The conclusions of the study demonstrated the value of the use of a MB to facilitate and maintain meaningful interactions. The use of a MB helped some of the participants increase the number of on-topic facts (Andrews et al., 2003). The suggestions for further research given by the authors include a larger sample of participants to generalize the results, since it was limited to four patients. They suggest a more natural or non-structured conversational environments in the management of the MB. They also suggest the use of visual, tactile, and verbal cues during interventions with the MB.

BASIS AND THEORIES

Constructivism is a theory founded on observation and scientific study about how people learn (All & Brandon, 2010). This theory establishes that learning should be an active process. In this process the learner is going to construct new concepts based on their current or past acquaintances and experiences. In this theory, the learner and the environment are critical factors, learning should occur in realistic settings and the selected learning tasks need to be relevant to the learner's experiences (Ertmer & Newby, 2013).

The instructor should instruct the learner on how to construct meaning and should also align and design experiences for the learner

RESEARCH CONDUCTED IN PUERTO RICO

The research *"Efectividad del Método "Libro de Memorias" a través de la Preservación de los Recuerdos en Pacientes con Alzheimer en Etapa Media"*, was conducted in Puerto Rico. Villanueva, (2011) in her research investigation wanted to determine if with the use of a MB AD patients in the middle stage of the disease were able to improve their communication. She had 3 participants, between the ages of 76 and 84. The MMSE test was administered to all of the participants in the study. The investigator created a MB for each of the participants. Ten questions were developed and used to establish conversation with the participants. The conversation-responses were used to measure effective communication parameters between the interviewer and the participant. The communication parameters measured were: the number of words expressed by the interviewer, the number of related and not related words and phrases expressed by the participant to the questions, and the total number of utterances. The results of this study evidenced that with the use of the MB an AD patient in the middle stage of the disease: can increase the magnitude and effectiveness of communication, and that the content of the MB will also stimulate memory to recall important personal aspects, family and life events. A limitation of this study was the limited amount of AD patients. The author suggested a larger sample of investigation subjects, to obtain significant statistic information of the use of the MB.

Chapter III

METHODOLOGY

INTRODUCTION

Memory loss is a mayor characteristic of AD, which can affect communication skills. Forgetting a person's name, where they are, what they do, forgetting whether they took their pills or not, forgetting a doctor's appointment, are just a few of the implications of the memory loss. Deterioration of verbal communication becomes evident in pauses, word substitution and discourse, vocabulary decreases and irrelevancies increase, and maintaining a topic becomes difficult (Barry, DiSesa, Tappen &Williams, 2001). These situations affect communication for the individual with AD, evoking discomfort in the caregivers, inhibiting their attempts to communicate (Barry et al., 2001). But, what can be done to help these elders? Many methods have been used to trigger the memory of the AD elder. The use of pictures and cues has been studied through out many investigations to help improve memory and communication between the AD elder and family or caregivers.

The use of a MB has been proven to help communication skills of AD individuals. Bourgeois has designed this method, to trigger memories of past events through out pictures, cues, and written sentences. The MB is not an instrument that provides any information to be used to refer, and/or make any diagnostic. Through out this chapter, the process of methodology that will be used to prove our hypothesis in this study will be explained. We will present all of the characteristics required for the selection of our participants, all of the procedures that will be used in this study, our methodological experimental design, and everything else related to our investigation. This study will be based on a pre and post treatment session design that will examine the changes in utterance

productions of AD and typical elders after being exposed to the use of a MB, and compare these changes between the AD elders and the typical elders.

RESEARCH PURPOSE

The purpose of this research was to measure and describe the changes in utterance productions of Alzheimer's elders in the middle stage of the disease in comparison to typical elders when exposed to a MB.

DESCRIPTION OF PARTICIPANTS: SELECTION, INCLUSION AND EXCLUSION CRITERIA

For the selection of the participants of this study, all were able to speak, read and comprehend Spanish. Family members: spouse, children, or grandchildren, needed to be available for the gathering of personal information of the participant and also to participate in the study. The experimental group that was used for this study, needed to have AD in the middle stage of the disease. For qualification purpose the MMSE was administered the participant. To select the participant with middle stage AD, they needed obtained a score between 10 and 26 points in the MMSE. The selection of a control group for this study was based on participants who were typical elders that score between 27 and 30 points in the MMSE. A typical elder was defined in this study as an elder with no conditions associated with memory loss, mental disorders, neurocognitive disorders and psychotic disorders. The elder had functional visual and hearing skills, and had 60 years of age or more. As part of the inclusion criteria the participant or family member must had authorized the video recording of the treatment sessions. Exclusions for any of the selected group of participants for this study included: not being able to speak, read and comprehend in Spanish, family

members who were available, had other conditions associated with memory loss or memory decline such as: traumatic brain injuries, and any type of aphasias; and/or mental, neurocognitive, and psychotic disorders. Other exclusions included any individual with visual problems that had not been improved with any type of surgery and/or eyeglasses; individuals with hearing problems not solved with hearing aids or any surgical procedures and AD elders in the final stage of the disease, AD participants who scored 9 points or less in the MMSE and those who were 59 years of age or less. The amount of participants for this study will be: 1 AD elder in the middle stage of the disease, 1 typical elder, and 2 family members, one per each of the participants whom will receive the treatment sessions. Another exclusion criteria were if a participant or family member did not give the authorization to video record all of the treatment sessions.

ACCESS TO STUDY SUBJECTS

The participants of this study were recruited in a skilled Nursing Home identified in the southeast area of Puerto Rico; the participants were residents.

RECRUITING PROCEDURE

For the recruiting process of the participants for this study, an add or announcement was placed on a bulletin board at the skilled Nursing Home of southeast area of Puerto Rico. The record of those who responded to the add/ announcement was evaluated to determine the eligibility based on the diagnostic of Alzheimer's disease in the middle stage. The Speech Language Pathologist, who provided the service in the Home, provided the record access. The investigator also informed the family members of the AD and typical elders selected.

INFORMED CONSENT PROCEDURE

The investigator produced an informed consent for the elders and family members, in this document the participants authorized their participation in the study and the investigator stipulated all of the parts of the study. The investigator explained the document to the participants (control group, experimental group and family member) in a simple and intelligible vocabulary. The purpose, duration and procedures of the study was stipulated in the document. The investigator was responsible for the explaining of any questions, clarification of any doubts or misunderstandings that the participants had.

IRB PROCEDURE

The investigators summited all the information and documents requested by the IRB committee to process this research.

PARTICIPANTS AND DATA CONFIDENTIALITY

To protect the identity of all of the participants, the principal investigator carried out all of the sessions of the study. The investigator was responsible of transcribing all of the verbal productions, and had access to all documents and information of the participants. Only the first name of the participant was used. All transcriptions of the study sections were digitally filed under lock at the investigators home, consent forms, the authorization form of the video recordings and the name and image divulgation were also stored under lock at the investigators home, after a period of years, following investigation regulations, this information will be destroyed, with the exception of the authorization form of video recording and name and image divulgation, which will be kept under lock for an undefined

period of time after the finishing the investigation. Video recordings, MB's and MAIF were digitally filed as part of this study following investigation regulations for the following five (5) years. After the 5-year period, the video recordings and MB will be kept for an undefined period of time in a digital file of the hard drive of the Department of Health Professionals of the University of Turabo. The Director of the Department will guard this hard drive. The guarding of this information and documents is an inherent part of the tasks and responsibilities assigned as part of the position. The MAIF will be destroyed following the stipulated period of time.

POTENTIAL RISKS OF THE INVESTIGATION TO THE PARTICIPANTS

Some of the potential risks for the participants of this study were: the feeling of invasion in the process of acquiring the personal information needed for the creation of the MB. The participants may have felt emotional frustration if they didn't remember some of the information that was used during the study. Other possible risks to the participants in this study were boredom, anxiety, stress, and other emotional feelings. If any of the mentioned before had occurred, the current session will have been stopped immediately, the investigator will had to proceed to get help from the Home's clinical staff; nurse, doctors, Speech Language Pathologist, and/or caregivers of the facility. If any of the participants had needed psychological attention, they will have been referred to the Center of Psychological Services of a University in the southeast area of Puerto Rico.

POTENTIAL BENEFITS OF THE INVESTIGATION TO THE PARTICIPANTS

Direct benefits from this study that the participants received are: individualized attention, MB training therapy sessions in the possible improvement of cognitive skills. Family members benefit from this study in the acquisition of knowledge of skills that

helped their family member with memory decline. This method benefited the potential communications with their family members, including longer utterance productions, which had fewer errors and were more on-topic.

MATERIALS

The materials that the investigator used for this study were an individualized MB for each of the participants of the control and of the experimental group. The MB consisted of a binder in which real colored pictures were represented and written stimuli was reproduced in font size 28 or more, depending on the participant's visual skills, were produced on white non-lined paper and was protected in protector sheets. The investigator, to gather personal information of each of the participants, produced a Spanish translation of Bourgeois Memory Aid Information Form. The participant and the family member filled out this form with the help of the investigator. A video camera recorder, Nikon P510, was also be used to gather all the information for the data recollection and for the transcription of the treatment sessions and any family interviews. The Mini Mental State Examination (MMSE) was used to determine the participant's eligibility for the study. The MMSE is a screening test to measure cognitive function. Possible MMSE scores range from 0-30 (Gentry & Fisher, 2007). The program Dragon Dictate version 3.0 for Mac was used to transcript the audio into text. EXCEL and WORD programs were used to quantify the communication parameters that were analyzed.

PROCEDURE

This study consisted of a consent form meeting, followed by a family and participant interview to gather the information needed for the creation of the individualized

MB. A Spanish translation of Bourgeois memory aid information form, provided in her 2007 book (Bourgeois, 2007) that was given to the participants and family members to fill out. For this part of the study, family members collaborated providing information and pictures of the participant. The investigator then administered the Mini-mental state examination (MMSE), prior to the first session for qualification purposes. Once all the experimental and control group participants had been selected, the investigator proceeded to the creation of the individualized MB for each of the participants. The collected documents were part of the MB.

The investigator administered a baseline session; in this session the MB was not used. In this baseline session the investigator used questions from the memory aid information form (MAIF) to promote conversation with the participant. The amount of utterance productions was used as the baseline to our treatment sessions in the study. The analysis of the utterance productions included: the amount of utterance productions, the length of the utterances, the on-topic and off topic responses, and the grammar elements in the productions. The first treatment session consisted in the introduction of the MB. In this treatment session the MB consisted of pictures of themselves, home, family members, work and hobbies. In this first treatment session the investigator showed the participant the pictures and asked him or her questions from the MAIF and recorded all of the utterances produced by the participant according to the stimuli. In the second treatment session written stimuli was added to the MB. The investigator asked questions from the MAIF about the stimuli presented in the MB and encouraged the participant to talk about them and use the help of the written stimuli that were added to the participants MB. In the third treatment session, the same process of treatment session number two was administered, with the difference that in this treatment session the family member joined the investigator in the

session. The family member used the guided questions from the MAIF provided by the investigator to elicit verbal productions in the participant. The fourth and last treatment session consisted of the investigator and family member eliciting conversations using the questions from the MAIF, without the use of the MB. A post treatment session, two weeks after the last treatment session, was administered to evaluate if the participants were able to maintain the utterance productions acquired during the study. The same guideline questions used in the pre session were used to elicit utterance production. The utterances of the pre and the post sessions were quantified and compared. Each session of this study were administered in a quiet place of the elderly home. Each session were once a week and consisted of 30 minutes approximately.

RECOLLECTION METHODS AND QUANTITATIVE DATA ANALYSIS

In this experimental descriptive-quantitative research, four treatment sessions were administered. The participant's data collection was acquired from a Spanish translation of Bourgeois' MAIF. Pre and post treatment sessions were done to measure the changes in the production of utterances of the participants. The family interview, the pre and post treatment sessions and the treatment sessions, were be video recorded. All of the verbal productions of the treatment sessions were transcript and analyzed. The verbalizations produced by the participants were analyzed and categorized in terms of: the total amount of utterance productions, the length of the utterance production (total of words per utterance productions), number of on-topic responses and the number of off-topic responses in reference to the questions being asked, and the following grammar elements: adjectives, substantives and verbs. All of the mentioned before were quantified using the computer-based programs EXCEL and WORD; graphics were constructed to present the frequency of

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the changes produced when exposed to a MB in both experimental and control group. A descriptive statistics was also applied to describe the characteristics of the data obtained.

RESEARCH SIGNIFICANCE AND IMPORTANCE

This research provided valuable information on the changes produced in the utterance productions of AD elders in middle stage, in comparison to typical elders when exposed to a MB. It is also an innovative method that should be expanded for therapy purposes in our puertorrican AD population (Villanueva, 2011).

CHAPTER IV

RESULTS

Introduction

  This chapter provides a small description of the participants of this research and the results obtained through out the research. The names used are the real names of each of the participants. Only their first name was used. An authorization of the participant and his family member was given prior to the research to use their names.

María "Mayo"

  María "Mayo" was the participant selected for the research as the typical elder. María's daughter came in contact with the principle investigator to become part of the research. María "Mayo" was an 82-year-old female. She obtained a score of 28 in the MMSE administered by the investigator. She had functional eye vision and hearing. She spokes, read and comprehended Spanish. She had no cognitive or neurological conditions that affected her memory skills. The participant was orientated in time and space. María was a very active elder, liked to talk, go to church and go out. She was placed in the skilled nursing home because of an accident fall she had at home. She was very independent.

Paula "Paulita"

  Paula "Paulita" was the participant selected for the research as the AD elder. The participant had an AD diagnostic. Her diagnostic, at the time of the study, was middle stage AD. Paula obtained a score of 18 in the MMSE. The participant's son came in contact with the investigator to become part of the research. Paula had functional eye vision and hearing. At times the participant recognized the investigator at other times she did not recognized the investigator. Paula liked to play dominos, talk and help others in the skilled nursing home. She was very independent.

This research measured and described the changes in utterance productions of Alzheimer elders in the middle stage of the disease in comparison to typical elders when exposed to a MB. The design of this study consisted of the: identification of participants, a pre- treatment session, 4 therapy treatment sessions and a post- treatment session. This chapter reflects the findings of this research and how they substantiate the effectiveness of the use of a MB as a tool to increase utterances in Alzheimer and typical elderlies. The MB promotes more on topic responses, correct use of grammar elements, and communication between the elder and family members and more direct and longer utterances. Quantitative and qualitative data that show increase in utterances, more on topic responses, increase in the length of the utterances and an increase of the use of grammar elements has been obtained through the comparison of the analysis of the pre and post therapy sessions administered.

Research environment

To develop this research a skilled nursing home was selected. This skilled nursing home was located in the southeast area of Puerto Rico. The investigator and participant accommodated them selves in a quiet area of the nursing home to develop the therapy sessions.

Identification of the participants of the study

Two participants were identified for this study. An elder with middle stage AD and a typical elder were the participants for this study. Both participants were between the ages of 75 and 82 years old. Table 1. resumes the basic information of the participants of this study.

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Table 1. Participants basic information and MMSE results

Participant	Age	Gender	AD/Typical	MMSE score	AD stage
Mayo	82	F	Typical	28	N/A
Paula	75	F	AD	18	Middle stage

Pre- Treatment session

Once the participants were identified, the investigator proceeded to the pre-treatment session. In this pre- treatment session, the MB was not used. In this baseline session the investigator used questions from the memory aid information form (MAIF) to promote conversation with the participant. The amount of utterance productions was used as the baseline to our treatment sessions in the study. The analysis of the utterance productions included: the amount of utterance productions, the length of the utterances, the on-topic and off topic responses, and three grammar elements: adjectives, substantives and verbs in the productions. 13 simple general life questions were asked. The same questions were asked to both the AD participant and the typical participant. Table 2 shows the questions used in the pre and post sessions to compare each other after the 4 treatment sessions were administered to each of the participants.

Table 2. Pre and Post session questions

#	Question
1	**What is your name?**
2	**What do people call you?**
3	**Do you have kids?**

4	**What are their names?**
5	**In what do they work?**
6	**What was your husband's name?**
7	**Do you have any grand children?**
8	**What are their names?**
9	**Where were you born?**
10	**Where did you work at?**
11	**What do you like to do in your free time?**
12	**Did you have any mascots?**
13	**Where did you like to go on vacations?**

Once the pre session, the 4 treatment sessions and the post session were administered, the investigator proceeded on into the transcription of the video recordings. To help the investigator in this process, the Dragon Dictate 3.0 Mac version program was used in the transcription phase of the research. This program helped transcribe the oral recordings. Every utterance production that each of the participants emitted, in the pre and post sessions, were transcribed to quantify and compare them. All of the utterances were analyzed into the following parameters mentioned in Table 3. and Table 4.

Table 3. Utterance analysis: Parameters

#	Parameters analyzed	Abbreviation
1	**Total amount of utterance productions**	**TAUP**
2	**Length of the utterance** **(Amount of words per utterance production)**	**LOUP**

#			
3	Number of on- topic responses		NONTR
4	Number of off- topic responses		NOTR

Table 4. Utterance analysis: Grammar Elements

#	Grammar Elements	Abbreviation
1	Grammar Element: Adjectives	GEAD
2	Grammar Element: Substantives	GESU
3	Grammar Element: Verbs	GEVE

The following tables show the results of the parameters analyzed in the utterance productions of the participants in the pre- treatment session.

Table 5. Typical elder participant pre- session utterance analysis of parameters

Participant	Question	TAUP	LOUP	ONTR	OFFTR
MARÍA	1	1	1	1	0
	2	1	1	1	0
	3	1	1	1	0
	4	1	4	1	0
	5	9	128	1	0
	6	31	418	1	0
	7	3	16	1	1
	8	2	11	1	0
	9	3	21	1	0

	10	10	138	1	0
	11	3	16	1	0
	12	8	83	1	0
	13	6	42	1	0
TOTAL	-	79	880	13	1

The typical elder, María, was asked a total of 13 questions in the pre treatment session. The total amount of utterance production in this session emitted by the participant was of 79. Each of these productions was then analyzed independently to assess and count the amount of words produced per sentence to get the length of the utterance production per question. The total amount of words uttered in each of the sentences per questions was 880. The responses to each of the 13 questions were also analyzed as on topic responses and off topic responses. María answered a total of 13 on topic responses and 1 off topic response. The off topic responses were the productions that were not directly associated with the question.

Table 6. Typical elder participant pre- session utterance production analysis of grammar elements

Participant	Question	GEAD	GESU	GEVE
MARÍA	1	0	1	0
	2	0	1	0
	3	0	0	0
	4	0	3	0

	5	2	27	17
	6	0	58	50
	7	0	4	2
	8	0	9	0
	9	0	7	1
	10	1	20	15
	11	2	2	3
	12	1	17	10
	13	2	8	5
TOTAL	-	8	157	103

The responses of each of the participants were then analyzed in terms of three grammar elements: adjectives, substantives, and verbs. All three-grammar elements were counted in each of the utterance productions to be compared and analyzed between the pre and the post session productions of each of the participants and between them. In the pre session, María produced a total of 8 adjectives, 157 substantives, and 103 verbs.

Table 7. AD participant pre- session utterance analysis of parameters

Participant	Question	TAUP	LOUP	ONTR	OFFTR
PAULA	1	1	3	1	0
	2	0	0	0	0
	3	1	2	1	0
	4	1	9	1	0

	5	2	19	1	1
	6	1	3	1	0
	7	1	2	1	0
	8	1	16	1	1
	9	1	2	1	1
	10	1	10	1	0
	11	3	12	1	0
	12	7	105	1	0
	13	3	17	1	0
TOTAL	-	23	200	12	3

The Alzheimer's disease participant, Paula, was asked a total of 13 questions in the pre treatment session. The total amount of utterance production in this session emitted by the participant was of 23. Each of these productions was then analyzed independently to assess and count the amount of words produced per sentence to get the length of the utterance production per question. The total amount of words uttered in each of the sentences per questions was 200. The responses to each of the 13 questions were also analyzed as on topic responses and off topic responses. Paula answered a total of 12 on topic responses and 3 off topic response. The off topic responses were the productions that were not directly associated with the question that was asked.

Table 8. AD participant pre- session utterance production analysis of grammar elements

Participant	Question	GEAD	GESU	GEVE
PAULA	1	0	3	0
	2	0	0	0
	3	0	0	0
	4	0	8	0
	5	1	1	3
	6	0	3	0
	7	0	0	0
	8	0	5	0
	9	0	1	0
	10	1	1	1
	11	0	1	4
	12	1	13	11
	13	1	1	2
TOTAL	-	4	37	21

As well as María's responses, Paula's responses were analyzed in terms of three grammar elements: adjectives, substantives, and verbs. All three-grammar elements were counted in each of the utterance productions to be compared and analyzed between the pre and the post session productions of each of the participants and between them. In the pre session, Paula produced a total of 4 adjectives, 37 substantives, and 21 verbs.

Data Analysis Comparison of the Pre- Treatment sessions between the AD and the

Typical elder participants

Taking into consideration the analysis of the parameters established in the research, there were many noticeable differences between the AD and the typical elder participants in the pre treatment session. The typical elder verbalized a much higher utterance production. The typical elders responses were more abundant in information and had more details. There was a difference of 680 words in the LOUP between the typical elder and the AD elder. Mayo, the typical elder participant, emitted more on topic responses than the AD participant, Mayo had 13 ONTR and Paula, the AD participant, had 12 ONTR. In the OFFTR analysis, the typical elder participant had 1 OFFTR in comparison to the AD participant who had 3 OFFTR. The analysis of the grammar elements demonstrated that the typical elder applied a higher use of all three-grammar elements in the responses she emitted to the questions asked. María used a total of 8 adjectives, 157 substantives and 103 verbs. Meanwhile the AD participant used a total of 4 adjectives, 37 substantives, and 21 verbs. There was a difference of 4 adjectives, 120 substantives, and 82 verbs more for the typical elder. The following charts demonstrate the difference in all of the parameters analyzed between the participants in the pre treatment session.

Chart 1. Comparison of parameters analysis between AD and Typical elder in the pre treatment session

Pre- session utterance analysis of parameters

■ María ■ Paula

| TAUP	LOUP	ONTR	OFFTR
79 / 23	880 / 200	13 / 12	1 / 3
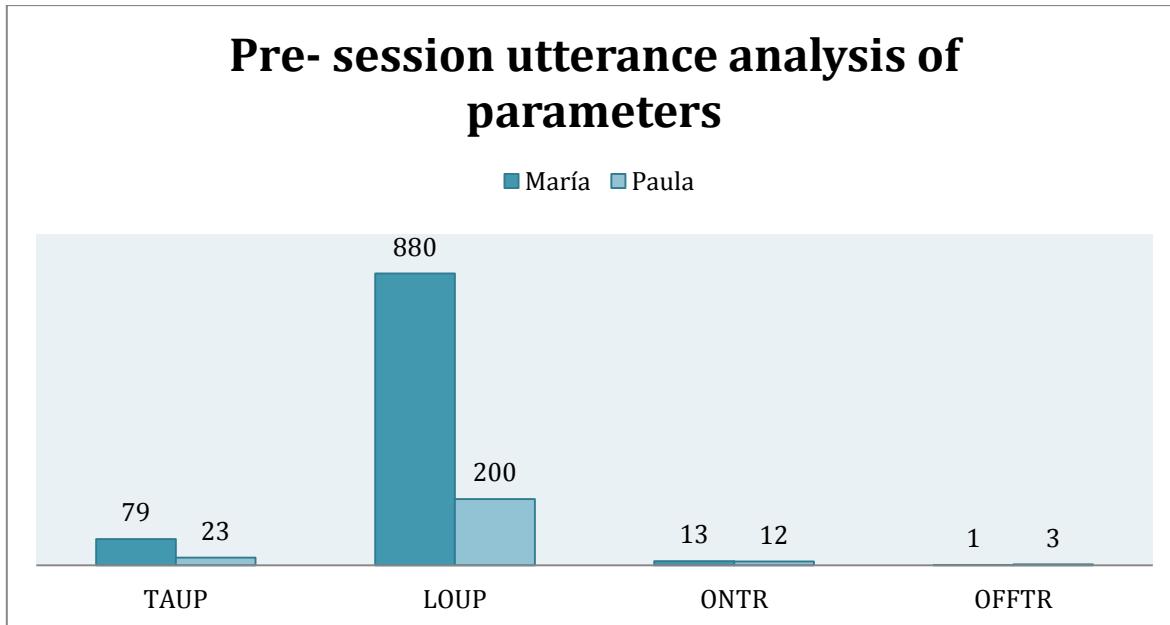
Chart 2. Comparison of grammar elements analysis between AD and Typical elder in the pre treatment session

Pre- session grammar elements analysis

■ María ■ Paula

GEAD	GESU	GEVE
8 / 4	157 / 37	103 / 21
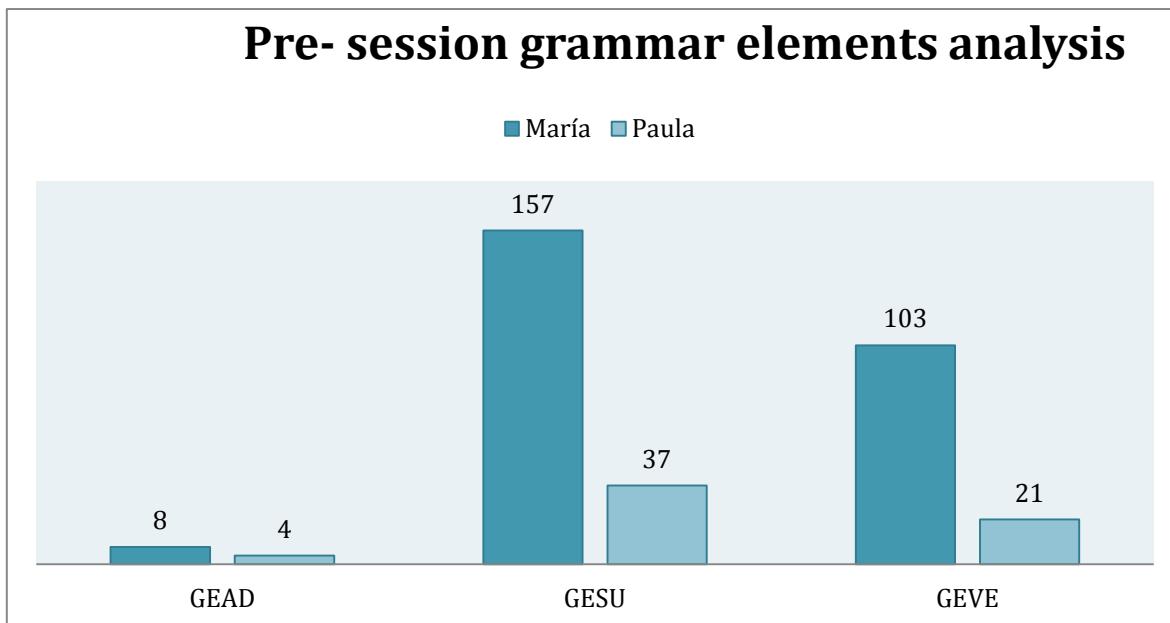
Post Treatment Session

The post treatment session was administered to the Typical and the AD participants after all four treatment sessions were received. The typical elder increased utterances in the following analysis parameters: TAUP, LOUP, and OFFTR. ONTR maintained the same, 13 out of 13 on topic responses. The participant also increased numbers in all three-grammar elements that were analyzed after being exposed to the MB. It is important to mention that both participants answered questions number 7 and 8 as one question in the post treatment session.

The participant with AD performance was lower than the pre treatment session in the post treatment session, but it was not a significant difference. There was a difference of 6 TAUP, and 37 LOUP. It is important to mention that although her utterance productions did not increase, they were more direct after exposure the MB. Her answers were direct towards the question that was asked. The participant also had more ONTR than on the pre treatment session, and no OFFTR, making her conversations, communication more affective and significant. In the grammar elements analysis, the participant with AD in the middle stage, execution maintained the same in GEAD and GESU. There was a difference of 5 GEVE between the pre treatment session and the post treatment session.

Table 9. Typical elder participant post- session utterance analysis of parameters

Participant	Question	TAUP	LOUP	ONTR	OFFTR
MARIA	1	1	1	1	0
	2	1	1	1	0
	3	1	4	1	0

	4	1	8	1	0
	5	12	116	1	0
	6	41	613	1	0
	7	7	66	1	0
	8	0	0	1	0
	9	1	3	1	0
	10	9	151	1	0
	11	17	142	1	0
	12	11	180	1	0
	13	20	155	1	0
TOTAL	-	122	1,440	13	0

The typical elder, María, was asked a total of 13 questions in the post treatment session. The total amount of utterance productions in this session, emitted by the participant, was of 122. She had an increase of 43 TAUP. Each of these productions was then analyzed independently to assess and count the amount of words produced per sentence to get the length of the utterance production per question as well as in the pre session analysis. The total amount of words uttered in each of the sentences per questions in the post session was of 1,440. This represents a difference of 560 more words uttered in her responses in comparison o the pre treatment session. The responses to each of the 13 questions were also analyzed as on topic responses and off topic responses. María answered a total of 13 on topic responses, which maintained the same as to the pre treatment session analysis, and 0 off topic responses. The off topic responses were the productions that were

not directly associated with the question, which in the pre treatment session was of 1 and 0 in the post treatment session.

Table 10. Typical elder participant post- session utterance analysis of grammar elements

Participant	Question	GEAD	GESU	GEVE
MARIA	1	0	1	0
	2	0	1	0
	3	0	1	0
	4	1	4	0
	5	0	24	18
	6	5	87	66
	7	6	14	3
	8	0	0	0
	9	0	1	0
	10	0	28	18
	11	4	21	10
	12	2	34	20
	13	1	29	17
TOTAL	-	19	245	152

The responses were then analyzed in terms of three grammar elements: adjectives, substantives, and verbs, as well as in the pre treatment session. All three-grammar elements

were counted in each of the utterance productions to be compared and analyzed between the pre and the post session productions of each of the participants and between them. In the post session, María produced a total of 19 adjectives, representing an increase of 11 adjectives more than in the pre session. The participant used a total of 245 substantives, which represented an increase of 88 substantives in her utterance productions. In the last grammar element analyzed in this research, verbs, María uttered a total of 152; there was an increase in the use of verbs. The difference in the use of verbs between the pre and the post session was of 49 more verbs. Once the MB was presented and all of the treatment sessions were given to the participant there was a significant difference in all of the utterance parameters and in all of the grammar elements.

Table 11. AD participant post- session utterance analysis of parameters

Participant	Question	TAUP	LOUP	ONTR	OFFTR
PAULA	1	1	3	1	0
	2	1	1	1	0
	3	1	2	1	0
	4	1	7	1	0
	5	1	10	1	0
	6	1	1	1	0
	7	1	12	1	0
	8	0	0	1	0
	9	1	2	1	0
	10	2	6	1	0

	11	1	3	1	0
	12	3	52	1	0
	13	3	64	1	0
TOTAL	-	17	163	13	0

The AD participant, Paula, was asked a total of 13 questions in the post treatment session as well as in the pre session that was discussed previously. The total amount of utterance productions in this session, emitted by the participant, was of 17. There was a difference of 6 less TAUP in the post session than in the pre session. Each of these productions was then analyzed independently to assess and count the amount of words produced per sentence to get the length of the utterance production per question as well as in the pre session analysis. The total amount of words uttered in each of the sentences per questions in the post session was of 163. This represents a difference of 37 less words uttered in her responses in comparison to the pre treatment session. The responses to each of the 13 questions were also analyzed as on topic responses and off topic responses. Paula answered a total of 13 on topic responses, which increased when compared to the pre treatment session analysis. The AD participant answered a total of 0 off topic responses. The off topic responses were the productions that were not directly associated with the question, which in the pre treatment session was of 3 and 0 in the post treatment session. This demonstrates that the answers to the questions were more direct and on topic. Even though her TAUP and LOUP decreased, not significantly, this led to her more ONTR. This decrease impacted positively in the participant's communication.

Table 12. AD participant post- session utterance analysis of grammar elements

Participant	Question	GEAD	GESU	GEVE
PAULA	1	0	3	0
	2	0	1	0
	3	0	0	0
	4	0	4	0
	5	0	2	1
	6	0	1	0
	7	0	2	0
	8	0	0	0
	9	0	1	0
	10	0	1	1
	11	0	0	2
	12	0	11	8
	13	4	11	4
TOTAL	-	4	37	16

The responses were then analyzed in terms of the three grammar elements: adjectives, substantives, and verbs, as well as in the pre treatment session. All three-grammar elements were counted in each of the utterance productions to be compared and analyzed between the pre and the post session productions of each of the participants and between them. In the post session, Paula produced a total of 4 adjectives, representing an equal amount of adjectives used in her answers in compare to the pre session. The

participant used a total of 37 substantives, which also represented an equal use of this grammar element between the pre and post sessions. In the last grammar element that was analyzed in this research, verbs, Paula uttered a total of 16; there was a decrease in the use of verbs. The difference in the use of verbs between the pre and the post session was of 5 less verbs. Once the MB was presented and all of the treatment sessions were given to the participant it was concluded that there was not a significant difference in the analysis of utterance parameters and in all of the grammar elements; yet, even though most of them decreased, this decrease helped improve the quality of the answers provided by the participant, creating a more effective communication between herself, her family and the researcher. Making her productions more on topic, direct and significant.

The following charts demonstrate María's execution in the pre treatment session vs. the post treatment session. Her performance indicates a significant difference in the TAUP and in the LOUP after being exposed to the MB. Her OFFTR were 0, making her communication more effective and significant.

**Chart 3. Parameters analysis pre vs. post: Typical elder participant**
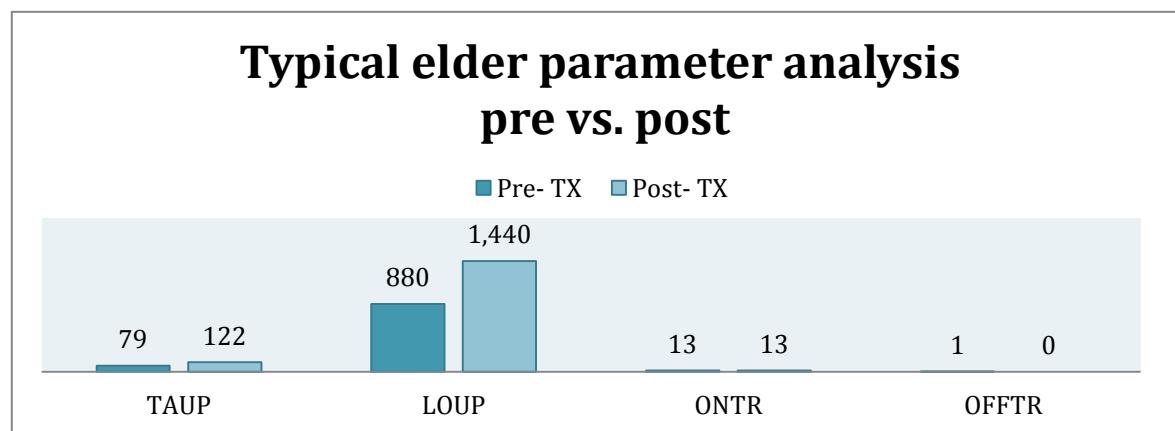
Chart 4. shows the grammar elements analysis of the pre treatment session and the post treatment session of the typical elder. It demonstrates an increase in the use of all of the three grammar elements analyzed in the research: adjectives, substantives, and verbs.

Chart 4. Grammar elements analysis pre vs. post: Typical elder participant
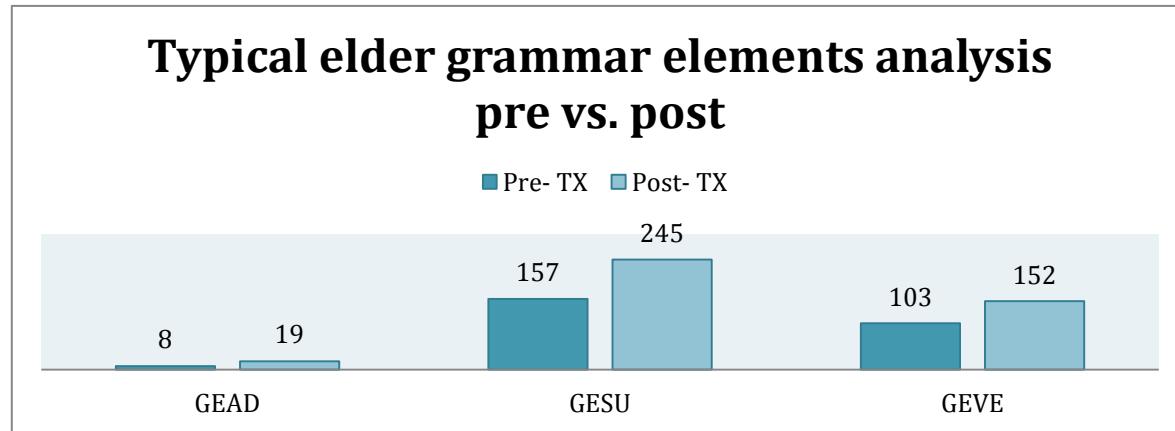
Chart 5. shows the performance of AD participant in the parameters analyzed in this research in both pre and post treatment sessions. It demonstrates a decrease in the amount of TAUP, and LOUP. These differences are not significant in amount, but did positively impact the participant's responses and communication after being exposed to the MB. They lead to more direct responses to the questions being asked. Paula's ONTR increased and her OFFTR decreased.

Chart 5. Parameters analysis pre vs. post: AD middle stage participant

AD elder parameter analysis
pre vs. post

■ Pre- TX ■ Post- TX

	TAUP	LOUP	ONTR	OFFTR
Pre- TX	23	200	12	3
Post- TX	17	163	13	0
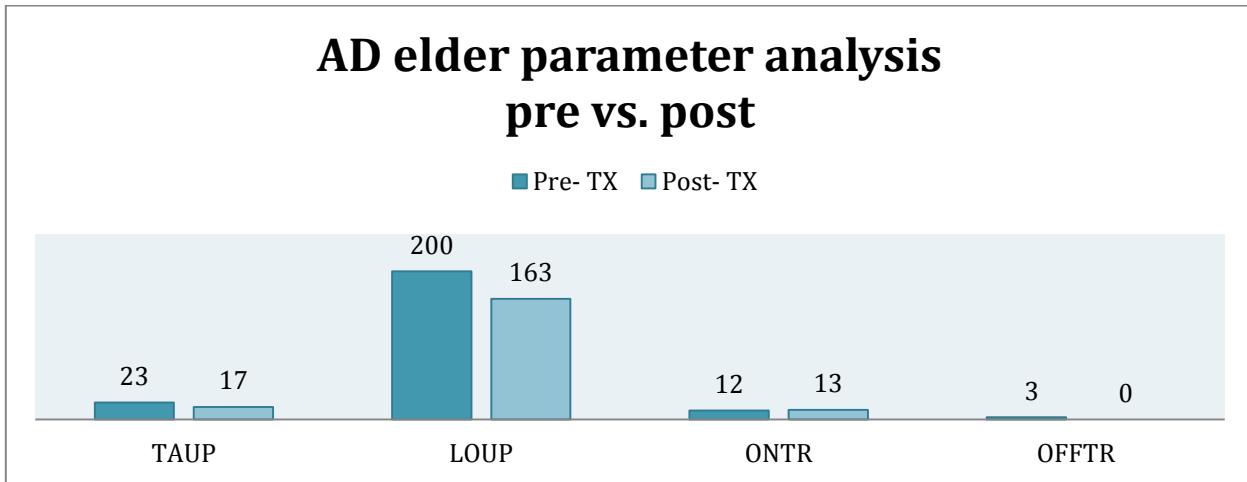
Chart 6, shows the execution of AD participant in the analysis of the grammar elements. The participants GEAD and GESU maintained exactly the same. There was a non-significant difference in the GEVE uttered in her responses. The difference was of 5 verbs. This difference did not impact her communication or her responses.

Chart 6. Grammar elements analysis pre vs. post: AD middle stage participant

AD elder grammar elements analysis
pre vs. post

■ Pre- TX ■ Post- TX

	GEAD	GESU	GEVE
Pre- TX	4	37	21
Post- TX	4	37	16
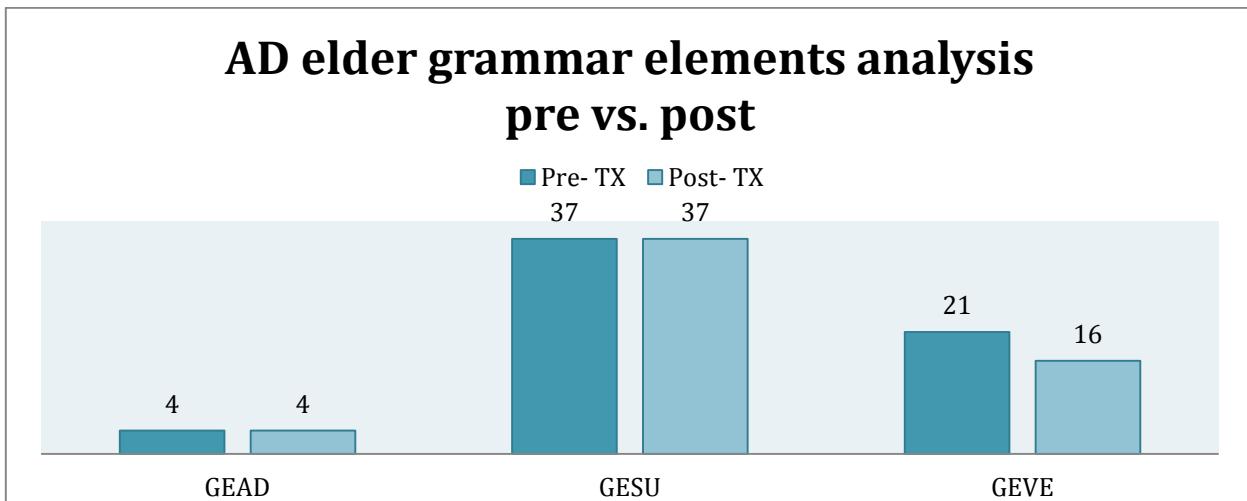
Chart 7. and 8. compare the performance of the typical elder and the AD elder. They demonstrate the performance of the participants in the analysis of the parameters and grammar elements being studied in this research. They clearly demonstrate a significant difference in the performance between María and Paula.

Chart 7. Comparison of parameters analysis between AD and Typical elder in the post treatment session
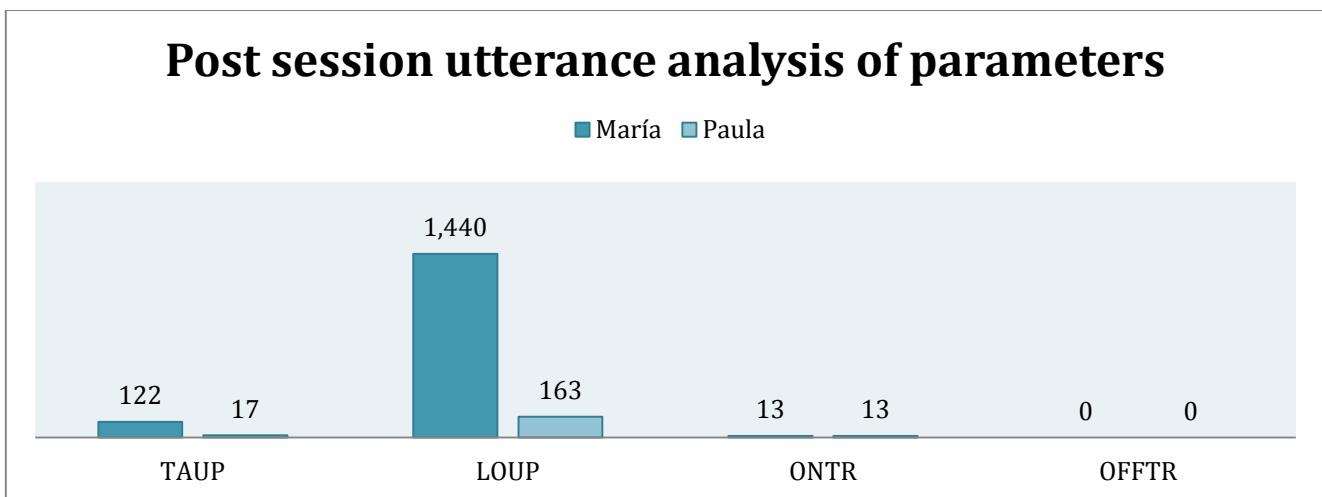
Chart 8. Comparison of grammar elements analysis between AD and Typical elder in the post treatment session
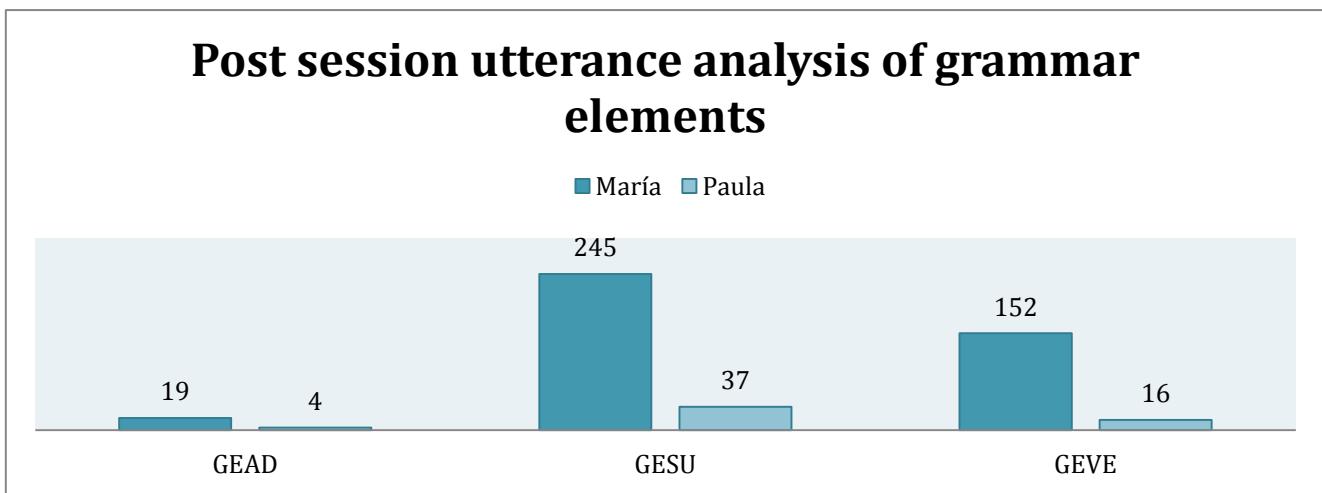
CHAPTER VI

DISCUSSION

Introduction

This chapter discusses the findings in the data collected of the pre and post treatment session, before and after being exposed to the MB. It will also compare them between the typical elder and the AD elder in the middle stage of the disease.

Summary of Findings

This research studied the changes in utterance productions of Alzheimer elders in the middle stage of the disease in comparison to typical elders when exposed to a MB. The hypothesis of this investigation was that the use of a memory book would help increase changes in the amount of utterances produced by the participants. The research analyzed a set of parameters: Total Amount of Utterance Production (TAUP), Length of Utterance Production (LOUP), On Topic Responses (ONTR), and Off Topic Responses (OFFTP); and a set of grammar elements: adjectives (GEAD), substantives (GESU), and verbs (GEVE). The research consisted of a pre treatment session, 4 treatment sessions and a post treatment session. All sessions were video recorded.

The findings of this research evidenced that the use of the MB in AD elders in the middle stage of the disease and in typical elders have a positive impact in the amount of utterance productions, in the ONTR, the use of grammar elements and the effectiveness of their communication. The typical elder had an increase in the total amount of utterance productions, in the length of the utterance productions, and in the grammar elements. She a decrease in the amount of off topic responses and maintained the same amount of on topic responses in the pre and in the post sessions. The AD participant decreased the total

amount of utterance, length of the utterance production, and the off topic response. She increased the amount of on topic responses. The typical elders responses were more abundant, had a longer length and did not have any off topic responses. The AD elder's responses were more direct, less abundant in off topic responses.

These conclusions suggest that the use of a MB in AD elders and in typical elders could help in the effectiveness of the communication between them, their family members and or caregivers. These findings are accordant to Bourgeois, Hoerster, & Hickey, who discovered that memory book helped participants make longer utterances in their productions during conversations. The MB targets language expression and comprehension/memory support for persons with middle stage dementia (Bourgeois, 1992). The MB is designed to provide information that the person has trouble remembering (Bourgeois, 1990). The findings in this research and Bourgeois (1990, 1992, 2007) have proven that the MB stimulates dialogue between people with dementia and their caregivers. The results of these studies also demonstrate that the participants had an increase in on-topic statements with the use of the MB treatment.

Not many studies with the use of MB have been conducted in Puerto Rico or to any other Hispanic population. The findings of this research suggest that exposure to memory books is as effective in puertorrican and Hispanic population as it is to other cultures and other languages (Villanueva, 2011; Bourgeois, 2007). The MB is a positive therapeutic cost effective tool. It can be personalized to all patients. It can be used in many ways to satisfy the personal needs of its user. The MB is easy to construct, manage, and adapt (Villanueva, 2011). It can be used to help the patient increase their utterance production, maintain ONTR, remember familiar people, places and important events. It could also be used to

help the person remember: appointments, to take their medicines, and to orientate in time and space.

The investigator of this research recommends the use of the MB, not only for AD patients in the middle stage, but to, AD patients in the initial stage and typical elders who suffer regular age related memory loss. Like Bourgeois researches in the use of the MB, this research states that this therapeutic tool increases utterance productions and stimulates effective communication.

Future researches

There are not many researches on the use of MB in Hispanic population. This study provides knowledge of the use of the MB, which can be used in the mentioned group of people. There was no adverse reaction in the participants, so working with a MB is a great resource to increase utterances, enhance communication effectiveness, and have a greater amount of ONTR in conversations of the AD and the typical elders (Bourgeois 1999, 2007). For future studies a larger number of participants will help acquire more concise and reliable data of the results. This would be of great benefit and contribution to evidence based practice. Another suggestion will be to train the nursing staff or other caregivers who work within the skilled nursing home. This will provide a day-by-day use of the MB, instead of whenever the family member visits the patient. An issue that should be controlled in a different way in future researches should be the use of the MB in free time by the patient. This issue could have been a variable that could have affected this research. Another suggestion for future researches will be to extend the therapy sessions to a longer period of time. Instead of a 4-week treatment program the investigator suggest a 12-week treatment program followed by a post session 2, 4 and 8 weeks after the last treatment session. This will provide long-term follow up. Another suggestion will be to increase the amount of therapies per week. Increase from one to at least 2 treatment sessions per week. This gives the patient more opportunities to increase utterance productions. One last suggestion for future researches will be to add other sets of cognitive assessment tools. These tools should be used not only to select the participant as inclusion or exclusion criteria, but to follow up on the participants cognitive development before and after the treatments sessions, to analyze how his cognition changes or maintains the same, and how his impacts his responses. Some of the suggested tools are: The Montreal Cognitive

Assessment (MoCA), which is a tool that was designed to rapidly assess mild cognitive dysfunction. This instrument assesses different cognitive domains: attention, memory, language, visuoconstructional skills, conceptual thinking, calculations, and orientation; or the Saint Louis University Mental Status Exam (SLUMS), which is very similar to the MMSE. All of these suggestions will help increase the effectiveness of the MB as a therapeutic tool to increase utterance productions not only in Alzheimer's disease elders, but in typical elders with regular age related memory loss issued.

DEFINITIONS

1. Alzheimer's disease (AD): is an irreversible, progressive brain disease that slowly destroys memory and thinking skills and, eventually even the ability to carry out the simplest tasks of daily living.

2. Dementia: a syndrome due to disease in the brain, usually of a chronic or progressive nature, in which there is disturbance of multiple higher cortical functions, including memory, thinking, orientation, comprehension, calculation, learning capacity, language, and judgment. Consciousness is not clouded. Impairments of cognitive function are commonly accompanied, and occasionally preceded, by behavior, or motivation.

3. The World Health Organization (WHO): is a specialized agency of the United Nations with primary responsibility for international health matters and public health.

4. Memory loss: is unusual forgetfulness.

5. Elderly: population/ person of 60 years of age or more.

6. Memory book (MB): an external memory aid.

7. Utterance: verbal production.

8. Mini Mental State Examination (MMSE): a screening test to measure cognitive function.

9. Typical elder: an elder with no conditions associated with memory loss, mental disorders, neurocognitive disorders and psychotic disorders.

10. TAUP: Total mount od Utterance Productions

11. LOUP: Length of Utterance Productions

12. ONTR: On Topic Responses

13. OFFTR: Off Topic Responses

14. GEAD: Grammar Element Adjective

15. GESU: Grammar Element Substantive

16. GEVE: Grammar Element Verb

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**THE MEMORY BOOK AS AN AUGMENTATIVE TOOL TO INCREASE
UTTERANCES IN ALZHEIMER AND TYPICAL ELDERLIES**
**El Libro de Memoria como instrumento aumentativo para aumentar las
verbalizaciones en pacientes con Alzheimer y pacientes típicos**
Animarí Colón Ruiz, Investigadora Principal
Dra. María Centeno, Mentora de Investigación

**AUTORIZACIÓN DE VIDEO GRABACIÓN Y DIVULGACIÓN
DE NOMBRE E IMAGEN**

AUTORIZACIÓN DE VIDEO GRABACIÓN

Las sesiones de tratamiento de _____

(nombre completo) en el estudio: **El Libro de Memoria como instrumento aumentativo**

para aumentar las verbalizaciones en pacientes con Alzheimer y pacientes típicos

serán video grabadas como parte de esta investigación. Las video grabaciones y fotos del

libro de memorias podrán utilizarse en presentaciones educativas (educación continua para

profesionales del campo de la patología del habla-lenguaje), académicas (en programas de

preparación de patólogos y terapistas del habla-lenguaje), profesionales (convenciones

profesionales de patología del habla-lenguaje dentro y fuera de Puerto Rico, publicaciones)

y como ejemplos de libros de memorias en español para ser facilitados a la Dra. Bourgeois;

creadora y experta en terapias de tratamiento utilizando el libro de memoria.

AUTORIZACIÓN DIVULGACIÓN DE NOMBRE E IMAGEN

La cara y el nombre de _____ *(primer nombre solamente)*

será visible en la video grabación. Su cara podrá ser presentada en conferencias

profesionales, educaciones continuas, cursos universitarios de preparación académica y si

se le facilitan a la Dra. Bourgeois. Esto es sumamente importante ya que la expresión facial

y las verbalizaciones del participante es parte esencial de la documentación en el proceso terapeútico utilizando el libro de memorias. Las reacciones de

_____ *(primer nombre solamente)* quedarán plasmadas en las video grabaciones. Para proteger la confidencialidad de

_____ *(primer nombre solamente)* se utilizará sólo su nombre en las video grabaciones. Los libros de memorias y las video grabaciones serán guardadas como parte de la investigación por el periodo reglamentario de cinco (5) años. Luego de finalizado este periodo las video grabaciones se guardarán indefinidamente en un cartapacio digital en el disco duro de data del Departamento de Profesiones de la Salud de la Universidad del Turabo. Este será custodiado por la Dra. Nydia Bou, Catedrática y Directora del Departamento. Los libros de memoria y las video grabaciones se podrán utilizar en presentaciones educativas (educación continua para profesionales del campo de la patología del habla-lenguaje), académicas (en programas de preparación de patólogos y terapistas del habla-lenguaje) y profesionales (convenciones profesionales de patología del habla-lenguaje dentro y fuera de Puerto Rico, publicaciones).

Finalizado el periodo de los 5 años esta autorización será digitalizada y guardada en un archivo digital en el disco de data del Departamento de Profesiones de la Salud de la Universidad del Turabo. Este será custodiado por la Dra. Nydia Bou, Catedrática y Directora del Departamento. Las autorizaciones originales serán trituradas. Se me ha informado que bajo ningún concepto esta autorización constituye una para usar estos libros de memoria y videos para fines comerciales u otros fines que no se hayan especificado en esta autorización.

_____
Nombre del participante en letra de molde

_____   _____

Firma   Fecha

_____

Nombre del familiar en letra de molde

_____   _____

Firma   Fecha

_____

Nombre de la investigadora principal en letra de molde

_____   _____

Firma   Fecha

Universidad del Turabo
Escuela de Ciencias de la Salud
Programa de Patología del Habla y Lenguaje

Consentimiento Informado

Título de la Investigación: THE MEMORY BOOK AS AN AUGMENTATIVE
TOOL TO INCREASE UTTERANCES IN ALZHEIMER AND
TYPICAL ELDERLIES

El Libro de Memoria como instrumento aumentativo para
aumentar las verbalizaciones en pacientes con Alzheimer y
pacientes típicos

Nombre del Investigador Principal: Animarí Colón Ruiz

Nombre del Mentor: Dra. María Centeno Vázquez

Este Consentimiento Informado puede contener palabras que no entienda, de ser así,
pregunte al investigador encargado o a cualquier otra persona que forme parte del estudio.
Usted puede llevarse una copia de éste documento para decidir si participará o para
consultar con su familiar antes de tomar su decisión.

I.   Introducción
Usted ha sido invitado a participar en éste estudio investigativo. Antes de decidir
participar en el mismo, es de suma importancia que lea este consentimiento
cautelosamente. Se estará trabajando en esta investigación con un libro de
memorias, el cual es un instrumento para ayudar a recordar y poder hablar,
verbalizar acerca de esos recuerdos. El mismo contiene fotografías, láminas y texto.
El libro de memorias NO es un instrumento para diagnosticar ninguna condición y/o
desorden, tampoco es un sistema de referido.

II.   Propósito del Estudio
El propósito de éste estudio es medir y describir los cambios en
verbalizaciones de un paciente con Alzheimer en la etapa media de la enfermedad
en comparación con un paciente típico al ser expuestos a un Libro de Memorias. En
el estudio se investigará si la exposición al Libro de Memorias ayuda a aumentar y
mejorar las verbalizaciones del paciente.

III.   Participantes del Estudio
Los participantes de estudio deben poder leer, hablar y comprender el
español. Se necesita a un familiar directo del participante (esposo (a)/ pareja, hijo,
nieto). El familiar directo debe estar disponible para: ayudar a llenar un formulario
de información del participante principal, proveer fotografías del participante

principal, estar presente y participar activamente en dos sesiones de tratamiento, además, deben autorizar la videograbación de las sesiones de tratamiento.

Los participantes no deben tener otras condiciones que afecten la memoria, problemas siquiátricos, problemas visuales que no hayan sido corregidos con alguna cirugía y/o espejuelos y problemas auditivos que no hayan sido corregidos con cirugía y/o audífonos. Deben estar tener 60 años ó más. El participante con Alzheimer debe obtener una puntuación entre 26 y 10 en la prueba del estado mental/cognitivo: Mini Mental State Examination; el participante típico debe pasar la prueba dentro de los limites establecidos como normales, 30- 27.

IV.   Procedimientos

En éste estudio, se le administrará a los participantes la prueba Mini Mental State Examination (MMSE). El propósito de la misma será para la elegibilidad de los participantes para el estudio. La prueba MMSE mide el estado mental de una persona. Se le entregará un documento de consentimiento para que sea leído y firmado por cada uno de los participantes. El familiar y el participante completarán en conjunto un formulario de información para el libro de memorias, con la ayuda del investigador. El familiar proveerá al investigador fotografías del participante que recibirá el tratamiento, para junto a la información del formulario de información para el libro de memorias, crear el libro de memorias. En el caso de no tener las fotografías el investigador utilizará una lámina para representar la información. El libro de memorias contendrá la información provista por el familiar y las fotografías y/o láminas.

Antes de dar comienzo con el estudio, el investigador será responsable de explicar en vocabulario sencillo todo los procedimientos que se llevarán a cabo a través del mismo, su propósito y duración. El estudio estará compuesto de una pre sesión, 4 sesiones de tratamiento y una post sesión, cada sesión tendrá una duración aproximada de 30 minutos, y una frecuencia de una vez por semana. En cada una de las sesiones se utilizarán preguntas del formulario de información para el libro de memorias. En la sesión pre al tratamiento, se llevará a cabo una entrevista con el participante, para establecer la base de las verbalizaciones del participante. En la primera sesión de tratamiento, se introducirá el libro de memorias y se le harán preguntas referentes a las fotografías y/o láminas que contiene el mismo. En la segunda sesión de tratamiento, se le añadirán claves escritas a las fotografías y/o láminas. En la tercera sesión de tratamiento se incluirá al familiar del participante en la misma, será él el que lleve a cabo las preguntas. En la cuarta sesión de tratamiento, el familiar va sonsacar las respuestas a las preguntas que se le harán al participante, en ésta ocasión sin el libro de memorias. En la sesión posterior a las sesiones de tratamiento, la cual se llevará a cabo dos semanas después de la última sección de tratamiento, el investigador sonsacará las respuestas a las preguntas con el propósito de compararlas con las respuestas verbalizadas durante la sesión pre al tratamiento. Cada sesión será video grabada.

V.   Riesgos

Algunos de los posibles riesgos de éste estudio podían ser:

- sentir que le invaden su privacidad, durante el procedimiento de adquirir información personal, familiar y de su vida, para la creación del libro de memorias
- frustración si no recuerdan las respuestas de alguna de las preguntas
- otros podrían ser: aburrimiento, ansiedad, estrés, y/u otros sentimientos emocionales

De surgir alguna situación, se culminará al momento la sesión de tratamiento y se recurrirá al personal del Centro como primera opción; de necesitar ayuda sicológica adicional se llevará al participante al Centro de Servicios Sicológicos de una Universidad en el área sur este de las Isla.

VI.   Beneficios del Estudio
Los beneficios directos que recibirán de éste estudio son:
- atención individualizada
- libro de memorias
- entrenamiento terapéutico del uso del libro de memorias
- posible mejoramiento de su desarrollo cognitivo
- potencial para mejorar su comunicación con los miembros de su familia
- aumentar el largo de sus producciones verbales

VII.   Incentivo al participante
No se pagará por su participación en el estudio.

VIII. Privacidad y Confidencialidad

Para proteger su identidad, todas las sesiones serán realizadas por el investigador principal. El expediente del participante será utilizado para proveer información al investigador principal acerca del diagnóstico del Alzheimer en la etapa media del participante. Las sesiones de tratamiento serán video grabadas como parte del estudio. Toda información o datos personales serán manejados conforme a la ley HIPAA. Las transcripciones de las secciones bajo estudio, las hojas de consentimiento y la autorización para la video grabación y divulgación de nombre e imagen serán almacenadas bajo llave en formato digital en la casa del investigador principal. Las transcripciones de las secciones de tratamiento bajo estudio y las hojas de de consentimiento serán guardadas por un periodo de cinco años y luego serán destruidas, con excepción de la autorización para la video grabación y divulgación de nombre e imagen serán archivadas de forma digital por un periodo indefinido luego de culminar el estudio. Las video grabaciones, los libros de memoria y las transcripciones y grabaciones de las entrevistas serán archivados de manera digital por un periodo indefinido en los archivos digitales de los programas de patología de habla y lenguaje y terapia del habla-lenguaje de la Universidad del Turabo. El formulario de información para la creación de los libros de memoria (MAIF- memory aid infomation form) se almacenará en el mismo lugar, pero será destruido luego de 5 años. Los datos obtenidos y los resultados de la investigación, incluyendo las video grabaciones, se podrán utilizar en presentaciones educativas (educación continua para profesionales del campo de la

patología del habla-lenguaje), académicas (en programas de preparación de patólogos y terapistas del habla-lenguaje) y profesionales (convenciones profesionales de patología del habla-lenguaje dentro y fuera de Puerto Rico, publicaciones). Las video grabaciones y fotos del libro de memoria y el libro de memoria podrían ser facilitadas a la Dra. Bourgeois, creadora y experta en terapias de tratamiento utilizando el libro de memoria. Todos estos documentos e información serán custodiados por la Directora del Departamento. El custodiar esta informacion formará parte de las responsabilidades y deberes de inherentes a la posición. Las mismas restricciones aplicarán a aquel que tome en algún momento futuro la dirección del Departamento.

Se garantizará la confidencialidad de los participantes en toda presentación o publicación de los datos. Se solicitará autorización de los participantes para que su cara se pueda ver en cualquier video grabación que sea presentada en conferencias profesionales, educaciones continuas o cursos universitarios de preparación académica. Se le explicará a los participantes que en el campo de patología del habla-lenguaje esto es sumamente importante. Es esencial que la cara se vea completa al igual que las expresiones faciales pues todas en conjunto añaden información valiosa al proceso de comunicación. De igual forma se le explicará que para proteger la confidencialidad del participante se utilizará sólo su primer nombre (nunca el apellido) en las video grabaciones. Se le explicará que no se utilizará un pseudónimo por tratarse de un paciente con la enfermedad de Alzheimer. El usar un pseudónimo durante el tratamiento podría confundir al participante.

La información puede ser revisada por la Junta para la protección de Seres Humanos en la Investigación (IRB por sus siglas en inglés) del Sistema Universitario Ana G. Méndez. El IRB es una junta que aprueba, revisa y monitorea todas las investigaciones con seres humanos.

IX. Compensación por Daños

En el caso de ocurrir alguna lesión física durante la participación en éste estudio investigativo, el participante recibirá atención médica, libre de costo, en el Hospital HIMA del pueblo de Caguas, el cual ha sido designado por la institución de la Universidad del Turabo. En caso de ocurrir alguna lesión mental como resultado de este estudio se le realizará una evaluación inicial en la Institución Universitaria, de ser necesario, será referido a su médico primario para tratamiento. El Sistema Universitario Ana G. Méndez no provee alternativa de pago u otra forma de compensación por posibles daños relacionados con su participación en éste estudio. Por ejemplo salarios no devengados, pérdida de tiempo invertido sufrimiento. Ninguna forma de remuneración económica será otorgada directamente a usted. Sin embargo, al formar este documento no renuncia a sus derechos legales.

X. Participación Voluntaria

La participación de todos los participantes en este estudio es completamente voluntaria. De decidir participar en el mismo, puede retirarse en cualquier momento sin ninguna penalidad, ni pérdida de beneficios. De igual forma el investigador principal puede solicitar que se retire del mismo.

XI. Persona Contacto para Información

Si tiene alguna pregunta y/o duda adicional sobre este estudio y/o su participación en el mismo, usted puede comunicarse con:

Animarí Colón Ruiz (Investigadora principal) 787-423-7072,
correo electrónico: animari-c@hotmail.com

María Centeno Vázquez (Mentora) 787- 562-5916,
correo electrónico: centenophl@yahoo.com

Si usted tiene alguna pregunta acerca de sus derechos como participante en el estudio, puede contactar al:

Sistema Universitario Ana G. Méndez
Oficina de Cumplimiento
Administración Central
Teléfono (787) 751-0178 Ext. 7195, 7197
Correo electrónico: cumplimiento@suagm.edu

[   ] Certifico que se me entregó copia de éste consentimiento firmado.
[   ] Certifico que se me proveyó copia del consentimiento, pero no es de mi interés.

XII. Consentimiento

He leído la información provista en éste documento de consentimiento. El contenido del estudio me fue explicado y todas las preguntas y/o dudas sobre el mismo han sido aclaradas.

Al firmar esta documento acepto participar en el estudio y certifico que mi participación es voluntaria e informada.

_____	_____	_____
Nombre del participante (letra de molde)	Firma del participante	Fecha (día/mes/año)
_____	_____	_____
Nombre del familiar (letra de molde)	Firma del familiar	Fecha (día/mes/año)

_____	_____	_____
Nombre del Investigador	Firma del Investigador	Fecha
(letra de molde)		(día/mes/año)

La Escuela de Ciencias de la Salud de la Universidad del Turabo

y su Programa de Maestría en Patología del Habla- Lenguaje,

le invita a participar de esta investigación, titulada:

"El libro de memoria como instrumento para aumentar las verbalizaciones en pacientes con Alzheimer y pacientes típicos"

Le invitamos a que forme parte de este estudio. En el cual tendremos como objetivo, medir y describir los cambios en la producción de verbalizaciones de los pacientes con Alzheimer en la etapa media, en comparación con pacientes sin la enfermedad del Alzheimer al ser expuestos al uso de un Libro de Memorias.

Para participar:
1) Tener 60 años ó más
2) 3 participantes que tengan Alzheimer
3) 3 participante que no tengan Alzheimer
4) Participación de un familiar cercano

El estudio se llevará a cabo en un total de 6 semanas y requiere la participación de un familiar cercano. Entre los beneficios potenciales de la investigación, está el recibir sesiones terapéuticas que puedan facilitar la producción de verbalizaciones de los participantes.

Para reservar su espacio u obtener más información, favor de comunicarse con:

- Animarí Colón Ruiz, Investigadora Principal
  787-423-7072
  animari-c@hotmail.com
- Dra. María Centeno, Mentora
  787-562-5916
  centenophl@yahoo.com

Formulario de Información para el Libro de Memoria

Favor de completar esta información biográfica para:
Nombre:_____
Apodo: _____

INFORMACION DE LA FAMILIA

MADRE

Nombre _____

Fecha de nacimiento _____

Lugar de nacimiento _____

Fecha de muerte _____

PADRE

Nombre _____

Fecha de nacimiento _____

Lugar de nacimiento _____

Fecha de muerte _____

HERMANOS (nombres)

_____

_____

_____

HERMANAS (nombres)

_____

_____

_____

ESPOSA/ESPOSO

Nombre _____

Lugar de nacimiento _____

Lugar de la boda (ciudad, país) _____

Fecha de muerte (si aplica) _____

Fecha de nacimiento _____

Fecha de matrimonio _____

HIJOS (nombres)

1. _____   2. _____

3. _____   4. _____

ESPOSA/ESPOSO DE HIJOS

1. _____   3. _____
2. _____   4. _____

NIETOS (nombres)

1. _____   2. _____
3. _____   4. _____
5. _____   6. _____
7. _____   8. _____
9. _____   10. _____

¿Qué ocupaciones actuales tienen los hijos mencionados?

1. _____   2. _____
3. _____   4. _____
5. _____   6. _____

¿Dónde viven los hijos y nietos actualmente (ciudad, país)?

1. _____   2. _____
3. _____   4. _____
5. _____   6. _____

HISTORIAL DE SU FAMILIAR

Fecha de nacimiento _____   Lugar de nacimiento _____
Hogar de infancia (ciudad, país) _____
Escuela superior _____   Universidad_____

SERVICIO MILITAR
Rama _____   ¿Cuándo? _____

OCUPACIONES

_____   _____
_____   _____

HONORES ESPECIALES/ PREMIOS
_____

PASATIEMPOS, ACTIVIDADES DE OSIO FAVORITO (pasado y/o presente)
_____
_____

LUGARES DONDE HA VIVIDO DE ADULTO   ¿Cuándo?
_____   _____
_____   _____

CLUBES, ORGANIZACIONES SOCIALES   ¿Ocupó algún puesto?
_____

IGLESIA O TEMPLO
_____

ACTIVIDADES O PARTICIPACIONES IGLESIA O TEMPLO (por ejemplo diácono, parte del coro, etc.) _____

MASCOTAS FAVORITAS (pasado y/o presente)
_____

VACACIONES MEMORABLES
¿Dónde? _____
¿Cuándo? _____
¿Con quién? _____

MEJORES AMIGOS
_____
_____

ALGÚN OTRO EVENTO, DETALLE MEMORABLE
_____
_____
_____

COMPORTAMIENTOS DESAFIANTES (Describe cualquier otro problema específico que estés enfrentando y cuan recurrente ocurre. Ejemplo: Mi madre pregunta para ir a la iglesia cada 10 minuto.)
_____
_____

HORARIO/ PROGRAMA DIARIO (Favor de completar el horario/programa diario de su familiar, incluyendo todas sus actividades de rutina.)

PROGRAMA DIARIO USUAL   **ACTIVIDADES ESPECIALES**

7:00 a.m. _____

7:30 a.m. _____

8:00 a.m. _____

8:30 a.m. _____

9:00 a.m. _____

9:30 a.m. _____

10:00 a.m. _____

10:30 a.m. _____

11:00 a.m. _____

11:30 a.m. _____

12:00 p.m. _____

12:30 p.m. _____

1:00 p.m. _____

1:30 p.m. _____

2:00 p.m. _____

2:30 p.m. _____

3:00 p.m. _____

3:30 p.m. _____

4:00 p.m. _____

4:30 p.m. _____

5:00 p.m. _____

5:30 p.m. _____

6:00 p.m. _____

6:30 p.m. _____

7:00 p.m. _____

7:30 p.m. _____

8:00 p.m. _____

8:30 p.m. _____

9:00 p.m. _____

9:30 p.m. _____

10:00 p.m. _____

10:30 p.m. _____

11:00 p.m. _____

11:30 p.m. _____

12 media noche _____

¿Alguna otra actividad en la cual su familiar participa durante su tiempo libre, pero que no es parte de su horario/ programa diario?

Appendix E- Pre treatment transcription: Typical elder participant

Transcription Pre- Treatment Session

Participant María "Mayo"

Investigador- ¿cómo tú te llamas?

Participante- María

Investigador- ¿cómo te dicen?

Participante- Mayo

Investigador- ¿cómo se llama tu mamá?

Participante- Librada

Investigador- ¿y tu papá?

Participante- Rodrigo

Investigador- ¿Tienes hermanos?

Participante- Si

Investigador- ¿cómo se llaman?

Participante- Edma, Carmencita, David, Wilma y Sammuel

Investigador- ¿y su esposo cómo se llamaba?

Participante- Manuel, Manolo

Investigador- Manolo, ¿En qué trabajaba?

Participante- Manolo era soldador y era mecánico el también era militar hasta que se

licenció cogió eso, entonces se dedicaba a eso hacia de todo era un handyman, hacia el

patio, limpiaba me ayudaba hasta a limpiar la casa con esos muchachitos

Investigador- ¿Usted tuvo hijos?

Participante- Si

Investigador-¿Cómo se llaman ellos?

Participante- Ivette, Daisy y Carlitos

Investigador- ¿Ellos están casados?

Participante-Si

Investigador-¿Cuales son los nombres de sus esposos?

Participante- uno se llama Francisco Jiménez de la Ive, el de Daisy es Luis Rivera la de

Carlitos es Ileana.

Investigador- ¿Usted tiene nietos ya?

Participante- No me han querido dar, si tengo nietos, nietos si no me han querido dar

bisnietos

Investigador- ¿Cuántos nietos tienes?

Participante- Cuatro nietos, Francisco Manuel, Christopher Lee Jiménez Pérez, Ingrid y

Carlianis.

Investigador- ¿Sus hijos trabajan?

Participante- Mi hija Daisy trabaja es educadora de salud, pero Ive se dedica a la casa, no

pero ella cogió muchos cursos fue que ella yo no se sí yo te conté que cuando ella se graduó

de cuarto año entonces empezó en la universidad en Humacao y ahí apareció el novio,

mami me voy a casar, mamita no me dejes los estudios mami yo termino después, gracias al

Señor le salió bueno porque es tremenda persona, pero ahí después se iba y cogía todos

estos cursos que daban así y cursos así en la vocacional y en centros y ahí aprendió muchas

cosas

Investigador- Y ¿Carlos?

Participante- Carlos Manuel esto guía una de esas guaguas de UPS pero estudió soldadura y

mecánica en la vocacional como su papá que le gustaba eso.

Investigador- ¿Dónde usted vive?

Participante- Yo vivo en la urbanización Villa Marina en la calle Ensenada A-19.

Investigador- ¿Dónde queda eso?

Participante- En Gurabo

Investigador- y sus hijos ¿Dónde viven?

Participante- Carlitos vive aquí en Lomas del Sol, Daisy vive en Lomas del Sol y entonces

Ive vive un poquito pa' allá en el barrio Celada

Investigador- ¿Cuándo usted nació?

Participante- Yo nací el 1 de mayo del 1932

Investigador- y ¿Dónde nació?

Participante- Aquí en Gurabo. En la casa porque pa esos tiempos era con comadronas, mi

abuela, la abuela paterna mía fue comadrona

Investigador- y usted ¿A qué se dedicaba?

Participante- Yo me dedicaba a esto estuve mucho tiempo como ama de casa entonces me

fui a trabajar y también trabajé como payroll clerk hacer una nómina ahí que en aquel

tiempo yo no se si yo te lo conté era todo (señala cabeza) había que ir a la al banco con un

cheque que me daba la jefa y ese cheque y con ese cheque tu ibas a depositar te estoy

hablando de cuando yo trabajaba en donde esta el Tenedor un sitio donde hay un edificio

grande entonces tenia que ir frente a la plaza el banco uno que había allí y allí yo llevaba

ese cheque y allí me echaban vellones, medios pesos, pesetas, pesos de todo pa llenar

después un sobre con ya tu sabe según era, según era la cantidad que le tocaba a la persona.

Investigador- y a usted ¿Qué le gusta hacer en su tiempo libre?

Participante- A mi me gusta mucho leer, me gusta mucho leer y pasear, dale a la pata

Investigador- ¿En qué lugares ha vivido?

Participante- Yo desde que nací yo nací en Gurabo frente a las escuela Mateos González

García por allí yo nací después viví un tiempo en el cerro de Gurabo después pues compré

casa en Villa Marina hace cuarenta y tres años es donde vivo ahora

Investigador- Usted me ha dicho que le gusta mucho ir a la iglesia, ¿Qué cosas hacía en la

iglesia?

Participante- En la iglesia yo hacia como secretaria de la escuela bíblica tenia que anotar

los hermanos que iban y las mujeres, los temas que se daban, cantaba todavía sigo cantando

y dirijo cultos

Investigador- Aparte de la iglesia, fuera de la iglesia ¿Qué cosas les gusta hacer?

Participante- Que otras cosas me gusta hacer… me gustaba visitar también a las personas

que me necesiten.

Investigador- ¿Usted tuvo alguna mascota?

Participante- Horita estábamos hablando de de la mascotas, no era mía pero yo era la que

la atendía una una German Shepard esa German Shepard era cuando mi hijo estaba

pequeño el hijo mío llegaba cuando la perrita estaba en casa entonces el siempre que

llegaba a casa me pedía la bendición pero cuando estaba la perrita iba al patio primero ella

se llamaba Roda, Roda Mayo, que nunca me decía Mayo, Mayo te dio de comida y

entonces venía para atrás mami bendición.

Investigador- y ¿Algunas vacaciones durante su vida, que usted siempre se acuerda y que

es uno de sus momentos favoritos?

Participante- Las vacaciones (pitó, gesto con las manos de volar en avión) (luego risa)

Investigador- Volando, ¿a dónde?

Participante- A Disney, fui mucho a Disney esto pero ahora donde voy es a Republica

Dominicana ahora en junio se, ahora vamos en mayo treinta, mayo treinta y estamos una

semana es bien buena ir pa alla, pero hay mucha necesidad

Investigador- y ¿con quién va usted?

Participante- Yo voy con Daisy, la hija mía pero vamos con un grupo de hermanos de la iglesia bautista. Entonces cuando iba a Disney con cuando estaba mi esposo vivo con mi esposo y los nenes y entonces íbamos a todos los parques y me montaba en to'

Investigador- ¿Se montaba en todo?

Participante- Que que muchacha, si tuviera retratos. Me tiraba por todas las cosas esas hay si me gustaba to eso pero tu sabes yo estaba mas joven.

Investigador- De sus amistades de la iglesia o fuera de la iglesia, quienes usted considera que siempre han estado ahí.

Participante- Por lo menos la de la niñez y la de la juventud, pues esas se fueron fuera de Puerto Rico tu sabes esas no nos escribimos ni nada, pero ahora yo tengo unos vecinos que son bien buenos allí donde yo vivo, unos muchachitos esos mira si hay uno, yo no se si yo te conté la otra vez que se llama Gustavo esta estudiando en Mayagüez entonces el no vive allá allí viven los abuelos, pero cuando el llegaba lo primero que hacia era ir a casa y gritaba "Mayo Mayo" y si yo no estaba decía " ¿dónde estará? ¿estará en el norte, en el sur, en el este, en el oeste? ¿estará en Estados Unidos? y después me contaba a mí y yo hay nene pero bendito pues tu sabes que yo salgo, está en Mayagüez estudiando, el no vive allí viven los abuelos pero el conmigo, bueno tengo unos cuantos muchachitos que son así conmigo que mucha falta me hacen uno se gana el cariño de ellos.

Investigador- y de su boda, ¿se recuerda de su boda?

Participante- Hay bendito eso fue una novela

Investigador- Cuénteme esa novela

Participante- Mira nos conocíamos de muchachos, íbamos a la misma iglesia y que se yo, y

entonces él se fue para el ejercito, entonces una vez vino de pase y estamos en la iglesia y entonces me dicen las muchachas, ahí está Pérez Reyes, pues mira cuando salgamos nos vamos por allá nos vamos por el otro lado cosa de que no nos vea ,mira, yo tenia unos cuantos pretendientes, entonces nena al otro día apareció en casa, fue a casa a visitarme allá estuvimos hablando el se iba otra vez, pero me dijo si me aceptas nos casamos antes de irme porque yo voy ahora para Alemania y me quiero casar antes y entonces nena pues apareció todo. El traje yo fui casa de una prima mia que vivía que es la abuela del alcalde de Gurabo, el esposo siempre decía Mayo cuando tu te cases yo voy a ser tu padrino y yo dije espérate yo tengo el padrino ya, pues voy allá, allá a la casa de ella, entonces allá este llegó una, una vecina de ella y estamos hablando y yo le estoy contando eso y la vecina me dice mira al lado de casa hay una muchacha que se casó la semana pasada y tiene tu mismo cuerpo yo voy a averiguar, y tu puedes creer que me prestó el traje. Yo no se, yo no se ni como se llama todavía. Me prestó el traje apareció de apareció de todo. Entonces en la iglesia y la cena en casa porque imagínate. Y entonces ahí estuvimos dos días en el hotel La Montaña que es en Cidra. Entonces ahí esto vinimos acá y estuvimos en la casa de él una noche, tuvimos un día allá, entonces estuvimos un día en la casa de los papas de él. Entonces ahí sábado, o sea nos casamos jueves, entonces sábado salía el. Entonces se levantó temprano y se fue y entonces pues yo me quedé y me fui para mi casa. Y nena entonces lo mandaron pa' atrás par Puerto Rico. Después el decía yo me voy a jubilar en el Army pero parece que no le gusto y que se yo y entonces se, se licenció. Después estuvo como mecánico, ahí fue que estudió soldadura en la vocacional en Caguas, estudió soldadura y estudió mecánica, pero este, el sabia hacer de todo. Y ahí pues estuvimos hasta que el Señor me dijo me lo voy a llevar.

Transcription Pre- Treatment Session

Participant María "Mayo"

Investigador- ¿Cuál es su nombre?

Participante- María

Investigador- ¿Cómo le dicen a usted?

Participante- Mayo

Investigador- ¿Cómo se llamaba su mamá?

Participante- Librada

Investigador- ¿y su papá?

Participante- Rodrigo

Investigador- ¿Cuántos hermanos tiene usted?

Participante- cinco

Investigador- ¿Cómo se llaman ellos?

Participante- se llaman edma carmencita wilma David y saul

Investigador- ¿Usted era casada?

Participante- si

Investigador- ¿Cómo se llamaba su esposo?

Participante- Manolo, Manuel

Investigador- ¿Cuándo nació Manolo?

Participante-

Investigador- ¿y en qué lugar nació Don Manolo?

Participante- Aquí en Gurabo también

Investigador- ¿ y ustedes en que fecha se casaron?

Participante-

Investigador- ¿En qué lugar se casaron?

Participante- Aquí en Gurabo, si porque si porque la boda de nosotros fue una cosa así fuimos novios por dos o tres días porque el era militar y vino y entonces cuando vino fue a casa en seguida a enamorarme pero entonces me dijo pero me quiero casar

porque voy para Corea pa cuando la guerra de Corea me quiero casar antes imagínate
y el era un pollo y apareció todo una novela porque entonces ahí esto yo fui en casa de
mi tía la mama de este muchacho que hablo aquí conmigo ahora le dije titi María se
quiere casar y entonces el le decía el papa de el él es una persona es una persona bien
un tio político era un amor me llamo para allá y fuimos a una habitación y me dijo ten
cuidao' ese muchacho es bien bueno, pero la suegra y yo dije no te apures yo brego y
entonces nena pero te digo yo a ti que fue, fue una película porque apareció todo y
entonces yo fui a casa de mi padrino, de mi de mi de una prima mia la yerna del
alcalde de aquí de aquí de Gurabo porque el esposo siempre me decía el dia que tu te
cases yo voy a ser tu padrino pues fui pa' allá a buscar a los padrinos y entonces mira
tu si fue que te digo que eso fue ahí había una muchacha que estaba visitando y
cuando me oyo hablando entonces que se yo me miro y me dijo yo tengo una amiga
que se casó la semana pasada y tiene tu mismo cuerpo te voy a te consigo el traje
prestado nena y apareció el traje y todo todo todo apareció el traje apareció padrino
madrina aparecieron mira todavía tengo la sortija porque se me le cayo porque aquí la
pared tiene como unas piedritas y como uno de noche pone la mano asi y entonces el
aro la hija mia mayor cuando entro a la universidad se la ponía porque los muchachos
encima de ella enamorándola y me botó el aro pero apareció apareció apareció todo
todo apareció padrino madrina y entonces nos casamos en la iglesia bautista mi
pastor fue quien nos casó el pastor que me había bautizado y me había y tu sabes
entonces pues el fue el que nos casó muchacha y había fotógrafo yo quisiera que tu
vieras los retratos y la mucha gente que había en la iglesia porque mucha gente se
entero y me decían tu no me invitaste pero como tu eres mi amiga yo vine y yo pero
no te apures si yo no pude invitar a nadie apareció traje apareció padrino todo todo
toda una boda mira que tu veas y me salio bueno bueno pero le dio un cáncer que el…
el se trataba en veteranos porque el era para la salud el era bien tu sabes y se trataba y
se trataba y en lo que se sentía nena y cuando una vez que le hacen unas placas un
cáncer y entonces pues imagínate no no no duro lo hospitalizaron y a mi me decía la
gente ustedes debían de haber puesto una demanda al hospital de veterano y a la
doctora que brego con el porque si a tiempo porque el era bien puntual sus citas el no
se perdia una cita pero ella lo que le dijo lo que decía era Don _____ deje de

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fumar, Don _____ deje fumar como el fumaba cuando le chequearon pues en los pulmones y entonces cuando lo hospitalizaron en veterano y en veterano mismo murió de esa vez si de esa vez de esa vez no salió

Investigador- ¿Él se encuentra vivo?

Participante- No

Investigador- ¿Cuándo falleció?

Participante-

Investigador- ¿Usted tiene hijos?

Participante- si tengo tres hijos

Investigador- ¿Cómo se llaman sus hijos?

Participante- La mayor es Ivette, Daisy y Carlos Manuel

Investigador- ¿Sus hijos están casados?

Participante- si

Investigador- ¿Cómo se llaman las parejas de sus hijos?

Participante-

Investigador- ¿Tiene nietos?

Participante-   cuatro nietos el mayor se llama Francisco Mannuel, el segundo Christopher Lee, la tercera se llama Ingrid y la mas pequeña la bella, preciosa mía ella esta estudiando en Cayey en la universidad de Puerto Rico en Cayey los otros también estudiaron entonces esa es Carlianis la bebé la única que pudo tener la esposa de i hijo me salió bien buena y es bien inteligente

Investigador- y ¿Cómo se llaman sus nietos?

Participante-

Investigador- ¿A qué se dedican sus hijos?

Participante- Mis hijos, Carlitos es empleado de UPS, trabaja con UPS, entonces Daisy es educadora en Salud, el trabajo de ella , esta ahora mismo trabajando en San Juan y Ive no Ive estudio pero digo no estudio porque ella cuando entro a la universidad en Humacao esto apareció el novio en seguido y me dijo mami me voy a casar ay nena bendito pero termíname la universidad mami yo la termino después que después que me case cuando esté casada cogió unos cuantos cursos y cosas así y sabe hacer

muchas cosas pero no me termino la universidad entonces Carlitos se graduó de cuarto año cuando empezó a trabajar con UPS y ahí está lleva años allí

Investigador- ¿Dónde viven sus hijos?

<u>Participante</u>-

Investigador-¿A qué se dedicaba usted?

<u>Participante:</u> Trabajé en una fábrica de suéters haciendo suéters , trabaje en una fábrica de carteras haciendo carteras en una de bolas en Juncos si pero en la de bolas no hacia no no era este no hacia la nomina muchacha pero en aquel tiempo mija había que ir con una bolsita un cheque que me daba la jefa y después yo tenía que ser sacar una hay nena santísima porque había que mira con esta y las perras que llevaba iban en ese bolsito que cargabamos las pesetas cuando aquello habían medios pesos, los pesos y entonces yo iba al banco que quedaba la fabrica quedaba allí en donde es el tenedor y ahí yo tenia que ir a pies hasta frente a la plaza con el cheque que ella me daba y entonces traer to' esos chavos imagínate en este tiempo muchacha me hubieran matado y tirao' como bolsa por ahí.

Investigador- ¿Qué le gusta a usted hacer en su tiempo libre?

<u>Participante</u>- Siempre me ha gustado leer mucho fíjate si eso me gustaba mucho y pasera, de pata caliente, la paseadora. Tengo un vecinito que yo creo que yo te lo conté que los abuelos viven al lado de casa entonces el es loco conmigo son locos con nosotros el papa se crio allí entonces el vive en vive en juncos ahora esta viviendo en juncos pero entonces vivía aquí en un campo de Gurabo y los abuelos se quedaron viviendo allí los abuelos paternos entonces el venia en casa de los abuelos y en vez de saludar allá venia primero a casa y llamaba Mayo, Mayo, Mayo ¿Dónde estará? ¿Estará en el norte? ¿En el sur? ¿Estará en el este? ¿Estará en el oeste? Esta debe de estar en los Estados Unidos, como tu eres tan pati caliente, en que lugar del mundo estará.

Investigador- ¿En qué lugares ha vivido de adulta?

<u>Participante</u>-   aquí en Gurabo

Investigador- ¿ Algunas vacaciones memorables que usted recuerde?

<u>Participante</u>- ¿A donde me gustaba ir? antes yo iba mucho a Disney y me encantaba cuando mis hijos estaban pequeños me gustaba ir a Disney, aquí en Puerto Rico yo creo que no hay parador que no hallamos visitado, íbamos a paradores allá en

Combate, allá en Cabo Rojo ¿cómo se llama el otro que hay? está Combate y está Boquerón, ¡Ay si! chacha' íbamos a muchos sitios a muchos sitios aquí en Puerto Rico. Acá en Dorado, íbamos a Dorado en Dorado a las playas y dábamos vueltas por allí en Humacao también me gustaba ir, bueno a donde quiera que pudiéramos llegar, llegábamos. Iba con Tito los nenes y la esposa, cuando el estaba vivo íbamos mi esposo y yo con los nenes y después cuando el murió, pues los muchachos son los que ahora me, me sacan. Vamos a Santo Domingo, viajo todos los años a Santo Domingo alla a Punta Cana, Higuey

Investigador- ¿Tenía alguna mascota?

<u>Participante</u>- Muchacha en casa nosotros tuvimos , ¡Ay es que tu me vas a hacer seguir recordando!, en casa el, el, el esposo de la hermana de mi esposo, un cuñado de mi esposo le trajo a mi hijo, hijo estaba pequeño entonces le trajo una perra German Sheppard tu sabes como son esas perras ¡Ay nena! y ese nene era loco con esa perra y el llegaba de la escuela y entraba para el patio donde yo la tenia a ella suelta en el patio y le decía, ella se llamaba Roda, y le decía Roda Mayo, el nunca me decía Mayo, Mayo ¿Te dio comida? y después venía mami bendición y la perra le dio le dio como una cosa no era pulga era como una garrapata que le decían así muchacha y la pared de de, una pared de casa eso la puso y tuvimos que salir de ella ir y dejarla muchacha ir y dejarla con un con un dolor pero es que se puso demasiado, demasiado y no es que se le puede pegar eso a uno

Investigador- y ¿Mejores amigos?

<u>Participante</u>- ¿Mejores amigos? cuando éramos pequeñas tenia una amiguita que en la casa eran todos varones, tenia dos hermanas mayores pero eran de, de padre y en la casa eran todos varones y ella la única nena. Se llamaba Justa San Burgos ¡acho! y éramos bien amiguitas, bien amiguitas y entonces tenía a , esto a Carmen Gómez, a Elba Gómez a Elpidia García esas eran mis vecinitas, Lydia Ramos , Iris Ramos esas eran cinco hermanitas y todas eran siempre estábamos juntas. porque antes eso era jugábamos todas en la calle , hacíamos una bola de papel y buscábamos un palo a jugar en la calle y cuando aparecía un paseíto pues. ¡Ah! eso si yo iba mucho a casa de ¡ay si! mi abuela, mis abuelos materno los papas de mami ellos vivían aquí en santa Rita en un barrio que hay por ahí y tenían una finca bien grande ¡muchacho! y esto, entones

yo tenia una tía que trabajan en Caguas y entonces se quedaba en casa y los viernes por la tarde me iba a casa de los abuelos hasta el domingo por la tarde e iba y se quedaba en casa ella siempre me invitaba y me llevaba ¡Ay! pero que mucho me encantaba eso allí, había una barraca de esas bien grande allí y allí nos metíamos todos los primos a jugar. Había una quebrada, había un pozo que eso pasaba como por debajo de la tierra así y después era que llegaba como al pozo que le metían latas y tubos y lo que pudieran y ahí cogían agua eso me encantaba y después, después de la del pozo ese era que había una quebrada y allí nos bañábamos ¡ay muchacha! eso era tan rico. Tenían mucho café sembrado yo me acuerdo cuando el abuelo mío se ponía muchacha los "destos" los un fogón de piedra y esas cosas, allí era que lo tostaban y después se sentaba con un pilón grande y ahí sacaban la harina y entonces tenían vacas y las ordeñaba el abuelo y el abuelo cuando yo estaba allá cuando las iba a ordeñar "Niñas tráiganme acá una coca que voy a ordeñar la vaca. Una coca era una de de de coco de una forma de coco de un coco que lo arreglo y ahí me ordeñaba la vaca ay yo te digo a ti muchacha que yo era loca y después tenían una muchos primos que compartíamos porque mis abuelos vivían aquí y como la finca era grandes pues la carretera pasaba por el medio ellos vivían aquí y después de la carretera vivía un tío mío y en la casa de mis abuelos vivía otro tío con ellos allí también y esto ¡ay muchacha! y con todos esos primos jugando allí, y los abuelos eran bien buenos ay olvídate y ese abuelito mio eso era bien alcahuete conmigo eran locos conmigo y yo loca con ellos. Y entonces ellos tenían muchas, muchas cosas sembradas, muchas matas de guineo, muchas, bueno ellos vendían en la plaza del mercado de, de Rio Piedras de esas mismas verduras que sembraban allá iban y las vendían y cuando mataban un lechón

Transcription Pre- Treatment Session

Participant Paula "Paulita"

Investigador- ¿Cuál es su nombre?

Participante- Paula _____, _____

Investigador- ¿Cómo le dicen a usted?

Participante-

Investigador- ¿Cómo se llamaba su mamá?

Participante- Antonia _____

Investigador- ¿y su papá?

Participante- Cándido _____

Investigador- ¿Cuántos hermanos tiene usted?

Participante-

Investigador- ¿Cómo se llaman ellos?

Participante-

Investigador- ¿Usted era casada?

Participante- Si

Investigador- ¿Cómo se llamaba su esposo?

Participante- Teodoro _____, _____

Investigador- ¿Cuándo nació Manolo?

Participante- El día de los muertos yo se que es en noviembre 1 pero noviembre 1 o 2 pero no recuerdo el año

Investigador- ¿En qué lugar nació él?

Participantes- En Aibonito

Investigador- ¿En qué lugar se casaron?

Participante- En la iglesia Nuestra Señora de la Merced en Cayey

Investigador- ¿Él falleció?

Participante- NO está vivo. Estaba aquí y yo vine aquí y el se fue.

Investigador- ¿Usted tiene hijos?

Participante- si , 3

Investigador- ¿Cómo se llaman sus hijos?

Participante- Teodoro _____, Luis Roberto _____ y Pedro Antonio

_____

Investigador- ¿Tiene nietos?

Participante- tres tengo

Investigador- y ¿Cómo se llaman sus nietos?

Participante- Tengo a Robertito, a Sheyli, el hijo de Robertito como es que se llama, y

Xavier

Investigador- ¿A qué se dedican sus hijos?

Participante- Ella trabaja en el este en el este en ellos trabajan en factoría. Uno

trabaja de maestro, el mayor.

Investigador- ¿Dónde viven sus hijos?

Participante- ellos viven Caguas los tres, no uno vive en Río grande. El ingeniero

químico vive en Rio Grande porque como el trabajo es allí mismo.

Investigador- ¿Dónde usted nació?

Participante- el día 15 de enero 39

Investigador- ¿En dónde?

Participante- En Cayey

Investigador-¿A qué se dedicaba usted?

Participante: Después que estaba mayor de edad, trabajaba en comedores escolares

Investigador- ¿Trabajó por mucho tiempo ahí?

Participante- 30 años

Investigador- ¿Qué le gusta a usted hacer en su tiempo libre?

Participante- De todo, de todo. Yo tejo, bordo, corto y coso. De to'.

Intervención de investigador para aumentar conversación

Este yo aprendí yo aprendí bien nenita. Una muchacha tejía, y yo fui y me pare así, la

mire y dije mami cómprame una boya de hilo. y ella dijo pa' que tu quieres una boya

de hilo. Le dije cómpramela, cómprame una de las mas chiquititas no grandotas una

chiquitita y ella fue y me trajo la boya de hilo y le dije le dices que te den una agujita

numero 5 y fue allá y le dijo demen una una boya de hilo pa' tejer y me dan una aguja numero 5 porque es pa' la pa' la hija mía y vino en seguida. y hice un clase de tapete y le dije toma te lo voy a regalar porque tu fuiste y me trajiste todo eso tu. y dice esta muchacha le ha dado con con con aprender a tejer y ya ya un hizo un tapete. Hago blusas de to hago.

Investigador- ¿En qué lugares ha vivido de adulta?

Participante- No en Cayey y aquí ahora

Investigador- ¿ Algunas vacaciones memorables que usted recuerde?

Participante- A donde quiera que ellos se fueran me iba. Yo soy andariega. Yo la patita me encanta

Investigador- ¿Tenía alguna mascota?

Participante- Ah yo tenían un perrito que todavía esta en casa. El otro día yo fui y yo dije ¿lo habrá matado un carro? y cuando llegué voló y se me brincó encima. Y yo le dije a la muchacha: Luz, ay Luz el perro mira y me dijo Paula pero si tu me dejastes una bolsa así (con las manos indica tamaño del bolso) de de comida mas lo que yo le doy por eso es gordo. Y esperando hasta que llegue. Porque el no va a la carretera. El le tiene terror a los carros. El único perro que le tiene terror a los carros me dijo, buena suerte pa' mi.

¿Algún otro animal que tuvo?

Gallinas, tuve gansos, gallinas patos de todo y le hice a los patos le hicieron un mi papa vino y le hizo un un un bai balneario pa' que ellos se baña.. el lo hizo pa' que los reces bebieran y yo cojí pa que los patos se bañaran y le decía a mami esa nena

Transcription Pre- Treatment Session

Participant Paula "Paulita"

1. Investigador- ¿Cuál es su nombre?
   Participante- Paula _____, _____ 1, 3,1,0/ 0,3,0
2. Investigador- ¿Cómo le llaman?
   Participante- Paulita 1,1,1,0/ 0,1,0

3. Investigador- ¿Tienes hijos?
   Participante- Tengo tres 1,2,1,0/ 0,0,0,

4. Investigador- ¿Cómo se llaman?
   Participante- Pedro, Junior, que es Teodoro y Robertito 1,7,1,0/ 0,4,0

5. Investigador- ¿A qué se dedican?
   Participante- uno, son ingenieros ellos si y trabajan en la factoría 1,10,1,0/ 0,2,1

6. Investigador- ¿Cómo se llama su esposo?
   Participante- Teodoro 1,1,1,0/0,1,0

7. Investigador- ¿Tiene nietos?
   Participante- Tengo a Xavier, a a Sheili, y mas ninguno, no me acuerdo 1,12,1,0/0,2,0

8. Investigador- ¿Cómo se llaman?
   Participante- Contesto en la anterior

9. Investigador- ¿De dónde es usted?
   Participante- De Cayey 1,2,1,0/ 0,1,0

10. Investigador- ¿A qué se dedicaba?
    Participante- trabajé en factoría . De to' hice 2, 6, 1,0/ 0,1,1

11. Investigador- ¿Qué le gusta hacer en su tiempo libre?
    Participante- Andar y tejer 1,3,1,0/ 0,0,2

12. Investigador- ¿Tiene mascotas?
    Participante- Un perrito , todavía esta en casa, Pedrito

vino el otro dia y me dijo mami allí esta el perro y yo le dije pues mira llevale, compra una caja de comida y se la das a Luz que me le que me le eche comida de perro y me le ponga agua. 3, 52, 1,0/ 0,11,8

13. Investigador-¿A dónde le gustaba ir de vacaciones?
   Participante- En un crucero que cuando iba a a en un crucero y cuando iba a la playa me encanta la playa. a luquillo que es la mas limpia, es la mas limpia es la mejor de todas las playas de puerto rico y mira que las he andao' todas fui a dorado fui a arroyo ande todas las playas pero la mejor es luquillo. 3, 64, 1,0/ 4 ,11, 4

Appendix I- Example of MB Pages

Mi nombre es María, pero me dicen Mayo.

Appendix I- Example of MB Pages

Tengo 3 hijos se llaman; Ivette, Daisy y Carlos.