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## Comparison of Traumatic Events in People to Alzheimer's Patients

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#### **Abstract**

Alzheimer's disease is more common than any other disease known, with no cure in the near future. This research addresses how traumatic events may affect Alzheimer's patients in comparison to people who do not have Alzheimer's disease. By preventing an Alzheimer's patient from a trauma, the symptoms of the disease do not progress as quickly. In the collection of information, the use of articles relating to traumatic events and those related to Alzheimer's patients were used. By comparing the case studies of 4 or 5 people affected by a trauma, Alzheimer's patient symptoms seemed to progress more quickly and were unable to put the events behind them. There is not much on the topic of how traumatic events affect Alzheimer's patients. Therefore, this research could open the door for more studies. Within the future, hopefully more studies will be performed in regard to Alzheimer's patients.

**Keywords:** Traumatic events; Alzheimer's; Trauma; Traumatic events in Alzheimer's patients

#### Introduction

# The effect of traumatic events on Alzheimer's patients

Hurricanes, tornadoes, abuse, and deaths could be seen as an array of subjects and events. These events cause detrimental effects to the world, a community, and people all together. Alzheimer's disease causes memory loss and different reactions towards events than in people without Alzheimer's. How do those with Alzheimer's respond to these events versus those without Alzheimer's? Traumatic events influence a person's wellbeing whether it is long-term or short-term; but, when comparing people without Alzheimer's to those with the disease there are very distinct differences.

#### **Traumatic events**

Every person responds to everyday situations differently. Emotions may not come through clearly. Coping happens in various ways for people. Traumatic events within a person's life

are incidents that cause emotional, spiritual, physical, and/or psychological defacement. Each year within the United States, approximately 2 million people experience a natural disaster; traumatic events affect nearly 39% of the U.S. population within their lifetime [1]. The sources of the trauma will follow a person over a period, and possibly will stay with them forever.

Trauma hits people in waves; some are not even affected. For those that are involved, shock is the first to come. When one is shocked from something happening, the severity of the situation does not register. Shock can cause numbness or distance to set in between what happened and the people involved. After the shock has dissipated, feelings begin to show and responses become visible. Trauma can come and go for some, but for others the effect of the trauma may be there to stay.

Traumatic events within a person's life may not be visible, but the pain is there. For one person a situation may not have an effect, but for another it could have an unmeasurable effect. Examples of traumatic events are, but are not limited to; natural disasters, physical injury, and domestic abuse. The events can be classified from mild to severe, along with some widely known events resulting in severe distress [1].

When the trauma does not sub-side, long-lasting psychological disorders set in. Post-Traumatic Stress Disorder (PTSD) occurs after an involvement of a traumatic experience or witnessing a traumatic event. PTSD tends to last the length of the person's life and does not go away. The disorder tends to alter a person's outlook to fear anything associated with the traumatic event that occurred. PTSD patients try to avoid situations or triggers related to the experience [2]. Trauma can cause various outlooks upon life to change, and people who go through the traumas change as well.

#### Alzheimer's Disease

There are all types of diseases and disorders in the world that are genetic. Some of the diseases and/or disorders can be prevented through lifestyle choices and others that are not prevented can be monitored. There are medications that help with symptoms of the disease and/or disorders; but, for some cases there is essentially no hope. Type 2 diabetes is genetic but can be prevented through diet and exercise. Bipolar disorder is

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genetic and is monitored by a physician along with medications. The big question is: What about dementia patients?

Dementia comes in a variety of forms. Through all of the research being performed, there are no proven causes of dementia [2] although it is known that any type of brain injury could increase the risk for dementia [3]. Dementia is defined as the steady deterioration of memories over a period of time [2]. The symptoms progress slowly at first then increase over the years, until the point comes where one forgets how to eat. Anything that represents memory loss is categorized under the umbrella of dementia.

The most common, widely known form of dementia is Alzheimer's disease. Alzheimer's disease is also the sixth leading cause of death in the United States [3]. Alzheimer's, unlike other forms of dementia, is not curable [4].

The symptoms of Alzheimer's disease are forthright. Memory loss is the key symptom, although memory loss does not significantly point to Alzheimer's. For those living with Alzheimer's, the disease tends to progress in the way of forgetting where things are located, forgetting family, forgetting self-care, and eventually forgetting how to eat. The progression of the disease can take place in as little as 2 years to 10 years.

There are medications to mitigate the symptoms of Alzheimer's disease, but not the progression. Progression of the disease tends to run its course, even with the usage of medication for the symptoms. Eventually, it gets to the point that patients are immune to the medications. Medications in general only work for so long.

## **How Traumatic Events Effect People?**

Every person goes through traumatic events, even if that is only one. Traumatic events include: violence exposure, natural disasters, injury and death [5]. There is not a person in the world that does not experience a form of trauma. Two sources of trauma that could be examined would be the impact of a tornado that hit a college campus and a sexual assault that occurred when one was a young teenager.

Tornadoes are heard about from coast to coast, and the experience is detrimental for those involved. In a case study of a tornado that hit Clarksville, Tennessee in 1999, a college campus with 5,000 students enrolled was affected. Winds were gushing 207 to 260 miles per hour. Students and faculty were all affected and after the event were asked to give their personal experiences. Some felt distressed, overwhelmed, and fearful; other felt lucky to be alive. There were interventions at three different points after the event to measure the anxiety, anger and irritability levels; months 1, 4 and 9 were when the administration of the tests occurred. The data between month 1 and 4 went up slightly, but the data between month 4 and 9 decreased [6].

Sexual assaults take place every day within the United States, even within communities. A case study was performed in regard to PTSD and OCD symptoms after a sexual assault. 49-year-old, Albert was 14 years old when he was raped by a 32-year-old male. Around the age of 21, Albert started experiencing signs of

PTSD after bringing up the trauma with his partner. At the age of 34 his OCD symptoms arose after speaking with a therapist about the trauma. The OCD showed through his constant urge to clean himself and his house because he had a consistent feeling of being "dirty". At his age of 49, Albert was referred because of a 6-month absence from work because of his sickness. Albert was given paroxetine for the anxiety. Three months later in a clinical trial, he was given Eye Movement Desensitization and Reprocessing therapy; which is a psychotherapeutic method where the traumatic event can be processed and identified through imagery. Out of nine psychotherapy sessions, 6 were for the PTSD which had subsided and the remaining 2 were for the OCD. A year after the course of therapy, with continued paroxetine use, Albert was in remission from the PTSD and OCD symptoms [6].

For those who have been through a traumatic experience it is important to address the event from the start, to be able to successfully put the trauma behind [6]. Clinical trials are an option for those who seek treatment for co-inhabiting symptoms, like PTSD with OCD. Upon the occurrence of a traumatic experience, people should use the resources provided: such as counselling and support groups. Everyone can learn and benefit from the stories of others that have had the same experiences.

# How Traumatic Events Effect Alzheimer's Patients?

For older people, traumatic events do not seem to have an effect on one's wellbeing. But when an Alzheimer's patient experiences a traumatic event the effects are unmeasurable because of the patient's response. Traumatic experiences for those without Alzheimer's are detrimental enough, but for Alzheimer's patients it could means to an end. Patients who have Alzheimer's are already susceptible to depression, irritability, and distress because of triggers: such as fear, pain, and panic [7]. Therefore, when an Alzheimer's patient has recollections of a traumatic event or experience, one's feelings may not come through clearly or feelings may intensify compared to those without Alzheimer's.

Those with Alzheimer's may experience short or long-term memory loss. For those with long-term memory loss, things that happened years or even decades ago may not register. For those with short-term memory loss, there may be a reoccurrence of a traumatic experience that takes place frequently. This can cause current events that happen within the patients' lives to connect with past experiences. Traumatic events can be associated with emotional memory which causes negative effects of the patient's.

An 86-year-old woman named Betty, who was born in Vienna, Austria in the year 1904 and remained there throughout the duration of the Holocaust. For the sake of the staff, no one knows of Betty's past, except for a social worker who knows only the facts of where she was born, her being locked in a cellar, to then emigrating to the United States. From the descriptions of the incident, it is evident that her long-term memory is still intact. Although, the dates of the experience are difficult to

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recollect. Betty has times when it seems to her like she is still living it and times when there are recollections [4]. For Betty, her memories regarding the Holocaust "trigger the resurfacing of troubling, even frightening, memories" [4].

A 75-year-old woman often misplaced her bag, which led to her first visit. Upon the second visit, 17 months later, she could not recall simple math or even shop alone anymore. 5 and half years after the first visit, she could not remember a trip she took with her family three weeks afterward. 7 years after her first visit, her son passed away from cancer and three weeks after the death she acknowledged that her son had passed away but could not remember the facts of the services held. About a year after the death of her son, she could not remember the little things, like how to dress and bathe. Four years after the death of her son she was admitted to the hospital for unconsciousness and after two days in the hospital she passed away from cardiac failure [8].

A 65-year-old woman went to a hospital because she was having feelings of anxiety and trouble sleeping after visiting her mother in a hospital. For the past two years she was not able to cook, make phone calls, or shop without assistance. Twenty months later, her mother died and 18 days later she acknowledged that her mother died but could not remember the services held. Three years after the first visit, she was forgetting to take her medications. Six months later she could not do simple things, like putting on clothes and bathing. Five years after the first visit she was admitted into a nursing home [7].

For Alzheimer's patients it is difficult for them to connect an event that happened with the time period it occurred in. Therefore, events that have happened in the past resurface and seem relevant. Reliving traumatic events is not easy for anyone, but for Alzheimer's patients it happens frequently. The one living with Alzheimer's suffer because of the reoccurring memories, although they do not remember day to day.

#### Personal Account of Alzheimer's Disease

I have had a first-hand account of the progression of Alzheimer's and how it affects patients. My great-grandmother, Alice Over by, passed away on April 5, 2014 after a long battle against Alzheimer's disease. She had resided in a nursing home soon after the death of her oldest son and husband in 2005 at different times. She had also had knee replacements and with the progression of the Alzheimer's it was difficult for her to walk again. Throughout her stay in the nursing home, she was treated poorly regularly. She was irritable and depressed, which caused her to show aggressive behavior and yell often. At first, she

could still talk and recognize people, but after a year or two those skills deteriorated. Every holiday was celebrated with her coming home until she no longer could. I would say after about 3 years of being in the nursing home she could no longer feed herself. In 2012, her middle son passed away. By the end of 2013 and early 2014, her health was quickly declining which lead to her being moved to a different wing of the nursing home. A week later, she passed away. In my point of view, in the case of my great-grandmother, the move from one wing of the nursing home to another brought on the last moments we were able to spend with her.

#### Conclusion

Although not a lot of factual information was found through studies, traumatic events do play a key role in the progression of Alzheimer's symptoms. In future research Alzheimer's patients should be monitored before and after a traumatic event to gather more information. Some traumatic events could be kept from the patients to protect their health. Also, younger generations can now get tested for the Alzheimer's gene; this could help in research studies involving traumatic events as people age, especially Alzheimer's patients. Alzheimer's is a growing disease which should be monitored by caregivers.

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