

# UNIDAD EDUCATIVA PARTICULAR JAVIER **BACHILLERATO EN CIENCIAS**

# **MONOGRAPH**

"Alzheimer: Analysis of social issues experienced by patients."

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### **GRATITUDE**

In an honest, devoted and respectful way, I am grateful to my parents for all the support given to me throughout my life, not only academically, but also emotionally I want to thank my brother to stand by me at every moment, calmed me and asked me to think differently about every difficult situation. Neither with multiple actions, now with this small work I will be close to compensate them what they have done for me, I hope that throughout my life, at least, wish to get a bit closer to compensate them all their love and dedication. Finally, thank you with all my heart.



### **SUMMARY**

The following investigation will do all the researches about Alzheimer dementia, how affects the human body and the most important the brain, where with the pass of the years the nervous cells decreases and deteriorate the brain, also this work contemplates the different effects that it could present in the environment and at the same time the person who suffer from this disease.

The present study talks about the causes and effects that could produce this dementia in the environment of the family and relatives and how this can change completely someone lifestyle.

Alzheimer has three stages, the one who represents all the result or consequence and how this affects the individual over the years, this dementia doesn't have any cure but there are many treatments such as medications or just stimulation of the brain

This mentally illness affects the person over the years and get worse throughout time as I said recently, in this monograph plan are two witness who live with persons that experiment Alzheimer disease and how has been their life over the last ten- twelve years, and will focus on the different points of view and their own recollections of their life through this difficult process depending on the situation. Also, this can emerge many situations for the person who is taking care of the patient because they also need to attend other personal duties.



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### INTRODUCTION

The following monograph will analyze and emphasize on different Alzheimer aspects also known as senile dementia of type Alzheimer, today, it is one of the Most known diseases in the world because It places the brain on a severe condition, basically it only affects old people about sixty-five years old, which produces a serious physically and mentally damage. Therefore, this condition Critically affects the individual's conduct, and the most importantly the memory, the loss of nervous cells also known as neurons deteriorates different parts of the brain

The loss of nervous cells also known as neurons can deteriorate different parts of the brain causing severe changes in personality and memory, for example mood changes like stress and sadness; this type of environment can cause their family an emotional situation, is a long process that put in risk the life of the person and affects emotional the people around this environment.

To know the difference within an Alzheimer person's environment and a normal family, an investigation will analyze the lifestyle of individuals, what is the challenge to live with a person with this disease and the special precautions they have to follow up and that needs to be taken, how the patient life change in consequence of having this disease, and what are the possible treatments that it could involve this illness.



This problem affects all individuals old age, that is why in our childhood and adult life our body and brain needs to have an interactive life and not a sedentary, the consequences that contains Alzheimer disease are a lot, but there is one and the most important that is how this affect the patient and people around him or her because the severity of this disease.

With time, this illness entails to have different stages like mild, middle and severe, each one of them has others characteristics that are going to be analyzed and explained multiple transformations that take place with relatives living with people with Alzheimer's will be analyzed in this paper, also this investigation will gather all the information that involve this disease especially what are the possible causes to earn this type of dementia, and the overload of work that could carry on the family but also the caretakers in some cases



### **CHAPTER I**

Alzheimer: generalities and causes.

# 1 General aspects that comprehend Alzheimer

According some investigations Alzheimer's is a dementia that could happen in old persons, but it is more common in old people, the first symptoms that you can notice when someone has Alzheimer's is the loss of memory but also the loss of normal abilities that a human can do, the most significant problem is the death of brain cells which interfere in their daily life.

This progressive disease has a long process that disease is a long just get worst, in the beginning there could be only loss of memory and you wouldn't know what happen to her or him, also one more thing that you wouldn't do is to come up with a conversation, or do your activities in a good way just like the old times.

Alzheimer is the loss of many abilities or skills, not only forgetting words or moments, like many of us know about this illness, the persons who suffer of this can live 20 years but depends on the age and how healthy he or she will be now.



### 1.2 Principal causes

As a matter of fact, an illness can be generated by many factors, but there are several risks at the moment of having this dementia, we all have to know the possible causes that our health could have because having an illness brings several problems in our body and life.

# 1.2.1 Family background

Knowing your medical history can help many times to save your lives, like what kind of blood you are, if you are allergic to a medicament, or also if you have any illnesses like diabetes, that is why it is important to know all your medical references

The majority of persons who have Alzheimer's it isn't because a genetic problem, but it can be caused if chromosome 19 isn't reproducing a protein that can affect your health

Another factor is family history. Scientific research has found that people who have a parent, brother or sister with Alzheimer's have two or three times more probabilities of developing the disease. The risk increases as more family members have the disease.

#### 1.2.2 Brain Injuries

Having a brain injury can happen to anybody, it doesn't matter the age, but it can be dangerous, that depends on how severe it could be. An injury to the head could be the worst because it might affect the brain, a hit or a fall which leaves you unconsciousness, could be a big risk for getting Alzheimer's or dementia.



According to the national association Alzheimer's office, a percentage at risk of this illness:

One of the key studies showing an increased risk found in older adults with a history of moderate traumatic brain injury had a 2.3 times greater risk of developing Alzheimer's than seniors with no history of head injury, and those with a history of severe traumatic brain injury had a 4.5 times greater risk. (2017).

The severity of symptoms depends on whether the injury is mild, moderate or severe:

If it is mild is also known as a concussion. It can knock you out for a few minutes, the injuries can be present after a short time and it can be temporary like hours, weeks or months but this won't affect in a long term.

If it is moderate it will last more than a few minutes, the symptoms are like mild injury but with more consequences and more serious and longer-lasting.

If it is severe, we are talking of a big problem where this can affect your brain and cause a dementia like Alzheimer's, where you can be unconsciousness more than a day.

An ordinary person can end up gaining many physical and health problems if suffers this type of accident, many do not take it into account, but it can lead to a kind of dementia that is gradually maximized to the point of not having consciousness like is Alzheimer.



### 1.2.3 Down's Syndrome

First, downs syndrome is a condition on which a person is born with extra material in chromosome 21, as if having more genes, that is why they suffer several health problems

Grown people affected by Down syndrome are at big risk of having some sort of dementia just like Alzheimer disease but why can this syndrome produce this illness?

Persons with this syndrome can live 50-60 years old but Alzheimer disease appears at age of 65, this means that if someone suffers from this dementia they are younger-onset Alzheimer's.

### **1.2.4 Old age**

Alzheimer's Association National Office (2017) said: "The greatest known risk factor for Alzheimer's is increasing age. Most individuals with the disease are 65 and older. One in nine people in this age group and nearly one-third of people age 85 and older have Alzheimer's."

Alzheimer as it said, takes place around 65 years old, this disease is common in adults, one of the many dementias that an adult can have. An ill person would probably live around 10 to 20 years, but it depends on how this illness elapse in the life of the patient and the care that he or she could receive.

# 1.3 Other possible risk factors

These kinds of risks are secondary's, but they are still important, if you don't have a healthy life you would have many illnesses not only dementia but others, that is why we must consider all the possible factors that can cause having Alzheimer even if we don't take much care of the following topics.



### 1.3.1 Healthy diet

A healthy diet can help us in our daily lives and more if we are old, according to Alzheimer's Association National Office said:

One promising line of research suggests that strategies for overall healthy aging may help keep the brain healthy and may even reduce the risk of developing Alzheimer's. These measures include eating a healthy diet, staying socially active, avoiding tobacco and excess alcohol, and exercising both the body and mind. (2017).

As mentioned, having a live with good nutrition can help us in many things like having physical resistance or sleeping better, there are many advantages of eating well and doing exercises, you can have a long life, many people know that, but, someone just don't care about it and that is why illnesses happen to human beings.

### **1.3.2 Gender**

This is a controversial factor, because our gender defines how we might have dementia like Alzheimer's, in women there is a bigger risk than men because women have an expectancy of living longer than men, and the likelihood of developing Alzheimer's increases with age and it is true, everyone has Heard that the range in girl's lives are longer than boys.

Also, the levels of estrogen are lower after menopause, and, that increases woman's chance of developing Alzheimer's.



# 1.3.3 Sedentary and inactive lifestyle

If your body is accustomed to just being in one place without doing active exercise you have an inactive life.

Since we were kids, our parents teach us to always read and do some exercises and when we grow up this just gets boring and it is over, but this can't happen because our brain ask us to keep it in constant activity because it must be developed.

Having a sedentary life can produce many consequences like obesity, or an illness in our muscles, not having an active condition our body and worst our head can cause us to lead a life without activism in our brain, so it gets used to not interact and gradually loses that development that persons must have.

That is why our neurons need to be in constant activity or we will lose it.



### **CHAPTER II**

# Possible treatments to endure the degenerative loss of memory

# 2.1 Treatments according to disease stage

Alzheimer's Association National Office (2017) said: "Currently, there is no cure for Alzheimer's. But drug and nondrug treatments may help with both cognitive and behavioral symptoms".

According to Alzheimer's Association, there is no cure but surely treatments, it depends also in which stage the person is and knowing these doctors, hospitals, or relatives could give them the proper treatments.

#### 2.1.1Treatments according to mild stage

In mild stage, the symptoms are usually not evident, persons with this disease start to not remember words or names and someone doesn't notice this because it can happen to anyone.

One feature is the loss of memory, where the persons don't remember recent information and ask questions more than two or three times.

Also, they can't solve problems or complex labors like making a hard decision or one example to organize an event. One of the most important is the change in their personalities, as reducing the motivation to do a common labor, or they can be angrier and irritated, sometimes not being their usual selves. The difficulty of expressing their thoughts and using the appropriate words in a conversation, it is common that they lose their things or being disoriented.



There are different types of drugs depending on the stage they are, these medications are just to treat the different manifestations like the loss of memory, problems with thinking or confusion, the following pills are just to treat mild and sometimes middle stage.

Cholinesterase inhibitors are required to handle symptoms associated with memory and language.

According to Alzheimer's Association National Office (2017) says "Cholinesterase inhibitors work by slowing down the process that breaks down a key neurotransmitter.

Donepezil, galantamine and rivastigmine are cholinesterase inhibitors".

This slows down the effects of the disease, but the results depend on every single individual, in some cases, they are accepted or tolerated but also this produces many secondary effects, for example, nausea or loss of appetite.

# 2.1.2 Treatments according to middle stage

Alzheimer's Association National Office (2017) said: "Moderate Alzheimer's is typically the longest stage and can last for many years. As the disease progresses, the person with Alzheimer's will require a greater level of care".

As we read, this stage is the longest, because little by little the patient will begin to lose his memory and people around them have to take care of them.



According to Alzheimer's Association National Office (2017) "You may notice the person with Alzheimer's confusing words, getting frustrated or angry, or acting in unexpected ways, such as refusing to bathe. Damage to nerve cells in the brain can make it difficult to express thoughts and perform routine tasks".

One treatment is memantine Which also increases memory and other functions in the brain and body like the ability to do simple activities, and language; it is been confirmed that if individuals with middle or moderate Alzheimer's are taking this medicine the result can benefit some people but also can cause different effects in the organism like confusion or a headache. This medication helps to improve the brain and mental function to do daily activities.

Another prescription is Donepezil which can be consumed in all stages or relate cholinesterase and memantine, but this can have many issues because the effects of the pill apart of handling the deficiency of memory can cause secondary effects as constipation, nausea vomiting and others.

### 2.1.3 Treatments according to severe stage

Alzheimer's Association National Office said:

In the final stage of this disease, individuals lose the ability to respond to their environment, to carry on a conversation and, eventually, to control movement. They may still say words or phrases, but communicating pain becomes difficult. As memory and cognitive skills continue to worsen, significant personality changes may take place and individuals need extensive help with daily activities (2017).



In this stage there are more emotions than others, is the most difficult because they lose all their abilities, and manifest different expressions like anger because, they can feel scared or misunderstood depending on the situation; they can hallucinate like hearing, seeing or feeling things that aren't true, in most cases sleep disturbances and others.

Exists treatments that involve the use of pills, and others like rehabilitation to control the behavior instead of using only medications, for example the environment that surrounds people with Alzheimer's disease has a big influence regarding this topic., Being in a different place or new people as nurses can be helpful, these people are experiencing with problems about their emotions, therefore, it becomes a great challenge to keep them relaxed and feeling safe and peaceful.

Other treatments are the use of pills for depression, anger and disorientation to control the patient's' emotions, the prescriptions are the same as the moderate stage that are donepezil, cholinesterase, and memantine.

### 2.2 Psychological effects of family members

The effects in the family could vary because it depends on how close he or she is to the patient.

In a couple of married people is common in old age, this can set the relationship on stress, also the husband or wife that is taken care of the person with this disease can think that his or her life is ruined because now they must take care, and it can be painful because in an Alzheimer person is common to not remember faces, moments, names or words.



If someone has a sister or brother it is normal to feel sadness or anger it is the same if you have a grandmother or an uncle because is someone special to you, my research has allowed me know that it could happen psychological effects like stress or think that it's your fault because you haven't taken the appropriate care for that person who is now suffering, and overthinking this can let you have problems, but this is not too common to happen, there is a limit that this person should establish for himself in this type of situations.

If someone grows up with a person with Alzheimer's it can have an impact in their adult life, as how the person feels; this can affect their self- esteem or how they feel, but this can produce a strength, for example, an ability to not judge or have more patient with others and to have more respect and appreciation for their family members and friends; they can see the importance at the moment of having someone that you love and feel affection.

# 2.2.1 Burnout's syndrome in Alzheimer's

Burnout's syndrome is the excess of work that will produce stress and fatigue were one person just exceeds the limit of some labor.

A formal caregiver for a patient with Alzheimer's disease in many occasions can experience stress or an emotional drain because they have to be in constant activity and it is like taking care of a little child but with changes of humor and loss of memory, this surpass someone's limit. This produces a fatigue that could end in Burnout's syndrome.

In the family there is someone who is always more involved than other relatives but sometimes is not always a nurse which in this case would be a formal caregiver, but why this



person and no a relative it is because there will always be activities, job or university that will keep them busy, that is why they contract a person who takes care of the diseased.

# 2.2.2 Changes within the family environment

Alzheimer Society of Canada (2017) said: "There is no doubt that caring for a person with Alzheimer's disease can be frustrating and difficult. But it can also be rewarding. Solving problems and becoming confident".

There is a big possibility that being with someone who needs a lot of attention and has different changes of personalities or humor might be difficult task, especially if they have this kind of dementia, but this also depends on the family and environment, the most important thing at the moment of caring for someone is having patience because if there is no tolerance the care would be worst.

At the moment of having this disease in the family, it can come about many situations of stress, anger, and sadness, because it is something new in their life and they have to concretize how to handle this issue. That can generate discussions and disagreements within the family because one can have a different opinion or contribution that someone else, unlike that idea, there is one of the causes why this can produce changes.



### **CHAPTER III**

# Perceptions of people in relation with Alzheimer

#### 3.1 Interview with Alzheimer relatives

The following investigation will evaluate and comprehend how relatives deal with this severe disease, the following consultation will focus on the different points of view and their own recollections of their life through this difficult process depending on the situation. two different people completely different in all aspects have been chosen, first there is Silvia Moggia 18 years old, in her short life, she lived with her grandmother since childhood, but lamentably she died cause of suffering Alzheimer, observing this point of view from a teenager or a young adult, can help us to comprehend better this topic and expertise. The second is Dr. Cesar Merino, he is a specialist in urology, her mother has been suffering from this disease for many years, almost a decade and more, knowing the notion of this problem we can understand the type of life they experience every day.

### 3.2 Analysis of the interview applied

The two have similarities opinions, they agree talking with a person suffering from Alzheimer is a difficult task; the main problem is that they forgot the words and things really quickly, their short-term memory does not have the function it should have, additionally the



disengagement between the relative and the patient causes frustration because the low understanding.

Dealing with a serious circumstance like this one, can produce many issues like burden in the family because of the labor it can cause, according to their experience there are challenges but it is not that difficult as it seems, according to Dr. Merino and Miss. Moggia all that is needed is love and be tolerance because it is not their fault, it is the disease's fault, on the other hand, if their relationship is bad there will be a bad action or behavior and of course if there is no love between the relative and the patient.

As stated by the two relatives there is no possible way of knowing why Alzheimer's affects some and not others, this disease could happen to anyone, not mattering who it is nor which social or ethnic group you belong to.

When a person has an illness like Alzheimer's there are many labors they can't accomplish, that is why they could suffer from depression or in some cases, this always depends on what kind of environment they are living and how they think. There are different arguments, the first person is Silvia Moggia who said they cannot be suffering from depression because they always forget the things that happen in their everyday life, and the second person Dr. Merino confirms that an Alzheimer person could develop this mental condition, according to him it is a possibility because sometimes they want to do some activities like walk around and then she can't because of the illness and she felt like "I can't do nothing" this generates bad emotions and of course it affects their environment because if they don't feel loved, they could fall into a depressive stage.



As mentioned, having a relative who is suffering from this disease could developed some problems, but it can involve severe complications like a family dissolution, the experiences are non-identical, therefore it is evident there would be different commentaries. First Silvia Moggia said that at the time of dealing with this disease it could become very problematic and frustrating for those caring for them. also this can emerge many situations For the person who is taking care of the patient because they also need to attend other personal duties. , According to Mr. Merino's opinion, this could happen if there is no love, the relationship would be a chaos and this would bring feelings of desperation and the wish of not taken care of the patient.

Having a relationship with Any person is important, however if there are any unsolved issues, this could be threatening for the Alzheimer's patient when dealing with the dissolution of lack of relationship between patient and relative. This paper explains about the relationship between both.

According to the relationship with her grandmother, Silvia Moggia said:

It was difficult to treat her because one moment she was lucid and in another she didn't and it was amazing because she recognized you and also talked with her but it just last like 2 minutes so you can't have a normal conversation because she ask you many time the same things and also the care has to be constant because the persons with Alzheimer's can be disorientating in any place doesn't matter if it is her home or someplace she can



know they just scare or can go walking but it was good and beautiful doesn't matter the circumstances (2017).

### Dr. Cesar Merino said:

It is a beautiful relationship because I love my mom so there are moments where we change the papers like I am the dad and she is my daughter and it is because she doesn't remember me, but it makes interesting and funny, because an illness is not a cause to be sad all the time we have to see the things in a good mood but also is difficult see a dear family in that condition. (2017)

Their relationship is dissimilar because they have two different ways of lifestyle it is completely different but in conclusion, it can be said that having patience is the most important at the moment of living with someone with this disease.

Having someone with this disease takes a lot of time, money, etc.... is a difficult issue, this can change in a big way the life that relatives used to have, for example, their daily activities or way of thinking changes, according to investigations it is confirmed, it is not only a supposition, with time they get accustomed to this type of living, but the benefit or advantage is that they gain a lot of patience and become more loving when learning to appreciate life and health.

As we learnt in the second chapter, it isn't common that persons with this disease remember moments, names, faces or words, but the short moments when they can recognize the place or people around her or him, it is memorable



Researches confirm that there are lucid moments, but they are limited and only last a few minutes or seconds, most of the memories are things that happened ten or twenty years ago but it depends on the person and what stage they are, knowing the time of the person living with Alzheimer's disease can help to get the idea on the life range they have which is between nine to twenty years approximately.



# **CONCLUSIONS**

At the end of this monographic work it is concluded that Alzheimer's is a mental illness that it could be experienced by ay elderly person give where many drastic changes in the person and the environment, there are many factors that can produce this dementia like brain injuries, age, gender, the lifestyle that the person had or if they suffer from down's syndrome and also their family background.

This illness develops into three stages which are mild, middle and severe, each one of this causes different effects and conditions, which were analyzed in the second chapter, where it can be noticed how a person can lose their memory and also their abilities over the years, in the first stage, it is notable the tangle of words and the affectation of short- term memory also the constant repetition of words, the second stage is the longest, they will have constantly changes of mood swings like getting frustrated or angry. In the last stage the individual loses all their abilities like carry on a conversation or just take a shower, is the worst stage because the person is completely a "vegetable".

For this dementia exists two treatments which are memantine and Donepezil; this medication was confirmed to be helpful for people living with this illness; it increases memory and other functions in the brain and body, but this medication can have various second effects like being confused or having headaches.



Being around someone who suffers from Alzheimer dementia is a difficult task; the last chapter confirms all the theories said in the present investigation, where the main problem was their loss of abilities and memory but also mood swings and how a healthy person can get this dementia, dealing with a person who suffers from senile dementia requires a lot of patience and have plenty of time which is required by those dealing with these kinds of patients.



# RECOMMENDATIONS

At the end of this work it is recommended that:

Any person regardless of their age or gender should have a healthy life, the rest of their lives is depending on this, either physical or emotionally, there have been many researches that state that stimulating the brain could prevent dementia, that is why having a sedentary lifestyle can affect our body and brain.

At the moment of having this illness the most important is following the doctors instructions, taking all the medications just as any another illness, put part of yourself because it all depends on the patient.

If a relative is living and taking care of an individual, it is important to have plenty of patience for sakes of the relationship of both, patient and relative.



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