

The Hereditary of Alcoholism

Jacquelyn S. Jurewicz

Southern Connecticut State University

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Abstract

Scarpelli (1999) defines a disease as “any harmful deviation from the normal structural or functional state of an organism, generally associated with certain signs and symptoms and differing in nature from physical injury”. Alcoholism is the addiction to alcohol, characterized by problems in decision-making and the inability to remain sober. Diseases are hereditary, and Alcoholism is a disease of the brain. Research and articles link Alcoholism and the factors which determine what makes an alcoholic, as well as the steps after the factors have been identified. One major factor within this information is genetics. The importance of determining a factor of Alcoholism is to further determine the solution to help people who find themselves diagnosed with the disease (Perez, 2022). The most common solution is rehabilitation and joining groups such as Alcoholics Anonymous. There was also research on the ways to prevent the disease from taking control of the individual’s life. This paper explains the familial risks and environmental factors which lead to the inheritable disease known as Alcoholism. As well as ways to prevent and help manage the disease if it is detected.

Contents

Abstract	2
Introduction	4
What is Alcoholism?	4
Risks Related to Alcoholism	5
Studies linking Risks to AUD	6
Environmental Factors	6
Familial Risks	7
Preventing the Disease's Effects	8
Rehabilitation Options	8
Alcoholics Anonymous	9
SMART Recovery Meetings	10
Conclusion	11
References	12

Introduction

The National Institute on Alcohol Abuse and Alcoholism (NIAAA) defines Alcoholism as a disease or “brain condition” characterized by an “impaired ability to stop or control alcohol use despite adverse social, occupational, or health consequences,” (NIAAA, 2020, p. 1). A disease is inheritable, meaning Alcoholism is inheritable. The importance of determining if one is at risk is to help prevent the disease from getting worse and to find help if the diagnosis is too late.

What is Alcoholism?

The Diagnostic and Statistical Manual of Mental Disorders, (DSM-5), is a manual for clinicians and researchers to define and classify mental disorders, which can improve diagnoses, treatment, and research. The DSM-5 considers Alcoholism a disorder, but defined it as a “cluster of cognitive, behavioral, and physiological symptoms indicating that the individual continues using the substance despite significant substance-related problems,” (DSM-5, 2013, p. 483). There is an inability to stop drinking despite issues with making choices and handling stress. The American Psychiatric Association (APA) also classified symptoms of “underlying change in brain circuits that may persist beyond detoxification, particularly in individuals with severe disorders” (DSM-5, 2013, p. 483). When Alcoholics stop drinking, they suffer from withdrawals that may cause the individual to keep drinking to avoid the physical pain and symptoms. The DSM-5 determines the severity of substance abuse through how many symptoms a patient presents with. Mild severity is presenting with 2-3 symptoms, moderate is 4-5 symptoms, and severe dependence is 6 or more symptoms (DSM-5, 2013, p. 491). Although the DSM-5 classifies Alcoholism or Alcohol Use Disorder (AUD) as a disorder, it does state that, “alcohol use disorder runs in families, with 40%-60% of the variance of risk explained by genetic

influences,” (DSM-5, 2013, p. 494). Although the DSM-5 is the most updated version of the book, it is still 9 years old, having been updated in 2013. Some scientists and doctors now classify Alcoholism as a disease due to the ability to identify the disease’s inheritability. Elkins (2020) stated, “Alcoholism, also known as alcohol addiction, is a chronic disease of the brain that’s characterized by compulsive decision-making, impulsive behavior, and relapse”.

Alcoholism is triggered by genetic and environmental factors but ultimately causes biological changes in the brain that make abstaining from alcohol almost impossible without medical treatment. It is extremely important to discover if there are alcoholics genetically related to individuals to determine if there will be more alcoholics in the family.

A few common symptoms of being an alcoholic include the inability to control the consumption of alcohol, craving alcohol when it is not being consumed, putting alcohol above personal responsibilities, feeling the need to keep drinking more, spending a substantial amount of money on alcohol, and behaving differently after drinking (Hampton, 2019). Perez (2022), a medical reviewer for the University of Rochester Medical Center Encyclopedia, found people with Alcoholism struggled with at least three symptoms of Alcoholism. A few symptoms not listed in Hampton’s Alcohol Rehab Guide, were physical dependency, having withdrawals when not drinking, such as symptoms such as nausea, sweating, shakiness, and anxiety, as well as building tolerance in which every time an individual drinks. This means they need to increase the amount of alcohol consumed to experience the same feelings (Perez, 2022). Although Alcoholism cannot be avoided, it needs to be acknowledged to be managed. Learning the factors and risks, especially if found in familial medical history, is important to determine if getting help is necessary.

Risks Related to Alcoholism

Studies linking Risks to AUD

Scientists have found that being or becoming an alcoholic can be predicted through genetics. Finckh (2001) found that “one of the genes most frequently assessed in Alcoholism and various psychopathological conditions is the dopamine D2 receptor gene (DRD2)”. It is important to note that it is not just one gene, but rather the most frequently assessed in Alcoholism. The genetics field has undergone a technological revolution to allow researchers to process a large number of samples to efficiently interrogate the entire genome, and studies such as the twin, adoption, and families studies have demonstrated that genetic factors account for up to 50 to 60 percent of the variance in risk for developing Alcoholism (Crabbe et al., 2010). Although researchers such as Finckh (2001) and Crabbe (2010) believe more studies need to be done to understand the full length of how the gene functions, there is still a link between Alcoholism with the DRD2 receptor gene and the percentage of genetic risk.

Schuckit (2022) found twin studies that demonstrated twins of people with AUD were at a “significantly higher risk to have AUD themselves”. Schuckit also found that twins with 100% shared genetics (identical twins) were at a 60% risk of both having AUD rather than fraternal twins who only shared 50% of their DNA and had a 40% risk of having AUD. Although there were genetic foundations for inheriting AUD, because the percentage was not 100%, there was an indication involvement of additional factors, such as the environment.

Environmental Factors

The Healing Springs Ranch is an adult residential treatment facility, aimed to help those with addictions to alcohol and other substances. The Healing Springs Ranch is one of many rehabilitation centers for people with Alcoholism, with the main goal of helping people recover.

The Healing Spring Ranch emphasizes the importance of environmental factors, as well as gene and environment interactions when it comes to the inheritability of Alcoholism “Trauma, dual diagnosis, and underlying conditions feed Alcoholism and the Alcoholism feeds those problems, in return,” (Healing Spring Ranch, 2022). Psychological disorders such as Post Traumatic Stress Disorder and other dual diagnoses have been found to be linked to Alcoholism.

Published in *Alcohol Health and Research World*, Jacob and Johnson (1997) reported risks of Alcoholism were related to “inadequate parenting and other parent-child interaction patterns that promote aggressive, antisocial behavior in children, “ (p. 206). Similar to Jacob and Johnson (1997), Perez (2022) found other risks, aside from genetics and parental guidance, to include peer pressure, self-pressure, stress levels, and the ability to access alcohol. However, Perez (2022) also stresses the importance of determining the risks prior to drinking to ensure the effects of the disease are prevented. Although there are certain risks such as environmental and mental disorders that become factors in determining if someone is an alcoholic, there is still a link between family medical history and having Alcoholism.

Familial Risks

Although these certain studies do not consider genetics as the greatest risk factor, there are studies that show those with a history of Alcoholism in their family have the highest risk of becoming alcoholics. Juergens (2015) found there is not just one gene that links an individual’s risk to Alcoholism, but rather hundreds. He also found, “identifying these genes is difficult because each plays a small role in a much larger picture,” (Juergens, 2015, p. 9). Those who have a family history of Alcoholism have a strong relationship with Alcoholism. If you have multiple relatives with alcohol addictions or other substance use disorders, you may have inherited the genes which put you at risk. Juergens (2015) states “studies show that Alcoholism is

approximately 50% attributable to genetics” (p. 9). The more family members (related by birth) you have with an alcohol problem, the higher your risk. Perez (2022), after researching different studies, found “children of alcoholics have found they are about 4 times more likely to have trouble with alcohol than people without such a family history” (p. 9). Researching familial medical history is important to determine if there is a risk of being predisposed to being an alcoholic, especially if the individual is the child of an alcoholic.

Preventing the Disease’s Effects

There are many steps to preventing the disease’s effects and negative outcomes. The first step is to not drink at a young age. Perez (2022) found “the risk of Alcoholism is higher if you start to drink at an early age” (p. 9). The risk is higher due to social factors such as peer pressure, as well as familial risks. The next step is to drink moderately as an adult or to abstain from drinking because the ability to moderately drink with caution may lead to an ability to stay at the same level of consumption. The last step is to be aware of mental health and other underlying disorders. “Stress, anxiety, and depression can sometimes lead people to self-medicate with alcohol” (Perez, 2022, p. 9). Having support networks, not necessarily family but rather providers and professionals may be able to help individuals who are feeling anxious, depressed, or have urges to keep drinking. Serious intervention may be needed such as rehabilitation and the 12-step program.

Rehabilitation Options

Weber (2015), defines alcohol rehabilitation as, “the process of combining medical and psychotherapeutic treatments to address dependency on alcohol”. The purpose of rehab is to help patients navigate life and become prepared for the drastic changes that can lead to alcohol abuse.

Weber (2015) mentions seven goals for alcohol rehabilitation, starting with ending

alcohol abuse, establishing a positive support system, improving general health, improving personal circumstances, meeting employment and educational needs, reducing criminal behavior and resolving legal problems, and finally, treating psychiatric disorders and psychological problems. The ultimate goal of rehabilitation (for an alcoholic and addict) is to help obtain the resources needed to maintain their sobriety and let the alcoholic know that there are others who are struggling.

Weber (2015) also stresses the importance of “having an aftercare program that allows you continued treatment and a safe environment to maintain sobriety”. Staff at the rehabilitation may offer suggestions that can include community or church groups, addiction counseling, and halfway houses. While at the rehabilitation center, some may be exposed to 12-step programs targeted to help addicts and alcoholics maintain their sobriety once they leave rehab. One of these programs is called Alcoholics Anonymous.

Alcoholics Anonymous

The idea of being an alcoholic or being subjected to inheriting the disease can feel overwhelming at times, this is why Bill W. and Bob Smith created a fellowship known as Alcoholics Anonymous (A.A.). In 1935, in Akron, Ohio, a New York stockbroker, Bill W., and an Akron surgeon, Dr. Bob S. held a meeting about their struggles with Alcoholism. The events of their meeting were shared and soon the fellowship grew. Alcoholics Anonymous is a program for people who come together to not solve their drinking problem but to maintain their sobriety and help each other recover from their addictions. “Those looking for a recovery support group after they’ve already sought out addiction treatment may benefit greatly from a 12-step approach,” (Wagener, 2022). The membership is open to anyone who wants to improve their lives and work on themselves to continuously achieve sobriety.

The program surrounds people with not only a support system of people willing to help but literature and meetings in which people are encouraged to share their experiences. A common phrase in the program is to share your “experience, strength and hope” (Alcoholics Anonymous World Services, 2022), in which people are advised to share what their life was like, how they gained the strength to join recovery, and their hope to continue being sober. A.A. began in the United States, spread to Canada, and is now in over 180 countries, with more than 115,000 groups worldwide (Wagener, 2022). To find local meetings, searching online is the easiest option, as there are virtual and in-person options.

SMART Recovery Meetings

Aside from Alcoholics Anonymous, there are other various programs such as the SMART recovery meetings. Founded in 1994 by Joe Gerstein, SMART stands for “Self-Management and Recovery Training”. SMART Recovery is a four-point program created for “people seeking a self-empowering and science-based option for overcoming addictive problems” (Gerstein, 2021, p. 2). Gerstein (2021) created the four points of SMART recovery, which include the ability to enhance and maintain motivation to abstain, cope with urges, manage thoughts, feelings, and behaviors, and balance momentary and enduring satisfactions. There are a few commonalities between Alcoholics Anonymous and SMART recovery, such as the main purpose to treat substance abuse in a group setting. However, unlike Alcoholics Anonymous, SMART does not believe in labeling members as “Alcoholics” and believes in a “graduation” period in which if the member does enough work and attends enough meetings, the individual does not need to keep returning, yet Alcoholics Anonymous believes in a lifetime membership to maintain sobriety (Windmill Wellness Ranch, 2019). SMART recovery may work for some adults and Alcoholics Anonymous may work better for others, however, the Windmill

Wellness Ranch (2019) emphasizes that research does not endorse SMART recovery either Alcoholics Anonymous, which is why they offer both programs in their facilities. Although SMART Recovery and Alcoholics Anonymous cannot cure the disease, they are still effective ways to help prevent and maintain the disease, and both offer support to the individuals involved.

Conclusion

Alcoholism is considered a disease (Elkins, 2020) and is genetically inherited from family member to family member. There are many genes, not just one, that link Alcoholism to individuals (Juergens, 2015). However, it is important to identify the risk factors and determine if precautions should be taken because, “recovery from AUD is an individual path. But many people find recovery by taking advantage of their personal support networks, local community resources, and professional treatment,” (Wagener, 2022). There are many ways to receive help, including going to Alcoholics Anonymous meetings, rehab, and therapy, but it is important to remember that the individual suffering from the disease, did not willingly become an alcoholic, but rather inherited it. The importance of this paper is to not only spread the importance of learning about familial risks but to also spread awareness of how to prevent the disease from not only taking over people’s lives but ruining them.

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