

DEPRESSION ON TEENAGERS BEFORE AND DURING THE COVID-19 PANDEMIC AND NATURAL TREATMENTS

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Abstract

Depression is a mental disorder that affects more than 300 million people worldwide, which makes it one of the most common mental disorders. At the moment, psychological distress among teenagers looks to be on an increasing scale. Adolescence is a developmental phase of adaption to diversity and life problems, and so, adolescents are more likely to develop mental disorders. Also, stressful, and unwanted situations, such as the Covid-19 outbreak increase the risk of mental illnesses appearing. Based on a poll conducted by UNICEF in 2020 on 8444 adolescents, 46% reported symptoms of depression such as less motivation for activities they usually enjoyed, or less motivation to do regular chores that was reported by 36% of them. And especially because this life period involves so many changes in teenagers, natural treatment is a recommended way to treat depression, without affecting other anatomical processes inside the body. Studies have shown that there is a lot of natural, plant-based medication that has high efficiency in curing depression. Also, recent research shows that there is an increased interest in finding and developing natural and efficient treatments for depression and other associated diseases, especially for teenagers.

This paper aims to provide an overview of the Covid 19 pandemic, and also of the measures that were adopted by the authorities worldwide to limit the spread of infection, which can be possible causes of the increased number of teenagers affected by depression, and also the assessment of the possibilities of using plant-based medication for the treatment of this disease.

Key words: Covid-19, depression, natural treatment, teenagers.

INTRODUCTION

Depression affects over 300 million people worldwide, and this makes it one of the most common mental illnesses. Even though there is a big variety of first-line treatment options, 30% of adults with depression report they have difficulty with work, home, or social activities due to their depression. The present Covid-19 pandemic has further emphasized the need for addressing anxiety and depression on a global scale and increasing remote access to treatment.

MATERIALS AND METHODS

To characterize the evolution of depression cases, their causes, potential treatment, and their increase due to the pandemic situation, there were used scientific articles about depression, statistics made by UNICEF, and also scientific articles about natural, plant-based treatment. The period analyzed in this study was specially

represented by the Covid-19 pandemic and the post-pandemic period.

RESULTS AND DISCUSSIONS

On March 11, 2020, the World Health Organization (WHO) declared the spread of Covid-19 a global pandemic. So, on March 12, Norwegian authorities, as in other countries worldwide, decided to shut down large parts of society as an efficient way to limit the spread of infection. Measures taken by the government comprised quarantine and social distancing in the first place. That also meant closing schools at all levels for a good two months during the spring of 2020. The situation has led to serious concerns about how child and adolescent mental health and well-being may have been impacted. According to a poll conducted by UNICEF on 8444 adolescents, 46% reported symptoms of depression such as less motivation to do things they usually enjoyed or less motivation to do

regular chores, which was reported by 36% of them.

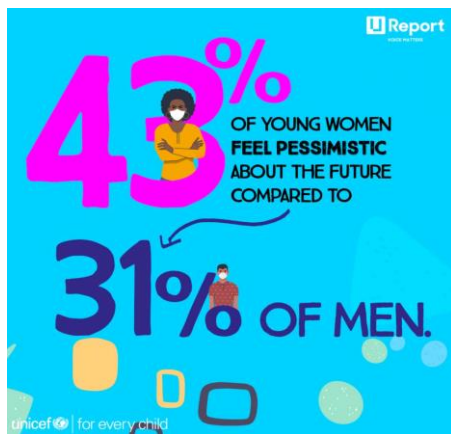


Figure 1. UNICEF poll percentages

The isolation from friends over time, uncertainty about the future both short- and long-term, as well as a continuous state of fear, have all been evidenced to pose a risk for developing psychopathology in youth (Hafstad et. al., 2021). Family stressors pertinent to the pandemic outbreak, such as parental job loss and financial insecurity, may affect adolescents in general, and in particular, those living in families with increased levels of psychosocial disadvantage. The perception of the future has also been negatively affected, particularly in the case of young women who have and are facing particular difficulties. 43% of the women feel pessimistic about the future compared to 31% of the male participants.



Figure 2. UNICEF poll statistics about motivation in teenagers

Adolescence represents a developmental phase of adaptation, exploration, and resilience towards adversity. At the same time, adolescents are at a vulnerable stage of development, with

the majority of mental disorders peaking during this period. Studies have shown that about two-thirds of mental health problems in the adult population were reported to emerge during adolescence. Currently, rates of psychological distress among adolescents seem to be on a rising trend. Cross-sectional data from affected areas worldwide indicate that adolescents have shown high rates of psychological health problems during the Covid-19 outbreak. Adolescent girls are at particularly high risk for experiencing anxiety and depression during times of elevated stress. Although many may experience transitory distress, there is reason to believe that some groups of the adolescent population may be disproportionately affected (Hafstad et. al., 2021).

For instance, adolescents with pre-existing vulnerabilities may be at particular risk during a pandemic. Hence, there is a need to understand what characterizes adolescents at the greatest risk of developing psychopathology during a pandemic outbreak such as the current one.

Loneliness and pandemic-related worries during the outbreak were both related to symptoms of anxiety and depression in June 2020, accounting for all other risk factors. Additionally, the finding may have a strong practical impact in that, as noted by Holmes and collaborators reducing a sustained feeling of loneliness and promoting belongingness are central mechanisms in protecting against mental health problems.

The causes of this condition include both biological and social and psychological factors, including depressed family or personal history, trauma, stress, or major adverse changes, but also certain medical conditions and medications.

NATURAL TREATMENT

Studies have shown that there are a lot of natural, plant-based drugs that have high efficiency in treating depression and recent research shows that there is an increased interest in finding and developing natural and efficient treatments for depression and other associated diseases, especially for teenagers.

PLANTS

ST. JOHN'S WORT-*Hypericum Perforatum*-Specialists attribute it to beneficial effects in cases with the low or medium difficulty of

anxiety, depression, chronic stress, and chronic fatigue. St. John's wort supplement balances the chemical processes in the brain and stimulates the release of hormones that induce our well-being.



Figure 3. *Hypericum Perforatum* plant



Figure 4. *H. Perforatum* supplement

Lavender has been used as a natural treatment since ancient times, and its actions are well known both internally and externally as well as the valerian, whose effects are noticeable due to its interaction with gamma-aminobutyric acid (GABA), a central inhibitory neurotransmitter that helps regulate nerve impulses in the brain and nervous system. Researchers have shown that low levels of GABA are associated with chronic stress, anxiety, and sleep problems. Other plants that have also been found to have positive effects on depression are as well *Withania Somnifera* (Ashwagandha), *Tilia* (Linden), and *Taraxacum Officinale* (Dandelion).

Another efficient plant is curcumin. Curcumin has shown promising efficacy in studies of major depression. Being one of the most powerful natural antioxidants - according to medical research - and the most powerful natural anti-inflammatory, curcumin can reduce DNA damage in the brain and counteract the effects of stress and depression. Although the mechanism of the antidepressant effect of curcumin is not

fully understood, there is a hypothesis that it works by inhibiting the enzyme monoamine oxidase. In addition, scientists believe that the success of the antidepressant activity of Curcumin is because it would cause a natural increase in the levels of serotonin, norepinephrine, and dopamine in the brain.



Figure 5. Curcumin plant and powder

CHINESE HERBAL FORMULA FOR DEPRESSION

Traditional Chinese medicine (TCM) conceptualizes the xin 'heart' as the "master" of the body, as the center for mental activities, as well as the seat of intellectual activity and emotional activity (Wang, 2020).



Figure 6 graphic representation of the connection between brain and heart

Given that depression is a high-risk factor for Coronary Heart Disease and is associated with poor cardiac outcomes, it is clear that Coronary Heart Disease patients require both mental health care and cardiac treatment, also known as psycho-cardiology therapy (Wang, 2020).

Because conventional antidepressant therapies have reported lower effect sizes in Coronary Heart Disease patients, a group of Chinese researchers developed a plant-based formula, composed of 7 herbs (Wang, 2020).

The clinical study was performed over 8 weeks and eligible patients were randomly assigned

(1:1) to receive antidepressant treatment or herbal formulation treatment.

The results showed that the effect of the herbal formula was at least as effective as the antidepressant treatment.

CONCLUSIONS

Due to the alarming increase in the number of persons affected by depression, especially adolescents, as a result of the Covid-19 pandemic, there is an interest in finding and developing natural and efficient treatments for depression and other associated diseases,

because the sooner the depression is treated, the sooner the life can take a turn for the better.

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