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Non-communicable disease project: Podcast

The harmful effects of excessive alcohol consumption/alcohol abuse amongst South Africans

Synopsis

High alcohol consumption is a problem in South Africa, as recently highlighted by the pandemic and related violence. *Over the past 18 months of the nationwide lockdown, the sale and distribution of alcohol were prohibited in levels 4 and 5. As a result, many South Africans responded erratically, as looting of alcohol outlets took place, and others even resorted to brewing home-made beer and other alcohol by-products in the comfort of their homes. This response highlighted the strong dependence on alcohol in the South African population. In fact, online alcohol sales increased during this pandemic-induced lockdown, even if it meant that the purchased alcohol would only be released in levels 1-3 (Cupido, J, 2021).*

Introduction

Ms Relebogile Thubisi is a student at the University of the Free State currently completing her Honours degree in Medical Sciences, majoring in Physiology. Her research focuses on liver cancer and a specific cellular mechanism that can be manipulated to decrease cancer cell growth.

Moreover, her research contributes to the ongoing fight against liver cancer. She further aims to provide a link between current drug treatments, which include the use of Sorafenib – a Food and Drug Administration (FDA) approved medication and its effect on cancer cells.

Question 1: Why is it important to raise awareness about the rate of alcohol consumption among South Africans?

Answer 1: Research shows that alcohol is the primary substance of abuse in South Africa due to its affordability and easy access, with 7.5% to 31.5% of South Africans having an alcohol addiction or being on the verge of developing one (Cupido, J, 2021).

Question 2: Is it alarming that the sale and consumption of alcohol increased during the nationwide lockdown?

Answer2: Indeed! This further increase in the rate of alcohol sales and consumption is disastrous as South Africa is already reported as one of the leading countries in the world with the highest rate of alcohol abuse. Some of the apparent effects of this high alcohol consumption includes an increase in domestic violence and road accidents. Moreover, the highest rate of babies born with foetal alcohol syndrome, which is one of the diseases that are categorised under the umbrella term Foetal Alcohol Spectrum Diseases, was recorded during the lockdown period (Cupido, J, 2021). Before the lockdown period, the prevalence of foetal alcohol syndrome in live-born babies was between 0.29% - 29% (Beytell et al., 2019), but the incidence has increased to between 2.7% - 28% during the first couple of months of the lockdown period (Optima, 2020). Foetal alcohol syndrome occurs in babies whose mothers consume a lot of alcohol during pregnancy. The alcohol then passes from the mother's blood to the baby via the placenta and thus causes mental and physical problems in the development of the child ("Foetal alcohol syndrome," 2017). Since foetal alcohol syndrome was observed in so many babies, it may be an indication of increased alcohol consumption during pregnancy during the lockdown period (Cupido, J, 2021).

Question 3: Is there a specific amount of alcohol that causes foetal alcohol spectrum diseases?

Answer 3: Not really. In fact, even small amounts of alcohol consumed by pregnant mothers have the potential to cause foetal alcohol spectrum diseases. As such, it cannot be said with certainty that there is a specific amount of alcohol that spares/exempts children whose mothers consumed alcohol during pregnancy from developing foetal alcohol spectrum diseases. Any amount of alcohol puts the child at risk, but obviously to varying degrees.

Question 4: What are some of the damages that can occur in an affected child, and can they be reversed after birth?

Answer 4: Symptoms of foetal alcohol spectrum diseases can include an abnormal physical appearance, short height, low body weight, small head size, behavioural problems, learning difficulties, problems with hearing and with sight to mention a few. Foetal alcohol spectrum diseases are unfortunately irreversible, however there are treatments that can help lessen the symptoms, such as surgery to correct physical abnormalities and medications to treat behavioural problems.

Question 5: What preventative action can be done in order to reduce the risk of foetal alcohol spectrum diseases in babies?

Answer 5: Parents abstaining from alcohol during their pregnancies is the best preventative action against foetal alcohol spectrum diseases development in the baby. However, in reality, some mothers may be unaware of their pregnancies and thus continue consuming alcohol, while other pregnant mothers could have an existential alcohol problem. In the latter cases, it is best to advise such mothers to stop alcohol consumption at the earliest possible moment, and to help them strictly limit the amount of alcohol they drink. Professional help could be ideal in such cases, however a family member, a friend, or a colleague can efficiently do the task of helping the mother.

(Questions 3,4 &5 reference: ("Prevalence of foetal alcohol spectrum disorders highlight South Africans' 'complicated relationship' with alcohol | Parent," 2021)

Question 6: You mentioned some effects of alcohol, are there other ways alcohol abuse may affect South Africans?

Answer 6: Less obvious but equally as important, is the fact that the hepatitis B virus is endemic in Sub-Saharan Africa, including South Africa. Although, there is an existing universal hepatitis B virus vaccine available, hepatitis B virus is one of the most potent liver cancer-causing diseases in Sub-Saharan Africa and alcohol is a strong causer of this virus. Consuming high amounts of alcohol puts a person at a high risk of developing hepatitis B virus, a liver infection that can cause liver cancer if left untreated for an extended period of time (Petruzziello, 2018).

Question 7: Who are the most at-risk people for developing liver cancer and what is the incidence?

In the Sub-Saharan Africa region including South Africa, the most at risk people for hepatitis B virus development are Black Africans (Kew, 2013), with the majority of those affected belonging to the low-income group and residing in the rural areas (Kew, 2013; Mak et al., 2018; Sung et al., 2020). The incidence and death rate of liver cancer are notably higher in males than in females (Rawla et al., 2018; Sung et al., 2020). This high cancer incidence in males is mainly attributed to their higher incidence of hepatitis B virus infection (Maponga et al., 2020). An increasingly high rate of alcohol abuse has also been found to be a significant contributor to the high incidence of liver cancer in men (Kew, 2013; Mak et al., 2018). Additionally, liver cancer is more common in younger (<65 years, n = 1212, 79%) as compared to older (≥65 years, n = 318, 21%) people (Guo et al., 2017).

Question 8: What are the available treatment options for hepatitis B virus?

An effective vaccine for hepatitis B virus has been available since 1981 and has played a huge role in reducing the disease burden and death rates of hepatitis B virus infection in countries where it has been implemented (Kew, 2013). However, only nine countries of the 47 World Health Organisation Africa region have implemented the vaccine. The main reason is that it is costly to implement the vaccine, plus the logistics concerned with administering the vaccine would be too expensive to execute (Spearman et al., 2017). Hence, for countries with these financial constraints, the best way to lessen the chances of hepatitis B virus infection is to refrain from consuming too much alcohol and/or consuming foods that have hepatitis B virus causing agents/chemicals.

Questions 9 & 10 : Are there other harmful effects of alcohol, besides the ones you already mentioned?

Answer 9: In men, excessive alcohol use also causes sexual dysfunction, which leads to distress and difficulty interacting sexually. This further worsen the alcohol abuse because the affected man will naturally want to escape that reality by getting intoxicated. The sexual dysfunction could result from the fact that alcohol is a depressant, or an alcohol related disease or even psychological factors related to alcohol use. Sexual dysfunction includes symptoms such as decreased sexual desire, a dislike and unwillingness to engage in sexual activity, difficulty in erection and in achieving an orgasm and premature ejaculation. It has been reported that 61% of patients with an alcohol problem suffer from sexual dysfunction (Arackal and Benegal, 2007).

Answer 10: Over time, drinking too much alcohol can lead to the development of chronic diseases and other serious problems such as cardiovascular diseases, cancer, a weakened immune system, learning and memory problems, mental health issues, social problems and alcohol disorders. It is best to refrain from consuming too much alcohol in order to avoid all these adverse results ("Drinking too much alcohol can harm your health." 2021).

Outro: *I would like to thank the listeners for their attention, and I hope this information helps people who are affected by alcohol over-consumption or know of someone who does. For more information about how to deal with FADS visit www.aware.org.za and for support*

with alcohol problems you can visit www.aasouthafrica.org.za or call the helpline number 0861 435 722, and professional help will be availed to you.

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