more experienced colleagues. These observations suggest that accumulated clinical exposure may strengthen physicians' capacity to navigate deontological complexities, while underscoring the particular vulnerability of trainees during early patient contact.

Integration of structured ethics education and communication skills training within medical curricula is imperative for adequate preparation of future oncology practitioners. Simulation-based modules for breaking bad news, supervised clinical encounters, and regular reflective practice sessions may help reconcile theoretical knowledge with practical application. Early identification of students experiencing pronounced emotional distress, coupled with implementation of targeted support mechanisms, could mitigate burnout risk and foster professional development. Enhanced deontological preparation throughout undergraduate and postgraduate training may ultimately contribute to improved physician well-being and elevated quality of patient care in oncology.

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THE EFFECTS OF VITAMIN C ON HUMAN HEALTH

Introduction

Vitamin C, also known as ascorbic acid, is a water-soluble vitamin that is essential for carrying out various bodily functions. It is essential for the formation of blood vessels, cartilage, muscles and collagen in bones, and in healing processes. It is widely being used as a skincare product over the past decades and have been praised by dermatologists for its benefits on skin. It is a powerful antioxidant, that can ptrotect cells from damage caused by free radicals. Most adults require about 75–90 mg of Vitamin C per day, and it is found in various fruits and vegetables, particularly citrus fruits [1]. According to the NIH, fruits and vegetables are the best sources of vitamin C. A person who eats a variety of these foods should meet their RDA of vitamin C through diet alone.

Ascorbic acid, the most common type of Vitamin C, is found naturally in citrus fruits and tomatoes and can be produced in a synthetic form. Sodium ascorbate and calcium ascorbate are called the "buffered" forms of ascorbic acid, as they are less acidic and less likely to cause stomach irritations, still providing the same benefits as ascorbic acid [2]. Some other derivatives of Vitamin C include sodium ascorbyl phosphate, ascorbyl glucoside and Tetrahexyldecyl ascorbate, which also provide various benefits to our body.

A severe case of deficiency of Vitamin C causes scurvy, which leads to bleeding gums, bruising and even organ failure. According to a 2022 review, blood tests to check plasma and

ascorbic acid levels can confirm a diagnosis of scurvy. The review also adds that ascorbic acid levels below 0.2 mg per deciliter of blood indicate severe vitamin C deficiency [3].

Goal

Nowadays, many people believe that Vitamin C is important for fighting off infections and maintaining a health skin texture. Many are unaware about the actual benefits of Vitamin C on health. Therefore, the purpose of this research is to not only analyze the benefits of Vitamin C, but also raise awareness and rectify different beliefs and opinions among various individuals.

Material and methods of research

The information and data gathered here about the various effects of Vitamin C on health have been collected through a Google survey from various participants throughout the globe, mainly South Asians. Questions on the survey were related to various effects of Vitamin C, both positive and negative, and a significant amount of responses were received from participants of different age groups and different levels of education. All of these responses were analyzed to come into a final conclusion.

The results of the research and their discussion

Most participants were pretty knowledgeable about the effects of Vitamin C and over 60% believe that it is highly essential for health, and 70% has mentioned that improved immune function is its best benefit.

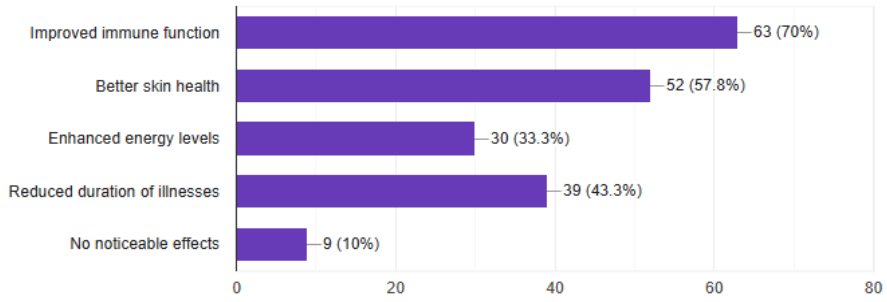


Figure 1 – Percentages of the different types of benefits experienced

Many participants have also mentioned that Vitamin C has commonly been prescribed to them during periods of cold and flu. About 21% of the participants believe that their intake of Vitamin C has decreased the duration and frequency of infections such as common cold. About 17% of the participants stated that they use Vitamin C daily for skincare, and 11% believe they have acquired better texture and brightness. They have also stated that they obtain Vitamin C in the forms of serum and lotions, instead of just by food and supplements. Apart from improving immunity and skin, participants were also asked to choose some additional benefits [4] they might have experienced from Vitamin C. The most chosen benefit was maintaining eye health. However, some believe that they have experienced none of these benefits.

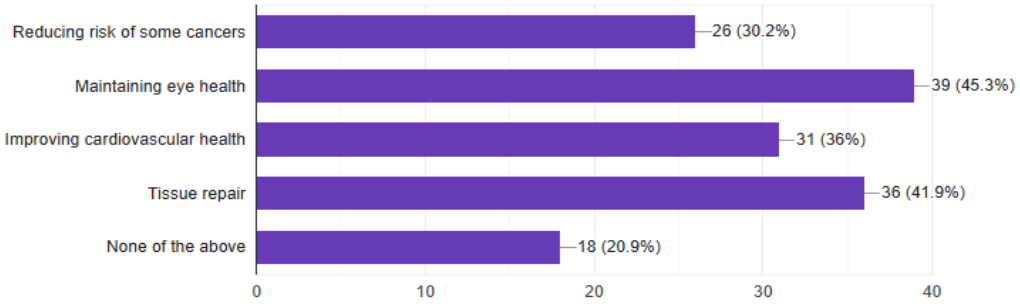


Figure 2 – Percentages of the different types of additional benefits experienced

21% of the participants stated that they always think about the importance of Vitamin C when preparing their meals, but about 10% rarely do. The participants were also asked to state their biggest barrier to getting enough Vitamin C, and most stated that they forget to eat enough fruits and vegetables, while some stated that their barrier to getting Vitamin C was due to getting stomachaches from supplements.

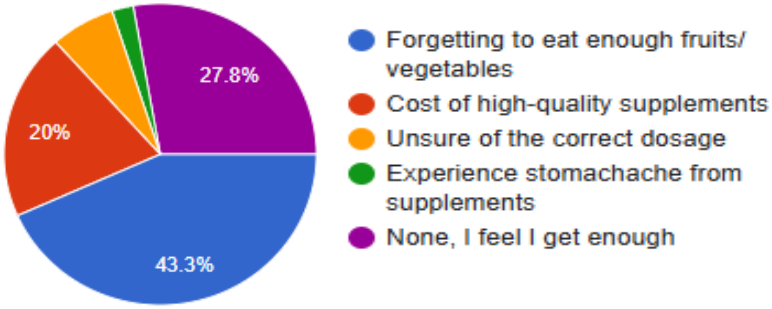


Figure 3 – Biggest barriers to getting Vitamin C

Some participants stated that they have also rarely experienced side effects such heartburns, nausea and headaches, probably due to overdose. Even though there are rarely cases of mild side effects, 95% of the participants believe that the body needs its essential amount of Vitamin C daily and would recommend it to others for health benefits.

Conclusions

After analyzing the data collected from the participants, we can conclude that:

1. The benefits of Vitamin C may not only improve immunity and skin health, but also other factors like tissue repair and maintaining eye health. Not all people are aware of those benefits yet.

2. Even if some people are aware of most of its benefits, certain barriers such as forgetting to eat fruits and not knowing correct dosages can limit intake.

3. Vitamin C may not directly fight off infections, but decreases frequency and duration of those infections.

4. Even though many people use skincare containing Vitamin C, it is not 100% proven to give significant effects to everyone.

5. High dosages have proven to result in minor cases like stomach irritations, dizziness etc. Hence, it is important to only consume the correct amounts required for our body.

Furthermore, people generally have a good idea about Vitamin C, but there are so many other benefits people should be aware about. Awareness and education about Vitamin C, and many other nutrients is crucial for living a healthy life.

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