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RETROSPECTIVE STUDY

Perception and Experience of Physicians Towards the Use of a Targeted Vitamin B-Complex Combination in Attaining Faster Recovery in Acute Illnesses Like Fever vs. Other Competing Combinations in the Market

KRISHNA DEEPAK SATHIRAJU

ABSTRACT

Background: Vitamin B-complex aids in the development and maintenance of a healthy immune system and also helps to prevent or lessen various infections, especially cases of acute sickness like fever. This study investigates the opinions and experiences of doctors about the effectiveness and usefulness of the targeted vitamin B-complex combinations comprising of pyridoxine hydrochloride, cyanocobalamin, nicotinamide, chromium chloride, sodium selenite, L-lysine in hastening the recovery from acute diseases like fever and others. It offers insight on the perceived advantages, disadvantages and general efficacy of target vitamin B-complex combinations in comparison to other current medications by assessing doctors' preferences, clinical observations and patient outcomes. Additionally, the study also outlines the role of selenium, chromium and L-lysine aiding in the faster recovery along with the targeted vitamin B-complex combination. Studies show that selenium supplementation can reduce mortality rates in viral infections, improve recovery rates in COVID-19 patients and improve the recovery rate. Chromium offers antioxidant properties, and influences immune response and hence helps in the faster recovery of several acute illnesses. Lysine serves as a pivotal building block for proteins, which in turn contribute significantly to the growth and restoration of bodily tissues following damage. **Methods:** The study was a retrospective study in July 2023 used a questionnaire-based survey to assess the efficacy and tolerability of vitamin B-complex combinations for faster recovery in acute illnesses, focusing on fever. The study used a validated questionnaire with 13 questions, and data was entered into a software database. Complete cases were analyzed, and missing data was excluded due to low occurrence. The final report was prepared after cleaning the data. **Result:** The study included 132 doctors from various medical specializations aimed to understand their perception and experience of using vitamin B-complex for faster recovery from acute illnesses. The most important factor contributing to choosing vitamin B-complex was the uses of micronutrients, which help produce red blood cells (40.2%), followed by use in treating mouth ulcers (31.1%) and are critical for pregnant ladies (28.8%). Antioxidants like selenium and chromium were found to be significantly effective (57.6%) for faster recovery in acute illnesses, while 39.4% considered them moderately effective. The study revealed that 88.6% of doctors considered the use of vitamin B-complex combination advantageous due to the presence of folic acid, L-lysine and selenium, and that 97.7% of doctors had a positive attitude about continuing to prescribe vitamin B-complex supplementation in the future. The study found that the current vitamin B-complex combination outperforms its competitors mostly (82%), especially in helping to recover from acute illnesses faster. It was also found to be friendly for the elderly, as no side effects were observed. **Conclusion:** Results suggest that the targeted vitamin B-complex combination can improve acute disease management and help health care professionals make informed decisions for optimal well-being. The findings contribute to a deeper understanding of the medical decision-making process and the nuanced considerations that impact the prescription of specific treatment options for acute illnesses.

Keywords: Targeted vitamin B-complex combination, faster recovery, acute illnesses, fever

Several challenges are faced by the health care professionals to speed the recovery of patients with acute illnesses like fever. Vitamin B-complex supplements have been found to be beneficial due to their potential benefits in promoting the body's healing processes.

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Acute illnesses generally last for a brief duration with a mild or severe nature. Acute illnesses might manifest quickly but often go away within a month. Fever is the most prevalent and typical acute disease.[1]

Fever being an inflammatory response affects the whole body and is controlled by the hypothalamus. However, some illnesses can result in the generation of pyrogens, which are molecules that change the hypothalamus's "thermostat setting" and result in fever.[2]

Fever helps immune cells destroy invading germs by allowing them to move more easily along blood vessel walls.[3]

Vitamin B-complex is one of the essential vitamins required for a healthy immune system and the prevention of fever. These vitamins work as cofactors for enzymes involved in energy metabolism, DNA and protein synthesis, and other crucial processes, making them vital micronutrients for maintaining human health.[4]

Vitamin B6, also known as pyridoxine, assumes a crucial role in promoting faster recovery and aiding recuperation following instances of injury, surgery or pregnancy. This essential vitamin is intricately involved in various biochemical processes that facilitate the body's healing mechanisms. By supporting protein metabolism and participating in the synthesis of neurotransmitters and red blood cells, vitamin B6 contributes to tissue repair and regeneration. Its ability to modulate the immune response and regulate inflammation further enhances the recovery process. Whether it's mending tissues after an injury, facilitating post-surgery healing, or assisting in the physiological demands of pregnancy, vitamin B6 stands as a vital ally in ensuring a smoother and more efficient recovery journey.[5-7]

Vitamin B12 is essential for a person's general health and is essential for hemopoiesis. Adaptive immunity, which is linked to viral infections, might result from low vitamin B12 levels.[8]

It is crucial for the formation of DNA and red blood cells, and its absence can result in serious medical, neurological and mental issues. Fatigue, nausea, loss of appetite, weight loss, recurrent mouth and tongue ulcers, and skin discoloration are typical signs of vitamin B12 insufficiency.[9]

The intestinal barrier is supported by vitamins B6, B12 and folic acid, which also acts as an immunomodulator of cell-mediated immunity.[10]

Vitamin B12 is crucial in healing mouth ulcers, since vitamin B12 deficiency affects 26.6% of individuals with recurrent aphthous stomatitis compared to 12.6% of control patients. Deficits in folic acid and vitamin B12 during pregnancy have been linked to adverse effects on mother and child's health, including an increased risk of low birth weight and early delivery.[11,12]

Deficiency of folic acid, folate and vitamin B12 in mothers can impair tooth formation and mineralization in the fetus. Studies show that maternal folic acid supplementation is associated with delayed dental development in children, while levels of folic acid and vitamin B12 in early pregnancy are not associated with the timing of child tooth development.[13]

Vitamin B12 is essential for general health. The intake of vitamin B12 can aid in the prevention of infections, boost immunity and offer daily energy for nourishment. However, there is a lack of research on the efficacy of this vitamin B-complex combination and its comparative effectiveness in improving acute illness symptoms.

Nicotinamide (Vitamin B3) help protect neurons against ischemic stroke, traumatic damage and oxidative stress. It exhibits the ability to protect the fragile cellular membranes in the brain from oxidative damage brought on by reactive oxygen species (ROS), acting as a strong antioxidant. This substance interacts with a range of intracellular signaling proteins to exhibit anti-inflammatory and antioxidant properties in many cell types.[14-16]

Selenium is an essential trace element necessary in the human body. Studies have shown its beneficial effects on several viral illnesses, including human immunodeficiency virus type 1 (HIV-1), liver cancer linked to hepatitis B. According to studies, patients who had effective treatment for "epidemic hemorrhagic fever" with oral sodium selenite, which resulted in an overall mortality reduction of 80%, also shown considerable therapeutic advantages of selenium supplementation.[17,18]

The investigation by Zhang et al showed that coronavirus diease 2019 (COVID-19) patients who had greater hair selenium concentrations recovered more quickly. A strong correlation was also observed between background selenium levels and cure rate.[19]

Chromium plays a crucial role in the biological processes within the body. It might help in maintaining balanced levels of glycemic, triglycerides and cholesterol. The trivalent chromium offers benefits, whereas hexavalent chromium poses risks to human well-being.[20]

Furthermore, chromium might exhibit antioxidant properties. A study conducted by Anderson et al in 2001 demonstrated potential advantages of chromium, combined with zinc, in terms of antioxidant effects for individuals with type 2 diabetes.[21]

Moreover, chromium significantly influences the immune response through processes that can either stimulate or suppress the immune system. Its effects on T and B lymphocytes, macrophages, cytokine production and overall immune response could potentially trigger hypersensitivity reactions.[22]

Lysine serves as a vital building block for proteins, which in turn facilitate the growth and repair of body tissues. Beyond this, lysine offers a range of advantages, including its contribution to the absorption of calcium, iron and zinc. It also promotes the synthesis of collagen, the production of enzymes, antibodies and hormones, while simultaneously bolstering the immune system. All these cumulatively aid in faster recovery and better defense of the body.[23-25]

Hence, during the onset of acute illnesses, supplementation with vitamin B-complex provides several additive benefits and helps in attaining faster recovery in acute illnesses. This study examines physicians' perceptions and experiences of using vitamin B-complex combinations for faster recovery in acute illnesses, focusing on fever, compared to other competing options. It also explores health care professionals' preferences, beliefs and practices when choosing between the targeted vitamin B-complex and other treatment options for patients. The study aims to assess the safety and efficacy of these combinations in improving symptoms of acute illnesses.

METHODS

Study Design and Setting

The study was a retrospective study conducted via a questionnaire-based survey among all doctors in July 2023. It is a mixed-method study to assess the efficacy and tolerability of vitamin B-complex combinations for faster recovery in acute illnesses, focusing on fever, compared to other competing options.

Study Population

All qualified doctors (General Practitioners, Consultant Physicians) practicing modern medicine were eligible for the survey and were approached to participate. The survey intended to include doctors across all clinical departments, work experience and professional hierarchy.

In this study, 132 Indian doctors participated in the questionnaire survey on the perception and experience of physicians regarding the use of vitamin B-complex in attaining faster recovery compared to other competing combinations available in the market.

Data Collection

The survey tool was a validated questionnaire containing 13 questions. It was in the form of a closed-ended questionnaire, was developed by an expert panel comprising a physician, and a pharmacologist. The questionnaire was specifically focused on the study aims and tailored contextually to fit local situations.

All filled forms were entered into the software database. For discrepancies related to data entry alternate forms were physically cross-checked. Complete cases were analyzed and missing data were not included because of low occurrence. The data were analyzed after cleaning the data and final report was prepared.

RESULTS

A total of 132 doctors from different medical specialization participated in the study with an aim to perceive the perception and experience of physicians regarding the use of targeted vitamin B complex combination in attaining faster recovery from acute illnesses. Most of them were General Physician (85.6%), followed by Consultant Physicians (12.1%) and rest (0.1%, each) was consultant Ayurveda Physicians, Dermatologists and Oncosurgeons (Fig. 1).

Figure 2 shows that 66.7% doctors were found to prescribe vitamin B-complex to reduce acute illness-related symptoms frequently or often while 33.3% said they prescribed vitamin B-complex sometimes only.

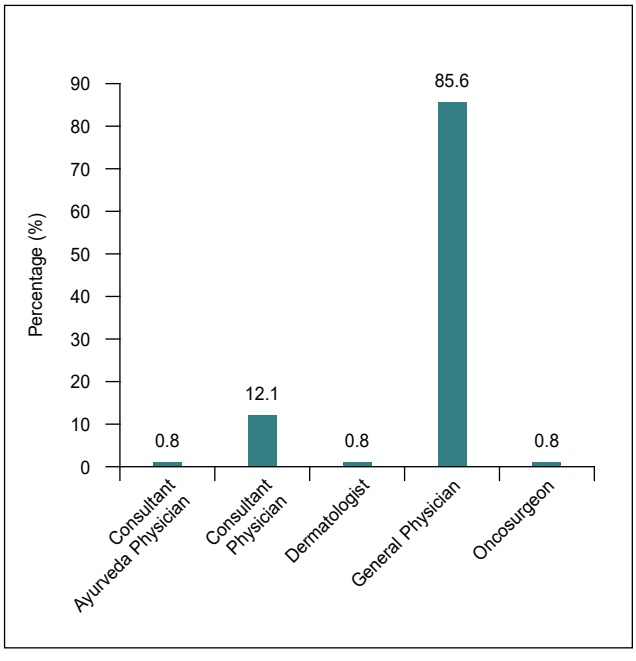


Figure 1. Percentage of doctors from different medical specialization participating in the study.

Nearly 89.4% doctors considered fever as the most common acute illnesses symptoms encountered mostly as depicted in the graph in Figure 3.

The doctors reported fever to be the most common (86.4%) acute illnesses where vitamin B-complex is prescribed for faster recovery, followed by convalescence (6.8%), unexplained fatigue (5.3%) and recurrent illness (1.5%) as shown in Figure 4.

The most important factor contributing to choosing vitamin B-complex was found to be use of vitamin B-complex with micronutrients help in the production of red blood cells (40.2%), followed by vitamin B-complex with micronutrients which help in treating mouth ulcers (31.1%) and then vitamin B-complex with micronutrients are very critical for pregnant ladies (28.8%) as is depicted in Figure 5.

The survey also showed that doctors are of the views antioxidants like selenium and chromium were significantly effective (57.6%) for faster recovery in acute illness and 39.4% had the view that they are moderately effective, while 3% told it was nonsignificant as shown in Figure 6.

The study revealed that 88.6% of doctors stated that use of vitamin B-complex combination is advantageous because of the presence of L-lysine and selenium and their role in the overall well-being of any person (Fig. 7).

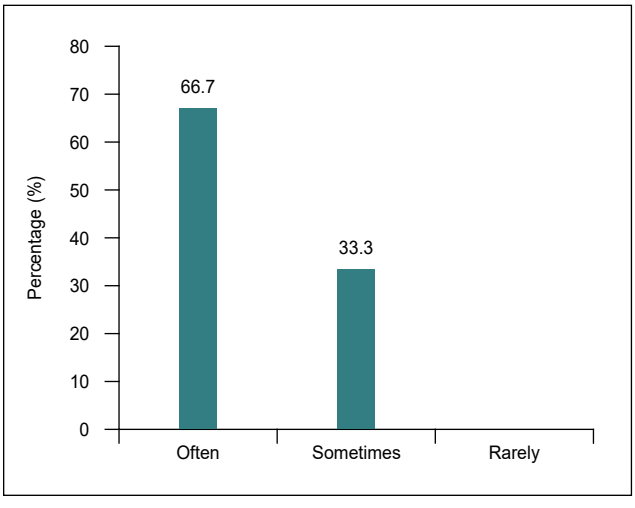


Figure 2. Percentage of frequency for which doctors were prescribing vitamin B-complex to reduce acute illness-related symptoms.

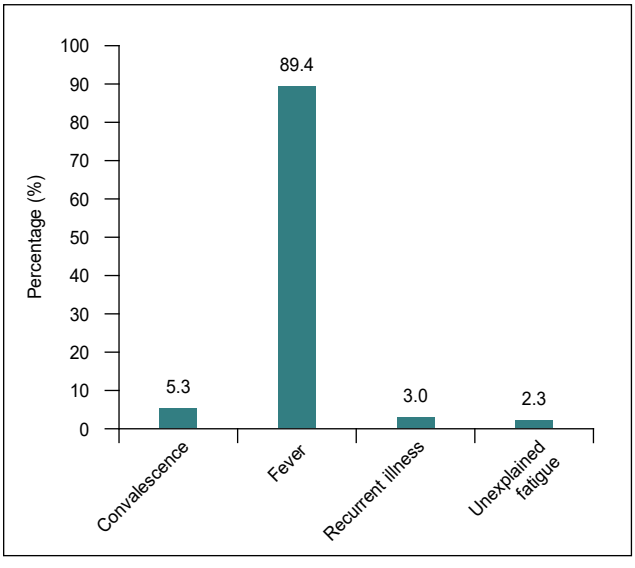


Figure 3. Percentage of acute illnesses symptoms.

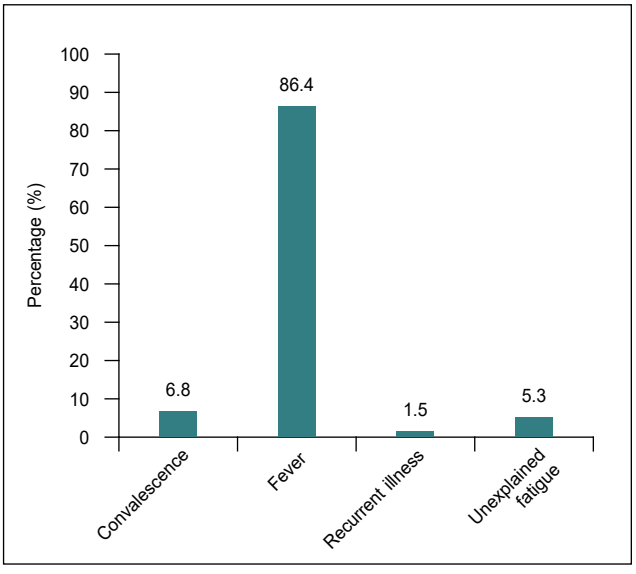


Figure 4. Percentage of acute illnesses doctors prescribed vitamin B-complex.

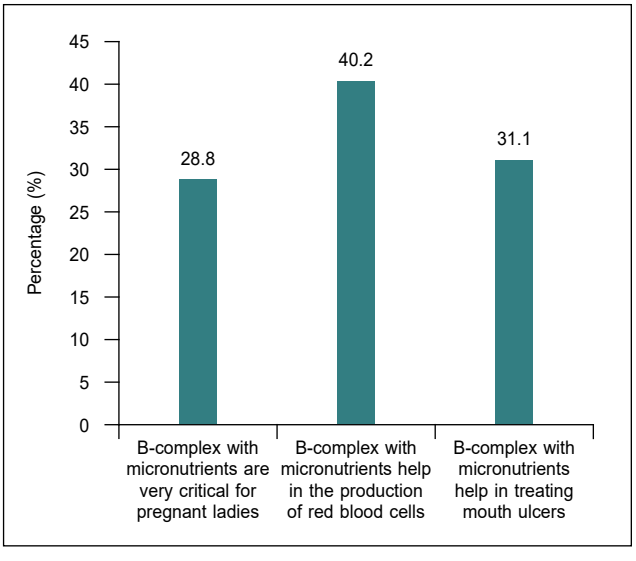


Figure 5. Percentage of doctors with different views on factors contributing to choice of vitamin B-complex supplementation.

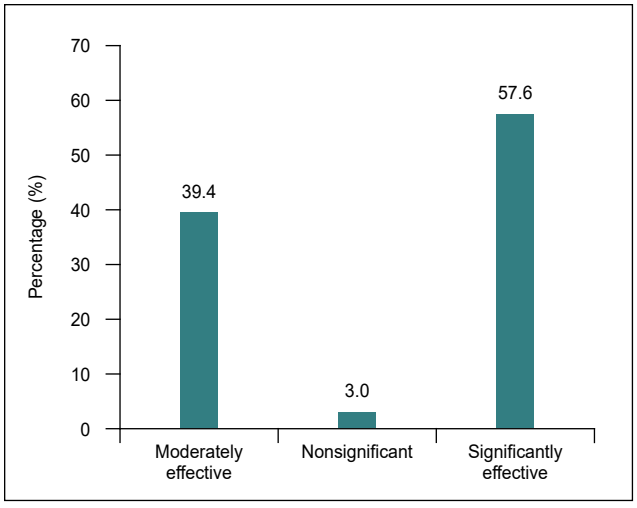


Figure 6. Percentage of doctors with views on importance of antioxidants for faster recovery in acute illness.

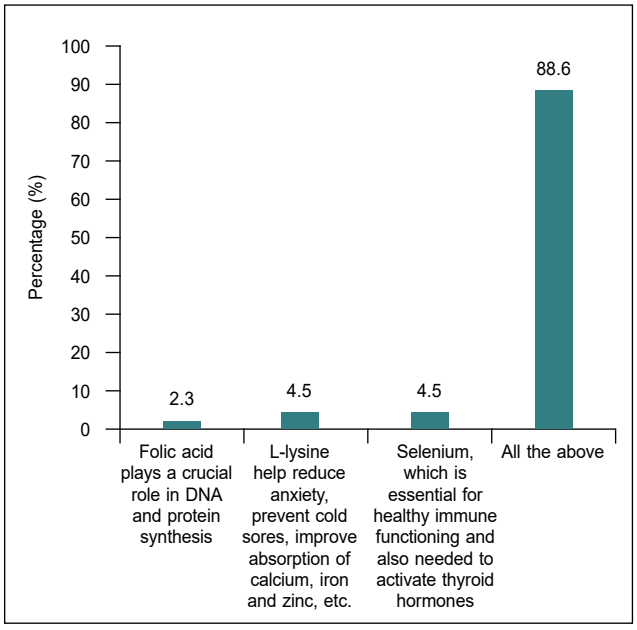


Figure 7. Percentage of doctors with views on advantages of using vitamin B-complex.

Figure 8 and Figure 9 showed that 97.7% doctors had a positive attitude in continuing to prescribe vitamin B-complex supplementation in the future (Fig. 8) and also agreed that vitamin B-complex contributed to faster recovery (Fig. 9).

The graph in Figure 10 demonstrates that 97.0% doctors agreed that vitamin B-complex combination contributes to faster recovery. About 43.2% of them rated the effectiveness of vitamin B-complex combination in attaining faster recovery as is evident from Figure 11.

Nearly 62.1% doctors agreed upon the fact that vitamin B-complex combination outperforms the competition

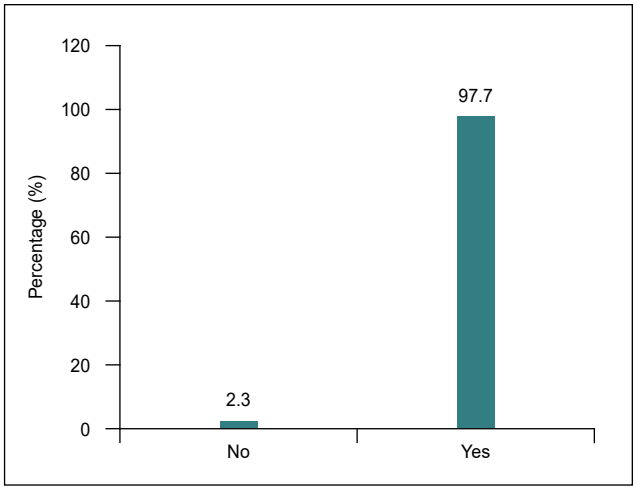


Figure 8. Percentage of doctors with views on continuing to prescribe vitamin B-complex supplementation in the future.

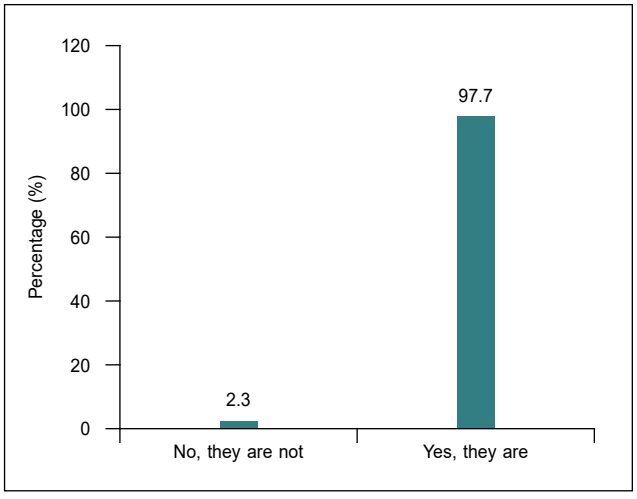


Figure 9. Percentage of doctors whose patients are receptive in using vitamin B-complex combination for faster recovery.

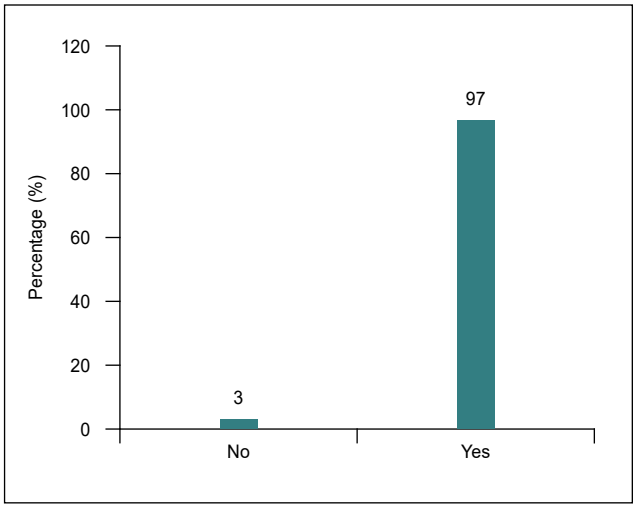


Figure 10. Percentage of doctors on view of vitamin B-complex combination contributing to faster recovery.

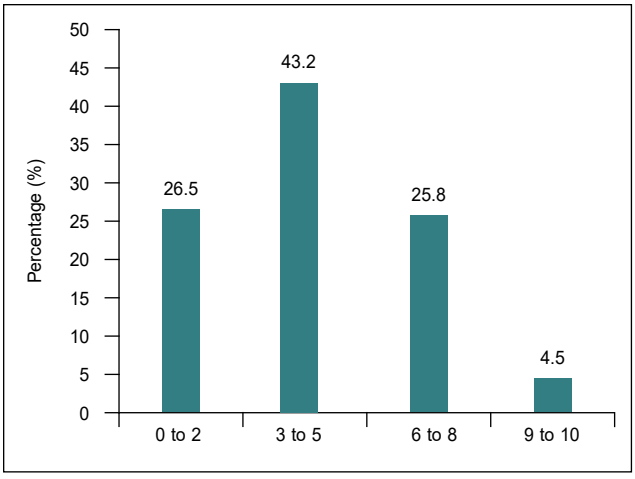


Figure 11. Percentage of doctors with view on effectiveness of vitamin B-complex combination in attaining faster recovery.

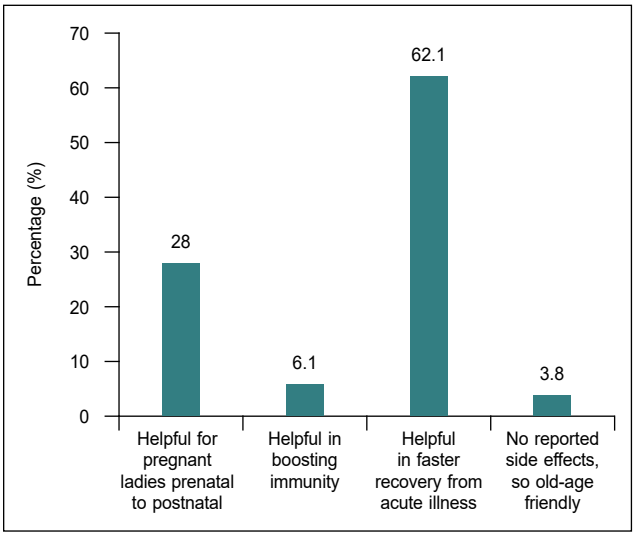


Figure 12. Clinical scenarios where vitamin B-complex combination outperforms the competition.

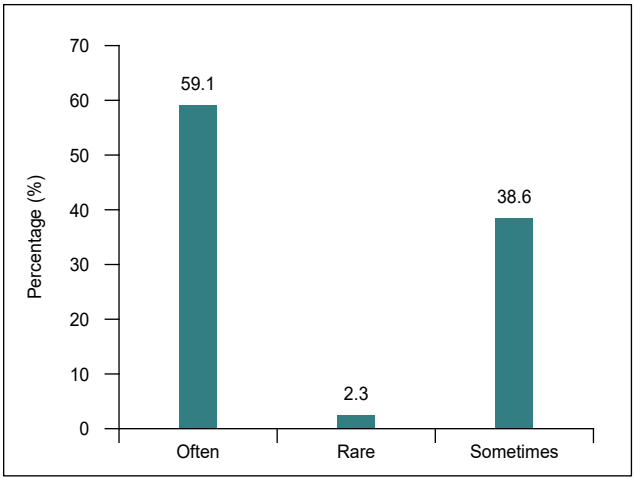


Figure 13. Percentage of doctors with view on importance of lysine.

mostly in cases of faster recovery from acute illness, followed by 28.0% who believed that the combination is helpful in pregnant ladies in their prenatal to postnatal phases, while 6.1% were of the view that vitamin B-complex combination as is depicted in Figure 12.

Figure 13, shows that 59.1% doctors were of the view that most of the time (often) essential amino acid such as lysine plays important role in wound healing/tissue repair while 38.6% said it was sometimes helpful.

DISCUSSION

Vitamins B-complex has a variety of significant functions in the body. Numerous crucial enzymes involved in the production of RNA and DNA require the cofactor vitamins B-complex. Various neurologic illnesses and a wide range of pathological conditions have been linked to B vitamin deficiency as etiological variables.[26]

The National Centre for Complementary and Alternative Medicine claims that taking supplements may help reduce fever. The increased metabolism brought on by a fever might result in an increase in the demand for specific vitamins and minerals. The usefulness of natural supplements in treating the symptoms of the common cold, fever and flu is still being researched. Vitamin A, the B-complex and vitamin C deficits are common since these nutrients are essential to metabolism.

Increasing vitamin B-complex can be helpful since it promotes hunger, which is frequently absent when one has a fever.[27] Vitamins make up roughly 24% to 25% of all prescription medications, according to studies examining the prescribing practices of doctors in different regions of India.[28]

The present study also shows that 85.6% of general physicians who participated in the study often (66.7%) prescribed B-complex to reduce acute illness.

A number of literature searches came to the conclusion that the most common acute sickness symptoms were fever, sore throat, runny nose, sneezing, cough and diarrhea. Most patients with severe diseases will quickly recover.[1,29]

A similar pattern was seen in the current study with 89.4% doctors (Fig. 3) agreeing that fever was the mostly encountered acute illness in the doctors' chamber.

Experts suggest that vitamin B may stimulate T cells, a particular sort of immune cell that helps fight infections and is found in the stomach and lungs. T cells support enduring immunity in addition to aiding in the destruction of infected cells.[30]

Studies by Naimer et al (2010) showed full remission of recurrent fever episodes in kids within the first 2 months of vitamin B12 administration, suggesting that vitamin B-complex aids in the recovery from acute diseases like fever.[31]

Similar observations were seen in the present study, where 86.4% doctors prescribed vitamin B-complex in fever for faster recovery as seen in Figure 4.

The study unveils that 40.2% doctors (Fig. 5) are of the view that the most important factors contributing to choice of vitamin B-complex is the role of B-complex along with micronutrients, which help in the production of red blood cells.

Literature search shows that certain vitamin B-complex aid in the production of healthy red blood cells. Hemoglobin is a protein that is produced in large amounts in erythrocytes and is produced in part by vitamins B6, B9 and B12. Each of the four heme chemical groups found in each hemoglobin molecule may transport oxygen.[32]

Further 31.1% doctors (Fig. 5) had a view that choosing vitamin B-complex was for its healing property to treat mouth ulcers. Studies by Shi et al (2021) showed that vitamin B helps ulcers heal faster, reduces the chance of recurrence, and lengthens the duration of treatment. It provides a significant therapeutic benefit in the treatment of mouth ulcer sufferers.[33]

Moreover 28.8% doctors (Fig. 5) were of the view that vitamin B-complex with micronutrients was chosen for it beneficial effects on pregnant ladies. Studies have shown that women who are expecting or nursing should take extra care to get enough vitamins B. These vitamins lower the chance of birth abnormalities and help in fetal brain development. Vitamin B may also control energy levels, improve motion sickness and reduce the risk of pre-eclampsia.[34]

Antioxidants aid in disease prevention. According to a study published in *Research in Pharmaceutical Sciences*, antioxidants can maintain normal cellular function and provide further disease prevention by lowering oxidative stress. In several circumstances, antioxidants have been associated with a reduction in the incidence of cancer, tumors, diabetes, atherosclerosis, cardiovascular illnesses and metabolic disorders.[35]

Antioxidants play a critical role in treating acute diseases like fever by aiding the body fight oxidative stress and inflammation. The brain controls fever, which is a rise in body temperature often brought on by aseptic or infectious stimuli. It is a characteristic of the acute phase response that clinically denotes the presence of processes linked to infection, inflammation, drug reaction, autoimmune disorders or neoplasia. Significant links between the generation of ROS and the development of numerous inflammatory disorders have been demonstrated by a number of pieces of evidence. Reactive oxygen species are produced in greater quantities during a fever by the body's immune system, which can harm cells.[2,36]

In the present study, 57.6% doctors have given a similar view that antioxidants are significantly effective and important for faster recovery in acute illness like fever, while 39.4% doctors said it was moderately effective a shown in Figure 6.

Around 88.6% doctors agreed that the given vitamin B-complex combination is advantageous due to the important roles being played by L-lysine and selenium in the composition.

Lysine serves as a pivotal building block for proteins, which in turn are essential for the development and repair of damaged body tissues. It helps to improve immunity thus aiding in faster recovery. According to Huang et al (2021), lysine can boost the expression of antioxidant enzyme genes and the activity of antioxidant enzymes by upregulating Nrf2. This increases the capacity of free radical scavenging to prevent oxidative damage.[37,38]

Studies have indicated that patients with "epidemic hemorrhagic fever" who were effectively treated with oral sodium selenite showed considerable therapeutic advantages of selenium supplementation, which resulted in an overall mortality reduction of 80%, and also improved the recovery rate.[39]

Malhotra et al (2016) demonstrated the *in vitro* and *in vivo* antioxidant, cytotoxic and anti-chronic inflammatory effect of selenium nanoparticles.[40]

Studies have shown that folate, which is essential for methylation, DNA synthesis and repair, as well as for preventing free radicals from oxidizing DNA, also boost DNA stability. Additionally important functions of folate include cell division, protein metabolism, synthesis of purines and pyrimidines, and enhancing the *de novo* delivery of methyl groups and S-adenosylmethionine.[41]

A study published in the *Journal of Allergy and Clinical Immunology*, reported that folic acid may assist to improve how the body reacts to allergens.[42]

Lack of folic acid impairs B lymphocytes' capacity to release the antibodies needed to recognize antigen. Additionally, deficiency reduces the capacity of T cells to eliminate possible threats, lowering immunity.[43]

Additionally, it has been observed that low levels of folic acid and vitamin B12 can significantly influence immunological responses by altering protein and nucleic acids synthesis, stifling the activity of immune cells and interfering with metabolic processes.[44] L-lysine aids in the production of enzymes, antibodies and hormones, lowers anxiety, prevents cold sores, improves calcium, iron and zinc absorption, promotes wound healing and collagen formation, and supports the immune system.[45]

Collagen is a crucial protein that plays a role in wound healing, and lysine is necessary for its synthesis. Lysine may hasten wound healing and shorten recovery time, according to certain human and animal studies; however, further study is needed. According to a 2011 research, sodium hyaluronate, another drug used to speed up wound healing, was not as successful in reducing the size of pressure ulcers as the topical application of lysine and hyaluronic acid.[46]

In a different study, animal models (40 rabbits), it was observed that administering lysine and arginine dosages of 21 mg/lb (47 mg/kg) and 23 mg/lb (50 mg/kg), respectively, dramatically enhanced blood flow and total bone repair.[47] Selenium has anti-inflammatory and antioxidant properties. Some viral infections' incidence, virulence or illness development are associated with selenium deficiency.[48]

Based on the idea that selenium favorably regulates immunological function, selenium is typically seen as a potentially beneficial complementary and alternative medicine technique. Selenium supplementation may offer an affordable strategy to shift immune responses away from the CD4+ Th2-type that fuel allergic asthma and promote the Th1-type that protects against viral infections and cancer, according to published findings utilizing mouse models and small human trials.[49]

Selenium has structural and enzymatic functions as a component of selenoproteins; in the latter case, it is well recognized for acting as an antioxidant and a catalyst in the synthesis of active thyroid hormone. Selenium appears to be a crucial nutrient in preventing the virulence of HIV and preventing the progression of HIV to AIDS (acquired immunodeficiency syndrome). Selenium is required for the healthy functioning of the immune system. It may lower the chance of miscarriage and is necessary for sperm motility. Negative emotional states have been connected to deficiencies.[48]

Thus the above literature studies reveal the importance of folic acid, L-lysine and selenium along with vitamin B-complex in disease treatment, which is also as per the present study results as shown in Figure 7.

The study also majority of doctors (97.7%) plan to continue prescribing vitamin B-complex supplementation in the future as is shown in Figure 8.

Many individuals opt to take vitamin and mineral supplements, but doing so in excess or for an extended period of time may be dangerous, thus they should only be used after consulting a doctor. To lower the likelihood of having a child with a neural tube abnormality, the National Institute for Health and Care Excellence (NICE) suggests giving pregnant women folic acid supplements.[50]

Patients prescribed vitamin B should be reviewed to ensure prescribing is appropriate. If it is appropriate then vitamin B compound strong tablets represent the most cost-effective preparation.

Figure 9 showed that 97.7% doctors stated that their patients are ready to continue receiving vitamin B-complex combinations to attain faster recovery, while Figure 10 reveals that 97% of doctors felt that vitamin B-complex combination contributes to faster recovery. Figure 11 demonstrates that 43.2% doctors rated the effectiveness of vitamin B-complex combination in attaining faster recover to be between 3 to 5, 25.8% rated between 6 to 8, 4.5% rated between 9 to 10. Also the study showed that the present vitamin B-complex combination outperforms its competitors mostly (82%) in helping to recover from acute illness faster, followed by its effectiveness in pregnant ladies prenatal to postnatal (37%), while 5% reported that they were friendly for elderly as no side effects were seen, 8% doctors recommended the vitamin B-complex combination in helping to boost immunity as shown in Figure 12.

It is important to emphasize the significance of vitamin B as it is crucial for cell function, energy metabolism, and healthy immune function. For the body to operate properly and for the immune system to be strengthened, enough vitamin consumption is required. Vitamin B maintains endothelial integrity, lowers pro-inflammatory cytokine levels, and improves respiratory function and digestive issues, prevents hypercoagulability, shortens hospital stays and aids in the proper activation of both innate and adaptive immune responses.[35]

IMPLICATIONS AND LIMITATIONS

While the questionnaire-based survey offers valuable insights into physicians' perception and experience with vitamin B-complex and competing combinations, it is essential to acknowledge its limitations.

The survey's reliability may be impacted by sampling bias, as only physicians who agreed to participate may

recall their experiences with vitamin B-complex and other combinations. The survey's reliance on subjective responses may introduce response bias, as it may establish correlations between physicians' perceptions and patient outcomes but may not prove causation. Attributing treatment success solely to vitamin B-complex or competing combinations is challenging due to confounding factors. Low response rates may raise concerns about nonresponse bias, as physicians who did not participate may have different opinions or experiences.

By being aware of these limitations and implementing appropriate mitigation strategies, researchers can maximize the survey's reliability and the credibility of its findings. The survey's implications lie in guiding evidence-based medical decisions, patient education and further research to improve acute illness recovery strategies.

CONCLUSION

Doctors have a wide range of perceptions and experiences regarding the usage of the targeted vitamin B-complex combination comprising of pyridoxine hydrochloride, cyanocobalamin, nicotinamide, chromium chloride, sodium selenite, L-lysine to speed up recovery from acute diseases like fever. Although some doctors are ecstatic about its potential advantages and the reported favorable patient results, others are wary and call for more thorough clinical investigation. The decision-making process for health care professionals is further complicated by the crowded market of competing combinations. Physicians must balance the existing information with the requirements of each patient, safety concerns and the desire for a quicker recovery.

The results suggest that the targeted vitamin B-complex combination has the potential of faster recovery aiding in better in management of acute diseases like fever and help health care professionals to make more informed decisions regarding the use of vitamin B-complex combination to optimize the overall well-being.

Acknowledgments

The author would like to acknowledge Ms Mitali Chakraborty, BSc, MSc Biotechnology and Ms Richa Mishra, BSc Microbiology for their assistance in the conduct of the article.

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