

UNIVERSITI TEKNOLOGI MARA

**THE MOST PREFERRED
TREATMENT FOR COVID-19
INFECTION SYMPTOMS USING
FUZZY AHP**

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**BACHELOR OF SCIENCE (Hons.)
MANAGEMENT MATHEMATICS**

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**The Most Preferred Treatment for
Covid-19 Infection Symptoms Using
Fuzzy AHP**

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SUPERVISOR’S APPROVAL

**THE MOST PREFERRED TREATMENT FOR COVID-19
INFECTION SYMPTOMS USING FUZZY AHP**

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This report was prepared under the direction of supervisor, Siti Fatimah Binti Abd Rahman. It was submitted to the Faculty of Computer and Mathematical Sciences and was accepted in partial fulfillment of the requirements for the degree of Bachelor of Science (Hons.) Management Mathematics.

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ABSTRACT

The SARS-CoV-2 virus is the infectious disease known as coronavirus disease (COVID-19). COVID-19 patients had a negative impact in terms of health categories mild, moderate, and severe. Alternative treatments are used by patients to prevent and treat COVID-19 infection symptoms, including natural treatments, vitamin supplementation, and medical treatment. However, the best treatment plan to reduce the infection symptoms is still undetermined. Thus, the purpose of this study is to determine the treatment that could assist in reducing COVID-19 infection symptoms for mild, moderate, and severe symptoms. In addition, the aim of this study is to gather information from expert and post COVID-19 patients or who are currently suffering the illness about the treatment used for COVID-19 infection symptoms. The method of Fuzzy Analytical Hierarchy Process (AHP) and the calculation using Excel software is used for this study to rank the treatment. As a result, it shows that, when compared to natural treatments and vitamin supplementation, most patients and experts choose medical medication as the best alternative treatments. Natural treatment and vitamin supplementation are the second and third-ranked treatments using the Fuzzy AHP method. This demonstrates that both experts and patients believed that treating COVID-19 infection symptoms with medicine would be more effective. The antiviral medicine paxlovid and paracetamol, as well as vitamin D and C supplements, have been advised by both experts and patients. In the meantime, natural treatments like essential oils, *Nigella sativa*, and honey were commonly used. Some of the essential oil suggested by the responders include digize, thieves, clove, peppermint, and lemon from Young Living Essential Oils. Thus, ranking medication, natural treatment, and supplement types that patients used for COVID-19 infection symptoms is necessary for future study.

Keywords: COVID-19; natural treatment; mild symptoms; moderate symptoms; severe symptoms; essential oils; vitamin supplementation; medical medication; infection symptoms; Fuzzy AHP

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