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of Shallow Water**

**Solution of Fisher's Equation
Using Integral Iterative Method**

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of Graduate
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MATHEMATICS IN APPLIED RESEARCH

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EDISI NOVEMBER 2022

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Al-Hamdulillah bersyukur kita ke hadirat Allah swt, dengan penerbitan edisi ketiga makalah Mathematics in Applied Research terbitan Kolej Pengajian Pengkomputeran, Informatik, dan Media UiTM kampus Seremban. Penerbitan ini merupakan satu usaha untuk menonjolkan hasil penyelidikan pelajar bersama pensyarah dalam Projek Tahun Akhir program ijazah sarjana muda di KPPIM Seremban.

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Disamping itu, pihak KPPIM Seremban mengharapkan makalah ini akan menjadi rujukan dan pemangkin kepada usaha menghasilkan penyelidikan Projek Tahun Akhir yang lebih bermutu tinggi. Makalah ini juga adalah batu asas kepada perkongsian penyelidikan terkini daripada pelajar dan pensyarah KPPIM Seremban.

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- Dr. Nor Azni Shahari

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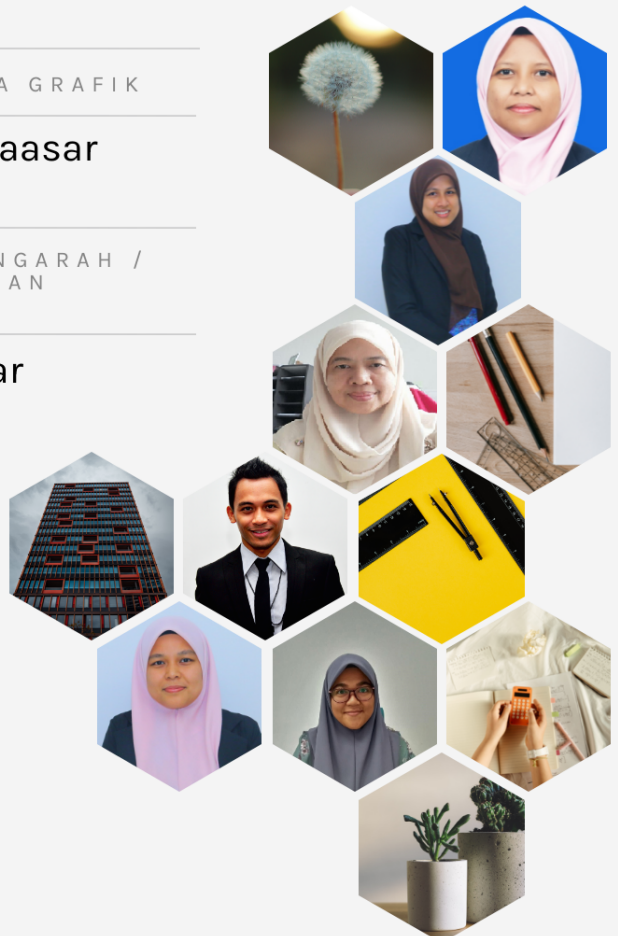
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Thank You!

for being with us,



Dr. Nor Azni Shahari
Editor

MiAR 2021, 2022



Dr. Nur Azlina
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MiAR 2021, 2022

for all the dedications and

Happy Retirement

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AWARENESS ON PREVENTION OF CORONAVIRUS (Covid-19): A CASE STUDY OF INTERNSHIPS STUDENTS IN UNIVERSITI TEKNOLOGI MARA CAWANGAN NEGERI SEMBILAN

Syafiqah Samat ¹, Nurdia Azlin Ghazali ², Nur Hidayah Mohd Razali ³ and Noor Aisyah Idris ⁴

^{1,2,3,4} Faculty of Computer and Mathematical Sciences, Universiti Teknologi MARA
Cawangan Negeri Sembilan

Corresponding author: noora9995@uitm.edu.my

1. Introduction

Corona-virus disease or also known as Covid-19 is a viral disease that highly infectious for the respiratory system and is caused by novel severe acute respiratory syndrome Corona-virus 2 (SARS-CoV-2). It had been found started from Wuhan City, Hubei Province, China in December 2019 and keep spreading extremely fast all over the world since then. In Malaysia, the first Covid-19 case was confirmed on 25th January 2020 and still ongoing until nowadays. Due to the previous pandemic outbreak, every country in the world put complete lock down that affect the economy, trade, tourism and others industries which also included the education sector. Education sector went through many changes that give a great impact on students, educational institutes and teachers. According to Dani et al. (2020), due to the lock down that government do in order to control the pandemic spread, many institutes and students have to make changes in their education plans. In order to lessen the chances to get infect are everybody plays an important role to take care of themselves especially people who have to work during pandemic that will be include internship students. According to Elhadi et al. (2020), they are expected to have knowledge and awareness as compared to the public since they are at a higher risk of transmission since they have to work with other people. In order to make sure that they have a small chance to get the transmission, they have to always practice the preventive measures. As Covid-19 continues to spread across the country and the world, we all must be observant. We have to change our routines and daily life even though it were extremely hard, because these changes are extremely important for now and in the future. As stated by National Center for Immunization and Respiratory Diseases (NCIRD) and Division of Viral Diseases in 2020, people will be more safer when they can take more steps on prevention measures in order to slow down the spread of Covid-19. Everyone plays an important role to stop the spread of this new and dangerous virus.

Covid-19 is a highly infectious and rapidly spreading disease. The transmission of the disease was due to the poor knowledge and practices about prevention measures among people especially internships students that just started their internship. Despite the increasing cases in Malaysia, internship students still need to find an organization to start the industrial training to finish their studies. Due to pandemic Covid-19, the internship students have been disproportionately affected. It is also stated that about 16% of organizations have revoking internship offers but only 2% of organizations have reported have revoking full-time offers made to the candidates. There are 75% of the organizations have made at least one change for their internship program which are 40% of internship students are being introduce to a virtual internship and another 40% are delaying the start date of internship causing them to shorten the internship duration while about 20% are decreasing the number of intern intake. Since it is requirement for them to finish their studies, so they have to take a risk as well as other people who are working which make them have to always practice the preventive measures and give ear of the update of Covid-19. All these issues show that knowledge and practice the preventive measures are very important in order to prevent the infection of Covid-19. In order to control the spread of Covid-19, there is an urgent need to fully understand the awareness of this virus among all people including internship students at this crucial moment. Thus, this study aims to compare the

knowledge and practice as prevention ways of Covid-19 towards internship students and to analyze whether there is a difference between the prevention ways of Covid-19 towards internship students and characteristic of internship students (gender).

2. Literature Review

Industrial training is important for students to get an expose on how the real work of environment experience and also to gain knowledge about the job. In order to develop skills in work ethics, management, communication and others, industrial training can help it. Internship students also have to successfully started and finished the internship or industrial training in order for them to get graduate certificates. However, in year 2020 all internship student in Malaysia experience new things since Covid-19 attacked the whole world. According to Dani et al. (2020), education sector has gone through many sudden changes that have a big impact on students, teachers and also educational institutes due to this pandemic.

In order to make sure that the student have the small chances to get Covid-19 is they need to have the knowledge about Covid-19 that include the updated news of Covid-19, the ways to get less chances of infection, the order from government in order for them to control the virus from spreading. To inflate the efforts of Ministry of Health (MOH) in keeping Malaysia under control, Movement Control Order (MCO) was enforced on 18th March 2020 under the act Prevention and Control of Infectious Diseases Act 1988 and the Police Act 1967. The order enforced would help to control the spread of virus. In addition, workers have to wear protective face masks in public, avoiding crowded places and frequent hand-washing or using sanitizer for individual self-precautions.

On May 2020, the reopening schools and universities became the hot topic globally due to a few arguments that students should keep in touch with their educations before they lose it all. This also affect the internship students since they have to find an organization for them to start the internship. Despite that, they also need to give ear about their safety, this is why practicing self-precautions is extremely necessary. According to World Health Organization (WHO), practicing social distancing by at least 1 meter and wearing mask can reduce the risk of infection. Furthermore, avoid the 3Cs area which are space that are closed, crowded or place that involve close contact. However, people are working in office, they need to take precautions by opening a window and wearing the mask at the office since as stated by WHO by increasing the amount of natural ventilation when indoors, it can help to reduce the chances to get infect.

3. Methodology

This study was conducted to a sample of 115 internship students of Universiti Teknologi MARA Cawangan Negeri Sembilan, Seremban Campus during the period of pandemic Covid-19. A survey was conducted based on a set of questions that collected using online self-administrated questionnaire. The questionnaire consists of three parts which are demographic background of respondents, background of internship and knowledge and practice about Covid-19 preventive measures. The demographic background includes gender of respondent and age, while the internship background consists of month of starting the internship, method of students to report duty, area of internship and type of training for internship. For knowledge variable, seven questions were included in the questionnaire which based on symptoms, prevention strategies and transmission of Covid-19. The responses for knowledge questions were interpreted using value 1 for correct response while -1 for wrong response and 0 for do not know response (Shah et al., 2020). The questionnaires were distributed to internship student and the data were analyzed using descriptive statistics to summarize the information about respondents. Next, t-test was carried out to compare knowledge and practice differences on gender.

4. Results and Discussion

4.1. Demographic of Respondents

The results of descriptive statistics for 115 respondents are summarized in Table 1.

Table 1: Knowledge of Internship Students towards Prevention Ways of Covid-19

Variables	Categories	Frequency(Percent)
Gender	Male	40(34.8%)
	Female	75(65.2%)
Area of internship	Urban	80(69.6%)
	Rural	27(23.5%)
Mode of Internship During Pandemic Covid-19	Work from office	73(63.5%)
	Work from home	38(33%)
	Given leave from company	4(3.5%)

4.2. Knowledge and Practice on Prevention Ways of Covid-19

Table 2 summarizes results of survey on respondents’ knowledge on prevention ways of Covid-19. Upon analyzing the data form 115 respondents, it was revealed that 99.1% of students correctly know that by washing their hands with soap and water or rubbing their hands with alcohol-based hand sanitizer regularly can reduce the chances of getting infected. However, only 21.7% know that at least 20 seconds needed for hand wash to kill most germs on their hands. Most of them (97.4%) can identify the population vulnerable to Covid-19 and 100% of them recognizes that 1-2 meter is the minimum social distancing between two persons in order to prevent transmission. In addition, researcher found that 90.4% of them know the main symptoms of Covid-19 and 73.9% reported that all events listed require practicing of hand hygiene. To summarize, internship students shown more good knowledge.

Table 2: Summary of Characteristics of Internship Students

Knowledge Questions	Correct Response	Incorrect Response	Don’t Know
Fever, dry cough, muscle ache, shortness of breath, and fatigue are the main symptoms of Covid-19 (YES)	104 (90.4%)	9 (7.8%)	2 (1.7%)
Elderly, low immune system, pregnant females, and people with chronic illness are at higher risk of developing severe disease and complications if infected with the virus causing Covid-19 (YES)	112 (97.4%)	2 (1.7%)	1 (0.9%)
Appropriate social distancing between two persons is (1-2 meter)	115 (100%)	0 (0%)	0 (0%)
Washing my hands with water and soap or rubbing my hands with alcohol-based hand sanitizer regularly can reduce my chances of getting infected with SARS-CoV-2 (YES)	112 (97.4%)	2 (1.7%)	1 (0.9%)
What is the minimal time needed for hand wash using soap and water to kill most germs on your hands? (at least 20 seconds)	25 (21.7%)	90 (78.3%)	0(0%)
After which of the following procedure hand hygiene should be done? Please select all that applies (ALL)	85 (73.9%)	30 (26.1%)	0(0%)

Table 3 summarizes results of survey on respondents’ practice on prevention ways of Covid-19. It was observed that 100% of respondents stay home, isolate themselves, and inform their superiors if they have fever or cough even if they have not been exposed to any Covid-19 patient or recently returned from travel and all of them are 99.1% nearly corrected about practicing social distancing and avoiding going out unnecessarily. Other than that, 97.4% of them became

more vigilant about washing their hands during pandemic. Despite that only 28.7% of them got fitted for N95 mask and 78.3% of respondents did not perform nasopharyngeal swab during this pandemic. Researcher also found that 98.3% know how to wear and remove the face mask and gloves safely. Most of respondents (62.6%) use official websites of the Malaysia MOH, WHO or other international societies, hospital resources including website, emails, and posters as their primary source of information on Covid-19. While, others (37.4%) are relying on social media, newspaper and television, friends or family. To summarize, internship students shown good practice.

Table 3: Practice of Internship Students Towards Prevention Ways of Covid-19

Practice Questions	Good Response	Bad Response
I have been practicing social distancing and avoiding going out unnecessarily (YES)	114 (99.1%)	1 (0.9%)
I should stay home, isolate myself, and inform my superior if I have fever or cough even if I have not been exposed to any Covid-19 patient or recently returned from travel (YES)	115 (100%)	0 (0%)
Did you know how to wear and remove your face mask and gloves safely during Covid-19 pandemic? (YES)	113 (98.3%)	2 (1.7%)
Did you perform nasopharyngeal swab during Covid-19 pandemic? (YES)	25 (21.7%)	90 (78.3%)
I have been more vigilant about washing my hands during this pandemic (YES)	112 (97.4%)	3 (2.6%)
I got fitted for N95 mask (YES)	33 (28.7%)	82 (71.3%)
I obtain knowledge about Covid-19 mainly from (ALL)	72 (62.6%)	43 (37.4%)

4.3. Gender differences on internship students’ knowledge and practice towards prevention ways of Covid-19

Based on Table 4, there is no significant difference between gender and knowledge score since the significant value is greater than 0.05 as well as for gender and practice score with 0.532 and 0.769 respectively.

Table 4: Summary of Independent Sample T-Test

Variables	Significant (2-tailed)	T-test value	95% Confidence Interval
Knowledge Score and Gender	0.532	0.626	(-0.177,0.340)
Practice Score and Gender	0.636	-0.474	(-0.242,0.148)

5. Conclusion

This study focuses on the knowledge and practice towards prevention ways of Covid-19. In this study, it was found that most internship students are good in practice rather than in knowledge. Moreover, it was found that there is no significant difference between all characteristics

of internship involved (gender and internship report duty) and prevention ways of Covid-19 (knowledge and practice). Besides, future researcher can use a different sample or population from different campus or universities.

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VOLUME III

