

The Public Health Intervention for International Students at University Malaysia Sabah, Malaysia

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Abstract

Background: COVID-19 pandemic that started in Wuhan, Hubei Province, China, has spread globally, and Sabah is one of the states in Malaysia that is affected by it. The outburst in social media on discrimination against the people from China impacted the international students from China. Thus, University Malaysia Sabah (UMS) had to play a role in mitigating the COVID-19 pandemic and protecting its students. This article aimed to describe the actions taken by UMS for its international student from China during the early phase of the COVID-19 pandemic.

Methods: This study used a cross-sectional design where all 379 students from China in UMS were screened from February 2020 until March 2020 during the early phase of COVID 19.

Results: During this study period, 0.5% of the students were classified as Persons under Investigation (PUI), while 99.5% were classified as Person under Surveillance (PUS).

Conclusion: The public health interventions included surveillance, contact tracing, monitoring, quarantine, isolation, social distancing, mental health support, and mental health intervention activities. These actions to control the pandemic reduce the state health department's health burden and help the students in need.

Keywords: Mitigating activities, Covid-19, Students from China.

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Introduction

As of 17th March 2020, there were 1,79,111 confirmed cases globally, with 7,426 deaths reported by WHO (World Health Organization) (WHO, 2020). In Malaysia, the first case of COVID-19 reported was on 25th January 2020 in Johor, where three Chinese nationalities who had closed contact with a patient treated in Singapore were found positive (The Borneopost, 2020), while the first Malaysian found positive was reported on 4th of February 2020 where he attended a conference in Singapore around two weeks before that (Bernama, 2020). The COVID-19 was announced as a pandemic on the 11th March 2020 by WHO (WHO, 2020). These resulted in changes in the operative dynamics for the medical facilities and the higher education centers. This is because colleges and universities act as an international hub that is home to internationally mobile students. The risk of COVID-19 cases spreading could occur here in Sabah. At University Malaysia Sabah, a large proportion of international students that come to study here came from China. Therefore, actions need to be taken to manage this matter since this pandemic is rapidly evolving. If no strategies are in place, imported infection of COVID-19 could occur inside the college itself.

In February 2020, the federal government of Malaysia had imposed travel restrictions to delay the spread of infection. However, these travel restrictions did not encompass students from China who had valid Malaysian student residency permits. Hence, the university had to go above and beyond the federal and state government procedures by introducing a surveillance program to monitor international students entering the campus from affected regions to prevent the importation of cases. Due to high-density living environments at the university level, the importation of one stray point could have catastrophic consequences. Hence, the higher education center had to communicate health services and plans for international students regarding travel restrictions and re-entry. Multi-sectoral planning procedures were also established early on to coordinate the entry of China students back into university with clear home quarantine, alerting, and sampling requirement standard operating procedures (SOP). Therefore, this article will concentrate on the preventive measures and actions taken by the University of Malaysia Sabah (UMS) for its international students from China returning to Sabah during the alert phase.

Methods

This study used a cross-sectional study design involving all the international students from China. There were 379 students, including those still in the state and those who had just returned to Sabah from China. COVID-19 screening was done through active and passive case detection. These international students were required to self-declare their travel history overseas or upon returning to Sabah, and they were then referred to the health clinics on the campus where they were screened for COVID-19. A liaison officer was then assigned to each student and followed-up up daily for two weeks virtually to check for signs and symptoms of the virus. All the student's details, information, and follow-up details are kept in the line-listing. These secondary data collected from the UMS COVID-19 Preparedness and Response Centre from February 2020 till March 2020 were then analyzed descriptively.

Results

A total of 379 international students from China were screened & there was a 100% response rate towards surveillance and monitoring action done. 61.2% of them were in Sabah, while 38.8% were those flying in from different parts and provinces of China, as seen in **Figure 1**. The students mainly flew from Beijing, Chengdu, and Guanzhou, where 15% of the students traveled from Beijing, 10.6% traveled from Chengdu, and 2.6% from Guangzhou, China.

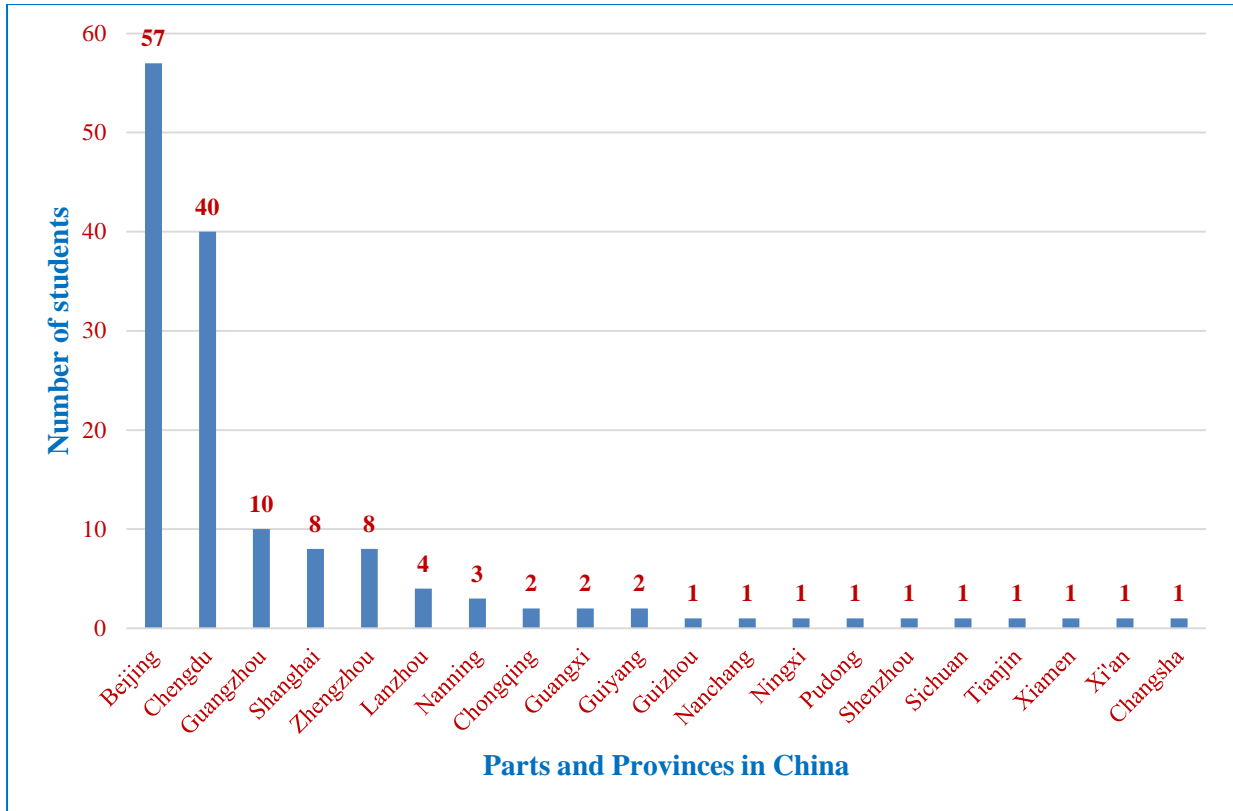


Figure 1: The Number of Students Flying into Sabah according to their Original Flight from February 2020 to March 2020

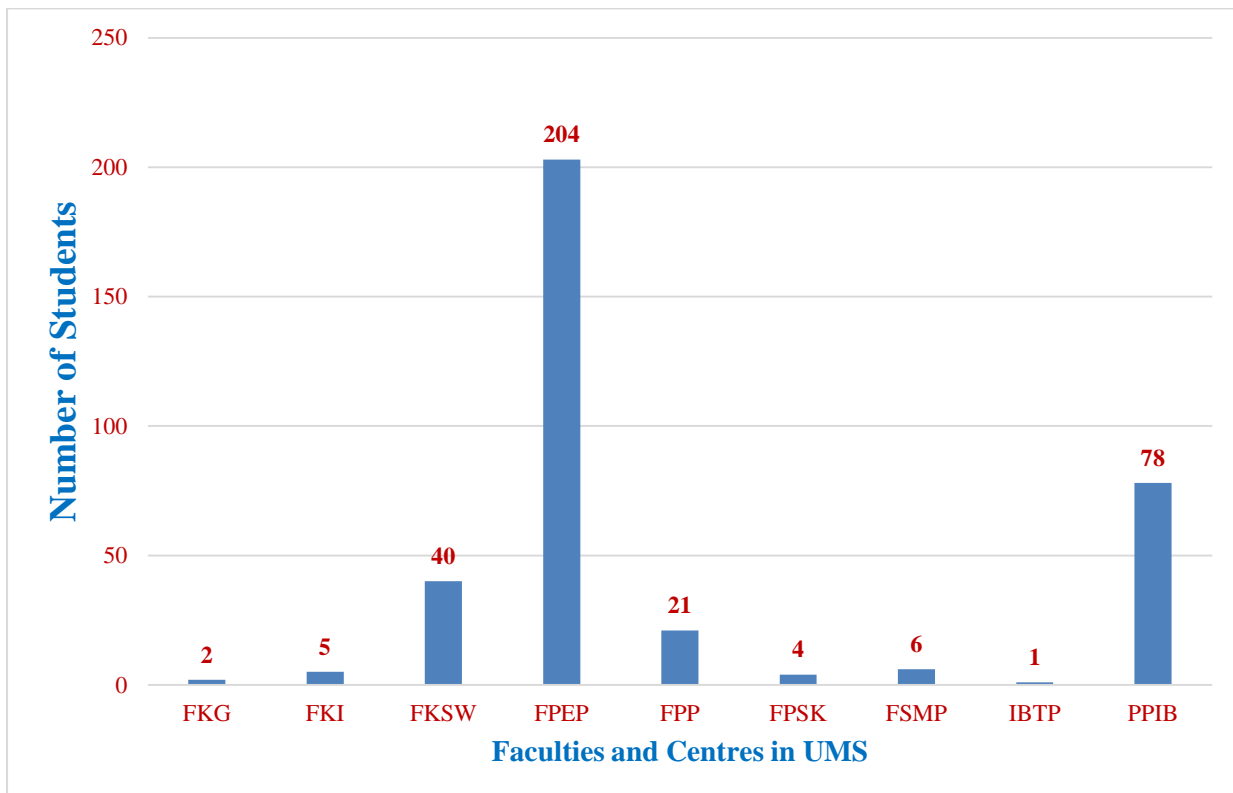


Figure 2: The Number of International Students from China according to Faculty and Centers in UMS from February 2020 to March 2020

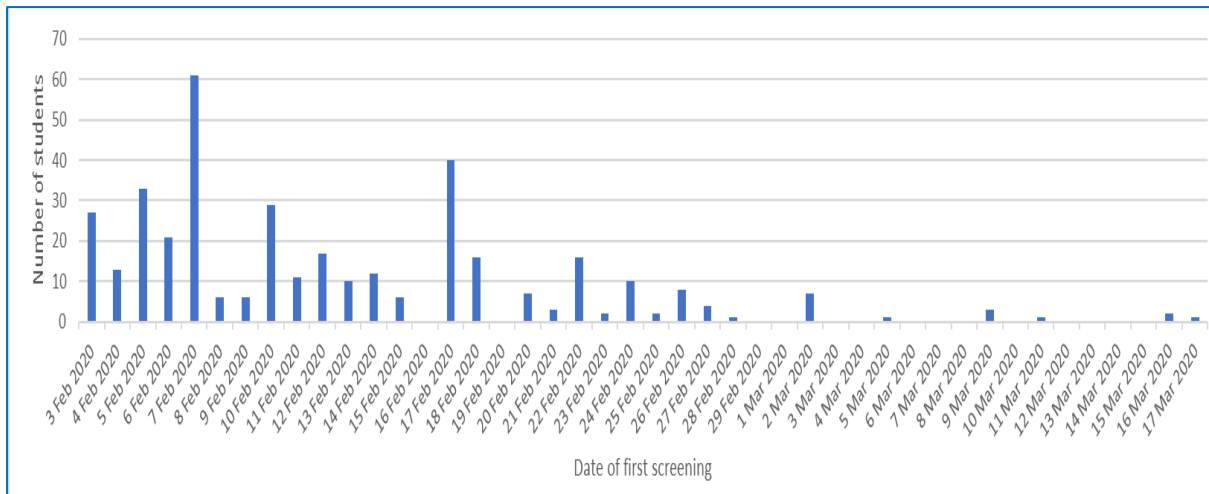


Figure 3: The Number of students from China screened for COVID-19 from February 2020 until March 2020.

All these students that came to UMS came to study in different faculties, as seen in **Figure 2**. From this table, 204 students studied at the Faculty of Business, Economics, and Accountancy (FPEP); 78 students studying at the Centre for The Promotion of Knowledge and Language Learning (PPIB); 40 students studying at the Faculty of Humanities, Art, and Heritage (FKSW); 21 students from the Faculty of Psychology and Education; six students studied at the Faculty of Food Science and Nutrition (FSMP); five students studied at Faculty of Computing and Informatics (FKI); four from the Faculty of Medicine and Health Sciences (FPSK); two from the Faculty of Dentistry (FKG), and one from the Institute for Tropical Biology and Conservation (IBTP). However, 17 students did not mention which faculties they were. All these international students lived outside the university campus but within the district of Kota Kinabalu.

From February 2020 to March 2020, the 2nd version of the COVID-19 guidelines for Malaysia was employed, so person under investigation were all individuals from China with symptoms suggestive of COVID-19. All of them had been contacted and followed up daily. From the surveillance, contact tracing, and monitoring activity, two (0.5%) of the student was classified as Person Under Investigation (PUI) due to having symptoms and were isolated at home, requiring two negative RT-PCR COVID-19 throat swabs to be discharged from home quarantine. 374 (99.5%) students were classified as Person Under Surveillance (PUS) and were quarantined at home for two weeks without taking throat swabs. **Figure 3** shows the trend of international students from China that have been screened while on campus or upon returning to Sabah.

Discussion

Since the emergence of the novel coronavirus COVID-19, news about it has been widely circulated. It has been a hot topic in social media, and the images linked to it were of people from China in quarantine and confinement. Since then, there has been an increase in discrimination and wariness towards Chinese people, and in Malaysia, this includes tourists and international students. Research shows there is a positive association between media exposure and prejudice towards foreign nationalities (Sorokowski, P. et. al., 2020). Due to this, international students may face many stressors, including fear of infection, despair, boredom, and stigma (Duan, L. et. al., 2020). Some may seek information from social media,

and exposure to social media is associated with a higher prevalence of anxiety and depression (Gao, J. *et. al.*, 2020). Some mitigation actions like social distancing can help slow the pandemic, but people crave social connection since it can help them cope with stress during this crisis (Jetten, J. *et. al.*, 2017). Hence, distancing may increase loneliness, depression, and anxiety for these international students, negatively affecting their health (Hawkley, L. C. *et. al.*, 2010). The effect of people who are subjected to quarantine and self-isolation also include anger and confusion (Brooks, S. K. *et. al.*, 2020).

Therefore, UMS had increased their preparedness, alert, and response in identifying and controlling the COVID-19 pandemic within the appropriate scale of the university level as in WHO advice (WHO, 2020). Communicating information is essential in creating trust and preventing people from seeking it from an unreliable source. Thus, messages are tailored according to the language the target people can understand (Berger, Z. D. *et. al.*, 2020). Online interaction can also increase a sense of connection, and it is advantageous psychologically to those who received help and the one giving it (Doré, B. P. *et. al.*, 2017). The educational concept done by UMS is by utilizing social media campaigns that are reachable to the students. However, there is still a risk of people misunderstanding the information and taking the precautions less seriously. Hence, UMS ensures that only trained counselors and psychologists are assigned to these students who may need it.

In University Malaysia Sabah (UMS), surveillance of international students from China had started in early February 2020. Both active and passive surveillance methods were used. Students who had just returned from China were contacted daily for two weeks to update their daily conditions for active surveillance systems. For passive surveillance, university health clinics notified the operation room if any cases of COVID-19 were identified. Rumor surveillance was also established by monitoring social media for signs of mental breakdown among students. Lecturers as well as appointed staff monitored Whatsapp and Facebook and took necessary action as needed. From these actions, the data collected were the demographics of the students, their addresses in Sabah, contact numbers, COVID 19 screening tests, their results, and their daily COVID 19 symptoms follow-up. A line listing was then made to monitor the students who have returned from China and ensure they are supported throughout this pandemic.

In public health, contact tracing is done to track down those who might have been in contact with a person diagnosed with this disease. It is imperative to ensure the contacts are located and quarantined to prevent further spread. It has been shown in a study in Taiwan that vigorous contact tracing followed by quarantine and social distancing is an effective strategy in preventing widespread community transmission of COVID-19 (Cheng, H. Y. *et. al.*, 2020). In UMS, contact tracing and monitoring procedures were created in preparation for any COVID 19 cases among the students who had just returned from China. Liaison officers consisting of lecturers and academicians were appointed to take care of 10 students each. They were tasked to contact the identified person and provide them with education, information, and support to understand the need to separate themselves from others who are not exposed. With the help of the liaison officer, the students are monitored for illness symptoms, made to understand the possibility and the risks that they could spread the infection to others even though they were asymptomatic, and reinforce the need for social distancing and home quarantine upon return from travel.

Contact tracing is an arduous task, but this is to prevent the resurgence of COVID-19 disease (Hellewell J. *et. al.*, 2020). Thus, UMS collaboratively worked with the state health

department to stop the transmission of COVID-19 within the campus itself. In UMS, all contract tracers were well trained with a public health background. Apart from that, for the contacts, their privacy is of the utmost importance. When they were called, their identity and details were private to the contact tracer and themselves only. The methods used to contact them were through phone calls, emails, and social media messaging. It is also known that the media stereotyped those from China as the potential carrier of the virus. This affected those of China nationalities where some were refused services like Grab car because of the negative (Rzymiski P. et. al., 2020). So, to avoid these prejudices, the contact tracers were trained to be professional and sensitive while communicating with the students.

Currently, for the COVID-19 pandemic, there remains no an effective medicine or vaccines available to treat or prevent it. In February, students from China were considered to have the risk of transmitting COVID-19, although the pandemic was not announced yet by the WHO. Regardless, restrictive public health measures were used to reduce transmission of COVID-19, and quarantine has been proven to be advantageous since it has been demonstrated to reduce the disease spread by nearly 80% (Chinazzi, M. et. al., 2020). Hence, in the UMS, quarantine, isolation, and social distancing were the key measures used.

The students were explicitly requested to undergo quarantine at their homes for 14 days after returning from their travel. Those who had fever were discussed with infectious disease specialists for possible hospital isolation. For home quarantine, they were advised to stay at home for 14 days, check temperature daily, keep the distance (2 meters) between themselves and others, watch out for signs and symptoms such as fever, cough, and shortness of breath, get medical assistance if students develop any symptoms or symptoms worsening, stay calm, cooperate with the authorities and, wear a face mask if going out.

Moreover, UMS administration enforced quarantine and isolation to ensure the students' health within the campus and control the spread of infectious disease. A rapid review done by Cochrane entitled "Quarantine alone or in combination with other public health measures to control COVID-19 using 29 studies suggested that quarantine of people exposed to confirmed cases can reduce infections and deaths (Nussbaumer S.B. et al., 2020). Furthermore, UMS maintained transparency which is essential to ensure students understood the need for quarantine and isolation without developing fear and panic. Moreover, combining quarantine with other control measures like travel restriction, social distancing, and school closure effectively reduced transmission and critical cases.

COVID-19 pandemic presented as a potential stressor to vulnerable communities. International college students are uniquely vulnerable to everyday stressors and severe mental illness during this pandemic. There are many reasons why these students encounter challenges and stressors. Students experienced stress due to the uncertainty of abrupt disruption of the semester caused by university closures. Many have to cease their research projects, experience delays in their course timeline and graduation, and struggle with the cost of returning home and managing their belongings. There is also fear of infection and transmission of COVID-19 among their family members. The social isolation that the students had to face during quarantine can result in many mental health issues which can affect even an ordinary person, like acute stress disorder, irritability, insomnia, mood disorders, fear, panic, and anxiety (Hellewell, J. et. al., 2020).

UMS understood the importance of supporting these students and providing their health, education, and safety needs while considering social distancing. Hence, UMS

transitioned to an online platform to provide psychological counseling services. Every student had a liaison officer to provide psychosocial support, as brief virtual interventions are efficacious for those experiencing distress related to COVID-19 (Cheng, H. Y. et. al., 2020). To those who wanted it, there was also a broad provision of online forums and group chats with counselors where students can share their high and low points and describe how they are feeling using Zoom and google meeting platforms. This will increase their psychological mindedness, which has been shown in recent studies to be a mediator that can significantly affect the relationship between dysfunctional coping styles and depressive symptoms (Qadri F. et al., 2005).

Apart from that, to make sure there is a sense of normality, remote education through online classes was also done continuously throughout the alert phase and home quarantine. These online classes could also simultaneously act as a tool for the lecturers to reach out and identify students who might need mental health support. Communication is also vital; therefore, the international students in UMS were regularly updated on the COVID-19 pandemic. They were also regularly updated about national government initiatives, using social media as well as online sessions. The students were also clearly informed on the impact of exams, assignments, placements, and the mitigating measures taken by the university administration. COVID-19 education materials were also continuously updated in the UMS online portal. All these actions aimed to increase students' control over what they perceived during this crisis, improving their psychological well-being (Yau, E. K. B. et. al., 2020).

Hence, UMS was dedicated to helping the students be aware of their mental health needs, cope with their stress and concerns, and empower them to seek help to stay well physically, mentally, and spiritually during this pandemic. A sense of connection was what the students needed to feel supported and encouraged.

Regardless, there are still more that could be improved on as the period of COVID 19 phases advanced. For the international students, the support services should cover counseling, mental health support, and fast referral services to the healthcare providers. It should also include access to COVID 19 vaccination and other welfare services like funding and financial assistance in the future. Therefore, it is best to get feedback from these students to understand their needs during the pandemic to improve the actions further if similar scenarios were to happen in the future.

Conclusion

In response to the COVID-19 pandemic, University Malaysia Sabah provided timely, appropriate mitigating action to ensure that the disease did not spread within the college through surveillance, contact tracing, monitoring, quarantine, isolation, and social distancing. At the same time, care and support are given to the students from China for their mental health needs. Nevertheless, the university will continuously evaluate its plan and action to ensure effectiveness while combating this biological disaster.

Conflicts of Interest

This study is approved by the Medical Research Ethics Committee, Faculty of Medicine and Health Science, University Malaysia Sabah, JKEtika 3/20(10), and there is no conflict of interest in this study.

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