

Original Research Article

COVID-19 risk perception and protective behaviour among service providers at Yangon international airport

Kyaw Min Oo^{1*}, Swe Mar M. Lwin², Khaing L. Mon², Hla H. Win³

¹Department of Public Health, Port Health Unit, International Health Division, Ministry of Health, Myanmar,

²Department of Health Behaviour and Communication, University of Public Health, Yangon, The Republic of the Union of Myanmar, Myanmar

³Department of Epidemiology, University of Public Health, Yangon, The Republic of the Union of Myanmar, Myanmar

Received: 24 January 2022

Accepted: 15 February 2022

*Correspondence:

Dr. Kyaw Min Oo,

E-mail: drkyawminoo.moh@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: International travel and trade have been increasing at the greatest rate around the world and at the same time, several emerging and re-emerging public health emergencies are threatening the safety of people. The aim of the study was to assess the knowledge, risk perception, and protective behaviour of COVID-19 among the service providers at the major designated point of entry in Myanmar.

Methods: The cross-sectional study was carried out among 216 service providers at Yangon international airport by using online telephone interviews during 2020. Participants with at least 6 months duration of working service (both private and public sectors) in their current area were included. Multiple logistic regression analysis was used to determine the factors influencing the protective behaviour of COVID-19.

Results: All participants have heard about the COVID-19 pandemic and about (63%) also knew that coronavirus was the causal organism of the pandemic. Of 216 participants, only 18.5% had a low knowledge level. Overall good perception level towards COVID-19 was moderate to high. Majority (81.5%) reported good protective behaviour. Knowledge and perception of participants on COVID-19 did not influence the protective behaviour in this study, however, female (aOR=6.64, 95% CI=1.85, 22.61), and those who had long working hours (12 hours shift) (aOR=3.36, 95% CI=1.60, 7.05) had better protective behaviour on COVID-19.

Conclusions: Although few service providers with limited knowledge and protective behaviour, most had good perception levels on COVID-19. Regular risk communication and awareness-raising activities were needed to increase the protective behaviours among the service providers at the airports.

Keywords: COVID-19, Risk perception, Protective behaviour, Service providers, Airport, Point of entry

INTRODUCTION

In late December 2019, a new coronavirus outbreak caused a cluster of pneumonia cases in Wuhan, China. The disease was initially called novel coronavirus disease.¹ WHO later renamed the disease Coronavirus disease 2019 (COVID-19) as that was an infectious disease caused by a newly discovered coronavirus, called SARS-CoV-2.² Globally, according to WHO, as of the end of January 2021, there have been more than 100 million confirmed cases of

COVID-19 with more than 2 million deaths, is reported. Myanmar is one of the last countries which have been affected by a pandemic. Nowadays, international travel and trade have been increasing at their greatest rate. Myanmar has notified its first case of COVID-19 on 23rd March 2020. In Myanmar, including the first case of COVID-19, during the first wave, most COVID-19 cases came through Yangon international airport as it is one of the designated points of entry and has the largest inflow outflow of passengers.

Ministry of Health (MoH), Myanmar had alerted Port Health Teams at designated Point of entries (PoEs) according to International Health Regulations (2005) before the first COVID-19 case was identified. Since the first confirmed case was detected, MoH, in collaboration with relevant stakeholders, had increased the sensitivity of disease surveillance by deploying the Rapid response team (RRT) at sentinel sites.³

“Public health emergency plans are in place for responding to specific diseases (Zika, Ebola, MERS) occurring at Point of Entries, however, Myanmar still needs to develop a formal national public emergency contingency plan for their designated points of entry. There are also no written Standard operation procedures (SOPs) or Memorandum of understandings (MOUs) with other countries for cooperation on quarantine services at PoEs and there has been no formal evaluation for PoEs response to Public health emergency of international Concerns (PHEICs)” was reported by WHO in Joint external evaluation (JEE) Report for Myanmar.⁴ Myanmar needs to strengthen its preparedness and response to PHEIC as well as the pandemic. In the case of a pandemic with no known disease epidemiology, PoEs play an important role in the prevention and control of the disease.

Knowledge, awareness, and protective behaviour of service providers at international airports are pivotal to accomplishing the strategic objectives laid down by WHO. The current outbreak of pandemic novel COVID-19 had spread across borders through travelers, conveyances, which promptly demanded the detection and management of suspected cases at PoEs including seaports, airports, and ground crossings.⁵ The effectiveness of thermal passenger screening for COVID-19 infection at the airport for both exit and entry screening showed an estimate of 46% of infected travelers would not be detected, depending on the incubation period, the sensitivity of exit and entry screening, and proportion of asymptomatic cases.⁶ In the case of pandemic disease with no known epidemiology such as COVID-19, PoEs become vulnerable and staffs who were working at those PoEs were the most high-risk population. Therefore, service providers who are implementing preparedness and response to COVID-19 need to have the knowledge and protective behaviour against COVID-19 and efficient resources for disease prevention.

Despite knowledge about awareness and protective practices of service providers who are working in health care settings and the general population available in international literature, there was no study to describe those of service providers at PoEs in Myanmar till now. That is why it was important to know their knowledge, perception, and protective behaviour towards COVID-19 and the findings from this study would be able to fill the gaps; contribution to the National contingency plan development and coordination mechanism between private-public service providers in evidence and need-based tailored approach.⁷

This study also provided national-level interventions regarding the formulation of better policy, guidelines, and regulations especially for service providers at designated PoEs in Myanmar.

The result of this study proved some useful information on knowledge, perceived risk, and protective practice among service providers of various departments at Yangon International Airport on COVID-19 which are important for pandemic response. The result from this study can be utilized for strengthening global health security at the designated point of entry which are a major role in the prevention, detection, and response of emerging and re-emerging diseases that are entitled to international health and PHEICs.

METHODS

Participants and study site

The study design was a cross-sectional descriptive study and was conducted among 216 staff who were working at Yangon international airport during September 2020. Participants of both male and female from health quarantine department, immigration, customs, security forces, Airport operator staff, all of them had at least 6 months duration of total working service were included by using a stratified random sampling method. Yangon international airport was purposively selected because of having the largest inflow and outflow of passengers and conveyances in our country among all PoEs.

Data collection

Data collection was carried out with online telephone interviews and Kobo Toolkit was also used in this study. Informed consent was already taken from each participant after explaining the privacy and confidentiality of telephone interviews. The individual was invited to participate in the research and their participation was voluntary. The recruitment process was done by taking self-administered written informed consent after the informed approval of respective agencies at the airport. Three data collectors were also trained by the researcher and the data collection process was conducted following MoH's rules and regulations for prevention and control of COVID-19. Pretested structured questionnaires were developed from WHO's survey tool and guidance on rapid, simple, flexible behavioral insight on COVID-19, internationally published literature, and national grey literature.⁸ The content of the questionnaires included the socio-demographic characteristics of participants, their knowledge, perception and protective practice, and prevention of COVID-19. The questionnaires were pretested on 10% of the sample to understand the nature of questions, test Kobo Collect application, and check reliability at the Yangon domestic airport. Based on pre-test results, appropriate modifications of questionnaires had been made. The reliability of questionnaires, the Cronbach's alpha value was 0.711.

Data analysis

After checking the missing data and data accuracy, analysis was conducted with SPSS (Statistical package for social sciences) version 16.0. Frequency distributions tables and figures were used for categorical data and mean (SD) was used for continuous data. Knowledge and protective behavior of participants were assessed by the scoring system, '1' mark was given for the 'right answer' and '0' mark for 'wrong' or 'don't know' answer. The correct response for open-type knowledge and protective behavior questions was given '1' mark and the incorrect response was given '0' mark. The knowledge score ranged '0' to '36'. The perception questions were assessed by using a modified Likert scale and the highest score '4' and the lowest score '1' were given. The highest perception score was '56' and the lowest perception score was '14'. The perception questions contained two categories: positive statement items and negative statement items. Negative statement items were inversely calculated. The highest protective behavior score was '26' and the lowest protective behavior score was '5'. The sum score of each outcome was assessed based on Bloom's cut-off points.⁹ Participants were classified as the good level for the score of ($\geq 80\%$), (60 to 79%) as moderate level, and ($< 60\%$) as poor or low level. To check the association between background characteristics, knowledge level, perception level, and protective behaviors level, modified Bloom's cut-off points were used; participants with a level of score 80 percent and above were identified as good level and less than 80 percent as poor level. All analyses were carried out at a p value < 0.05 significant level. Multivariable logistic regression was used to find out the associations between independent variables; background characteristics, knowledge and perception, and protective behaviors of participants on COVID-19. Significant predictor variables and nearly significant variables (p value < 0.2) were included in multivariable logistic regression analysis. For Ethical clearance, the Institutional Review Board of the University of Public Health, Yangon, has approved the study.

RESULTS

In this study, the age distribution of the study population ranged from 21 to 58 years with the mean (SD) age of 38.19 (9.13) years. Most participants (73.6%) were male and (78.7%) were graduated.

More than half (68.5%) were married and about (95%) of participants live with their families in their homes or with roommates at hostels. According to the service in the current work, (37.5%) had more than five years and (5.1%) had less than one year of service. Nearly two-thirds of participants (62.0%) worked 12 hours per day and the rest (38.0%) worked 8 hours per day (Table 1).

Concerning knowledge of COVID-19, all participants had heard about the COVID-19 pandemic, and the majority (63.0%) mentioned that the Coronavirus as the causal

organism of COVID-19, however, only (11.1%) acknowledged the exact causal organism of COVID-19 as SARS CoV-2. More than (90%) of respondents had stated that fever, shortness of breath, loss of sensation in taste, and odour as symptoms of COVID-19. More than (80%) mentioned cough as one of the symptoms of the disease. Almost all participants (94.9%) knew that the severity of COVID-19 can be fatal. Over (90.0%) of participants mentioned that this disease was spread via respiratory droplets from an infected person or direct contact with an infected person (Table 2). Nearly two-thirds of participants (64.5%) had a moderate level of knowledge and (18.5%) of respondents had a low knowledge level. Among the participants, (17.1%) had a high level of knowledge. Almost all participants (98.6%) agreed that they required easily accessible information regarding the pandemic and its response activities. The majority (92.6%) agreed that it was required to use appropriate Personal protective equipment (PPE) during working at the airport. Hand washing practice was being recognized as the most important among prevention measures by (99.1%) of participants. Then, (99.6%) agreed upon self-protection is the priority for the prevention and control of pandemic diseases. About (92%) of participants perceived that susceptibility if the disease was higher among people working at the airport. Almost all (97.7%) perceived that COVID-19 can be present in apparently healthy people who are traveling. Nearly all (94.4%) perceived that physical distancing at the airport was important for the prevention and control of COVID-19. Some of the participants (8.3%) misperceived that it was not necessary to do fever surveillance and contact tracing at the airport for prevention and control of pandemics. Nearly all participants (95.8%) perceived that COVID-19 can be prevented if they followed MoH's instructions. Few participants (9.7%) perceived that the Health Department was the only responsible department in COVID-19 control (Table 3). More than two-thirds of participants (68.5%) had good perception and about one-third of participants had moderate perception. According to the result of this study, there were no participants who had poor perceptions.

The majority (79.6%) had mentioned that they washed their hand more than 10 times per day. Most (83.3%) responded that they washed their hands every time they came back from outside during the pandemic. Almost all participants (94.0%) mentioned that they washed their hands at least 20-seconds-long. Almost all the participants (97.2%) responded that they wore the mask all the time while they were working at the airport and the surgical mask (medical use) was the most widely use (74.1%) among the variety of masks. However, some (16.7%) told that they used the N95 mask while they were dealing with travelers along with level 2 PPE. More than (95%) of participants mentioned that they had never reused the single used masks more than one day during duty hours. Most participants (84.7%) responded that they discarded the used PPEs into bins labeled as an infectious or separate waste bins. Only one-third of participants (33.3%)

mentioned that they always communicate with other people at least 6 feet away from work. Almost all (98.2%) mentioned that they will communicate health authority immediately if there was someone suspected of COVID-19 at the airport (Table 4). The majority (81.5%) had a high level of protective behaviour, (18.1%) had moderate and very few participants (0.5%) had a low level of protective behaviour. Multivariable logistic regression analysis was done to identify the factors influencing the protective behaviours of participants. According to the results, the female participants had 6.46 times more likely to have

higher protective behaviour compared to male participants (aOR=6.46, 95%CI=1.85, 22.61, p=0.004). The participants with longer duty hours (average 12 duty hours per day) had 3.36 times more likely to have good protective behaviour compared to participants with an average of 8 duty hours per day (aOR=3.36, 95%CI=1.60, 7.05). The participants of the current year of service equal to or less than 5 years duration had 2.04 times more likely to have good protective behaviour compared to participants with more than 5 years (aOR=2.04, 95%CI=0.98,4.25) (Table 5).

Table 1: Characteristics of participants among service providers at Yangon international airport (n=216).

Characteristics	Frequency	Percentage (%)
Age (completed age in year)		
18-30	52	24.1
31-40	81	37.5
>40	83	38.4
Gender		
Male	159	73.6
Female	57	26.4
Marital status		
Single	66	30.6
Married	148	68.5
Divorced	2	0.9
Education		
Grade 5 to grade 8	4	1.9
Grade 9 to grade 10	35	16.2
Graduate	170	78.7
Post-graduate	7	3.2
Number of persons living together with (N=201)		
1-3	68	31.5
4-8	125	57.9
>8	8	3.7
Duration at current post (year)		
<1	11	5.1
1 to 3	71	32.9
4 to 5	53	24.5
More than 5	81	37.5
Average duty hour per day (hours)		
8	82	38.0
12	134	62.0

Table 2: Distribution of participant's response to knowledge questions (n=216).

Knowledge questions	Frequency	Percentage (%)
Symptoms of COVID 19 disease		
Fever	209	96.8
Loss of sensation as taste and odour	207	95.8
Shortness of breath	199	92.1
Cough	187	86.6
Myalgia, arthralgia and weakness	126	58.3
Loose motion	113	52.3
Others	20	9.3
Knowledge on danger signs of COVID-19		
Difficult breathing	164	75.9
High fever	16	7.4

Continued.

Knowledge questions	Frequency	Percentage (%)
Chest pain	2	0.9
Others	16	7.4
Don't know	38	17.6
Mode of transmission		
Through respiratory droplets from infected person	196	90.7
Direct contact with infected person	195	90.3
Going to overcrowded areas while disease outbreak	187	86.6
Sharing of utensils of infected person	168	77.8
Others	6	2.8
Don't know	2	0.9

Table 3: Perception on COVID-19 among service providers at Yangon International Airport (n=216).

Perception questions	Responses N (%)			
	SD	DA	A	SA
On accessibility of information				
Require easily accessible information on COVID-19	1 (0.5)	2 (0.9)	158 (73.1)	55 (25.5)
On protective measures during working hour				
During pandemic, people working at airport should wear appropriate PPE during duty hours	1 (0.5)	15 (6.9)	110 (50.9)	90 (41.7)
To prevent the diseases hand washing practice is very important	0 (0)	2 (0.9)	81 (37.5)	133 (61.6)
Self-protection is the priority requirement in prevention and control of pandemic diseases	0 (0)	1 (0.5)	87 (40.3)	128 (59.3)
On susceptibility to infection				
Handling of travellers' belongings: passport, does not have the risk of getting COVID-19	80 (37)	103 (47.7)	26 (12)	7 (3.2)
COVID-19 infected person cannot transmit the infection to its family members	131 (60.6)	74 (34.3)	5 (2.3)	6 (2.8)
People who are working at the airport has lower chance of getting COVID-19 infection	93 (43.1)	106 (49.1)	9 (4.2)	8 (3.7)
COVID-19 can be present in apparently healthy people who are travelling	4 (1.9)	1 (0.5)	136 (63)	75 (34.7)
On non-pharmaceutical interventions				
Physical distancing at the airport is not important	95 (44)	109 (50.5)	6 (2.8)	6 (2.8)
It is not necessary to do fever surveillance and contact tracing at the airport for pandemic	107 (49.5)	91 (42.1)	10 (4.6)	8 (3.7)
On IHR core capacities at point of entry				
All departments who are working in the airport should have own SOP for COVID-19 response	2 (0.9)	8 (3.7)	125 (57.9)	81 (37.5)
On role of ministry of health and sport				
COVID-19 can be prevented if you follow the recommended guidelines	4 (1.9)	5 (2.3)	131 (60.6)	76 (35.2)
Health department is the only the responsible department in COVID-19 prevention and control	79 (36.6)	116 (53.7)	12 (5.6)	9 (4.2)
On quarantine procedures				
Facility/hotel quarantine of all arriving traveller's is useful for COVID-19 prevention and control	8 (3.7)	37 (17.1)	137 (63.4)	34 (15.7)

Note: SD=Strongly disagree, DA=Disagree, A=Agree, SA=Strongly agree.

Table 4: Protective behaviour on COVID-19 among service providers at Yangon international airport (N=216).

Protective behavior on hand washing	Frequency	Percentage (%)
Average hand washing frequency per day		
<10 times	44	20.4
≥10 times	172	79.6

Continued.

Protective behavior on hand washing	Frequency	Percentage (%)
Washing hand every time come back from outside during pandemic		
Always	180	83.3
Usually	35	16.2
Sometime	1	0.5
Never	-	-
Washing hand every time you touch things that does not belong to you		
Always	145	67.1
Usually	66	30.6
Sometime	5	2.3
Never	-	-
Hand washing for 20 seconds		
At least 20 seconds of hand washing	203	94.0
Less than 20 seconds of hand washing	13	6.0
Wearing mask during working at the airport		
All the time	210	97.2
While dealing with colleagues	4	1.9
While dealing with travellers	2	0.9
Type of masks that mostly used at the airport		
Surgical mask (medical use)	160	74.1
N95 mask	36	16.7
KN95 mask	14	6.5
Cloth mask	6	2.8
Re-using single used mask		
No more than one day	207	95.8
More than one day	9	4.2
Disposal of used PPE in infectious waste bins		
Yes	183	84.7
No	33	15.3
Physical distancing		
Always	72	33.3
Usually	126	58.3
Sometime	17	7.9
Never	1	0.5
Cough etiquette		
Always	177	81.9
Usually	38	17.6
Sometime	-	-
Never	1	0.5
Having meals at work without physical distancing		
Always	3	1.4
Usually	22	10.2
Sometime	122	56.5
Never	69	31.9

Table 5: Adjusted odds ratio of associated factors of protective behaviour level on COVID-19 among service providers at Yangon international airport (N=216).

Variables	Protective behavior on COVID-19	
	OR _{Crude} (95%CI)	aOR (95%CI)*
Gender		
Male (Ref)	1	1
Female	5.46 (1.61, 18.48)	6.46 (1.85, 22.61) ^b
Average duty hours per day		
8 hours (Ref)	1	1
12 hours	2.68 (1.33, 5.41)	3.36 (1.60, 7.05) ^b
Duration at current post		
>5 years (Ref)	1	1

Continued.

Variables	Protective behavior on COVID-19	
	OR _{Crude} (95% CI)	aOR (95% CI)*
≤5 years	2.14 (1.07, 4.28)	2.04 (0.98,4.25) ^c
Marital status		
Single (Ref)	1	
Married/divorced	0.42 (0.18, 1.01)	
Education		
Undergraduate (Ref)	1	
Graduate and above	2.01 (0.89,4.48)	

Note: *-Multivariate analysis using backward elimination method; a- $p < 0.001$; b- $p < 0.01$; c- $p < 0.05$; and aOR- adjusted odds ratios.

DISCUSSION

The result of the present study shows that only one-fifth of the study population had a low knowledge level and the majority had good protective behaviour towards COVID-19. This finding was similar to the study from Malaysia which showed one-fourth of participants had less than acceptable level of knowledge on COVID-19.¹⁰ To prevent, detect, and respond to the COVID-19 pandemic, PoEs are important and staff who were working at those points of entry should have enough knowledge. The majority recognized the coronavirus as the causal organism of COVID-19, while only a few participants knew the correct causal organism of COVID-19 as SARS CoV-2 and this result was consistent with the community survey conducted in Myanmar.¹¹

Three out of four participants also acknowledged danger signs of COVID-19 disease and nearly all people knew the ways of disease transmission. This finding suggested that health education and risk communication activities were successfully implemented among staff who were working in high-risk frontline areas. Nearly all participants received the COVID 19 information mainly from social media such as Facebook, Viber and which was similar to a community survey conducted in Jordan, Myanmar, and Hong Kong.¹¹⁻¹³ The background characteristic of participants in this study was not related to knowledge level, whereas, a study from Serbia where education level was a significant predictor of knowledge on COVID-19.¹⁴ More than two-thirds of participants had a good perception that may be due to the ongoing pandemic and that was consistent with the study conducted in Jordan.¹² Concerning perception on COVID-19, those who lived with family members or other colleagues in the hostel had good perception levels than those who lived alone in this study.

There may be due to information sharing among the household members. All the participants had good perceptions towards information availability, susceptibility of disease, current preventive measures, and activities of MoH, etc. which was consistent with a study from Jordan.¹² However, one-fifth of participants perceived as facilities or hotel quarantine of all arriving travelers was not useful enough for the control of pandemic.

The possible explanation may be due to the large community transmission of COVID-19 at the time of the

study period. This fact pointed out that we may need to communicate with staff for a better understanding of the role of containment of imported cases.

Almost all accepted that self-protection and hand hygiene was important as they realized that there was no vaccine and promising treatment options at the time of data collection. The majority accepted that staff who were working at the airport were high-risk, and their family can be infected by them. Nearly all people trusted in MoH's instructions and these findings were consistent with the community survey where stated that MoH's information was trusted by the community.¹¹

A study in Jordan showed that most participants had good protective behavior on COVID-19 which was similar to the current study.¹² Being female was good protective behaviour than being male in this study. The possible explanation may be due to the more risk-taking nature of males than females. According to this study, participants who were working for longer working duration had good protective behaviour. This result could be due to participants who were working for long shift hours taking more care for their preventive behaviours as they had more risk of physical interaction with others in high-risk working situations. Although a survey from Hong Kong mentioned that (77%) of participants had an adequate supply of PPE, only half of the participants in the current study stated that they had been provided an adequate supply of PPE at work.¹⁵

Therefore, a sufficient supply of PPE should be provided among the staff at the entry point. Only one in three participants responded that they always practice physical distancing at work and others were not practicing well. Possible explanations may be due to limitations in working space and sometimes they need to exchange their security-related information.

There was no relationship between knowledge, perception, and protective behaviour in this study which was not consistent with other studies conducted in Jordan and Serbia where people with the high level of perception had good protective behaviour.^{12,14}

As the strength of the study, all departments and stakeholders from Yangon international airport have participated in this study. As limitations, protective

behaviour of participants was reported-practices and the study was conducted only among staff in Yangon international airport and it may not be generalized to a community member in other regions.

CONCLUSION

This study highlighted that majority of service providers who were working at the Yangon International Airport had an acceptable level of good perception and good protective behaviour although few had a low level of knowledge toward COVID-19. Evidence-based findings that influence the practicing of good protective behaviour of staff should be done by nationally representative research.

ACKNOWLEDGEMENTS

We gratefully acknowledge all teachers from the University of Public Health, Yangon, staff from Yangon International Airport and every stakeholder who helped both physically and mentally, directly or indirectly during this research work.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study received ethical approval from the Institutional Review Board of the University of Public Health with IRB number [UPH-IRB (2020/MPH/1)]

REFERENCES

1. Singh DR, Sunuwar DR, Karki K, Ghimire S, Shrestha N. Knowledge and Perception Towards Universal Safety Precautions During Early Phase of the COVID-19 Outbreak in Nepal. *J Community Health*. 2020;45(6):1116-22.
2. WHO. Coronavirus, 2021. Available at: <https://www.who.int/healthtopics/coronavirus#tab=t>. Accessed on 15 January 2022.
3. WHO. Situational Report, 2020. Available at: https://www.who.int/docs/default-source/searo/whe/coronavirus19/searweeklyreports/weeklysituationreportweek431.pdf?sfvrsn=67cea43d_2. Accessed on 15 January 2022.
4. WHO. Joint external evaluation of IHR core capacities of the Republic of the Union of Myanmar, 2017. Available at: <https://www.mofa.go.jp/mofaj/area/myanmar/data.html>. Accessed on 15 January 2022.
5. WHO. Key considerations for repatriation and quarantine of travelers in relation to the outbreak of novel coronavirus 2019-nCoV, 2019. Available at: <https://www.who.int/news-room/articlesdetail/keyconsiderationsforrepatriation-andquarantine-oftravellers-in-relation-t>. Accessed on 15 January 2022.
6. Quilty BJ, Clifford S, Flasche S, Eggo RM, CMMID nCoV working group. Effectiveness of airport screening at detecting travellers infected with novel coronavirus (2019-nCoV). *Euro Surveill*. 2020;25(5):2000080.
7. WHO. Republic of the Union of Myanmar, JEE Mission report, 2017. Available at: <https://apps.who.int/iris/bitstream/handle/10665/260524/WHO-WHE-CPI-REP-2eng.pdf>. Accessed on 15 January 2022.
8. WHO. WHO Regional Office for Europe. Survey Tool and Guidance: rapid, simple, flexible behavioural insights on COVID-19. Monitoring knowledge, risk perceptions, preventive behaviours and trust to inform pandemic outbreak response. WHO. 2020;1-42.
9. Bloom BS. Taxonomy of Educational Objectives: The Classification of Educational Goals. Tennessee: Vanderbilt University; 1956: 1-2.
10. Azlan AA, Hamzah MR, Sern TJ, Ayub SH, Mohamad E. Public knowledge, attitudes and practices towards COVID-19: A cross-sectional study in Malaysia. *PLoS One*. 2020;15(5):1-15.
11. Mya KS, Hlaing WA, Hlaing SS, Aung T, Lwin SMM. Awareness, perceived risk and protective behaviours of Myanmar adults on COVID-19. *Int J Community Med Public Heal*. 2020;7(5):1627.
12. Alzoubi H, Alnawaiseh N, Mnayyis A, Lubad M, Aqel A, Shagahin H. Covid-19 - Knowledge, attitude and practice among medical and non-medical university students in Jordan. *J Pure Appl Microbiol*. 2020;14(1):17-24.
13. Kwok KO, Li KK, Chan HHH, Yi YY, Tang A, Wei WI, et al. Community responses during the early phase of the COVID-19 epidemic in Hong Kong: risk perception, information exposure and preventive measures. *medRxiv*. 2020.
14. Cvetković VM, Nikolić N, Radovanović NU, Öcal A, Noji E, Zečević M. Preparedness and Preventive Behaviors for a Pandemic Disaster Caused by COVID-19 in Serbia. *Int J Environ Res Public Health*. 2020;17(11):4124.
15. Moorthy V, Restrepo AMH, Preziosi MP, Swaminathan S. Data sharing for novel coronavirus (COVID-19). *Bull World Health Organ*. 2020;98(3):150.

Cite this article as: Oo KM, Lwin SMM, Mon KL, Win HH. COVID-19 risk perception and protective behaviour among service providers at Yangon international airport. *Int J Community Med Public Health* 2022;9:1133-40.