

Assessment of knowledge, attitude, and practice towards the use of masks and sanitizers during Corona Virus Disease 2019 (COVID-19)

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Abstract

Aim -To assess the knowledge, attitude, and practice towards the use of masks and sanitizers during corona virus disease 2019 (COVID-19).

Material and method - A well-structured questionnaire consisting 10 questions was prepared and distributed among the randomly chosen 80 subjects out of which 40 subjects were Indians and 40 were non-Indians (Filipinos). In order to avoid personal interaction, questionnaire was distributed to all 80 subjects through online mode. The purpose of choosing two different countries was to compare their knowledge, attitude, and practice aspects in their respective countries during the pandemic. On the top of that, a pdf including the correct information and preventive measures regarding Covid-19 was prepared and sent to the same subjects to educate them with the proper explanation that they might be lacking during this crucial time.

Result - From the data analysis, it was observed that the most of the Filipinos had the right information or knowledge while Indians who responded the right answers were less in numbers. Secondly the number of respondents of both the country were almost same, whose attitude was found right towards the masks and sanitizers. Lastly, most of the Filipinos were found practice conscious, while Indians were less in number when it came to practicing.

Conclusion- Knowledge and practice aspects among the Filipinos were found better as most of the them were found involved in practice masks and sanitizers efficiently as compared to Indians, although majority of Indians were found to have better attitude towards these precautionary measures but still, most of them have lacked in very important aspect amid the pandemic i.e., practice.

Keywords: Masks, Sanitizer, Coronavirus disease, Indian, Filipino.

Introduction

The pandemic of COVID-19, the majority is dealing with a genuine fear of novel coronavirus infection as it tends to infect objects, air, and the main human body. The cases are rapidly increasing all over the world which results in increased global demand for masks and sanitizers. People are misguided with false information regarding the usage of masks and sanitizers as the pioneer of the internet are busy competing to spread and promote misinformation during the crisis of the deadly coronavirus. The reason for rumors and false information

regarding the usage of masks and sanitizers is social media. It has been observed unofficial information with unknown sources is capturing the attention of today's youth (Almomani & Al-Qur'an, 2020). The purpose of this assessment is to assess the Knowledge, attitude, and practice towards masks and sanitizer among the youth. The subjects chosen for this study comprise students, employees, employers, and unemployed people of India and the Philippines.

Mask: an essential precaution

After studying the data, it has been observed that between 1916 and 2016, masks were generally accepted by the people to prevent exposure as Influenza came up with its strong infectivity in 1918 followed by SARS-CoV which was identified in China (2003) and MERS in Saudi Arabia(2012). Moreover, the masks were used to prevent pollution regarding problems like hypersensitivity and toxicity (Li et al., 2020; Wang et al., 2020).

A newly discovered virus SAR-COV-2 (severe acute respiratory syndrome-2) made an entry in Hubei, Wuhan (China) in 2019 commonly known as the novel coronavirus. With this, global demand for masks had again increased in such a way that the world had to face its shortage during the novel coronavirus crisis (Li et al., 2020).

Masks are preferably used as PPE (Personal Protective Equipment), which means, it is able to protect the mask-wearing person from the virus heading toward his/her face. In the same way, masks can also act like a barrier preventing droplets from heading from the source i.e., our own mouth (Howard et al., 2020). Wearing a mask has proved a very effective preventive measure when worn in the right way. A big drop in the number of coronavirus cases has been reported when masks were worn by the people in an effective way.

On Comparing the effectivity of masks towards influenza and coronavirus, it was analyzed that 11 patients with mask survived against coronavirus while in the case of influenza, the mask could not prevent the infection completely as 1 remained infected after testing 27 patients (Chua et al., 2020).

Surgical masks and N95 respirators

N95 respirators and surgical masks (also known as medical masks) are excessively used amid the covid-19. N95 respirators are considered more effective than surgical masks in terms of protection and have minimum leakage on the front area of the respirators. Its tightness enables it to resist airborne particles that are small in size. While

surgical masks are not that tight and fit therefore small airborne particles can readily penetrate and enter the nose or mouth (Bartoszko et al., 2020).

Sanitizer: an essential precaution.

A well-known saying "Prevention is better than cure", has been implemented amid the pandemic of covid-19 as the precautions related to masks and sanitizers were practiced a lot. WHO has recommended different disinfectant containing hand sanitizers which kill the germs including coronavirus by 99.9% (Mahmood et al., 2020). It's a proven formula to maintain hygiene in this crucial stage. Recently, death cases due to hand sanitizers have increased due to lack of knowledge and misuse of hand sanitizers. One of the misuses is the oral consumption of hand sanitizers which resulted in many deaths. Amid the pandemic, the excessive use of hand sanitizers has become a reason for skin disorders and skin damage. Excessive use of sanitizer against any other virus-like in pneumonia, its effect gets reduced towards other different viruses (for example-Tachikawa,2020) (Mahmood et al., 2020). Most people have preferred using soap in lieu of sanitizer reason behind this is, its harmful effects if used excessively.

Routes of transmission of the novel coronavirus.

Droplet exhaled by the infected person while sneezing or coughing may result in the transmission of the virus to a healthy being, as it has been observed droplet has the ability to hit the mucosal surface to get entered into the targeted site and infect the same (Wang et al., 2020). Other transmission routes could be through contact, which involves touching the eye or face with an infected hand, airborne transmission which involves infection from the virus which has been expelled out through cough or sneeze of an infected person (Chua et al., 2020; Wang et al., 2020). Mainly, the virus enters the body through the nose or the mouth, to the respiratory causing breathlessness, heavy cough, high fever, and headache. Wearing masks and sanitizing the hands is necessary for every age group but, records to date assert that elder people who are above 60 and those having severe heart diseases, high sugar problems, and breathing disorders are more prone to the coronavirus infection (Adhena & Hidru, 2020).

KAP assessment towards the masks and sanitizers was necessary, as misinformation regarding them has become normal amid the pandemic of covid-19. Being the 2nd highest populated country in the world, India has more number of coronavirus cases in comparison to the Philippines. An online survey was done to compare the KAP

aspects of both the countries based on their views, beliefs, and practices with a large difference in the number of coronavirus cases reported till October.

Methods

Study population

Questionnaire was distributed among a total of randomly chosen 80 subjects consisting equal numbers of Indians and other Filipinos. It was presented to them in the form of a quiz so they could check their knowledge regarding masks and sanitizers and furthermore could participate in the survey.

Data Collection

To assess the knowledge, attitude, and practice towards corona virus among masses, a questionnaire was designed which sought their personal views. The questionnaire comprised of 10 multiple choice questions which assessed all the three parameters.

Data Analysis

The responses of all the participated subjects were studied, evaluated and analysed.

Result

	Questions	Response							
		Indians				Non-Indians (Filipinos)			
		Yes	No	Some-times	I do not know	Yes	No	Some-times	I do not know
Assessing Knowledge	Do you think wearing mask only is enough to prevent corona virus infection?	7	29	3	1	12	26	0	2
	Can we reuse a washable mask without washing it properly after the last use?	5	31	4	0	2	38	0	0
	Is it okay to wear a disposable mask more than one time?	2	34	4	0	7	31	0	2
	Can a mask be dangerous if used/worn repeatedly?	28	3	9	0	35	3	0	2
Assessing Attitude	Do you think masks and sanitizers are worth using when decline in active corona virus cases are reported?	31	3	3	3	26	10	4	0
	Do you frequently touch the front of your face mask while using or removing it	14	16	8	2	8	24	8	0

	Does sanitizer alone prevent corona virus infection?	27	4	0	9	36	1	0	3
Assessing Practice	Do you sanitize your hands and surroundings frequently in the pandemic?	33	3	4	0	39	1	0	0
	Do you carry a sanitizer in your bag/pocket while travelling outside?	4	32	1	3	10	29	1	0
	Which one do you prefer to maintain your hygiene and safety during the pandemic: sanitizer or soap?	Soap	Sani-tizer	Both	Depends	Soap	Sani-tizer	Both	Depends
		6	5	23	6	6	2	31	1

Assessment of knowledge

The number of questions were asked to check the knowledge among the Indians and Filipinos. After the assessment, majority of Filipino subjects had right information while Indians who responded the right answers were less in numbers.

1) *Wearing a mask only can prevent Coronavirus infection?*

72.5% of Indians responded NO to the question i.e., mask only, can prevent coronavirus infection while 65% of Filipinos responded NO for the same. Although 7.5% of Indians and 5% of Filipinos are not sure regarding this and, 17.5% of Indians and 30% of Filipinos responded YES which implies, Filipinos are lacking in knowledge to some extent.

2) *Can we reuse a washable mask without washing it properly after the last use?*

Filipinos denied this by a lot in comparison to Indians. 95% of Filipinos responded NO to the question i.e., you should not reuse a washable mask without washing it properly after the last use. while 77.5% of Indians thought it is not safe to reuse a face mask again without washing it. Interestingly, no Filipinos was found confused, while 10% of Indians were not sure and responded as SOMETIMES. Other 12.5% Indians and 5% Filipinos agreed by responding YES i.e., a washable mask can be reused without being washed after the last use.

3) *Wearing a disposable mask more than one time is okay?*

85% of Indians responded NO to the question, while 77.5% of Filipinos responded NO. moreover, 5% of Indians and 17.5% of Filipinos responded YES, and the remaining 5% population of the Philippines did not know the answer.

4) *Can a mask be dangerous if worn repeatedly?*

Here, Filipinos won, as 87.5% of population responded YES, while 70% of Indians responded YES to the same. While the same percentage of the subject from both country i.e., 7.5% have responded NO to the same. Else, 22.5% of Indians and 5% of Filipinos were found confused.

Assessment of Attitude

It comprises of 3 questions out of 10 in the questionnaire. The purpose of these 3 questions were to assess the attitude of Indians and Filipinos towards masks and sanitizers during the pandemic of Coronavirus. After analysing data, it was found that Indians had a better attitude towards masks and sanitizers as compared to Filipinos.

1) *Is masks and sanitizers worth using even if there is a decline in coronavirus cases?*

After analysis, it was recorded that 77.5% of Indians responded YES to the question i.e., masks and sanitizers are worth using during a drop in cases. While 65% of Filipinos agreed with the same by responding YES. Moreover, 7.5% of Indians and 25% of Filipinos denied it by responding NO. Other 15% Indians and 10% Filipinos were found confused and responded as "Sometimes" and "I don't know".

2) Is it okay to touch the front part of the mask, while wearing or removing it?

Filipinos had a better attitude as 60% population of the Philippines has responded NO while only 40% of Indians responded the same. Also, 35% of Indians have responded YES that they touch the front mask while 20% of Filipinos responded the same. other, 5% Indians were not sure.

3) Is Sanitizer enough to prevent coronavirus infection?

Indians got a better attitude towards this statement as 83% of Indians denied by responding NO. Although 10% of Indians thought sanitizer is enough to prevent the coronavirus infection and responded YES. While 72.5% of Filipinos responded NO and 25% responded YES to the same. Other, 10% of Indians and 2.5% of Filipinos were found confused.

Assessment of practice

It comprises of 3 questions out of 10 in the questionnaire which helped in the easy assessment of practice towards the masks and sanitizers during coronavirus. After analysing the data, Filipinos were found with better practice habits than Indians.

1) Sanitizing hands and surrounding frequently in the pandemic.

According to data analysis, 90% of Filipinos practice the sanitization of hands and surroundings, while 2.5% do not practice it. On the other hand, 67.5% of Indians practice sanitization to maintain safety, while 10% do not practice it. The remaining 22.5% of Indians and 7.5% of Filipinos were confused with their practicing habits.

2) Carrying a sanitizer outside while traveling during the pandemic.

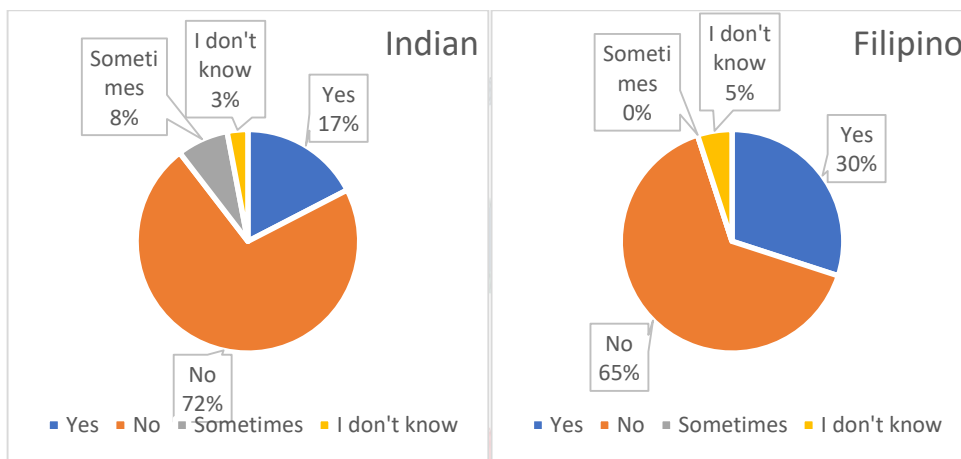
Filipinos were found practicing more than Indians when it came to carrying a sanitizer during the outing. 97.5% of Filipinos responded YES to the question Do you carry sanitizer outside? While 82.5% of Indians responded Yes to the same. The remaining 2.5% Filipinos and 7.5% Indians denied, and 10% Indians were not sure and responded as SOMETIMES.

3) Preference: Soap or Sanitizer.

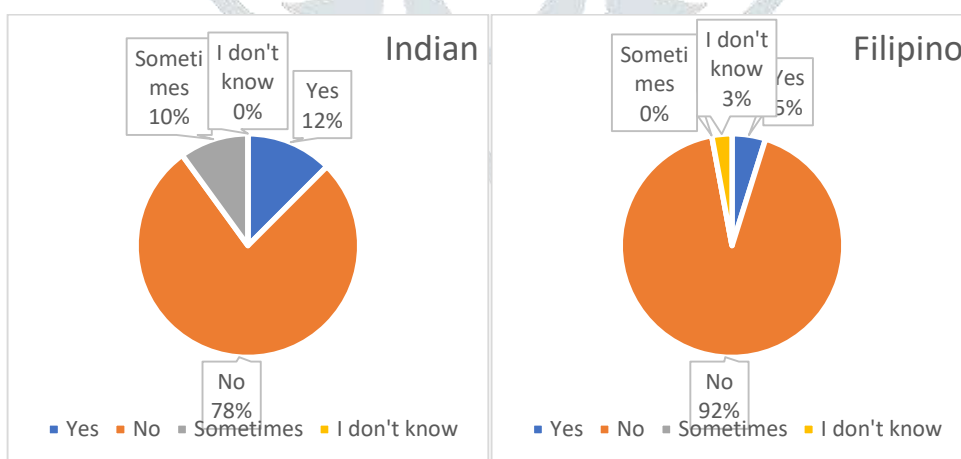
Subjects of both the country practice washing and cleaning the hands with soap and sanitizers.

15% Indians and 15% Filipinos preferred soap, 12.5% Indians and 5% Filipino preferred sanitizer, 57.5% Indians and 77.5% Filipinos responded both while 15% Indians and 2.5% Filipinos said it depends. As per the data received, not even a single subject responded NONE.

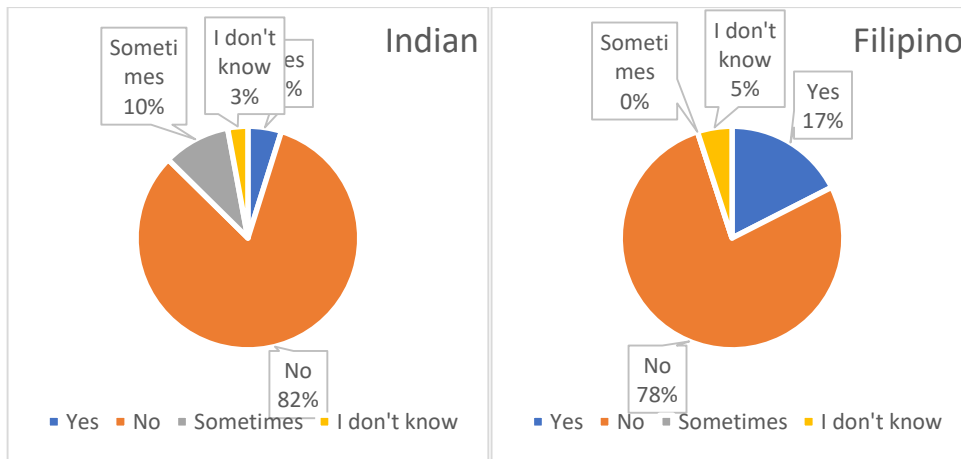
Do you think wearing mask only is enough to prevent corona virus infection?



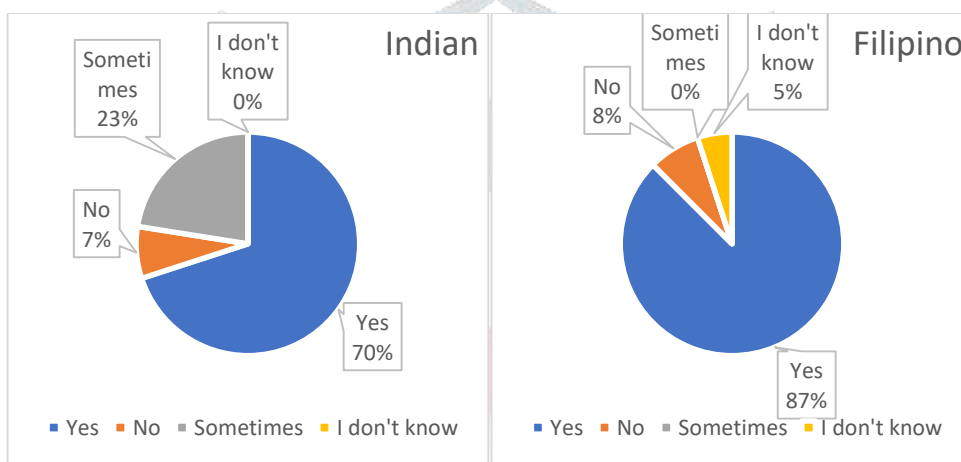
Can we reuse a washable mask without washing it properly after the last use?



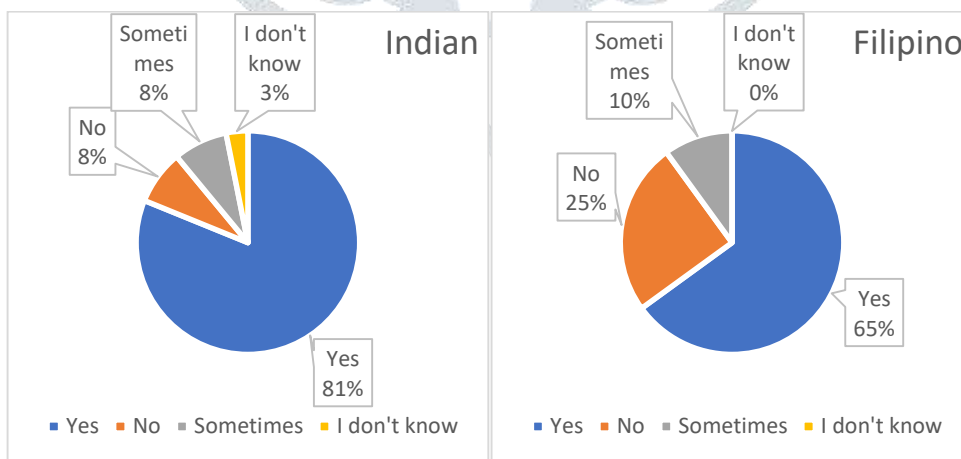
Is it okay to wear a disposable mask more than one time?



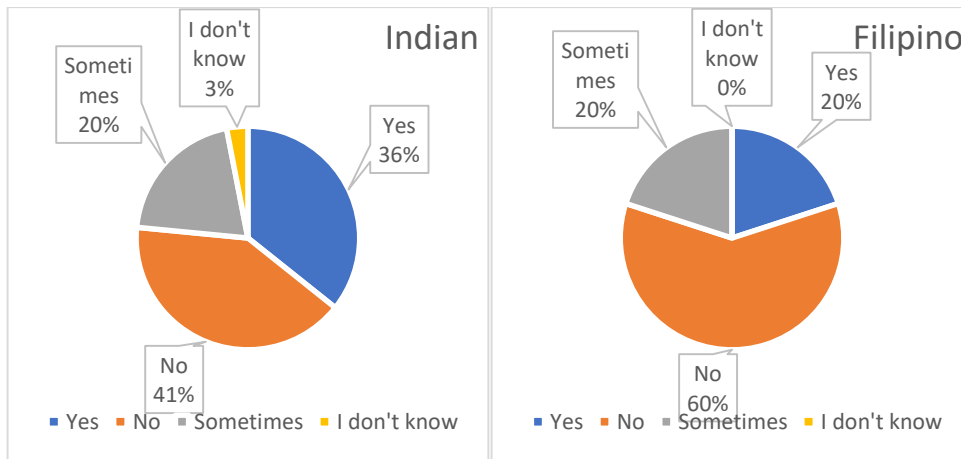
Can a mask be dangerous if used/worn repeatedly?



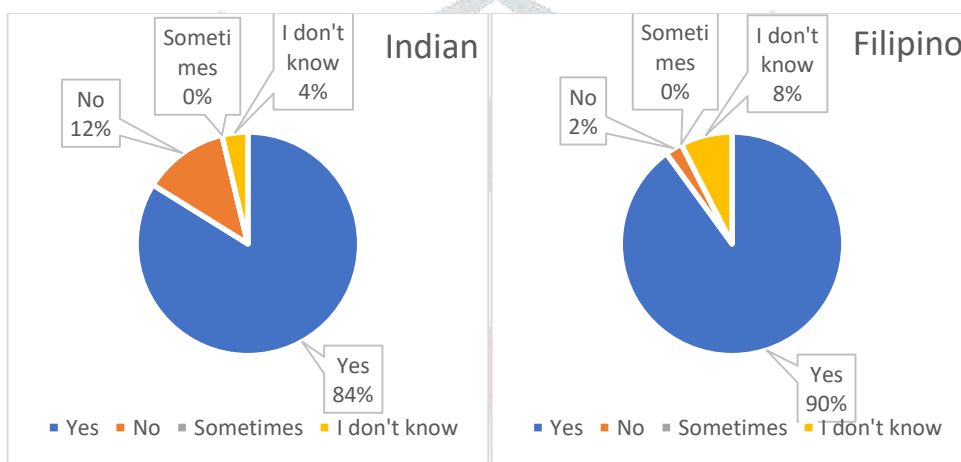
Do you think masks and sanitizers are worth using when decline in active corona virus cases are reported?



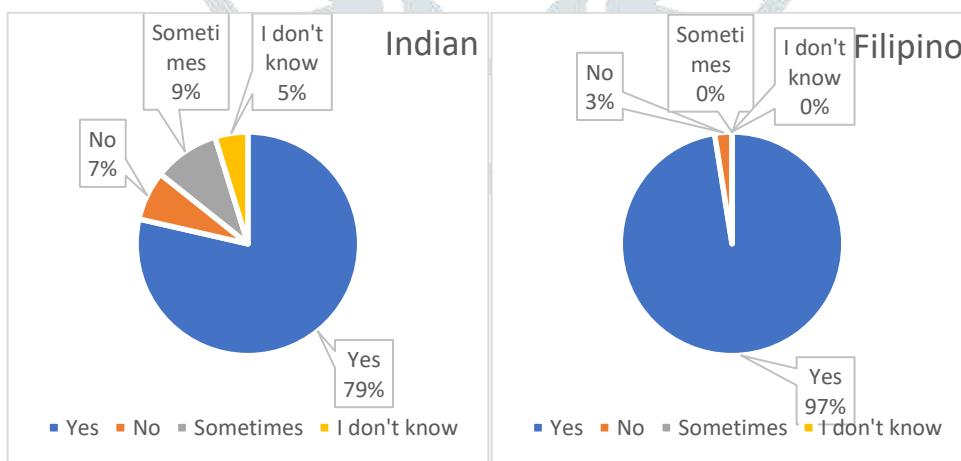
Do you frequently touch the front of your face mask while using or removing it?



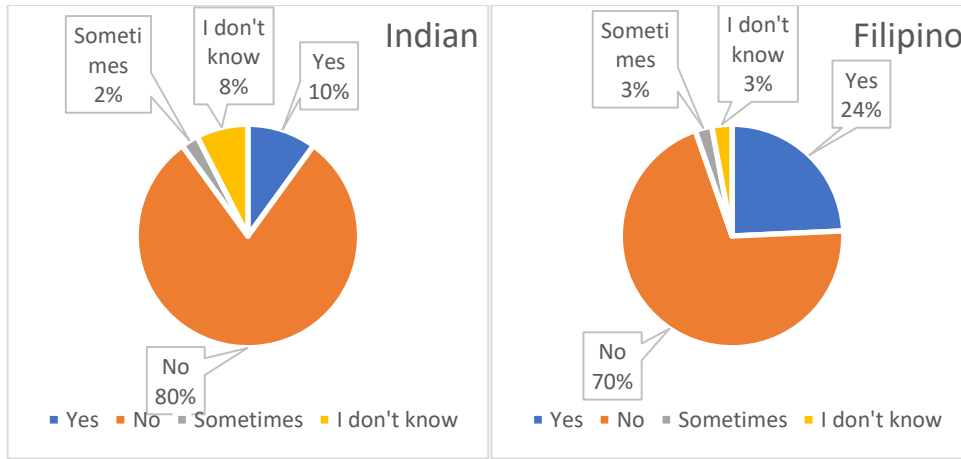
Does sanitizer alone prevent corona virus infection?



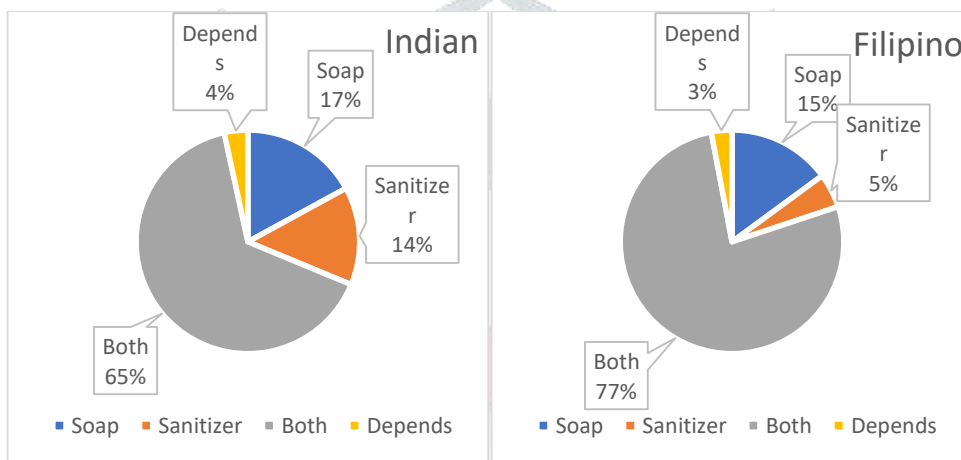
Do you sanitize your hands and surroundings frequently in the pandemic?



Do you carry a sanitizer in your bag/pocket while travelling outside?



Which one do you prefer to maintain your hygiene and safety during the pandemic: sanitizer or soap?



“The subjects who responded SOMETIMES and I DON’T KNOW were considered as confused/not sure in some cases.”

Discussion

After the completion of evaluation, it was found that Filipinos were more knowledgeable than Indians as per the received response, 76.25% of Indians and 81.25% of Filipinos were answered correctly.

While a better attitude of Indians towards the masks and sanitizers during the corona virus disease have been observed through the data, 66.83% of Indians do have the right attitude towards the precautionary measures while 65.83% of Filipinos responded in the right way.

And last but not the least practice assessment has concluded that Filipinos were more practice conscious than Indians as 93.75% of Filipinos and 75% of Indians were practical towards the usage of masks and sanitizers amid the Covid-19.

As per the responds to the last question of the questionnaire, most of the respondents preferred both sanitizer and soap as an option after the soap only and sanitizer only.

Surprisingly, few subjects out of 80 did not know the basics of precautionary measures and might have passed the infection to other people unknowingly.

An explanatory pdf was prepared and sent to all the participants. Some of the subjects have thanked and seemed interested towards attaining the right information.

Conclusion

It can be concluded that majority of Filipinos had right information regarding precautionary measures i.e., masks and sanitizers, while Indians who responded correctly were less in number. Attitude of most of the Indians was found better than Filipinos and a changed attitude is needed to fight with the deadly Corona virus. Lastly, it was observed that although Indian's attitude was better, still they lack in the effective practical habits, which is the most critical aspect of the assessment.

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