



TO ASSESS THE KNOWLEDGE AND ATTITUDE OF OFFICE STAFF IN RELATION TO PREVENTION OF COVID 19 AND THE ASSESSMENT OF THE FACILITIES PROVIDED IN THEIR WORK STATION AT NHSL.

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Introduction: Adherence to workplace safety guideline with regard to Covid -19 is a responsibility of employees working in every workplace. It reduces the likelihood of both contracting the virus and infecting others

Objective: Study was carried out to determine the level of knowledge and attitude of office staff in National Hospital of Sri Lanka (NHSL), Colombo in relation to prevention of Covid 19 and the assessment of the facilities provided in their work station at NHSL.

Method: A single day descriptive cross sectional study was conducted among the 280 office staff members who are currently working at the office premises of NHSL. Employees in active operation on the day of the survey were included and those who were on “work from home” were excluded. Data was collected by the principle investigator, from consented participants using a Self -Administered Questionnaire, with both closed ended questions and open ended questions.

Results: Response rate was 65.7% (n=71). 63.4% of employees were management assistants and developmental officers. 94.4% were known about the severity of Covid 19. Total overall knowledge of employees on personal safety measures was “good” and accounted as 88.3%. Majority 76.1% (n=54) of staff members had “Neutral/moderately positive attitudes” towards prevention of Covid 19. Cleaning door locks, office floor and other instruments, attending on a duty roster and daily checking of temperature was poor. The overall availability of facilities for controlling the spread of infections were only 46.91%.

Conclusion: Despite the high level of knowledge and moderate level of positive attitude inadequacy of available facilities were minimized the effectiveness of preventive measures of Covid -19 taken by the staff at NHSL, Colombo.

Key Words: Covid-19, Employees, National Hospital of Sri Lanka, Work station

Introduction

Novel beta - corona virus (2019 - n CoV) or Covid - 19 is the pandemic out - break of Severe Acute Respiratory Syndrome Coronavirus - 2 (SARS - CoV - 2) respiratory illness ⁽¹⁾ which has infected 177.5 million people and caused 3.83 million deaths in more than 200 countries all over the world since 31st of December 2019 up to 17 of June 2021 ⁽²⁾ and still continue to spread further, resulting in a devastating public and occupational health crisis ⁽³⁾.

World Health Organization (WHO) and many other relevant authorities are providing with necessary technical guidance in the form of guidelines, protocols, policies and procedures to instruct the countries and the people for the control of disease transmission, patient load and the number of deaths. These technical guidance provide with accurate information to obtain the required knowledge to be translated to essential practice ^(3, 4).

Worldwide, all the countries are practicing these guidelines, developed internationally and nationally according to the need of the country. However, there are possible gaps in the implementation process in almost every country explaining the existing failure to control the disease as expected ⁽²⁾.

Sri Lanka too has been combating with the disease for the last two years using numerous infectious disease control measures and evidence based strategies; namely personal and environment hygienic practices and social distancing to control the transmission ⁽¹⁰⁾.

Despite of all the measures taken by the authority, rapidly spreading of the disease among the population has become an uncontrollable task. Appropriate behavior of the people according to the guideline is the most important factor in controlling the disease. Therefor effective prevention and control of COVID-19 is attained through improving the knowledge and attitude among the general community. Among the population working groups are the most

vulnerable. Hence, this study aimed to assess the knowledge and attitude, which are important to combat COVID-19 specially among working group.

National Hospital of Sri Lanka is the leading hospital in Sri Lanka and it has 18 intensive care units and 21 operating theaters and 3,404 beds. It lies in a highly populated location in the capital city, Colombo and more than 7000 staff members are employed. General office staff who are involved with purchasing, salary preparations, logistics handling are one of the main component in human resources in hospital.

As the leading work place in the endeavor of battling against the corona pandemic, it is essential to provide facilities, improving personal knowledge and changing attitudes towards the prevention of this pandemic and it has become an utmost important mission in this era.

Therefore, this research study was conducted to assess the knowledge and attitude of office staff in relation to prevention of Covid 19 and the assessment of the facilities provided in their work station at NHSL. The results of the study will enable to map a way forward so as to improve workers' practices to improve work place safety.

Objective

To assess the knowledge and attitude of office staff in relation to prevention of Covid 19 and the assessment of the facilities provided in their work station at NHSL.

Specific Objectives:

- 1.To assess the knowledge and attitude of office staff in relation to prevention of Covid 19.
- 2.To assess the facilities provided in their work station at NHSL

Methods:

Study design: It is a descriptive cross sectional study.

Study setting: It was conducted for the all office staff in National Hospital of Sri Lanka. The total population can be categorized as Administrative officers, Accountants, Management

Assistance, Development Officers, karyala karya sahayaka (KKS) saukya karya sahayaka (SKS).

Sampling: The 280 of office staff members who are currently working at the office premises of NHSL was taken as the study population. Employees in active operation on the day of the survey were included and those who were on “work from home” were excluded. However, exclusion of this group is not expected to introduce any bias to the study because units have made them “work from home” on a roster basis where every staff member had an equal chance to “work from home”.

Study Instrument: Self-Administered Questionnaire

Data collection period: Data was collected in September 2021

Data collection Method: Data was collected using a Self – Administered Questionnaire (SAQ), and it consisted of 40 closed ended questions on demographic variables, employee’s awareness of the severity of the diseases, personal safety measures, housekeeping measures, Questions to assess the staff attitude of covid 19 prevention and questions on facilities available. This single day survey was conducted by the Principal Investigator (PI) and data was collected from consented participants. Data was checked for completeness and accuracy. Confidentiality and data security was maintained.

Data Analysis-The data was first entered into Statistical Package of Social Science version 21. Data was mainly presented in percentage frequencies to obtain descriptive frequencies and proportions of employees.

Each completed questionnaire was checked carefully by the PI for completeness before entering the data to the computer.

Questions one to seven were assessing the demographic variables of individuals. The 18 questions assessing knowledge was analyzed separately and knowledge on prevention of

Covid 19 was assessed by the responses given to questions starting from 8th to 25th. Overall compliance of >75% was taken as “Good”; 50% - 57% was taken as “Moderate” and < 50% was taken as “Poor” knowledge.

The 5 statements on attitudes of office staff on covid 19 prevention was assessed using five point Likert scale and it was analyzed separately. The scoring method was decided after taking experts opinion. Out of 5 attitude statements, 3 were worded negatively. Scoring for attitude questions were as follows:

Marks given for positively worded questions:

Strongly agree – 5, Agree -4, Neutral-3, Disagree-2, Strongly disagree-1

Marks given for negatively worded questions.

Strongly agree – 1, Agree -2, Neutral-3, Disagree-4, Strongly disagree-5

The five point likert scale was considered as interval scale and mean value very significant from 1 to 1.8 was considered as “Strongly Disagree”, from 1.81 to 2.60 means “Disagree” , from 2.61 to 3.40 means “Neutral” from 3.4 to 4.2 means “Agree” and from 4.21 to 5 was considered as “Strongly Agree”.

Maximum marks that obtained was 25 indicating “highest positive attitude”. Those who scored 17 marks or above were considered had “good attitude”. Those who scored greater than 13 to less than 17 marks were considered had “moderately good attitudes”. Those who scored 13 or below were considered as had “poor attitude”.

Facilities available at working station were assessed by percentage frequencies.

Ethical Clearance: Ethical clearance was obtained from Ethic Committee National Hospital of Sri Lanka.

Informed written consent was obtained from the participants of SAQ after they were provided with information sheets and given adequate time for reading and getting clarification by asking questions from the PI.

Participants were informed that they would not experience any risks due to their participation or non-participation. Participant’s data and results were kept confidentially by the PI during analysis. Data and the results were kept under the custody of PI after the research, in order to maintain the confidentiality.

Results:

Response rate was 65.7%. Out of it, 59.2% of employees were Management Assistants. The highest percentage 46.5% were in the age group of 20 - 30 years and 80.3% were females. Majority of 66.2% were completed Advance level Examination and 25.4% were degree holders. 52.1% had a service period of < 5 years. Majority 95.8% were vaccinated. 1.4% did not take the vaccine due to fear of vaccination and 2.4% did not take the vaccine due to non-confidence to take the vaccine.

Table1: Frequency distribution of demographic factors of employees

No	Variable	Frequency	Percentage %
1	Staff category		
	Developmental officer	3	4.2
	Management Assistant	42	59.2
	Accountant	3	4.2
	Karyala Karya Sahayaka(KKS)	5	7.0
	Saukya Karya Sahayaka(SKS)	5	7.0
	Administrative Officer	1	1.4
	Ward Clerk	12	16.9
	Total	71	100
2	Age category		
	20 - 30 yrs.	33	46.5
	31 - 40 yrs.	14	19.7
	41 – 50 yrs.	12	16.9
	51 - 60 yrs.	12	16.9
	Total	71	100

3	Gender		
	Female	57	80.3
	Male	14	19.7
	Total	71	100
4	Education level		
	O/L completed	6	8.5
	A/L completed	47	66.2
	Degree	18	25.4
	Total	71	100
5	Period of service(years)		
	< 5 yrs.	37	52.1
	6 - 10 yrs.	7	9.9
	11- 20 yrs.	11	15.5
	21 - 30 yrs.	14	19.7
	>30 yrs.	2	2.8
	Total	71	100
6	Vaccinated		
	Yes	68	95.8
	No	3	4.2
	Total	71	100
7	Reason for not taken vaccine		
	Fear of vaccination	1	1.4
	No confidence with the vaccine	2	2.8
	N/R	68	95.8
	Total	71	100

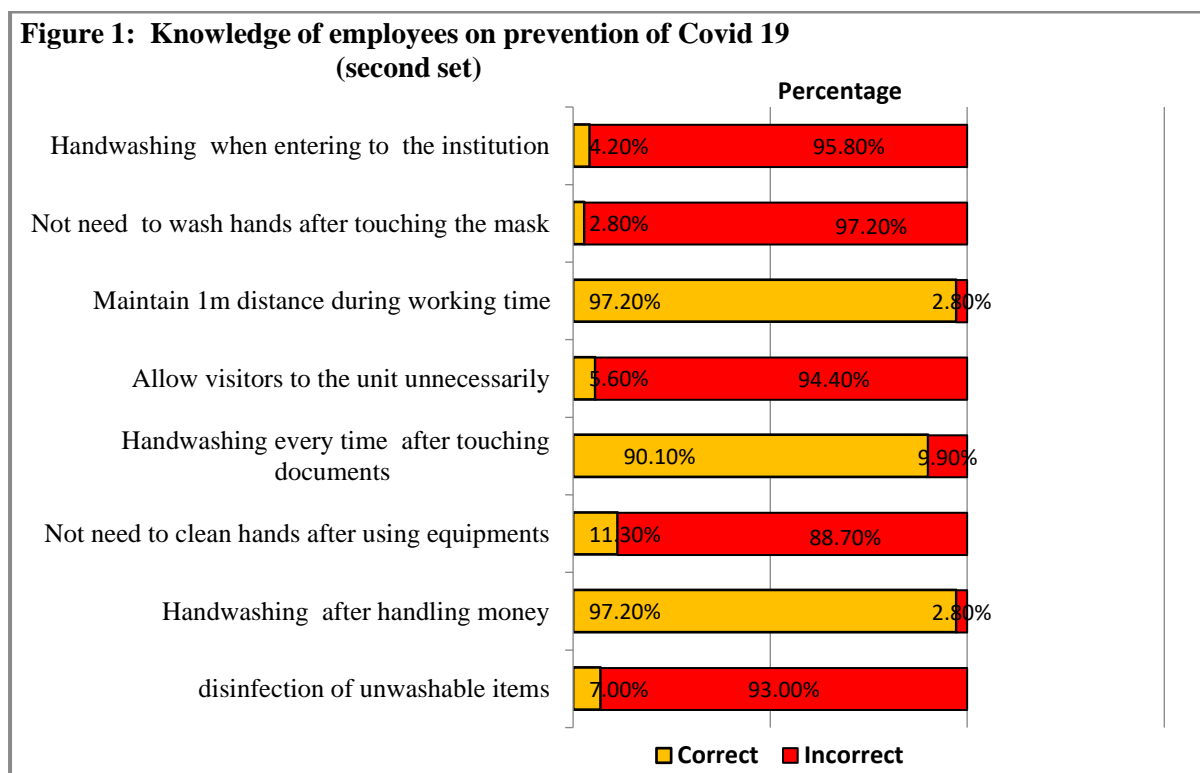
Table 2- Frequency distribution of knowledge of employees on prevention of Covid 19 (first set)

No	Variable	Frequency	Percentage %
8	Opinion about Covid 19?		
	Very serious	67	94.4
	Somewhat serious	3	4.2
	Not very serious	1	1.4
	Total	71	100
9	Discard of used mask?		
	To a closed bin	52	73.2
	Common dustbin	6	8.5
	Collection of garbage	13	18.3
	Total	71	100

10	Where kept face mask while eating?		
	On the table	33	46.5
	Inside the pocket	4	5.6
	Inside the polyethene bag	34	47.9
	Total	71	100
11	Way of pressing the lift button when use the lift?		
	By the knucklers of your fingers	12	16.9
	By a pencil	40	56.3
	By your elbow	8	11.3
	By the tip of the fingers	11	15.5
	Total	71	100
12	When inside the lift?		
	Talk to each other	3	4.2
	Keep silent	68	95.8
	Total	71	100
13	Way of taking meal?		
	Chatting with each other	5	7.0
	Take meal in isolation	66	93.0
	Total	71	100
14	Use personal cup for take water or tea?		
	By your personal cup	71	100
15	Take meal with all together on a same plate or parcel?		
	Yes	3	4.2
	No	68	95.8
	Total	71	100
16	What you do after going home?		
	Take a bath and wash all your cloths	67	94.4
	Keep cloths separately to wear following day	4	5.6
	Total	71	100
17	What would you do if feel body aches?		
	Go to work without fail	10	14.1
	Stay at home and contact a health personal	61	85.9
	Total	71	100

With regard to knowledge on preventive measures of covid19, majority 94.4% were known about Covid 19 is a serious disease; 73.2% discard their used mask in to a closed dustbin and nearly 48% and 47% employees kept their mask inside the polythene bag or on the table while taking meals respectively. Although 56.3% were used pencil to pressed the lift button when use the lift. 16.9% and 15.5% were pressed lift button by knucklers and tip of their fingers respectively. 95.8% of employees kept silent when inside the lift. 93% of employees

were taken meal in isolation. Also 95.8% did not take their meal with all the others, together on a same plate or parcel and all employees were taken water or tea in a personal cup. 94.4% were take bath and washed all worn cloths after going home and 85.9% said that if they felt body aches they stayed at home and contacted the health personal.



Nearly 96% of employees were known about the necessity of daily hand washing when entering to institution. Also 97.2% were used soap or sanitizer for hand washing after touching the mask and maintained the 1m social distance during working time respectively. 94.4% said that outsiders should not allow visiting the unit unnecessarily. 90.1%, 88.7% and 97.2% compliance were seen with “hand washing after touching documents”; “hand washing after touching other objects” and “hand washing after handling currency” respectively. However, compliance to the disinfection of non-washable items or ornamental they had worn was “poor”.

In summary, knowledge of employees about their compliance to the work place safety guideline was accounted as 83.7% and 94.2% for first and second set of responses respectively. Total overall knowledge of employees on prevention of Covid 19 was “good” and accounted as 88.95%.

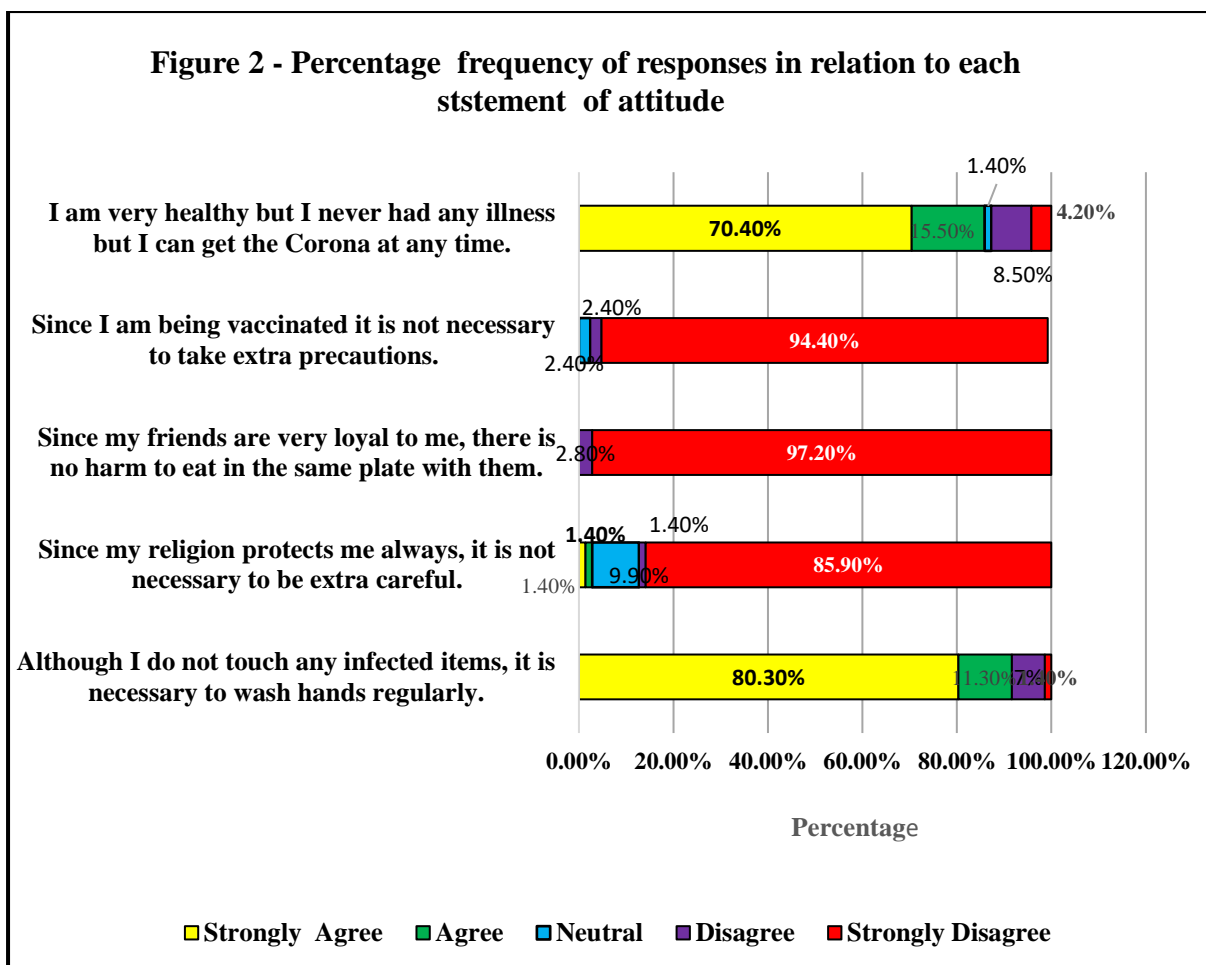


Figure 2 indicated, in the first statement, majority 70.4% (n=50) of participants were strongly agreed to statement of “Although I do not touch any infected items, it is necessary to wash hands regularly.”. In the second, third and fourth negatively worded statements majority 94.4% (n=67), 97.2% (n=69), and 85.9% (n=61) of respondents were strongly disagreed to each statement respectively. Consider the fifth statement, the majority 80.3% (n=57) of respondents were strongly agreed to “I am very healthy, I never had any illness but I can get the Corona at any time”.

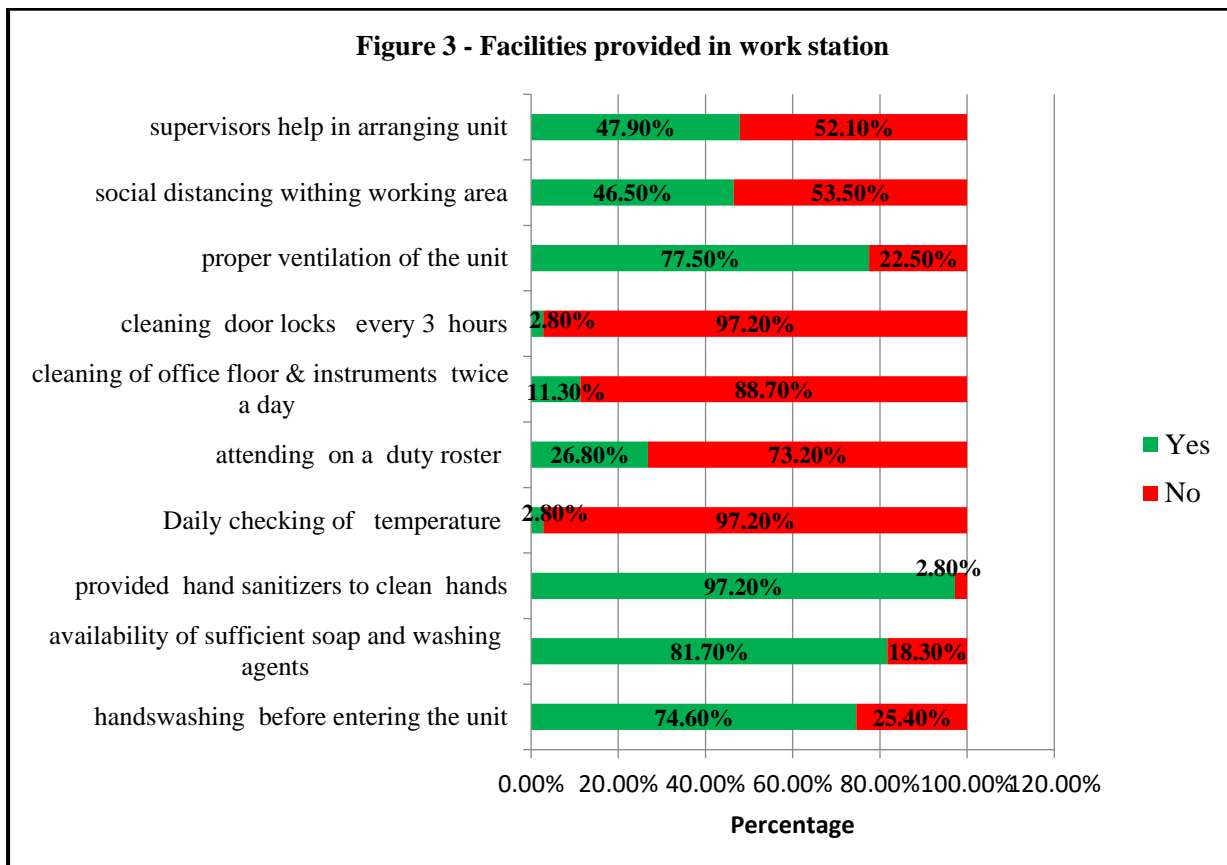
Table 3- Likert scale interpretation for attitudes towards Covid19

Score	Likert scale	Responses	Percentage frequency of respondents	Interpretation
5	4.21-5.00	Strongly Agree	7.0% (5)	Good positive attitudes
4	3.41- 4.20	Agree	15.5% (11)	
3	2.61- 3.40	Neutral	76.1% (54)	Neutral/ Moderately positive attitudes
2	1.81- 2.60	Disagree	1.4% (1)	Poor attitudes
1	1.00 –1.80	Strongly Disagree	0% (0)	

The 5-point Likert scale was considered as interval scale for interpretation of resulted mean values. Sum the value of each selected response and created the score for each respondent. The “highest positive attitudes” was not resulted due to no one was obtained maximum of 25 marks. The majority 76.1% (n=54) of respondents were seems to be “Neutral/moderately positive attitudes” towards Covid 19. 22.5% (n= 16) and 1.4% (n=1) of respondents had “good positive attitudes” and “poor attitudes” towards Covid 19 respectively.

Available facilities:

With regard to the facilities available at the institution, 77.5%, of employees said they had proper ventilation facilities. Also, with regards to the facilities available 97.2%, and 81.7% responses were seen with providing hand sanitizers and availability of sufficient soap and washing agents respectively. 74.6% said that facilities for hand washing were available before entering the unit. 52.1% and nearly 54% were said that, supervision of unit arrangement was not done by the supervisors and not maintaining social distancing within working area. The facilities available for cleaning door locks, office floor and instruments at working area and attending on a duty roster and daily checking of temperature were poor and were reported as only 2.8%, 11.35%, 26.8% and 2.8% respectively. The overall availability of facilities was not satisfied; it was reported as 46.91%.



Discussion:

Adherence to workplace safety measures with regard to Covid -19 is a responsibility of employees working in every workplace to reduce the likelihood of both contracting the virus and infecting others ^(1, 2, 4). This study showed that, total overall knowledge of employees was “good” on preventive measures against Covid -19 and 76.1% of them had “moderately positive attitudes” towards Covid 19. However the overall availability of facilities (46.91%) was not satisfied. This high level of knowledge among employees might be due to the awareness of the technical facts of the guideline and good communication about it among the employees. This proportion of healthcare workers with adequate knowledge seems to conform in the other studies in literature. In Zambia the study among medical laboratory personnel reported that 84.1% of them had sufficient knowledge on COVID-19. Nepal reported a percentage of 76% while a study in Uganda found about 69% of healthcare

workers with adequate knowledge on Covid -19 [16,17]. Further some studies revealed that there is a significant positive correlation between knowledge, attitude and behavior towards prevention measures of Covid -19 [16].

Even though employees had sufficient knowledge on each and every instruction given in infection control guidelines, failure to follow one instruction in the guideline could act as the sole reason of disease transmission. Employees working under the less optimal level of facilities were unable to maintain the social distance in this congested study setting, and it can facilitate the transmission of the disease and creation of clusters even if a single person happens to contract the disease.

The work place safety measures of measuring daily temperature, cleaning office floor and other instruments, attending on a duty roster and maintaining of proper ventilation were not practiced in a satisfied level. In addition to knowledge and attitudes of employees' their behavior, financial constraints and subjective norms were identified as some general causes for disease transmission. [15]

Conclusion: Despite the high level of knowledge and moderate level of positive attitude inadequacy of available facilities were minimized the effectiveness of preventive measures of Covid -19 taken by the staff at NHSL, Colombo.

Strengthening work place protective measures, supervision, preparation of suitable duty rosters, strengthening crowd control measures, rearrangement of units in a uncongested manner can be identified as the recommendations to improve workplace safety measure against Covid -19 and continuous health education is beneficial to improve their knowledge and attitudes as well.

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