

Compliance with Covid - 19 workplace safety guideline: by employees at “Suwasiripaya”, Colombo.

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Abstract

Background:

Adherence to workplace safety guideline with regard to Covid -19 is a responsibility of employees working in every workplace. “Suwasiripaya”, the head - quarters of the Ministry of Health is a highly congested workplace with a suspected gap in the adherence of the employees to this guideline.

Objective:

This study was carried out to assess the compliance of employees at “Suwasiripaya”, Colombo, to Covid – 19 workplace safety guidelines of Environment and Occupational Health directorate of Ministry of Health and to identify any gaps to recommend corrective measures.

Methods:

It is a descriptive cross-sectional study carried out in “Suwasiripaya”. Convenient sample of 10% of the total population of 1350 employees were selected and quota sampling method was used to divide the sample among 08 staff categories. Data was collected in a single day survey using a Self – Administered Questionnaire, prepared in consistent with covid - 19 workplace safety guideline. Compliance was assessed using direct responses and responses of 4-point Likert scales. Quantitative analysis was carried out for closed ended questions and the open-ended question was thematically analyzed.

Results:

Response rate was 96.3%. 53.8% of the staff were development officers and management assistants. 76.2% says that their risk assessment was not done by the unit. 33.8 % says that covid workplace guideline was not formally delivered to them. 53.8% had an awareness about the guideline only to some extent.

The compliance of the employees with administrative requirements, personal hygienic measures, cleaning measures and overall compliance were 50.50%, 49.23%, 23.60% and 41.11% respectively. Open ended question has provided with recommendations from employees’ perspective, under 08 themes.

Conclusions:

Employee compliance with the guideline is poor. Employees’ suggestions; staff education; to limit staff; to improve personal protective measures; to improve supervision; law enforcement; to improve resources and other managerial changes are recommended to improve the compliance.

Key Words: Compliance; Guideline; Workplace safety; Covid -19.

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 19.5 million people and caused 675,000 deaths in more than 200 countries all over the world since 31st of December 2019 up to 10 of August 2020 [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. This technical guidance provides with accurate information to obtain the required knowledge to be translated to essential practice [3, 4, 5,6,7,8,9].

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 four months using numerous infectious disease control measures and evidence based strategies; namely personal and environment hygienic practices and social distancing to control the transmission (10). As a result, country has been able to contain the disease at stage - 3 level of disease transmission; i.e. "limited to community clusters" with no large out breaks of community transmission [5].

Now, the country is gradually entering to an era of "new normal" [11] where country has restarted its lost economic activities in both public sector and private sector while carrying on the new way of behavior strictly adhering to guidelines for work place safety for various sectors in the country issued by the Ministry of Health [12]. Hence, Employees' compliance to guidelines is essential to safeguard the country from the risk of the second wave of the disease as seen in some other well performed countries.

"Suwasiripaya" is the busy head - quarters of Ministry of Health and the focal point of the public health system in Sri Lanka. It lies in a highly populated location in the capital city, Colombo and more than 1000 staff members are employed in a very constrained infrastructure.

With respect to Covid - 19 transmission, it is also another workplace requiring good compliance among employees with workplace safety guidelines. The image of behaving as a role model also needs to be safe guarded. To date it is not clear if employees' practices are in line with the recommended guidelines for workplace safety.

As the leading workplace in the endeavor of battling against the corona pandemic, it is essential to know about its own compliance with the expected practices, to identify gaps if any and to recommend corrective measures to upgrade the situation.

Therefore, this research study was conducted to assess the compliance of employees working in "Suwasiripaya" to the occupational safety guidelines of Environment and Occupational Health (E & OH) directorate of Ministry of Health. The results of the study will enable to map a way forward so as to improve worker practices to improve workplace safety.

Objective:

This study was carried out to assess the compliance of employees at "Suwasiripaya", Colombo, to Covid - 19 workplace safety guidelines of Environment and Occupational Health directorate of Ministry of Health and to identify any gaps to recommend corrective measures to improve adherence.

Specific Objectives:

1. To determine the compliance of employees with list of safety measures stated in Covid - 19 workplace safety guidelines.
2. To identify suggestions to improve employee adherence to Covid - 19 workplace safety guidelines according to the

perception of employees.

Methods:

Study design:

It is a descriptive cross-sectional study.

Study setting:

It was conducted in "Suwasiripaya" i.e. headquarters of Ministry of Health, Sri Lanka.

The total population of 1350 staff members permanently employed in all the units can be categorized basically into eight categories namely, administrative staff (60), accountants (10), medical officers (48), development officers (277), public/health management assistants (348), karyala karya sahayaka (55), saukya karya sahayaka (362) and drivers (191).

Sampling:

The total population of 1350 staff members who are currently working at the premises of "Suwasiripaya" 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".

10 % of the total population was taken as a convenient sample size because the quick findings were very valuable to identify any gaps to take corrective measures without delay.

Calculated sample size (N = 135) was divided among staff categories, in proportion to the number of staff working in each category using quota sampling technique.

Data collection:

Data was collected using a Self - Administered Questionnaire which was prepared in line with the E & OH safety guideline. It consisted of 44 closed ended questions on demographic variables; employee's high risk factors; employee's awareness on the guideline; compliance with the managerial measures, personal safety measures and housekeeping measures stated in the guideline and an open ended question to receive their suggestions for improvement.

Compliance was defined as practice of the E&OH safety guideline.

1. In one set of questions, it was measured in a 4-point Likert scale (always practice; sometimes practice, occasionally practice, never practice). "Always practice" was regarded as "compliance" while "sometimes practice", "occasionally practice" and "never practice" were regarded as "noncompliance".
2. Direct responses (practice; do not practice) determined the compliance in the rest of the questions.
3. Overall compliance of >75% was taken as "Good"; 50% - 57% was taken as "Moderate" and < 50% was taken as "Poor".

This single day survey was conducted by the study team, with the participation of predetermined number of employees from each staff category. Care was taken to involve almost all the units in



“Suwasiripaya.” Data was collected from consented participants. Data was checked for completeness and accuracy. Confidentiality and data security were maintained.

Analysis:

Data was analyzed using IBM SPSS Statistics (version 21) to obtain descriptive frequencies and proportions of employees who comply with each statement of the guideline. Answers for open ended questions were thematically analyzed.

Results:

1. Results of closed ended questions:

Response rate was 96.3%. 53.8% of employees were development officers and management assistants. Highest number of 40% were in the age group 31 - 40 years. 60% were females. 41.5% were degree holders. 63.1% had a service period of < 10 years. Only 3.1% and 2.3% were suffering from high risk diabetes and heart diseases. (Table 1)

No	Variable	Frequency	Percentage %
1	Staff category		
	Manager	6	4.6
	Medical Officer	6	4.6
	Development Officer/ Management Assistant	70	53.8
	Karyala Karya Sahayaka	10	7.7
	Saukya Karya Sahayaka	19	14.6
	Driver	19	14.6
	Total	130	100
2	Age category		
	20-30	32	24.6
	31-40	52	40
	41-50	38	29.2
	51-60	6	4.6
	>60	2	1.5
	Total	130	100
3	Gender		
	Female	78	60
	Male	52	40
	Total	130	100
4	Education level		
	Ordinary level	22	16.9
	Advanced level	54	41.5
	Degree holder	54	41.5
	Total	130	100
5	Period of service (years)		
	<10	82	63.1
	11 -20	31	23.8
	21 -30	16	12.3
	>30	1	0.8
	Total	130	100
6	Suffering from high risk conditions?		
	Diabetes	4	3.1
	Heart diseases	3	2.3
	Respiratory diseases	1	0.8
	Other immune deficiency diseases	1	0.8
	Not belong to any	121	93.1
	Total	130	100

Table 1: Frequency distribution of demographic factors of employees.



76.2% said that their risk assessment with regard to covid 19 was not done by the unit. 33.8 % said that covid work place guideline was not formally delivered to them. 53.8% had an awareness about the guideline only “to some extent”. 59.2% has received this information from self - reading. Only 10.8% had received the information from supervisors. 21.5% said their knowledge on the guideline is “very adequate” and 44.6% said their knowledge on the guideline is “adequate”. However, 20.8% said their knowledge was “moderately adequate” and 13.1% said it was “not adequate”. (Table 2)

No	Variable	Frequency	Percentage %
1	Whether risk assessments done?		
	Yes	8	6.2
	No	99	76.2
	Not relevant	23	17.3
		130	100
8	Whether information regarding the guidelines was delivered formally?		
	Yes	82	65.1
	No	44	33.8
	Not relevant	4	3.1
	Total	130	100
9	Awareness of the guideline?		
	Very clear	51	39.2
	Some extent	70	53.8
	None	9	6.9
	Total	130	100
10	Ways of receiving information?		
	Self-reading	77	59.2
	From peers	14	10.8
	From supervisors	14	10.8
	From head of institution	8	6.2
	Special meeting	3	2.3
	From many ways	14	10.8
	Total	130	100
11	Adequacy of knowledge on the guideline?		
	Very much adequate	28	21.5
	Adequate	58	44.6
	Moderately adequate	27	20.8
	Not adequate	17	13.1
	Total	130	100

Table 2: Frequency distribution of employee responses regarding the covid 19 – workplace safety guideline.

With regard to administrative requirements, 76.9% compliance was seen with “daily temperature checking”. “Availability of attendance schedule”; “attention on high risk when scheduling duties”; and “appointing a special officer in units for supervision of covid preventive measures”; had only 52.3%, 43% and 30% compliance respectively. (Figure 1)

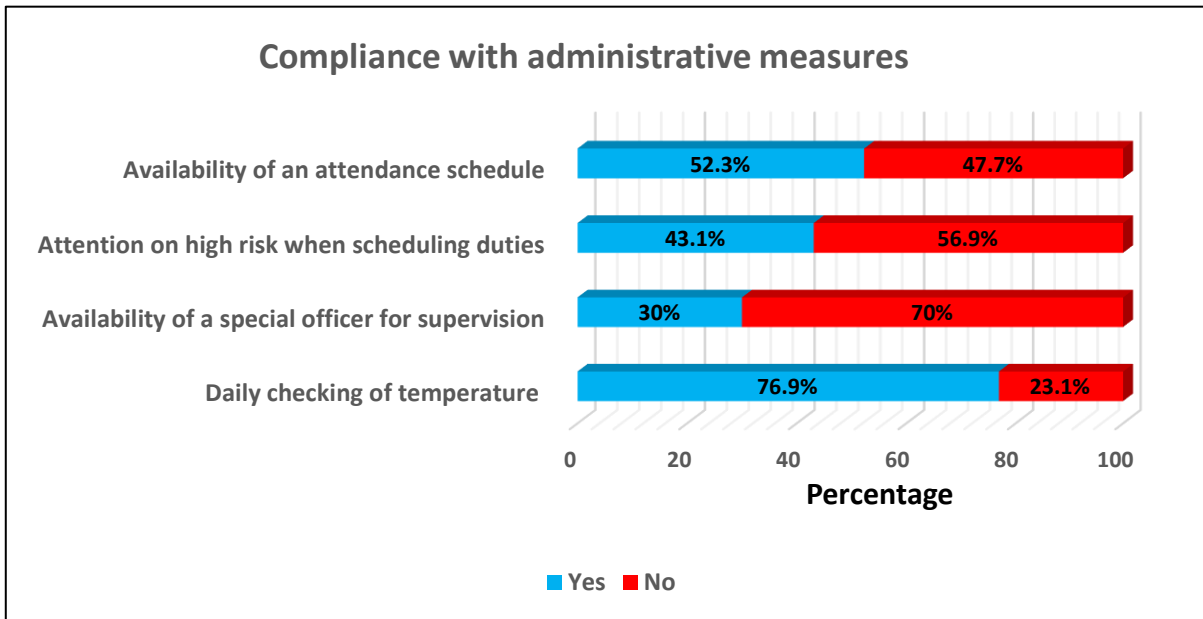


Figure 1: Compliance of the employees with the administrative measures in the guideline.

With regard to personal hygienic measures described in the guideline, nearly 90% were compliant with “staying at home when they had respiratory symptoms”; “washing their hands at the entrance to the work place”; “implementing recommended practices when entering and inside the home”. However, only 26% were compliant with “different time intervals allocated for lunch”. (Figure 2) With regard to the other set of personal hygienic measures described in the guideline, 79%,

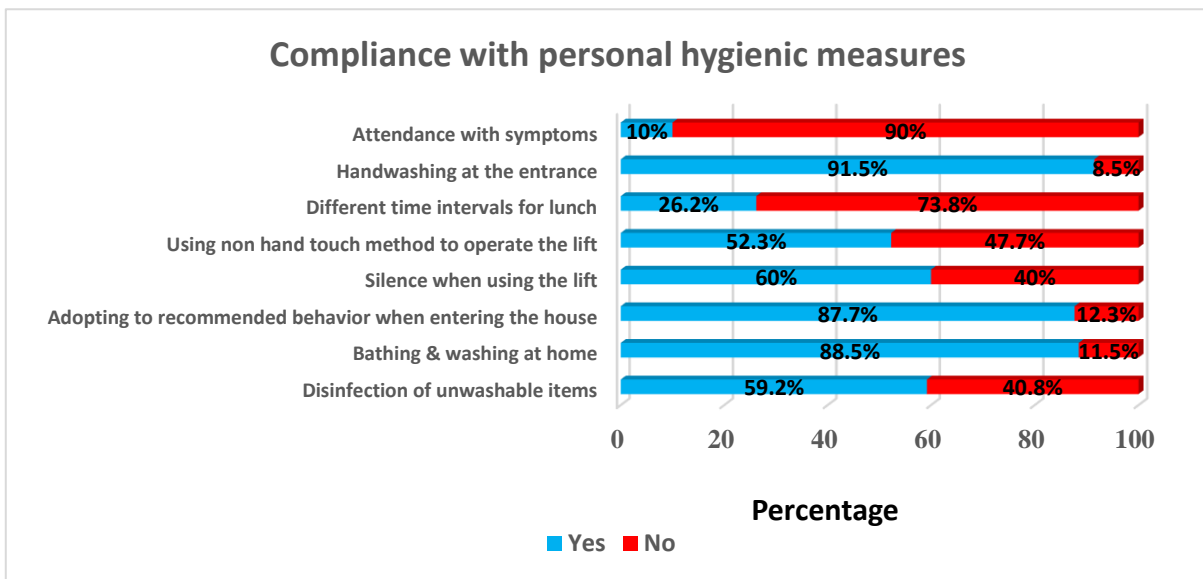


Figure 2: Compliance of the employees with the personal hygienic measures (first set) in the guideline

73%, 66%, 62%, 62% and 55% were compliant with “using a face mask while working”; “not using common utensils”; “disposal of masks into a closed bin”; “bringing food from home”; “chatting with peers”; and “carefulness of using currency” respectively. However, only 40%, 35.4%, 27% and 20% compliance were seen with “hand washing after touching documents”, “hand washing after touching objects”, “social distancing” and “controlling outsiders visiting the place”. (Figure 3)

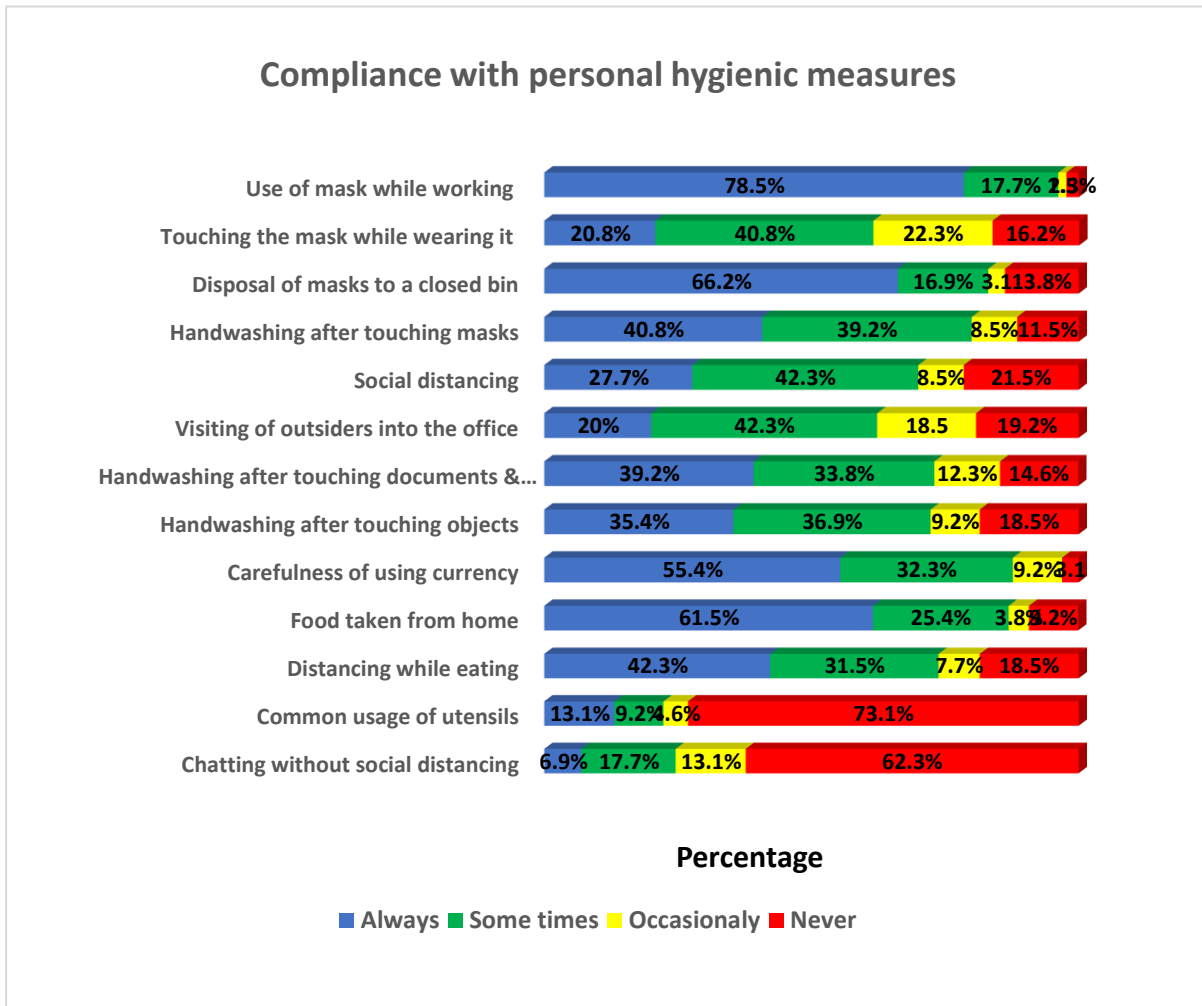
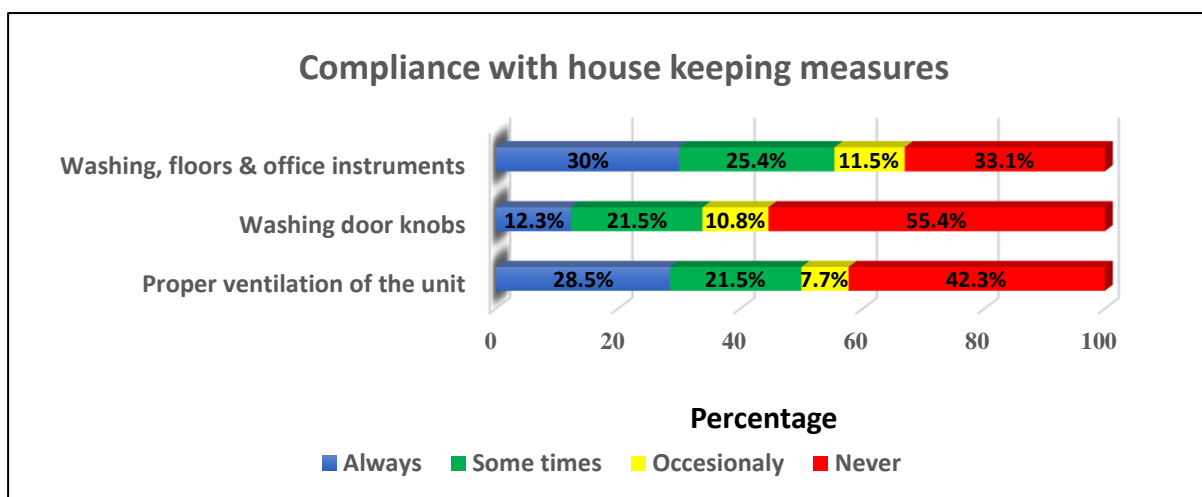


Figure 3: Compliance of the employees with the personal hygienic measures (second set) in the guideline.

With regard to the house keeping measures described in the guideline; only 30% compliance was seen with “washing office floors and office instruments at expected frequency”. Only 28.5% compliance was seen with “maintaining proper ventilation”. Further, 55.4% were never reported to “washing door knobs and handles in the office room”. (Figure 4)



In summary, compliance of employees to cleaning measures, personal hygienic measures and administrative requirements are 23.60%, 49.23% and 50.50% respectively. Overall compliance of employees to the work place safety guideline is 41.11%. (Figure 5)

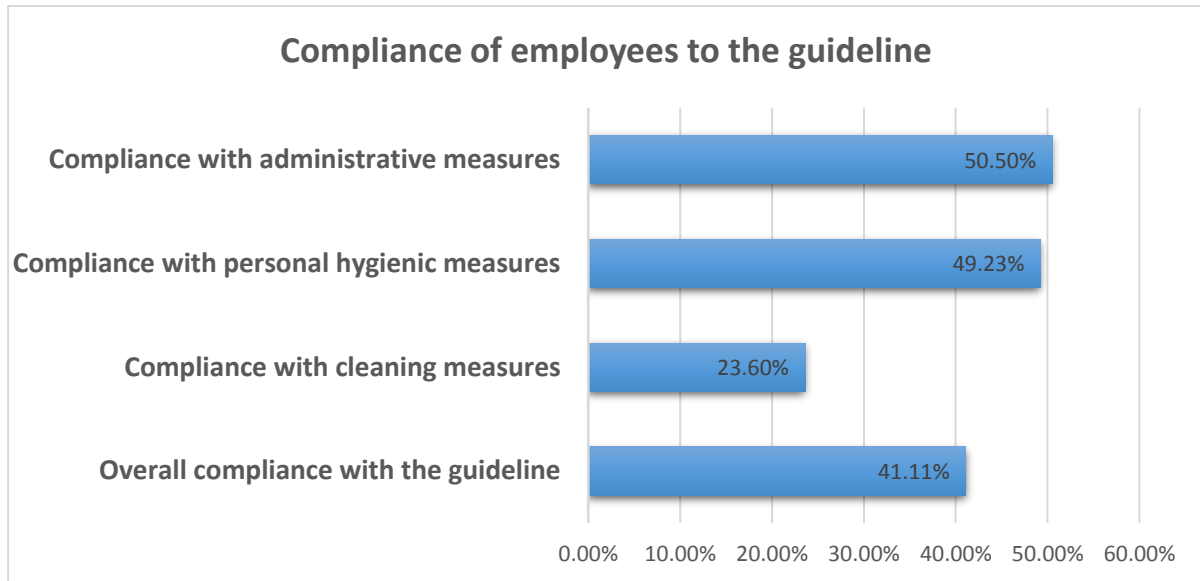


Figure 5: Percentage distribution of overall compliance of employees with the guideline.

(2). Results of the open-ended question:

Suggestions to improve employee adherence to workplace safety guideline according to perception of employees were collected in the open ended question. Response rate was 71.8%. The responses were categorized into 08 themes. The number and the percentage of respondents who have given different responses under each theme were calculated and summarized. (Table 3).

No	Key Themes Responses (suggestions) (Frequency and Percentage) N=97	1. To improve personal protective measures	2. Staff education	3. To improve supervision	4. Law enforcement	5. To limit staff	6. To improve resources	7. Other managerial changes	8. Implementation is adequate
1. To improve personal protective measures									
1	Self - discipline and individually follow safety measure	8 8.2%							
2	To improve self - interest and commitment to safeguard own safety	5 5.2%							
3	Be alert and suspicious	4 4.1%							
4	Keep an instant sanitizer with us	11 11.3%							
5	To change masks every 5 hours	3 3.1%							
6	Take food from home only	7 7.2%							
	Total	38 39.2%							
2. Staff education									
7	Staff education regarding the disease		14 14.4						



			%						
8	Health education regarding food safety		5 5.2%						
9	Staff education on social distancing and sanitation		8 8.2%						
10	Sending written information to every unit separately		3 3.1%						
11	Education of heads of units to strengthen security		5 5.2%						
12	Display correct use of masks in videos with a projector in canteen and in reception		2 2.1%						
13	Frequent reminders regarding hand washing and distancing		5 5.2%						
	Total		42 43.3 %						
3. To improve supervision									
14	Recruit supervising officers		8 8.2%						
15	Recruiting higher ranked officials for monitoring		5 5.2%						
16	Daily progress review		6 6.2%						
17	Frequent evaluation of performance		3 3.1%						
18	Supervision by external party		2 2.1%						
19	Supervising staff to make social distancing compulsory and to stop ill people to come for work		3 3.1%						
	Total		27 27.8 %						
4. Law enforcement									
20	Enforce a law to adhere to guidelines		8 8.2%						
21	Implement a punitive procedure		4 4.1%						
22	Higher authority to issue orders to the immediate supervisors to implement these measures		1 1.0%						
	Total		13 13.4 %						
5. To limit staff									
23	Limiting the staff to attend work					12 12.4 %			
24	Changing office work to work from home					13 13.4 %			
25	Using rosters to attend work					6 6.2%			
26	When preparing rosters, distance from home to be considered					4 4.1%			
27	At present all the staff has to report for					3			



	duty daily						3.1%		
	Total						38 39.2 %		
6. To improve resources									
28	To improve space in work environment						3 3.1%		
29	Provide adequate supplies of sanitizers, face masks and gloves						14 14.4 %		
	Total						17 17.5 %		
7. Other managerial changes									
30	Implement a program to improve attention						1 1.0%		
31	Take measures regarding cleaning the unit						5 5.2%		
32	To reduce the service recipients to enter units						12 12.4 %		
33	Provide necessary forms for visitors to collect them selves						2 2.1%		
34	Develop a transport system with office vehicles						6 6.3%		
	Total						26 26.8 %		
8. Implementation is adequate									
35	As the condition is under control, implementation is adequate						3 3.1%		
	Total						3 3.1%		
Total responses = 204									
Total Number of respondents who had answered the open-ended question = 97									
Responses given by one respondent = 2.1									

Table 3: Distribution of employee responses (suggestions) to improve adherence to workplace safety guideline under 08 key themes.

Different suggestions from employees to improve adherence to workplace guidelines, categorized into 08 key themes are as follows; 1. Staff education (43.3%) 2. To improve personal measures (39.2%) 3. To limit staff (39.2%) 4. To improve supervision (27.8%) 5. To improve resources (17.5%) 6. Law enforcement (13.4%) 7. Other managerial measures (26.8%) and 8. Agreed as implementation is adequate (3.1%). (Figure 6)

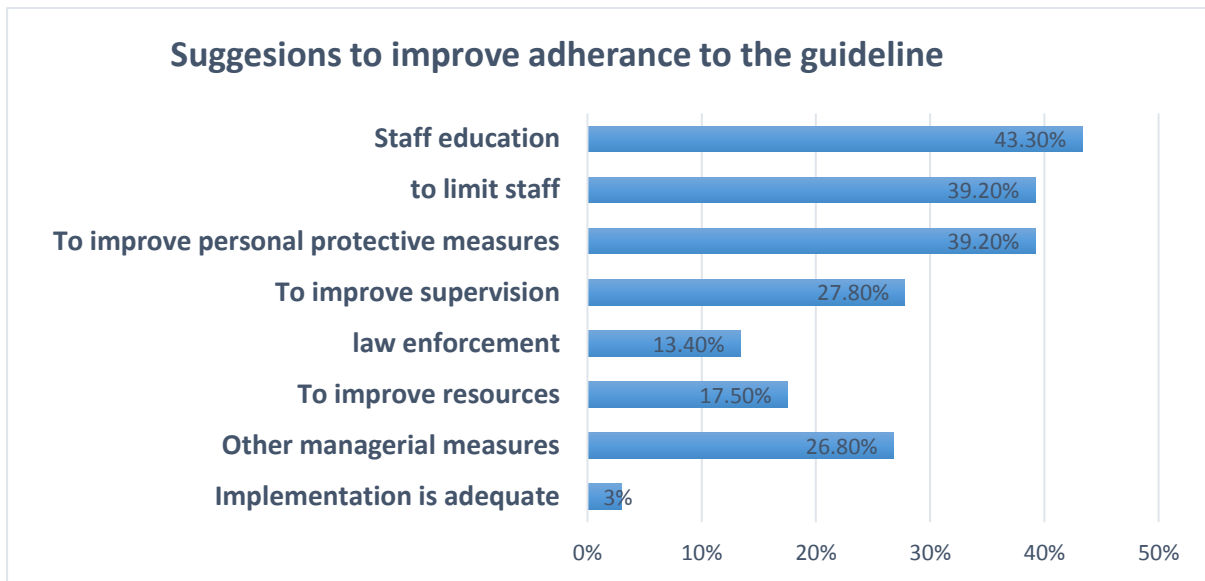


Figure 6: Percentage distribution of key themes of employees' suggestions, to improve employee adherence to workplace safety guideline.

Some of the very important individual suggestions which were selected from 08 themes are as follows; 1. Employees to be self-disciplined and individually to follow safety measures, 2. To keep an instant sanitizer with the employee, 3. To take food from home, 4. Staff education regarding the disease, 5. To recruit supervising officers, 6. To perform daily progress reviews, 7. To enforce a law to adhere to guidelines, 8. To change "office work" to "work from home", 9. To consider the distance to home when preparing rosters, 10. To provide adequate supplies of sanitizers, face masks and gloves, 11. To reduce the number of service recipients entering the unit, 12. To strengthen measures in cleaning the unit and 13. To develop a transport system with office vehicles. (Figure 5)

3.1% said that "as the condition is under control, implementation is adequate". (Figure 5)

Discussion:

Compliance to guidelines in response to covid - 19 pandemic reduces the likelihood of both contracting the virus and infecting others^(1, 2, 4). To implement full compliance to guidelines is doubtful in a democratic society. However, it is in managers' hands to maximize the implementation process of guidelines⁽⁶⁾. Managers should be well aware of the technical facts explained in the guideline, should make the responsible people educated, provide adequate resources for implementation, motivate the relevant people to comply with the guideline, frequently reminding and monitoring their compliance and take corrective actions where the compliance seems to be poor⁽¹³⁾.

This study showed that compliance of the employees with administrative measures, personal hygienic measures and house-keeping measures is; 50.5%, 49.23%, 23.6% respectively. Overall compliance to the workplace safety guideline is 41.11%. Compliance of employees to selected measures were "good" as in staying at home when having symptoms (90%), daily checking temperature (76.9%), washing hands at the entrance (91.5%), using masks during working (78.5%), bringing food from home (61.5%) and precautions when entering home (87.7%). This high

level of compliance seems to be with decisions taken at higher managerial levels. This indirectly shows that management concern could highly influence the employees' compliance with this guideline.

However, compliance was "moderate" or "poor" with most of the other measures. Majority of them are activities happening repeatedly such as hand washing after touching documents and objects, sharing objects, frequent washing floors, surfaces and instruments, social distancing etc. Hence, strengthening personal protective measures, staff education, strengthening supervision, law enforcement, preparation of suitable duty rosters, strengthening crowd control measures, had been identified by the employees to improve compliance with this guideline. Education, knowledge, favorable attitudes, financial constraints and subjective norms are some general causes identified in other studies. [15]

Further, 53.8% had an awareness about the guideline only to some extent. This guideline seems to be not well communicated with the employees. Communication could have been further limited by poor literacy of English language among employees. Therefore, all efforts need to be made to translate guidelines to Sinhala and to educate them in their native language. In addition, this guideline could have been prepared at several levels targeting at different categories at different levels of understanding.

In particular, Guidelines should be considered as very important documents to guide people in the expected direction. Attention should be paid on each and every instruction given, especially in infection control measures⁽¹⁵⁾ because one instruction not followed could act as the sole source of disease transmission. Further, if guidelines for work place safety are not fully practiced, there is a very high chance of breaching social distancing in this congested study setting which can lead to easy person to person transmission of the disease and creation of a cluster even if a single person happens to contract the disease.

In conclusion, the adherence of the employees to the workplace safety guideline was found to be sub optimal which needs urgent correction. Answering to this questionnaire itself seems to be an eye opener to the employees to identify the areas they should



focus more at this critical period. Further, it is brought to the attention of the higher management in “Suwasiripaya”, the suggestions provided by the employees from their own perspective, to be implemented as recommendations to improve safety in this work setting.

Limitations:

Assessment was based on respondents’ own determination and admission rather than independent observation of their actual practice. However, emphasis on the value of their inputs for improvement initiatives and their anonymity should have improved the actual reporting. In contrast, a considerably high percentage of respondents admitting poor compliance with many measures in the guidelines too indicates that the results obtained seem to represent the real picture.

References:

1. Health circular by DGHS, Ministry of Health, “Interim summary guidelines for clinical management of patients with novel corona virus 92019 – n CoV”, 26.01.2020.
2. European Centre for Disease Prevention and Control, an Agency of the European Union, Daily Epidemiological update.
3. In the face of a pandemic: Ensuring safety and health at work - Geneva: ILO 2020.
4. “Sri Lanka Preparedness & Response Plan, COVID-19”, Ministry of Health and Indigenous Medical Services, Sri Lanka, Version 1: 9th April 2020.
5. World Health Organization, “Critical preparedness, readiness and response actions”, 19 March 2020.
6. World Health Organization, “Getting your workplace ready for COVID -19”, 20 March 2020.
7. World Health Organization, “Consideration for public health and social measures in workplace in the context of COVID - 19”, 10 May 2020.
8. World Health Organization, “Responding to community spread of COVID – 19”, 7 March 2020.
9. World Health Organization, “COVID-19 Technical Guidance: Guidance for schools, workplaces & institutions”
10. “Combatting covid – 19; Sri Lankan approach”, researched and conceptualized by State Intelligence Service, Presidential task force on covid 19, The Ceylon chamber of commerce; 10 May 2020.
11. Circular by DGHS, Ministry of Health, “Towards a new normal - Instructions for selected public activities/work settings for the prevention and control of COVID - 19, 28.05.2020.
12. Health Circular, “Guidelines on COVID-19 preparedness for workplaces”, DDH (EOH & FS), Ministry of Health, 02.04.2020.
13. Babirye, R. “Health workers’ compliance to treatment guidelines for uncomplicated malaria under the artemether - lumefantrine drug policy in Hoima District” A dissertation submitted in partial fulfillment of the requirements for the award of the Degree of Master of Public Health of Makerere University, 2013.
14. Briscese G, Lacetera N, Macis M, Tonin M, “Compliance with Covid – 19 social distancing measures in Italy: The role of expectations and duration” Working Paper 26916 <http://www.nber.org/papers/w26916> NATIONAL BUREAU OF ECONOMIC RESEARCH 1050 Massachusetts Avenue Cambridge, MA 02138, March 2020, Revised April 2020.
15. Mc Gaw et al, “Health care workers attitudes to and compliance with infection control guidelines in the operating department at the university hospital of the West Indies, Jamaica” International Journal of Infection Control, (2012), 8 (13), 9 pages.