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Assessment of Knowledge and Attitudes Towards Selected Aspects of Occupational Health and Safety Among Out - Sourced Employees Engaged in Cleaning Services at Two Selected Base Hospitals in Sri Lanka

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***Abstract*—** *In the Ministry of Health, Sri Lanka, hospital cleaning service has been out - sourced to the private sector suppliers. However, the contract agreements between the two sectors have not included the aspects of "employees' health and safety" in service contracts. Therefore, this study was carried out to assess the knowledge and attitudes towards selected aspects of occupational health and safety among out - sourced employees engaged in cleaning services at two Base Hospitals in Sri Lanka. All the staff in the relevant category recruited to the above two hospitals were enrolled and the data was collected using self - administered questionnaire. Socio demographic aspects of the participants, level of knowledge of participants on the key aspects of health and safety measures related to their job, and the kind of attitude of participants on some selected aspects of health and safety measures related to their job were identified. Results showed that only 60 % were aware of the value of occupational health and safety issues; almost everybody had very positive attitudes towards many selected aspects of health and safety measures and only a few had moderately negative attitudes towards some aspects. As there is much more room for improvement, health and safety practices of the employees should be considered as a priority and measures should be taken by the health authorities to improve the situation*.

I. INTRODUCTION

Human resource management (HRM) is turning towards strategic HRM making. Definition of HRM outsourcing is "having a third- party service provider or vendor, furnish, on an ongoing basis, the administration of an HRM activity that would normally be performed in house" [1]. A key reason for this growth is that many companies find that the use of outside service providers is more efficient and less costly than hiring staff to handle these functions in-house.

In Sri Lanka, Health Care Delivery is free to all citizens in public institutions. Ensuring health and safety of the employees; service delivery; and effective management of resources; are essential for the continuing uninterrupted services and for the reduction of cost of health care. In the Ministry of Health, Cleaning service has been out - sourced for several years in several hospitals while in others the cleaning service is performed by hospital employees themselves.

"Base hospital – Kalmunai North" has out - sourced the cleaning service for the last six years and "Base Hospital – Kaluwanchikkudi" has out - sourced the cleaning service for the last eight years. Their agreements made for each year for the cleaning service have included only the 1. number of workers per shift, 2. list of needed disinfectants and 3. the equipment for cleaning activities in the hospital. However, these agreements have not recognized the most valuable aspects of "employees' health and safety measures and training".

Based on the theories of HRM services, vendors specialized in the services they provide to their clients, benefit from "economy of scale" and these benefits are transferred to their clients. In Sri Lanka, the Ministry of Health, has out - sourced cleaning services for several years, in many hospitals, while some hospitals have still not utilized this concept of out – sourcing services such as cleaning service.

"Occupational safety" is the control of hazards in the workplace to achieve an acceptable level of risk, while "workplace safety" generally refers to the process of protecting the health and safety of employees while on their job, irrespective of vocation [(2,3)]. Therefore, due attention needs to be paid by the authorities on this important aspect to ensure the health and the safety of employees especially who are recruited as out – sourced and not well trained on the health and safety issues particularly related to healthcare settings.

Objective

To assess the knowledge and attitudes towards selected aspects of occupational health and safety among out - sourced employees engaged in cleaning services at Kalmunai North and Kaluwanchikudy Base Hospitals in Sri Lanka.

II. METHODOLOGY

This is an institution - based study carried out in Base Hospital Kalmunai North (BHKN) and Base Hospital Kaluwanchikkudy (BHK). It is a descriptive study formulated with a quantitative research design. All the employees working

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in these two settings, accounted to 65 in number, were enrolled this study.

Self - administered questionnaire with pre-coded and close ended questions was introduced along with the information sheet and the consent form. Every participant was given 60 minutes to fill the questionnaire and any clarification needed was provided. Data entry was done after the appropriate coding and analysis was done by using SPSS. Ethical clearance was obtained from Ethical Review Committee of Faculty of Medicine, University of Colombo.

III. RESULTS

Employees were assessed regarding their knowledge, practice and attitude regarding health and safety measures.

A. Basic information of the participants

TABLE 1: Socio demographic aspects of out - sourced cleaning service employees (n=65)

Parameter of the respondents		Frequency	Percentage %
Age in years	</= 30yrs	12	18.5
	31-40yrs	25	38.5
	41 - 50yrs	14	22.0
	51 - 60yrs	8	12.0
	>60yrs	4	6.0
	No answer	2	3.0
	Total	65	100.0
Sex	Male	7	10.8
	Female	58	89.2
	Total	65	100.0
Marital status	Single	12	18.5
	Married	33	50.8
	Divorced	2	3.0
	Separated	10	15.4
	Widow/ widower	7	10.8
	No answer	1	1.5%
	Total	65	100.0
Highest educational qualification	no formal education	7	10.8
	up to grade 5	12	18.5
	up to grade 8	14	22.0
	up to GCG Ordinary Level	28	43.1
	Beyond GCE Ordinary Level	2	2.8
	No answer	2	2.8
	Total	65	100.0
Ability to read and write	Able to read & write	45	69.0
	Able to read only	8	12.4
	Unable to read or write	7	10.8
	No answer	5	7.2
	Total	65	100.0
Working experience (in years)	<3yrs	27	41.5
	3-5yrs	11	16.9
	6-8yrs	8	12.3
	>8yrs	6	9.2
	No answer	13	21.1
	Total	65	100.0

Regarding the socio demographic details of the participants, highest percentage of participants was in the age group of 31 – 40 years (39.7%) and 89.2% were females. Among the participants, 51.6% were married.

Nearly 30% is below the level of grade 5 in their education. Only 69 % was able to read and write whereas 7 % of them were totally illiterate. Only 2.8 % had studied beyond ordinary level.

Just below one third (27%) had experience of less than 3years.

B. Health and safety knowledge among cleaning service employees

TABLE 2: Description of knowledge of participants on the key aspects of health and safety measures related to their job (n= 65)

Description	Frequency	Percentage %
Awareness about health and safety issues	43	66.2
Knowledge on health and safety issues and their categories	21	32.3
Knowledgeable on infections related to job.	24	36.9
Hand washing is good to prevent cross infection after each cleaning/ waste management activity	45	69.2
Aware of health and safety precautions	29	44.6
Cross infection could be prevented by effective hand washing	56	86.2
Knowledgeable on wearing gloves	56	86.2
Knowledgeable on wearing gowns /aprons	44	67.7
Knowledgeable on wearing caps	20	30.8
Knowledgeable on wearing masks / goggles	31	47.7
Knowledgeable on effective waste handling	56	86.2
Knowledgeable on safe disposal of sharps	56	86.2
Knowledgeable on complete immunization against hepatitis B & tetanus	27	41.5
Knowledgeable on prophylactic treatment and/or procedures following exposures	23	35.4
Knowledgeable on Correct body posture during procedures	40	61.5
Knowledgeable on instructions regarding procedure and safety precautions	53	81.5
Average	39	60

Average knowledge of participants on the key aspects of health and safety measures related to their job was 60 %.

Knowledge on health and safety issues and their categories was only 32.3%. Knowledgeable on infections related to job was 36.9%. Knowledgeable on prophylactic treatment and/or procedures following exposures and the knowledgeable on complete immunization against hepatitis B & tetanus were 35.4% and 41.5% respectively. Knowledgeable on wearing caps while doing cleaning activities was only 30.8%.

C. Attitude towards hazards and safety practices

Out of the responses to assess the attitudes towards the health and safety measures 100% had agreed with the responses; 1. Occupational hazard, an issue that should be taken seriously and given prompt attention in the hospital; 2. Health and safety of the employees are a joint responsibility of the hospital management and the staff; 3. Gloves should always be worn when handling the waste; 4. Hands should be properly washed; 5. Sharps should be disposed in sharps' boxes; and 6.

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All exposures to occupational hazards should be reported to and appropriately documented. However, there were 78.5%, 87.7 %and 86.2 % were positive with the responses 1. Paying extra attention to health and safety measures are not a burden; 2. Aprons and face masks should be worn in procedures where splash/spill of blood is likely and 3. Prolonged standing should be avoided by all workers respectively.

TABLE 3: Description of attitude of participants on the key aspects of health and safety measures related to their job (n=65)

Description		Frequency	Percentage %
1. Occupational hazard, an issue that should be taken seriously and given prompt attention in the hospital	Agree	65	100.0
2. Health and safety of the employees are a joint responsibility of the hospital management and the staff	Agree	65	100.0
3. Paying extra attention to health and safety measures are an unnecessary burden on me	Agree	9	13.8
	Undecided	5	7.7
	Disagree	51	78.5
4. Training of staff and provision of personal protective equipment is necessary to reduce risks	Agree	64	98.5
	Disagree	1	1.5
5. Aprons and face masks should be worn in procedures where splash/spill of blood is likely	Agree	57	87.7
	Undecided	7	10.8
	Disagree	1	1.5
6. Gloves should always be worn when handling the waste	Agree	65	100.0
7. Hands should be properly washed	Agree	65	100.0
8. Sharps should be disposed in sharps' boxes	Agree	65	100.0
9. Prolonged standing should be avoided by all workers	Agree	56	86.2
	Undecided	5	7.6
	Disagree	4	6.2
10. All exposures to occupational hazards should be reported to and appropriately documented	Agree	65	100.0
11. Adequate staffing of hospitals is a way of reducing occupational hazards	Agree	64	98.4
	Undecided	1	1.6

IV. Discussion

It was a situational analysis on occupational health and safety among 50 out - sourced employees engaged in the cleaning services activities in Kalmunai North Base Hospital and 15 employees engaged in the cleaning services activities in Kaluwanchikkudy Base Hospital (total of 65 employees).

Regarding socio demographic details of the participants, majority was falling into the age group of 31 – 40 years and second highest was in the group of 41-50 years. Nearly 30% is below the level of grade 5 in their education. Only 69 % was able to read and write whereas 7 % of them were totally illiterate. Only 2.8 % had studied beyond ordinary level. Majority of workers were females and having work experience of less than 3years (Table 1).

Regarding the knowledge of the cleaning service, 60 % were aware of the value of health and safety issues (Table 2). In the study carried out by Aluko et al. in 2016 [(4)], 70% of the study group had knowledge on occupational hazards and safety which was higher than the findings of this study.

Further, in this study, the level of knowledge in some aspects such as "Knowledge on health and safety issues and their categories" which was only 32.3%, "Knowledgeable on infections related to job" which was 36.9%, "Knowledgeable on prophylactic treatment and/or procedures following exposures" which was 35.4%, "knowledgeable on complete immunization against hepatitis B & tetanus" which was only 41.5% and "Knowledgeable on wearing caps while doing cleaning activities" which was only 30.8% is much less below the average. They could result in catastrophic adverse effects in terms of health and safety among workers in cleaning service.

With regard to the attitudes (Table 3) almost everybody had very positive attitudes towards many selected aspects of health and safety measures and only a few had fairly negative attitudes towards some aspects such as "Paying extra attention to health and safety measures are not a burden"; "Aprons and face masks should be worn in procedures where splash/spill of blood is likely" and "Prolonged standing should be avoided by all workers" which were 78.5%, 87.7 % and 86.2 % respectively. Even though the number is considerably low, the accidents, adverse events and errors happened due to them can be very hazardous to the lives of workers. Therefore, these figures should require attention.

In addition to the knowledge, Aluko et al. in 2016 also had studied the practice and attitudes of employees, but the analysis had been done as the composite knowledge, attitude and practice of respondents which has revealed that close to two-fifth (38 %) had positive ratings in knowledge, attitude, and practice. As it is an aggregated value, it is impossible to compare directly with the results of this study.

"Working environment information" by the European agency [(5)] was developed for their employees for a similar purpose. According to their guide, cleaning employees were prevented from harm in their workplaces where they were working. Similarly, the World Health Organization [(6)] also recommended health and safety practices to be applied on health care workers.

This study was carried out only in two base hospitals due to time and resource constraints. If this study was carried out in several hospitals where the cleaning services were out - sourced, it would provide with more information on the health and safety measures practiced in those settings as their delegated tasks.

Ministry of Health, Sri Lanka has been continuously out - sourcing cleaning services for many years based on contract agreements with the vendor agencies but has not provided any user guides or handbooks for the purpose of enhancing the knowledge, creating positive attitudes and improving

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application of the knowledge in their day to day practice to strengthen the health and safety of employees working in cleaning activities.

Therefore, it is of paramount importance to focus more on this fairly ignored aspect in health care, by the decision makers both in the Ministry of Health and in healthcare institutions in Sri Lanka, from the stage of planning for procurement until the end stage of evaluation of the effectiveness of the whole project.

V. CONCLUSION

The situation analysis to assess the health and safety related knowledge and attitudes among out - sourced employees engaged in cleaning services at Kalmunai North and Kaluwanchikudy Base Hospitals in Sri Lanka showed that the level in the selected parameters were not satisfactory and there is much more room for improvement. It can be recommended that during the agreement with the vendor agencies, health and safety practices of the employees should be considered as a priority and measures should be taken to improve the situation. It is important to consider the standards of services expected from the provider agencies too.

Limitation: This study was carried out only in two hospitals. If the study was expanded to more hospitals, results could have been more generalized to the country.

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