

Awareness about causes of occupational hazards: an empirical study of sanitary workers

Abstract

The objective of this empirical, quantitative and survey based descriptive research undertaken in Tirunelveli city, Tamilnadu, India is to understand awareness level of sanitary workers working in private multi-speciality hospitals towards causes of various hazards associated with their occupation by analyzing their perception. In order to achieve this objective, the study has sampled 60 sanitary workers using convenience sampling technique and collected primary data from them applying schedule method of data collection. In order to execute schedule method, the questionnaire which was constructed based on observation and experience of the researcher in the field of hospital administration has been used. The secondary data have been collected from journals and websites. Percentage method has been administered to analyze both demographic characteristics and perception of awareness of the respondents. The result of this research has revealed that majority of the sanitary workers had not known anything about various hazards arising as a result of lack of protective devices, weight lifting, improper personal hygiene, imbalanced diet, body bending, long standing, stress, absence of immunization, inadequate rest, long working hours, heavy workload, autocratic leadership style of the superior and work life imbalance.

Keywords: awareness, occupational hazard, sanitary worker, multi-speciality hospital, Tirunelveli City

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Rajan D

Department of Business Administration, University of Africa, Nigeria

Correspondence: Rajan D, Department of Business Administration, Faculty of Social and Management Sciences University of Africa, Toru-Orua, Bayelsa State, Nigeria, Email drdirajan@gmail.com

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Introduction

Background of the study

Existence of division of labourer instead of division of labour in Indian society has pushed a specific category of people to do a specific job. According to this principle, still particular section from downtrodden community is doing manual scavenging and cleaning work for many generations. A recent report of Tamilnadu government of India indicate that among manual scavengers, 90% are from lowest Dalit downtrodden community and among them 33% are women and of that community 1.75% is literate and 98.16% are illiterate. Only 0.16% has completed their 10th standard in school. Moreover, An independent survey reported that in India, among the sanitation workers, 2.5 million face occupational hazards in their work, at least 1370 deaths per year have occurred during sanitation work and as many as 2% of workers have been estimated to die during course of their work because of lack of protective equipments and lack of safety measures.¹ Though government has given reservations for education and employment, still majority of the people are doing cleaning work and even if they get opportunity to go to government job they do the same cleaning job in government sector also and those who do sanitation workers working with government are called as corporation staffs. The employees who do the same work in hospital are called as housekeeping employees and the department they belong to is called as housekeeping department.

Sanitary workers perform number of tasks that are vital for ensuring hygienic conditions of the hospitals. They maintain environment clean and infection free and support medical and paramedical staffs by the way of giving care to the patients and assisting all categories of employees in many ways. They undergo to huge hazards physically and mentally as a result of work, work environment, rules and regulations of the organization and leadership style of their managers. All these hazards exist in almost all fields and in all areas because none of the organization pays any attention towards safety, quality of the work life and growth of the sanitary workers. Though there are many

laws related to salary, work environment and welfare facilities that should be provided not only to sanitary workers but also to all lower level management employees, none of the organization takes serious steps as to implementation of those rules because of the corruption existing in government machineries and carelessness and ignorance of the both organization and government towards employees of lower level management.

The organizations, in the study area, Tirunelveli city are not exempted from it in implementing and following rules and regulations of the government related to labour welfare. This city has reached excellent growth in all aspects such as economy, technology and socio culture past few years. Growth rate of hospitals, schools, colleges, hotels, pharmaceuticals and other small, medium and large scale business industries has hugely increased. The administrative style of majority of the organizations also has changed significantly. Almost all organizations have initiated the steps of giving employment opportunities for diversified group of employees which were absent in earlier days. All community people are significantly appointed in all kinds of areas in the organization and this practice was purely not followed in olden days. But as far as sanitation department is concerned, change is very little and insignificant. As sanitation work has been being carried out by particular community people and they have not got any education for many generations, their understanding level also remain very low and owing to this reason management also do not take any steps to educate about hazards existing in their job or any other updates existing in their field. Though significant number of employees from that community approach the organizations for employment with little education they are, to the maximum existent, are forced to do cleaning work and appointed in housekeeping department because of their community background and they are not given any other work but cleaning. They just simply wish that sanitary workers can do the work assigned and get salary.

It is evidently seen that no single organization come forward to take any steps with regard to simplifying the work of sanitary workers and introduce new technology to replace the tasks which are done

manually. This kind of ignorance and negligence of the organization shown toward sanitary workers affects their quality of work life in the organization and in all organizations they are compelled to do tasks which are hazardous in nature and work under mental stress. Unless the organizations take vital effort to enhance their awareness about various hazards existing in their work and minimize those hazards, sanitary workers will live with dangerous working condition and it will push them to absent from job and lower their performance which will further affect functions of the organization. So, all organizations need to analyze awareness level of the sanitary workers about various hazards existing in their job and take necessary steps to advance it. In light of this reason, the present research is undertaken in the study area with the aim of knowing awareness level of sanitary workers towards causes of occupational hazards existing in their occupation.

Statement of the problem

Nature of work of the sanitary workers in the hospital is fully physical oriented and as part of their work they do cleaning, mopping, washing, collecting, lifting and transporting garbages, giving care to the patients and assisting to all categories of employees. To accomplish their work, they need to climb steps, bend their bodies often, lift weight, squat and sit in cross leg to segregate various biomedical wastes including used needles, anatomical wastes, plastics and cottons and so on. These entire tasks are associated with some hazards that causes joint pain, body pain, degenerative disorders, respiratory disorders, diabetes mellitus, hypertension, Hepatitis - B, HIV and skin disorder. Besides, the study area is still far behind in following and implementing government policies related to salary and man power strength, work hour and welfare facilities. Deficiencies of these factors also are responsible for lot of hazards such as stress, anger, diabetes mellitus and hypertension.

Thus, work life of sanitary workers comprises so many risks and adequate awareness about these hazards is necessarily needed for them to safeguard from these hazards. Lack of awareness or complete unawareness about these hazards will definitely push them to undergo serious health disorders and they will in turn reflect on both their financial life and function of organization. When they continually expose to occupational hazards for prolonged period of time, because of impacts of hazards, they will absent to the work frequently and this will increase workload of other existing employees because work of sanitary workers cannot be replaced by employee of another department. So, in order to manage work of absented employees, when additional workload is assigned to the work of existing employees who is already having heavy workload, absenteeism rate will become double. It will in turn affect organization function seriously. Lack of manpower of sanitary workers which arises out of employee turnover or absent of another employee will affect hygienic condition of the hospital and it will further causes not only patient dissatisfaction and their safety but also shake reputation of the hospital. As long as these hazards are not either eliminated or minimized and sanitary workers are made aware of causes and impacts of these occupational hazards, sanitary workers cannot be saved from undergoing health related issues. Thus, since lack of awareness of sanitary workers about causes of occupational hazards affect their health, patient satisfaction, their safety and reputation of the organization; it is crucially needed for the hospitals to get sanitary workers aware of various hazards associated with their occupation and how to safeguard them from them. Hence, this research is intended to know how much awareness sanitary workers have about causes of occupational hazards.

Scope of the study

This study has focused sanitary workers working with leading private multi-speciality hospitals in Tirunelveli city, Tamilnadu. Tirunelveli city is the capital of Tirunelveli District which is located in south end of Tamilnadu. The study covers causes of various hazards associated with occupation of sanitary workers.

Significance of the study

This study will abundantly be useful for hospital management, housekeeping manager, sanitary workers and future research scholars. Perception of sanitary workers about causes of occupational hazards will be an eye opener for hospital management and thereby get them aware of various necessary devices to be introduced, new facilities to be established and new policies either to be introduced or changed about working hours, shift system, rest hour, immunization, discounted food, manpower and health education in order to either eliminate or minimize causes of occupational hazards. Perception of the sanitary workers about occupational hazards will give opportunity for housekeeping managers to make the changes in department with regard to work shift schedule, leave, workload allotment, leadership style and qualities to be developed to deal with sanitary workers nicely and other necessary facilities to be established from their side. Findings and recommendations of this study will help sanitary workers to assess them themselves as to where they stand and how much knowledge they have about occupational hazards and what they need to know to defend them from hazards. Scope and limitations of this research will be the source of secondary data for future research scholars and they will help show them new path to be taken in future research studies.

Objectives of the study

The objectives of this research is to understand awareness level of sanitary workers by analyzing their perception towards various hazards associated with their occupation and to offer suitable suggestion to enhance their awareness level towards hazards existing in their occupation.

Review of literature

Occupational hazard can be defined as the risk to the health of a person usually arising out of employment. It can also refer to work, material, substance, process or situation that predisposes or itself causes accidents or disease at work place.² Occupational hazards are divided into five groups according to their nature: a) physical risks, related to exposure to noise, ionizing radiation, and temperature; b) chemical risks, related to exposure to gases, vapors, fumes, and chemicals; c) biological risks that include exposure to viruses, bacteria, blood and blood products; d) ergonomic risks, relate to the requirement of improper posture, monotony, repetitiveness, work shifts, and situations causing stress; and e) risks of accident that include arrangement of inappropriate work environment, insufficient lighting, potential accidents with electricity and fire.³

Rajan⁴ identified the sources of occupational hazards of medical laboratory technicians working in private multi speciality hospitals under nine dimensions namely organization structure and policy, ergonomics, fear and safety, resources, work load and work shift, environment and hygiene, interruption, patient and communication and training related factors. The study identified that rigid leadership style and strict supervision by higher authorities, long sitting in front of

computer, inadequate safety in the work place, shortage of laboratory technicians and supporting staffs in accordance with volume of patients, two shift work system which are irregular, inadequate space in the work place, receiving multiple instructions from many authorities, dealing with emotionally unstable, angry, urgency and blaming nature of the patients and their relatives and inadequate information about occupational hazards related to job were the major sources of occupational hazards of medical laboratory technicians. The analysis of the study also proved that all factors of occupational hazards are perceived at medium level by majority of the respondents.

Rajan⁵ examined differentiated the relationship between occupational hazards and health among the medical laboratory technicians working in hospitals and diagnostic centres in Tirunelveli city, Tamilnadu. The results of the study showed that the factors, pain in neck, shoulder, upper and lower back, waist and leg and joints, eye problem (e.g. dry eye, eye trauma and irritation due to high level of concentration and use of chemicals), loss of appetite or changes in appetite, digestive problem (constipation), stress and irritation, minute injuries (e.g. needle stick injuries), skin allergy e.g. irritation (due to use of chemicals), ear pain due to prolonged exposure to air condition, breathing difficulties due to excessive cold (air-conditioning), sleep disorder (due to long working hours and shift work), low spirit, menstrual irregularities (due to long working hours and irregular shift work have equally been perceived by medical laboratory technicians working in both kinds of organizations. The result of the study also explained that the factors, tiredness, fatigue, weight loss (due to night shift and long working hours), anxiety and depression, lack of energy, difficulty paying attention, appendicitis, tuberculosis and other respiratory infection, hepatitis B and varicose vein have highly been experienced by medical laboratory technicians working in hospitals than diagnostic centres.

Rajan⁶ analysed the awareness of medical laboratory technicians working in multi speciality hospitals in Tirunelveli city, Tamilnadu, about safety measures of occupational hazards. The study showed that majority of the respondents have replied that they do not know anything at all about the safety measures of occupational hazards discussed in this research. From the total score of the table it could be known that the respondents have awareness about some safety measures such as use of hand gloves and face mask when collecting fluids from the patient, washing hand with bactericidal soap, use of foot wears to cope up with chillness of the floor, vaccination as they have occupied the high scores. The respondents have poor knowledge about the safety measures such as breathing exercises, cleaning eye with cold water at frequent interval, regular break and physical exercises as they have occupied less total score.

Ashok⁷ studied occupational hazards of supportive group of women employees in health care units in Tamilnadu from the samples of 197 supportive women employees. The analysis of study explained that lack of supervision and control, lack of training, usage of untrained employees, congested space in working area, use of old machinery and equipments, overloading of employees, violation of safety rules, overloading of employees and poor housekeeping practices were the employees' safety related factors associated with occupational hazards. The study also showed that respiratory diseases and hypertension were in top level experienced. Skin diseases, diabetes, cardio vascular diseases, menstrual irregularities, sleep disorder were next in level experienced. Around one fifth of respondents had experienced bacterial infections to fungal infections. One fourth of them had experienced various parasitic infections and

one third of them had experienced viral infections. Anxiety, mental stress, depression and emotional disorder, ENT related problems, low back pain due to carrying heavy loads of work in a standing posture, head ache and body ache due to work stress, discomfort during travel time, worrying about welfare of children when at work were factors influencing occupational hazards.

Javed Sadaf and Tehmina Yaqoob⁸ studied gender based occupational health hazards among paramedical staff in public hospitals of Jhelum. The results of the study showed that females were more exposed to occupational health hazards as compare to males. There was no difference between male and female paramedical staff in exposure to occupational health hazards. Females are more exposed to psychological occupational health hazards as compare to males. Physiological health hazards are more influencing paramedical staff's health as compare to psychological health hazards in public hospital. The hypotheses of the study reflected that there was a significant effect of age in exposure to occupational health hazards among paramedical staff. There were no significant differences in exposure to occupational health hazards exist between on the basis of experience in different categories. The study concluded that over burden of work and deficient staffs were enormous hazards in public hospital faced by paramedical staff.

Amosu⁹ analyzed the level of knowledge regarding occupational hazards among nurses in Abeokuta, Ogun state, Nigeria. The sample consisted of 100 nurses who had been randomly selected from 10 public and 2 privately owned health care facilities. Majority of the respondents were between 21–30 years of age, females, married and had 11 years and above in the nursing profession. Majority of the respondents agreed that the nursing profession is associated with occupational hazards. Back injury was the commonest occupational hazards followed by neck and back pain. Prolonged standing, negligence and carelessness, lifting of patients and equipments, failure to observe simple safety rules in the wards, shortage of staff and excessive work load are the foremost predisposing factors of occupational hazards. The respondents suggested that avoidance of lifting of patients and heavy equipments and proper training and retraining of nurses on safety measures are the ways of preventing occupational hazards.

Saldaria¹⁰ examined the impact of occupational hazard information on employee health and safety. In the study, global farming, industry construction and services sectors have been focused. Farming and services sector have been given 17.5% hazard prevention communication, global, industry and construction sectors have been provided 16.8% and 14.8% respectively. Farming and construction sectors are experiencing 43.1% and 35.8% musculoskeletal symptoms. Global services and industry sectors experienced 32.3% 31% and 30.4% respectively. Services, industry and global sectors experience high psychological symptoms of 10.8%, 10.2% and 10.1% respectively where as farming and construction sectors experience 8.6% and 7.1% respectively. Construction, industry and farming sector experience high level of occupational accidents in the rate of 13.8%, 13.1% and 10.4% respectively. Farming and services sectors experience low level of occupational accidents at the rate of 9.9% and 9.2% respectively.

Ahmed & Newson Smith¹¹ analyzed knowledge and practices of cement workers related to occupational hazard in United Arab Emirates. The study sampled 153 male workers in a cement factory in Ras Al Khaimah, UAE. The study highlighted that 52.9% of the

respondents had known about the hazards associated with current job. The most commonly mentioned hazards were dust, heat, machines such as milling machine and falling materials, chemicals, fire and smoke. Majority of the workers mentioned that exposure to the dust was a serious hazard to their health. Respiratory symptoms (cough and sputum), eye problem have been majorly experienced as dust related problems by respondents. Stomach, liver and heart problems were least experienced as dust related problems. Majority of the respondents indicated that mask was a safety device. Next to it, helmet, safety hoes, and goggles, were the protective devices used by respondents. Moreover, majority of the workers reported that masks were comfortable and not interfering with their communication while wearing them.

Fasunloro A, Owolade J¹² assessed the level of awareness of occupational hazards among clinical dental staff at a dental staff in Nigeria and it had sampled 38 respondents. Doctors (59%), nurses (8%), technologist (5%), therapists (10%), and dental surgery assistants (18%) have been focused in the study. Back ache was the most frequently experienced hazard among 47% of respondents. 68.4% dental personnel had been vaccinated among them more were doctors than non doctors. 35% had experienced an injury from sharp instruments in the past six months. 71% had regular exposure to dental amalgam. Use of eye goggles, proper waste disposal, wash hands with bactericidal soap, wear gloves routinely, change gloves between patients, use of face mask, wash hands before gloving and ensure instrumental sterilization were the mechanism followed by employees to control the cross infection. Amalgam blood level check, periodic check of clinic for amalgam, vapour, use of goggles, water spray and suction, confine use to impervious surface, use no touch technique, store amalgam in sealed containers, clean up spilled amalgam, work in well ventilated space and use tightly closed capsules were the safety measures adapted while handling amalgam. The respondents were well known about injury, Hepatitis B, HIV and less known about TB, blindness, back ache, litigation and others.

Rajan D¹³ studied causes of occupational hazards of radiographers working in private multi-speciality hospitals in Tirunelveli city and found that organization structure, and policy, radiographer's specific, fear and safety were the foremost dimensions causing occupational hazards. Resources, workload, work shift, environment and hygiene were next foremost dimension causing occupational hazards. Interruption, patient and communication and training were the least dimension causing occupational hazards among radiographers. It could be known from the literature discussed above that few studies have been undertaken by the researcher in the study area related to occupational hazards of medical laboratory technicians and radiographers. There has been no study in the study area about awareness of sanitary workers about causes of occupational hazards. So, there is a gap to research about awareness of sanitary workers about causes of occupational hazards. Hence, this present research has been undertaken to fulfill that gap.

Research methodology

This empirical, survey based empirical research is descriptive in nature. The element of this research is sanitary worker working with private multi-speciality hospital. The study sampled 60 sanitary workers from selected leading multi-speciality hospitals using convenience sampling technique. From the selected respondents primary data were collected using scheduled method of data collection by way of dictating questions in the questionnaire in their mother

language, 'Tamil' and recording their answers. Questionnaire used for this study was made by the researcher based on his experience and observation in the field of hospital administration and it consisted of two sections namely Section 'A' that talked about profile of the respondents and section 'B' that described about perception of awareness of the respondents about occupational hazards. Moreover, the questionnaire was composed based on rating scale and five responses namely 'I know very much, I know somewhat, Neutral, I know very less and I do not know anything' had been given to the respondents for recording their answer. The five responses given in the questionnaire were assigned with weightage of 5, 4, 3, 2 and 1 respectively. Secondary data were collected from journals and websites to add necessary significance for the study. Collected data were analyzed applying percentage method.

Analysis and interpretation

It can be understood from Table 1 that among the respondents of multi-speciality hospitals, 26.67% were male and 73.33% were female. Of them, 8.33% were below 30 years of age, 31.67% between 30 and 35 years, 33.33% between 35 and 40 years and 16% were above 40 years of age. Furthermore, among them, 96.67% were married and 3.33% were unmarried. In all, 16.67% had below 2 years of work experience, 33.33% between 2 and 4 years, 30% between 4 and 6 years and 20.00% had above 6 years of work experience. Among them, 20% were drawing below Rs. 6000 of salary, 50.00% between Rs. 6000 and 8000, 23.33% between Rs. 8000 and 10000 and 06.67% of them were drawing above Rs. 10000 of salaries. Table 2 shows the final analyzed data of perception of the sanitary workers towards causes of occupational hazards. The interpretation for each factor analyzed in Table 2 along with interviewed data is as follows.

Not using protective devices

Majority of the respondents have reported that they know very less that not using protective devices such as hand gloves, face masks, foot socks and shoes would cause hazards. From this response, it could be understood they do not have adequate knowledge that not using protective devices will cause occupational hazards. Sanitary workers clean floor and mop the floor of all areas in the hospitals and toilet rooms. For these purpose they use chemicals and some kind of sticks. Their repeated use of sticks and nature of chemicals would definitely cause skin related disorders in their hand and foot and respiratory disorder since they inhale chemicals when they mix chemical and soak cleaning materials in chemical and crush it if they are not wearing hand gloves, foot shoes and face mask. Sanitary workers working in intensive care unit need to exist under air-conditioning always, so they need to wear shoes and ear mask to avoid exposing to cold because continuous exposure to cold will bring about health related issues. In addition to these, they need to give care to the bed ridden patients such as cleaning their urine and faeces, so, at this time, they need to wear face mask compulsorily in order to avoid from exposing to infection. In most of the hospitals, the chemicals which are used to clean and mop floor and toilets are mixed by sanitary workers instead of using machines. In order to protect their hands from those chemicals, it is needed for them to use hand gloves and also wear face mask. When they were asked if they are supplied protective materials and education about how to use those materials and side effects if those materials are not used, they replied that they are not given protective devices regularly and education is not given. From this response, it could be understood that they are in need of vigorous training about the various diseases that arise when protective devices are not used.

Lifting heavy weight without following right procedures

Majority of the respondents have responded that they do not know anything that lifting weight without following procedures of lifting weight will cause hazards to them. This response strongly indicates that they are in need of ergonomics training exclusively. It is the nature of job of sanitary workers that they need to lift garbages from all accumulated points and carry them to the point of central storage or sometimes they may be needed to drag. Besides, in most of the hospitals, the nursing station, physiotherapy and laboratory department and other paramedical departments do not have water facilities and in those hospitals sanitary workers bring water lifting over their head or shoulder and fill the tank. And, whenever cleaning work and transfer

work carried out in the hospitals, sanitary workers are assigned the tasks to move all things from one place to another place. Thus, weight lifting is inevitable work in their profession. In order to escape from effects of occupational hazards such as joint pain, muscle cramp, general body pain, back pain, neck pain and joint degeneration, they need to know ergonomics procedures i.e., procedures of lifting weight and what body position should be maintained to lift weight. If they do not know and if they continuously lift weight with wrong body posture, it will definitely affect their health. When sanitary workers were interviewed if they are given ergonomics training, they replied they are not given such training. Hence, it is indicated that they are in need of ergonomics training to safeguard them from the effects of occupational hazards.

Table 1 Demographic profile of the respondents

Variable	Description	Frequency	Percentage
Sex	Male	16	26.67
	Female	44	73.33
Age	Below 30 years	5	8.33
	Between 30 and 35 years	19	31.67
	Between 35 and 40 years	20	33.33
	Above 40 years	16	26.67
Marital Status	Married	58	96.67
	Unmarried	2	3.33
Year of working experience	Below 2 year	10	16.67
	Between 2 and 4 years	20	33.33
	Between 4 and 6 years	18	30
	Above 6 years	12	20
Salary (Rs)	Below 6000	12	20
	Between 6000 and 8000	30	50
	Between 8000 and 10000	14	23.33
	Above 10000	4	6.67

Source: Primary Data, 2018.

Not maintaining personal hygiene

Majority of the respondents have reported that they know very less that unless they maintain personal hygiene it will cause diseases to them. From this response it can be obviously known that they need to be fully aware of the various diseases which arise if they do not maintain their personal hygiene. In context of their nature of work, they need to expose to dust and unclean environment always while cleaning floor, toilets, changing bed covers, transferring patients in the couch and stretcher and giving care to the patients. When handling these work though they wear protective devices, it is compulsorily needed to wash their hands, faces and foots with antiseptic material at the frequent intervals especially before going home, at the same time, they need to wash their hands with antiseptic material before taking their food and it is inevitable to prevent them from infection. When they are interviewed that what the diseases are spreading if they are not maintaining personal hygiene, they could not name even a single disease but they have known disease would affect them generally. This kind of innocence and lack of knowledge about various diseases associated with lack of hygiene clearly indicate that they are in need

of vigorous health education. Moreover, most of the hospitals do not provide them antiseptic materials to wash their hands cleanly after they completed toilet and floor cleaning. When they were asked if hospital provide them antiseptic soap with education as to how and when it should be used, they said they are not given such education. From their response, it is indicated that hospital management should provide them antiseptic materials regularly with education as to how and when to use it and its importance.

Often bending without proper posture

Majority of the respondents have reported that they do not know anything as to what sort of health related issues they will have as they often bend without following proper posture. Their nature of work itself push them to bend very often because they need to bend down to lift garbages, remove other materials existing on the floor, spread bed cover over bed, lift the patients and transfer them to other places and segregating biomedical wastes. As they need to perform these tasks multiple times, if they do not know how to bend their body, it will bring many health related issues such as pain in hip and knee joints,

general body pain and severe neck and back pain. If the same kinds of works are continued without following the way of bending, definitely it will cause degenerative conditions. In most of the hospitals sanitary workers are not given long cleaning equipments to clean and mop the floor and they need to use traditional brooms to clean and mop floor and clean toilets. When sanitary workers need to work with these traditional methods, definitely they will undergo serious health related problems. When sanitary workers were asked what kind of conditions they will get if they often bend without following ergonomics methods, they could not name even a single disease. It simply explains how

far they are behind in terms of their knowledge about health hazards associated with their job. Most of the hospitals do not have lift facility and even if they have they do not allow sanitary workers to use it. In these conditions, they need to fully rely on their physique to perform their tasks and they must bend their body to complete their tasks. So, sanitary workers working in these hospitals are in the strict condition to have health related disorders. Hence, hospital management should change their policy and introduce new technologies to perform their work so that they can use their physique less.

Table 2 Awareness of sanitary workers about causes of hazards associated with their occupation

Factors associated with causes of occupational hazards	I know very much	I know somewhat	Neutral	I know very less	I do not know anything
Not using protective devices (hand gloves, face mask and foot socks, shoes)	0	0	0	18.33	81.67
Lifting heavy weight without following right procedures	0	0	0	5	95
Not maintaining personal hygiene (taking food without washing hands and not cleaning hands after cleaning work and care giving)	0	0	0	66.67	33.33
Often bending without proper posture	0	0	0	6.67	93.33
Not eating on time	0	0	0	30	70
Isolation and not mingling with group	0	0	0	5	95
Long standing without rest	0	0	0	13.33	86.67
Stress and depression	0	0	0	20	80
Exposure to air-condition for prolonged time without precaution (socks for feet, ear)	0	0	0	33.33	66.67
Not taking immunization according to schedule	0	0	0	5	95
Not taking balanced diet	0	0	0	20	80
Not taking regular break and rest	0	0	0	6.67	93.33
Longer working hours and two shift working system	0	0	0	15	85
Heavy workload	0	0	0	66.67	33.33
Leadership style of the superior	0	0	0	5	95
Work life imbalance	0	0	0	5	95

Source: Primary data, 2018

Not eating on time

Majority of the respondents have responded that they do not know anything about various health issues occurring if they do not eat on time. This result indicate strongly that they are in need of health education emphasizing importance of taking food on time and various health issues arising as a result of irregular food. Not eating on time is the serious cause of lot of diseases. It may cause serious stomach related problems such as ulcer, head ache, constipation, diabetes mellitus, weight lose and tiredness. When it persists for longer time, it may cause severe health issues. Some of the hospitals do not give specific fixed time intervals for sanitary workers for taking their food and they take their food when they have free time. This kind of culture of hospitals also is the reason that they cannot take their food on time. Managers also do not give importance for health of sanitary workers and they focus on completing the work without concerning whether sanitary workers had their food or not. Managers should take serious concern over health of sanitary workers and advise them to take their

food on time and enough rest. In such a way, managers should lead their employees since sanitary workers always carry out physical work.

Long standing without rest

Majority of the respondents have strongly agreed that they do not know anything that long standing is the serious cause of their health disorder. Nature of the job of sanitary workers gets them standing for longer hours. Sweeping, mopping and weight lifting are the tasks that must be done with standing posture. No one hospital in Tirunelveli city has introduced any technology to do the tasks such as sweeping, mopping and weight lifting. Very few hospitals have introduced a roller that can be dragged manually to transfer heavy weighted things such as garbage, clothes and other heavy materials. Sanitary workers in almost all hospitals have not been given any separate departments or furniture to rest and thereby they need to hide in some places such as nursing station, under the steps and other departments to sit and rest

for a while. Long standing will affect their health severely and it will bring about severe pain in leg, ankle joint, knee joint and hip joint. Besides, it will bring about back pain and general body tiredness. Prolonged standing work will cause severe health related issues such as varicose vein and degenerative disorders which will in future need surgeries. When they were asked what they know about the health issues occurring as a result of long standing, they said they would feel tired and body pain generally but they were not aware of conditions that will follow. This response of them indicates that they are in need of health education and frequent rest with separate resting place. Managers should allow them to take rest for 20 to 30 minutes once in 3 or 4 hours work in a rotation manner since their work is fully physical oriented and they work for twelve hours.

Isolation and not mingling with group

Majority of the respondents have responded that they did not know anything that how being isolated affect their health. Majority of the sanitary workers in hospitals come from downtrodden community and they have naturally inferiority complex as inborn character because for many generations they have been isolated from general community and refused education and due to this inferiority complex they do not normally mingle with employees of other department and other community employees in their own department. Moreover, employees of other department and other community also do not accept them and like to speak with them and also see them inferiorly. Their life limits with their own department employees only even in the workplace also and it does not help with to widen their knowledge. This kind of isolation approach by other departments and their own inferiority complex keep them live isolated and lonely without able to share their happiness and sorrow with other community employees. This isolation and loneliness get them suffered mentally and affect their health also. If they do not mingle with others and being isolated, they may have unwanted thinking and it will produce stress in them and cause emotional imbalance. Consequently, they will express their emotional imbalance over their colleagues in the workplace and family members in the house. So, in order to flush out their isolation, team spirit should be developed in them by conducting meeting that all employees participate together and express their opinion and views. Entertainment programmes such as games and tour can be arranged that all other department employees should join together. Facilities, such as lunch room, library and gym can be arranged and advice them to eat, read and exercise together in the concerned places. Management should advice all employees that all should work together without showing discrimination in the name of caste, religion and language and also advice employees to respect self esteem of all employees irrespective of department.

Stress and depression

Sanitary workers' work life is full of stress and depression. Their literacy level, thoughts of people about them, leadership style of the superior, absence of job description, longer working hours, two shift working system and heavy workload are some of the causes of stress among them. Stress and depression will produce multiple issues such as diabetes mellitus, hypertension, weight lose, older age appearance, heart problem and even cancer. When sanitary workers were asked if they knew any of effect of stress and depression, they replied that they did not know anything. Their lack of knowledge about impacts of stress and depression is dangerous for their health because they are illiterate and they must know how to cope up with stress and

defend their health themselves. Moreover, managers should be trained that they should treat sanitary workers nicely without getting them undergo stress and management should often give education, stress management training and entertainment programmes as to how to cope up with stress in the work place.

Exposure to air-condition for prolonged time without precautionary materials

Majority of the respondents have indicated that they do not know anything as to what kinds of hazards are associated with if they expose to air-condition for longer period of time without precautionary materials. In hospitals, intensive care unit, operation theatre and cath lab hold air-conditioning facilities always. Among them intensive care unit remain under air-conditioning facilities throughout the day though other departments use air-condition when it is under function. As a result, those who are posted in intensive care unit are of higher chance to expose to air-conditioning. Sometimes, when surgery is held continuously, those who are posted in operation theatre also should expose to heavy cool. Unless they wear suitable materials that protect them from cooling conditions, their health condition would be risk. They must wear shoes, ear mask, hand gloves and face masks to protect them not only from cooling conditions but also from infection because in intensive care unit highly infectious patients also would be admitted. Moreover, it remains important for them to keep their stomach filled because if they are with empty stomach they have more chance of getting infection. Continuous exposure to air-conditioning will cause them to undergo to sinus, ear pain, weight lose and respiratory disorders. When they were asked if they knew any diseases arising out of prolonged exposure to cold conditions, they could not say even a single condition and this indicates that they do not have even any knowledge about hazards of long exposure to cold conditions. They were asked if hospitals are providing any protective materials to prevent from exposing to cooling conditions, they said they are given face mask only when they are going to give care to the patients and they are not given ear masks, shoes, socks, and any other materials. When they were asked if they are given education about what kind of health related impacts they would be affected with and how should they protect them from those conditions, they said they are not given anything. From their response it is understood that they are in need of protective devices and health education and it is indicated that management should provide them compulsorily.

Not taking immunization according to schedule

Most of the respondents have responded that they do not know anything that not taking immunization according to schedule will create health related issues. Thus it can be understood that they are in need of strong health education about the importance of immunization. Sanitary workers are very prone to infections such as Tuberculosis, HIV and AIDS, Tetanus, and other respiratory and skin related disorders since they segregate all kinds of wastes such as anatomical, needles and other medical wastes and they are giving care for the patients such as respiratory and cardiac patients. Few hospitals provide Tetanus Toxoid and Hepatitis B vaccination according to the schedule but many hospitals do not care about these infections and risks they expose to and also do not give them any immunization injections. From their response, it is indicated that they should be given immunization vaccines needed for them according to the time schedule prescribed and they should also be advised to follow protective measures to deal with infected patients.

Not taking balanced diet

Most of the sanitary workers have responded that they do not know anything that if they do not take balanced diet on time. This strong response indicates their lack of awareness about importance of balanced diet and taking food on time. It also indicates that they are in need of rich health education about balanced diet which is mandatory for sanitary workers since they are doing physical nature of work and dealing with infected patients and environment. As almost all sanitary workers come from poor family background and they are illiterate, they do not know about importance of balanced diet and they do not take it due to their poverty. Most of the hospitals have the policy of time frame for sanitary workers and according to this they should come to the hospitals one hour before all other department employees come and this makes them not able to take their breakfast because their mind is fully filled with the thought of going to hospital on time, so they need to rush to the hospital very fast. Once they start the work, they cannot take food until they complete the work fully because they cannot go to take food when garbage collection is in halfway. Thus they miss their breakfast to take on time and in the same way they miss lunch because usually during mid noon time outpatient departments and visit of doctors would be very hectic, so, they cannot take lunch also on time. Thus, as they skip both breakfast and lunch to take on time. Moreover, they leave hospitals very late, almost all hospitals have 12 hours duty system, so they can leave at 8.00 pm. When they will reach home at 9.00 pm and if they need to take bus and travel home they will reach beyond 9.00 pm. As all sanitary workers are poor they cannot have housemaid to help them in the house and hence they have to cook food after they reach home. In very few sanitary workers' house their children would help them in preparing food. Thus, they would take their dinner also unusually late. In order to protect their health, management can offer food in the morning and lunch in discounted rate, so that they do not need to worry about their breakfast and lunch. If the hospitals do not provide food in their canteen, they should be given fixed time interval like how much time interval is given for lunch for other employees. Furthermore, managers should take care of health of the sanitary workers very well and advise them to take their food on time by permitting them to swap the work with their colleagues. Moreover, they should be educated about importance of balanced diet and taking food on time and what are the health issues if food is missed to take on time.

Not taking regular break and rest

Majority of the respondents have replied that they do not know anything about the impact occurring to their health if they do not take break regularly. From this response, it could be known that sanitary workers must know how regular break will help to their body. Lack of manpower due to absence or vacancy in housekeeping department is the commonly seen factor in almost all hospitals because now a day it remains challenges for hospitals to get sanitary workers. Few people who can adjust with culture of hospital sustain in the hospital continue their work and majority of the sanitary workers leave the hospital work since in hospitals they have too much work load and their nature of job comprises of not only cleaning and mopping floor and rooms but also cleaning urine and motion of the patients. So, people usually hesitate to come to the hospital work and absent rate remains very high because of illiteracy rate and immediate income that they can get if they go to the work outside. Due to these absent rate and lack of manpower, all work in the hospital is needed to be done by

existing employees, so they cannot take interval during the course of their work. Except lunch time they cannot take any rest in most of the hospitals especially multi-speciality hospitals. Absence of both job description and separate rest room for them are the principal reason for their continuous work and it makes all other departmental workers to assign them work continuously. This kind of work assignment and poor welfare facilities such as rest room should be changed in the hospital and they also should be given job description and rest room as same as other departmental workers. Moreover, the managers of housekeeping department should advise the sanitary workers to take break for 10 to 15 minutes once in two or three hours realizing their physical nature of work.

Longer working hours and two shift working system

Majority of the respondents have known less that long working hours is the primary factor affecting their health seriously. 12 hours duty and 2 shift rotating shift are common in almost all hospitals in Tirunelveli city. Naturally when employees work for 12 hours their workload increase undoubtedly and when that 12 hours duty is fully comprised of physical work it is needless to say how it would affect health of the employees. Long working hours which is associated with two shift system is producing huge health disorder such as undue tiredness, fatigue, sleeplessness, diabetes mellitus because of too much tension and stress and body pain. When sanitary workers were asked if they knew any of the symptoms that arise out of long working hours they could answer tiredness only and they could not name any other symptoms. Most of the hospitals are too rigid with their working hours and even some hospitals reduce salary of the employees if they come late more than 3 days and this kind of approach of the hospitals makes employees disappointed, stressed and depressed which will further affect them mentally. Naturally when working hours is too long workload also would be heavy and too much workload continue with long working hours it will definitely affect health condition of the employee. So, when management follows strict policy with regard to working hours and work shift, they should equally follow some flexibility to neutralize long work hours in such a way that adequate rest in between works and free food or food on discount and they should be educated how to relax themselves to cope up with long work hours.

Heavy workload

Majority of the respondents have reported that they know little that heavy workload is the factor causing hazard to their health. When they were asked if they know how heavy workload affects them, they said would cause tiredness. They could not name any other conditions which are associated with heavy workload. Heavy workload allocated to sanitary workers would not only cause tiredness but also it will cause many health related issues such as joint pain, back pain, body pain, degenerative disorder, stress, weight loss and diabetes mellitus because of stress and respiratory disorders. Sanitary workers did not have any knowledge that these would occur if heavy workload is assigned for longer period. Heavy workload is majorly associated with lack of manpower and working hours and as these are remaining as strong conditions in majority of the hospitals, it is seen that sanitary workers are under the conditions of heavy workload. Since sanitary workers' nature of work is physical oriented, when heavy workload is persisting for longer period it would be the biggest hazard among sanitary workers. Most of the hospitals do not allow sanitary workers

to use lift facilities even to carry garbages and this kind of rules increase their workload. In order to neutralize work, management should recruit adequate number of sanitary workers according to number of bed in the hospital and they should be given adequate rest and nutritious food at free of cost or on discount rate. Managers should deal with sanitary workers in a nice way by giving them adequate rest in between course of work. Moreover, management should introduce technologies such as machineries to replace their work to reduce their work burden.

Leadership style of the superior

Majority of the respondents have responded that they do not know anything that leadership style of the superior is the hazardous factor to their mental health. From this response it could be understood that they are very submissive in nature and they have attitude of doing the work without denial when manager assign work. But leadership quality and style of the manager decide happiness, satisfaction, commitment and morale of the employees. Manager should lead the department without bias and using motivation as a tool. But most of the managers appointed to housekeeping department are not qualified professionally and hence most of them do not know how to handle sanitary workers. As a result, they show bias in workload allocation, work place allocation, salary increment, incentives, permission and leave and they in turn affect their both physical and mental health. When this kind of approach lasts for longer time it will affect their mental health severely which will worsen their physical condition also.

Work life imbalance

Majority of the respondents have reported that they do not know anything that work life imbalance is the occupational hazard affecting their mental health. When they were asked how they are balancing both their work and family life equally without affecting one another, they could not answer rightly. It indicates that they are suffering without knowing how to balance both lives equally. Since, in the study area, 12 hours duty is being followed and sanitary workers are under heavy workload, definitely they would be under stress and emotionally imbalanced which are the primary causes of poor health. Their illiteracy does not give them knowledge how to forget workplace issues in the workplace itself and leave home issues in the home itself. They may express their anger and pain over their life partner and children that will further cause stress and affect happiness in family life and disturb their sleeping. The persistence of this condition would cause diabetes mellitus, weight loss and hypertension. Most of the sanitary workers after 45 years are suffered with either diabetes mellitus or hypertension or both. Life partner of the most of the sanitary workers are addicted to alcohol and their illiteracy does not give them knowledge how to manage finance and thereby most of the sanitary workers are in debt and all these factors affect their family life. So, naturally they will express their stress and depression in the workplace in the form of either quarrel with their coworkers and superiors which will affect their work or stay lonely in a separate place which will affect their mental health badly. In order to rectify these issues and get productive work from sanitary workers they should be given education and training regularly how to balance both work and family life emphasizing how imbalance of these lives affect their health, family happiness and their work productivity. The education given to them should include stress management, anger management and self motivation techniques so that they can manage themselves.

Suggestion and conclusion

Suggestions

- a) Based on findings of the study, the following suggestions are given to enrich awareness level of the sanitary workers and minimize hazards associated with their work.
- b) At frequent intervals, sanitary workers should be educated about various hazards associated with their profession and diseases occurring as a consequence of those hazards and how to protect them from those hazards by displaying videos, pictures and other suitable Medias that will make them understood simply. Required protective devices such as hand gloves, face mask, food socks, shoes, ear closure, and other material which are essentially required and capable of protecting them from hazards must be provided along with explanation as to how to use them and how those devices prevent hazards.
- c) Health education with regard to importance of taking diet food and eating on right time and importance of adequate rest and how it prepares body for next level work should be given with right. They should also be educated about the ill effects caused if food is not taken on time. Besides, ergonomics training should be given with regard to lifting materials, bending and climbing steps with weights over head and shoulder. Health education should also be extended about how to maintain personal hygiene along with its impacts on health. Health education should also focus on ill effects caused if personal hygiene is not maintained.
- d) Enough breaks should be given for sanitary workers since they are working for 12 hours and physical work. Housekeeping managers should permit sanitary workers to take rest for 10 to 15 minutes once in one or two hours with mutual cooperation and understanding with their coworkers and, at the same time, without affecting their routine work. This kind of approach and care shown by the housekeeping managers will benefit the sanitary workers to enhance their commitment towards organization.
- e) Educationally and professionally qualified managers who have high value, positive attitude and strong communication and are emotionally stable and self motivator should be recruited to housekeeping department. Their leadership style and qualities should be monitored continually and when deviation or deficiency is noticed in their approach with sanitary workers they should be given leadership training. Housekeeping managers also themselves show interest and take effort to develop their leadership qualities as to how to get work from sanitary workers smoothly by motivating them soundly. As part of the work, housekeeping managers should pay much attention in allocation of work area and workload without bias. Health status of the sanitary workers should be assessed and their area of interest should be given preference before work schedule is prepared.
- f) Entertainment programme can be organized for sanitary workers with frequent interval for their relaxation and motivation. Moreover, outside tour and stress relieving programmes such as yoga in a fixed interval so as to both relax their body from heavy workload and distract their mind from work life should be organized. Furthermore, sanitary workers should also be taught as to how to balance their work life and family life equally without affecting one another because they devote 12 hours in the hospital work and in addition to that they spare their lot of

time for travelling; consequently, their valuable time to spend with their family is less. So, they should be educated as to how to balance their work life and family life equally.

Limitations of the study

The present research is confined to Tirunelveli city only and has not covered the entire District. Sanitary workers working with private multi-specialty hospitals have been focused in this research and sanitary workers working in government hospitals, private single specialty hospitals and other health care sectors such as diagnostic centers and clinics have not been covered. Moreover, the other nonmedical category of employees working in the hospitals such as maintenance workers, receptionists, security guards and canteen workers have not been covered. Similarly, paramedical category of employees such as nurses, pharmacists, radiographers and medical laboratory technicians have not been studied in this research. Furthermore, this present research has sampled only 60 sanitary workers using non-probability sampling called convenience sampling technique and it has not used probability sampling technique. These are the limitations of this present research and as a result of these limitations, it should be cautious to generalize result of this present research into the entire district, other category of employees and other category of organizations.

Directions for future research

This present research will serve as a rich source for future research scholars to begin their research. The future researchers can extend the same research into the whole district with large sample size. The research as to how far awareness level exist among sanitary workers working with single speciality hospitals, government hospitals and diagnostic centers about causes of occupational hazards can be undertaken. Moreover, it can also be studied as to how far awareness level of the sanitary workers differ among the sanitary workers working with different kinds of hospitals. Other category of workers who are more susceptible to exposure of occupational hazards such as nurses, radiographers, medical laboratory technicians, maintenance workers and canteen workers can be studied to know how much awareness level they have about causes of occupational hazards.

Conclusion

This empirical, quantitative and survey based descriptive research undertaken in Tirunelveli city, Tamilnadu, India revealed perception of awareness of sanitary workers working in private multi-speciality hospitals towards causes of various hazards associated with their occupation. In order to achieve this objective, the study sampled 60 sanitary workers using convenience sampling technique and collected primary data from them using schedule method of data collection. The secondary data were collected from journals and websites. The result of this research analyzed using percentage method revealed that majority of the sanitary workers had not known anything about various hazards arising as a result of lack of protective devices, weight lifting, improper personal hygiene, imbalanced diet, body bending, long standing, stress, absence of immunization, inadequate rest, long working hours, heavy workload, autocratic leadership style of the superior and work life imbalance. Since there is vast scarcity for sanitary workers and their role also play a vital role in maintaining hygienic environment of the hospitals and also their work cannot be replaced by other category of workers, it remains essential task for hospital management to make work environment and working

condition in a better position to ensure their sound health. So, the hospital management should take major responsibility in exploring the various causes of hazards associated with their job and eliminating those hazards and thereby protecting health of sanitary workers. Similarly, sanitary workers also should take equal responsibility to know causes and impact of the various hazards associated with their occupation and how to protect them themselves from those hazards. Thus, safeguarding the employees from occupational hazards and thereby ensuring sound health of the employees is responsibilities of both hospital management and employees, hence, both of them should take equal effort.

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Conflicts of interest

The author declares that there are no conflicts of interest.

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