

## Original Research Article

# Awareness on Kayakalp among health care workers in a tertiary care hospital, Imphal

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### ABSTRACT

**Background:** Kayakalp launched on May 15, 2015 by Government of India, is an initiative to improve cleanliness, hygiene and sanitation of public health facilities by awarding prizes. Awareness among HCWs of an institute can play a vital role in proper implementation of Kayakalp scheme. The study was aimed to assess the knowledge regarding Kayakalp among health care workers.

**Methods:** A cross sectional study was conducted in a tertiary care hospital, Imphal. The study was conducted from September to October, 2019 among key health care workers. Data was collected using an interview schedule. Data were entered in IBM SPSS 21.0 and descriptive statistics were used.

**Results:** Out of 103 participants, majority (64.2%) were nurses, 18.4% were doctors, and 17.4% were laboratory technicians and others. Majority participants (82%) were female and 56% of the participants had been oriented on hospital cleanliness in the past. Majority (91%) of the participants lacked awareness about Kayakalp and its guidelines.

**Conclusions:** In spite of orientation, awareness about Kayakalp among health care workers were found to be inadequate. Periodic training or re-orientation among health care workers is recommended.

**Keywords:** Kayakalp, Public health facilities, HCWs

### INTRODUCTION

Kayakalp is an initiative by Government of India, to improve cleanliness, hygiene and sanitation of public health facilities by recognizing and giving awards to those who exhibit high level of cleanliness, hygiene and infection control. It was launched on May 15, 2015 as an extension of Swachh Bharat Abhiyan (SBA).<sup>1,2</sup> The term "Kayakalp" is derived from the Sanskrit words, 'kayas' meaning 'body' and 'kalpa' meaning 'transformation' or 'reborn' or 'rejuvenation'. There are seven themes under the Kayakalp: Hospital upkeep, Sanitation and hygiene, Waste management, Infection control, Support services, Hygiene promotion and Feedback mechanism. Assessment for Kayakalp is done under four broad headings; assessment components (thematic area, criteria and check point), types of assessment (internal, peer,

external), assessment methods (observation, staff interview, record review and patient interview) and scoring system (full compliance, partial compliances and non-compliances).<sup>1,2</sup> At least 70% score is needed to qualify for commendation in Kayakalp award. Award scheme for tertiary care hospital is Rs. 3 crores for winner, Rs. 1.5 crore for runner up and Rs. 50 lakhs for commendation prize.<sup>1,2</sup> Proper knowledge about Kayakalp and its guidelines among health care workers is very important to implement the scheme successfully in hospital. Inadequate knowledge may indicate poor performance on the part of the health care workers in providing quality health care as well as maintaining cleanliness in the hospital. Moreover, there is limited study regarding knowledge about Kayakalp. Hence, it is imperative to determine the level of knowledge about Kayakalp among health care workers in this tertiary care teaching hospital.

## METHODS

A cross sectional study was conducted at a tertiary care hospital during September and October, 2019 among healthcare workers, including heads of departments and unit heads of the hospital ward, nursing superintendent, ward in-charges, one nurse from each ward, laboratory technician, and members of Kayakalp award scheme committee and ‘Swachhta Action Plan’ of the institute. Those who were unwilling, out of station and could not be contacted even after two visits were excluded from the study. Data were collected with an interview schedule which consisted of three parts- A) background characteristics B) knowledge questions on Kayakalp (14 questions) C) attitude questions related to hospital cleanliness (10 statements). In knowledge questions for each correct answer, a score of ‘2’; partially correct answer a score of ‘1’ and for wrong answer a score of ‘0’ was given. Adequate knowledge was defined when any participants who scored above 50% of total obtainable score. Attitude scoring was done using 3 (three) point Likert scale where scores were given for ‘agree/yes’ was 3, ‘no comments/no idea’ was 2 and ‘disagree/no’ was 1 and reverse scoring was done for 2 (two) statements. A score above the 75<sup>th</sup> percentile was considered as positive attitude. After obtaining prior appointment, a face to face interview was taken in a separate room in their respective offices or wards without disrupting patient care and other health service activities. Participants were informed about the purpose of the study and verbal consent was taken from each participant. To maintain confidentiality, the study did not record participants name and questionnaires were kept in a sealed envelope after completing interview and checking for completeness.

Data were entered and analysed by using IBM SPSS version 21.0 for Windows (IBM Inc. Armonk, New York, USA). Descriptive statistics like frequency, mean and percentages was used to summarise the data. Approval was obtained from the Research Ethics Board of the institute before the beginning of the study (A/206/REB/Prop(SP)/97/73/2019).

## RESULTS

In the study, 103 (93%) out of the eligible 112 staffs responded. Among the participants, 84 (81.6%) were females. Mean age of the participants was 48.7±9.2 years (range 27 to 68 years). Median duration of services of the participants was 22 years (range 2 to 44 years). Among the participants, 65 (63.1%) participants had received training on Kayakalp and hospital cleanliness. Among the respondents, 66 (64.2%) were nurses, 19 (18.4%) were doctors and 9 (8.7%) were laboratory technicians (Table 1). Out of 103 participants, 93 (90%) were aware of Kayakalp. Maximum knowledge score was found on the question of launching year of Kayakalp i.e. 18 (19%) and least knowledge score was seen in the domain of hygiene promotion and sanitation and hygiene (Table 2). Only 8 (8.6%) participants had adequate knowledge on Kayakalp

and its basic guidelines. Majority of the participants gave wrong responses to all knowledge questions of Kayakalp. Almost all of the participants (97.4%) had positive attitude about cleanliness in the hospital premises (Table 3).

**Table 1: Background characteristics of the participants (n=103).**

Characteristic	Frequency	Percentage
<b>Age in completed years (mean±SD)</b>	48.75	9.2
<b>Gender</b>		
Male	19	18.4
Female	84	81.6
<b>Profession</b>		
Doctors	19	18.4
Nurse	66	64.2
Lab technician	9	8.7
Others*	9	8.7
<b>Duration of services (year)</b>		
>20	59	57.3
≤20	44	42.7
<b>Training on cleanliness/Kayakalp</b>		
Yes	65	63.1
No	38	36.9

\*others include (In-charge of CRED, Store, CSSD, Pharmacist, Laundry)

**Table 2: Response to knowledge questions on Kayakalp (n=93).**

Knowledge questions	Response		
	Correct N (%)	Partially correct N (%)	Wrong N (%)
<b>Kayakalp concept</b>	8 (8.6)	85 (91.4)	0 (0)
<b>Launching year</b>	18 (19.0)	0 (0)	75 (81.0)
<b>Themes/domains</b>	7 (7.6)	40 (43.0)	46 (49.4)
<b>Types of assessment</b>	2 (2.0)	4 (4.3)	87 (93.7)
<b>Assessment methods</b>	3 (3.2)	19 (20.0)	71 (76.8)
<b>Qualifying score</b>	10 (10.6)	4 (4.4)	79 (85.0)
<b>Compliance/scoring</b>	4 (4.3)	2 (2.1)	87 (93.6)
<b>Prize amount for award</b>	9 (9.7)	11 (11.9)	73 (78.4)
<b>Components/categories</b>	3 (3.2)	7 (7.5)	83 (89.3)
<b>5 ‘S’ in hospital upkeep</b>	4 (4.4)	10 (10.6)	79 (85.0)
<b>Support services</b>	1 (1.2)	5 (5.3)	87 (93.5)
<b>Infection control</b>	2 (2.3)	9 (9.7)	82 (88.0)
<b>Hygiene promotion</b>	0 (0)	2 (2.3)	91 (97.7)
<b>Sanitation and hygiene</b>	0 (0)	21 (22.5)	72 (77.5)

## DISCUSSION

This study revealed that majority (91.4%) of the health care workers of the Institute had inadequate knowledge on Kayakalp. Awareness depends on people’s interest and continuous enforcement from the authority, particularly if

it is a new scheme or program. Kayakalp is a relatively newer scheme of the Government and the reasons for the poor knowledge about it among health care workers could be due to lack of interest, improper training and poor managerial functions of the institute. The studies conducted by Anand et al and Paramjyothi et al demonstrated that knowledge about biomedical waste management and Swachh Bharat Abhiyan among health care workers were much higher.<sup>3,4</sup> A community-based

study conducted in Uttar Pradesh and Madhya Pradesh in the year 2015 reported that 24% of the people were aware of Swachh Bharat Abhiyan.<sup>5</sup> There is limited study conducted in relation to Kayakalp and its knowledge which makes comparison difficult. Most of the studies focused on assessment of cleanliness and infection control practices and quality assurance in health care centres using the Kayakalp tool.<sup>6-12</sup>

**Table 3: Response to attitude statements related to hospital cleanliness (N=103).**

Attitude statements	Yes/agree (%)	Don't know/no idea (%)	No/disagree (%)
<b>I am willing to take part in any program or training activity related to hospital cleanliness</b>	97.8	2.2	0.0
<b>Cleanliness and hygiene in hospital are important for preventing infections</b>	100.0	0.0	0.0
<b>Cleanliness and hygiene in hospital will provide patients and visitors with a positive experience</b>	98.9	1.1	0.0
<b>Public healthcare facility should promote cleanliness, hygiene and infection control practices</b>	98.9	1.1	0.0
<b>Public healthcare facilities that show good performance in adhering to standard protocols should be recognized and incentivised</b>	97.8	1.1	1.1
<b>Cleanliness and hygiene in hospital will encourage/help patients/public in developing behaviour related to clean environment</b>	100.0	0.0	0.0
<b>It is not essential to ensure adherence to infection control practices at all level in a hospital</b>	5.6	4.4	90.0
<b>A culture of ongoing assessment related to cleanliness, hygiene and sanitation should be developed</b>	95.6	1.1	3.3
<b>IEC materials in hospital premises does not have any role in quality health care service delivery</b>	94.5	1.1	4.4
<b>Only the authority (director/MS/committee) is responsible for maintaining cleanliness and hygiene in the hospital</b>	1.1	0.0	98.9

The attitude among the participants regarding hospital cleanliness was good with 97.4% of the participants showing positive attitude which is similar to the study conducted by Anand et al where the health personnel had good attitude regarding BMW management.<sup>3</sup>

The majority of the participants were nurses (64.2%) which could explain majority of the participants being female (81.6%). This is probably the first study to assess knowledge on Kayakalp among healthcare workers in Manipur. However, the findings might not be generalizable to healthcare workers in non-tertiary healthcare settings.

## CONCLUSION

It is concluded that even though majority of the participants had positive attitude regarding hospital cleanliness but they did not have adequate knowledge on Kayakalp. 1/3<sup>rd</sup> of the participants were not trained on Kayakalp. There is a need of periodic orientation of all health care workers of the Institute. Qualitative studies can be conducted to explore the factors related to

inadequate knowledge on Kayakalp amongst the health care workers of the Institute.

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