

A Study on Facility (Hospital) Upkeep, Hygiene Promotion and Support Services at Primary Health Centers of Western Gujarat: Assessment of Performance Parameters by Using Kayakalp Tool

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Abstract:

Introduction: Primary Health Centre (PHC) is the cornerstone of preventive and promotive health care. Thus services provided at PHCs should be quality care and adequate care. To promote the same, GOI has started award giving based on performance of health facility under different themes. The present study was intended to have insight of the implementation status of swachhta guidelines (Kayakalp). **Objective:** To assess the Facility upkeep, Support services and Hygiene promotion at Primary Health centers of western Gujarat. **Method:** The cross sectional study carried out in 33 PHCs (universal sample) of Jamnagar district from 2017 to 2018. The assessment were done for following three categories: 1. Thematic Area 2. Criteria 3. Checkpoint. Under this study three thematic areas (from total 6), Hospital/Facility Upkeep, Support Services and Hygiene Promotion were covered. The data were obtained in present study in the terms of score for each variable. The score divided into up to 50%, 50%-70% and more than 70% then it was compared with different criterion under each theme and data were entered in Microsoft Excel version 2007. Data collection was done through Staff interview, Observations, patient Interview, Record review. Ethical clearance was taken from Institutional ethical committee before commencement of the study. **Results:** For criterion ; Maintenance of Open Areas, Facility Appearance, Infrastructure Maintenance, Illumination, water sanitation, pharmacy store, outreach services majority of health facilities obtained score >70%, whereas for Water conservation, pest & animal control, Laundry Services and Linen Management, Security services it was around 50%. Community Monitoring & Patient Participation & Information Education and Communication was observed average as per the criteria used. **Conclusion:** Half of the health facilities performed satisfactorily in work place management. Involvement of Local community and organization in monitoring and promoting cleanliness. poor performance was seen regarding water conservation like maintenance of Water supply system, the preventive measures which were taken to reduce wastage.

Key words: Facility upkeep, Quality of care, Health facilities

Introduction:

After the launch of “SWACHH BHARAT ABHIYAN (SBA)” on 2nd October 2014, “KAYAKALP” initiative was launched by the Ministry of Health & Family Welfare on 15th May 2015 to complement these efforts.^[1]

Primary Health Centre (PHC) is the cornerstone of rural health services, a first port of call to a qualified doctor of the public sector in rural areas for the sick

and those who directly report or referred from Sub-Centers for curative, preventive and promotive health care. Standards are the main driver for continuous improvements in quality.

Design characteristics of the hospital such as lighting, ventilation, supportive workplaces, proper layout, and maintenance of the exteriors and interiors can help to reduce errors and stress, and improve outcomes. Activities which are directed for proper

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maintenance of hospital upkeep enable health facilities to carry out the functions in a safe and secure environment.^[1]

Support services in the hospital play a major role in ensuring that they provide the defined services in an efficient manner and also enable the other staff of the hospital to carry on the activities which are required for patient care delivery. An engaged and integrated support service team has significant effect on hospital services which allows patients to heal quicker, promotes a safer environment, and improves the satisfaction of staff, patients, and families. The contributions made by support service personnel in today's hospitals have become a crucial component to the organisation's success.^[1]

Hospitals being an integral part of society, as social and medical organizations, provide plentiful opportunities for healthcare workers to interact with representatives from different sections of society in the form of patients, their attendants and visitors. Hence, health facilities are most suited for hygiene promotion and can play a pivotal role in hygiene promotion. Improving access to safe water and sanitation facilities leads to healthier families and communities. However, when people are also motivated to practice good hygiene, health benefits of the community are significantly increased. This could be through hand washing practices, cleaning practices, safe waste disposal methods and other good practices regarding hygiene and sanitation. The goal of hygiene promotion is to help people understand and develop good hygiene practices, so as to prevent diseases and promote positive attitudes towards cleanliness. Several community development activities can be used to achieve this goal, including education and learning programmes, encouraging community management of environmental health facilities, and social mobilisation and organisation. Hygiene promotion is not simply a matter of providing information. It is more a dialogue with communities about hygiene and related health problems to encourage and improved hygiene practices.^[1]

Thus services provided at PHCs should be quality care and adequate care. To promote the same, GOI has started award giving based on performance of health facility under different themes under Kayakalp skim. Thus in present study was conducted to assess the 3

themes named Facility upkeep, Support services and Hygiene promotion at Primary Health centers of Jamnagar district, Gujarat.

Method:

It was a cross sectional study conducted at primary health centers of western Gujarat during 2017 to 2018, to evaluate health facilities in accordance with swachhta guidelines; drafted by Ministry of Health and Family Welfare, Government of India. There are 33 PHCs in study district. All PHCs were included in the study, thus universal sample of study district was undertaken. The study protocol was reviewed and ethical clearance was obtained from the Institutional Ethical Committee. Kayakalp is the major tool of the study to assess the PHCs in study district and in accordance with the available facilities prescribed by Ministry of Health and Family welfare, Government of India. All requirements of the assessment are arranged systematically at following three categories: 1. Thematic Area 2. Criteria 3. Checkpoint. (Reference) Under this study three thematic area such as Hospital/Facility Upkeep, Support Services and Hygiene Promotion were covered. The data were obtained in present study in the terms of score for each variable.^[2] The score divided into up to 50%, 50%-70% and more than 70% then it was compared with different criterion.^[2] under each theme. First theme was (A) Hospital/Facility Up keep and under which 10 criteria's were there, namely (A1) Pest & Animal Control, (A2) Landscaping & Gardening (A3) Maintenance of Open Areas (A4) Facility Appearance (A5) Infrastructure Maintenance (A6) Illumination (A7) Maintenance of Furniture & Fixture (A8) Removal of Junk Material (A9) Water Conservation (A10) Work Place Management. Second theme was (B) Hospital Support Services, under which 5 criteria namely (B1) Laundry Services and Linen Management(B2) Water Sanitation (B3) Kitchen Services(B4) Security Services (B5) Outsourced Services Management and third theme (C) Hygiene Promotion under which 5 criteria namely (C1) Community Monitoring & Patient Participation (C2) Information Education and Communication (C3) Leadership and Team work(C4) Training and Capacity Building(C5) Staff Hygiene and Dress Code.

The data were collected by principal investigator, using four assessment methods 1. Observations (OB):

Where information was gathered through direct observation e.g. Level of Cleanliness, Display of Protocols, Landscaping, Signage etc. 2. Staff Interview (SI): Information was gathered by interacting the concerned staff to understand the current practices, competency, etc. such as steps in hand washing, method to clean floor, wearing gloves. 3. Record Review (RR): Where information was extracted from the records available at the facility. Few examples are availability of filled-in Housekeeping checklist, culture report for microbial surveillance, minutes of meeting of infection control committee. 4. Patient Interview (PI): Some information was gathered by interacting

the patients or their attendants e.g. counselling of patients on hygiene. Before data collection piloting was done. The principal investigator underwent training for data collection in the Institute itself & independently collected data from all the health facilities. Data were entered and analyzed by using Microsoft excel. The data obtained in present study were in the terms of score for each variable. The score divided into up to 50%, 50%-70% and more than 70% then it was compared with different criterion under each theme, frequency of respective categories are mentioned.^[2]

Table 1: Distribution of PHCs according to Hospital/Facility Upkeep (N=33)

Criterion	% Score	<=50%	50-70%	>70%
A1 Pest & Animal Control		15	7	11
A2 Landscaping & Gardening		10	7	16
A3 Maintenance of Open Areas		4	6	23
A4 Facility Appearance		8	3	22
A5 Infrastructure Maintenance		5	4	24
A6 Illumination		6	4	23
A7 Maintenance of Furniture & Fixture		8	1	24
A8 Removal of Junk Material		12	5	16
A9 Water Conservation		15	8	10
A10 Work Place Management		10	6	17

Results:

Majority of the PHCs, scored less than 70% in pest & animal control under this heading presence of stray animals in PHC premises, cattle trap at entrance, measures for pest control, measure for mosquito free environment like usage of mosquito nets by patients, availability of mosquito net, wire mesh in windows, water collection in PHC premises were checked. Sixteen PHCs have scored more than 70% in landscaping and gardening. Open areas were well maintained in most PHCs. Hospital appearance criteria like well plastered building, facility name display at entrance, absence of outdated posters were fulfilled by majority of PHCs. Infrastructure is well maintained and illumination was also adequate at

utmost PHCs. Patient beds, mattresses, furniture at nursing station and offices also up to the mark in 24 health facility. Half of the facility scored less than 70% in junk material management. Out of 33 health facility 15 were not having adequate water conservation policy. Staff periodically sorting useful and unnecessary items at work station, arranging useful articles in systematic manner and work stations were found clean in most facility.

Laundry Services and Linen Management was adequate in 12 PHCs. Water Sanitation and pharmacy store management was satisfactory in majority of the PHCs. For security services almost 80% PHCs scored less than 50%. Outreach services were acceptable in about 70% PHCs as they scored more than 70% for

that particular variable.

Under the theme of hygiene promotion patient participation was found adequate in 15 PHCs. IEC and Team work was satisfactory in 14 PHCs. In majority of PHCs Training and Capacity Building was sufficient but under the criterion of Staff Hygiene and Dress Code high number of PHCs have shown Inadequate score.

Discussion:

Control measures of stray animals e.g. cattle traps were not available in many health facilities. Prevention of entry of stray animals is necessary to prevent animal bites and harms to patients. Pest control and mosquito control measures were not effectively implemented. Effective implementation of insect control measures can set an example in community for same practice at their home. Only 28.57% health facilities have scored more than 70% in pest and animal control. The annual estimated number of dog bites in India is 17.4 million, leading to estimated 18,000-20,000 cases of human rabies per year.^[3] As rabies is not a notifiable disease in India and most deaths occur in rural areas where surveillance is

poor, it is widely believed that this figure may be an underestimate.^[4]

Maintenance of Front area, Parks, Open spaces, Internal Roads, Pathways, Herbal Garden was found good in about half of the health facilities and about one third health facilities were worst performing. Only 47.62% health facilities have scored more than 70% in landscaping and gardening. Good surrounding of health facilities improve aesthetic look as well as give pleasure to staff and patients.

Abandoned/dilapidated building and water logging was not found within the premises in more than two third of the health facilities. Around 66.67% health facilities have scored more than 70% in maintenance of open area. Water logging in health facility premises will lead to mosquito breeding sites and it may further increase the cross transmission of vector born disease among patients. Each species of vector has characteristic climatic requirements and

Vector competence for a given biotype of parasite.^[5-8] This flags the need to keep each element of the disease triangle (Figure 1) in mind because the

Table 2: Distribution of PHCs according to Support Services (N=33)

% Score Criterion	<=50%	50-70%	>70%
B1 Laundry Services and Linen Management	13	8	12
B2 Water Sanitation	5	3	25
B3 Pharmacy and store	7	8	18
B4 Security Services	27	2	4
B5 Outreach services	6	4	23

Table 3: Distribution of PHCs according to Hygiene Promotion (N=33)

% Score Criterion	<=50%	50-70%	>70%
C1 Community Monitoring & Patient Participation	13	5	15
C2 Information Education and Communication	16	3	14
C3 Leadership and Team work	13	6	14
C4 Training and Capacity Building	3	11	19
C5 Staff Hygiene and Dress Code	18	5	10

climatic requirements of each vector-pathogen combination needs be taken into account in order to develop a realistic measure of risk.^[8-10]

Similarly name of the health facility and signage were prominently displayed at appropriate places and walls were well plastered and painted in more than two third health facilities. Almost 71.43% health facilities have scored more than 70% in hospital appearance criteria. Good signage system is crucial for health facility visitor for way finding as well as this will be a time saver for patients and maintain the flux in health centre.

Around two third of health facilities have well maintained the Infrastructure, they have intact boundary wall and functional gates and adequate facility for parking of vehicles. Score in infrastructure maintenance was found more than 70% in 76.19% health facilities. The similar findings were correlated for the Kayakalp India data.^[11]

All junk material stored in the hospital poses a potential fire risk and can lead to accumulation of pests in these areas. Policy regarding junk material and separate space for junk was not found adequate in more than half health facilities Only 26.19% health facilities have scored more than 70% in water conservation criteria. Salih H.M. Aljabre said having a policy and a set of procedures that regulate the handling of healthcare waste is essential for the implementation of an effective plan of management. The policy and procedure ought to take into consideration the peculiar setting of the hospital.^[12]

Criteria regarding Stock (including reserve) of Linen, cleanliness and changing frequency of Bed-sheets and pillow Cover have low score. Scores regarding water sanitation and outreach services were favourable. Security services of hospitals are of cardinal component, being public dealing organisations PHCs are visited by hundreds of people every day. It is very difficult to anticipate the surly intentions of antisocial elements. It is also not easy to check visitors without offending their sentiments. A study by Darasingh et al. found Thirty four Percent of blanket covers were culture positive for pseudomonas (16.7%) and aerobic spores (17.3%). Surgeon gown (20%) and patient's suit (20%) showed positive culture for aerobic spores and Klebsiella respectively.^[13] Collins et al, 1987, suggested that total counts on finished linen should not exceed one organism per

10cm² on a regular basis. Similarly Walter and Schillinger^[14] proposed that bacterial counts on processed linen of < 20 colony forming units /100 cm² are equivalent to complete pathogen removal, and Christian et al^[15] suggested that 10⁶ – 10⁷ reductions in viable bacteria would be effective in reducing risk of infection. However, at present no standards for maximum safe bacterial level exist.^[16]

Around 40.48% health facilities have scored higher score in community monitoring and patient participation. Collective efforts for promoting the overall hygiene in hospital increase the accountability of society and staff in maintaining and promoting the cleanliness drive.

IEC regarding importance of maintaining hand hygiene, Swachhta Abhiyaan and use of toilets was not displayed in more than half of the health facilities. Score was more than 70% in 35.71% health facilities. IEC activities can provide people with the opportunity to develop their personal knowledge, skills and confidence and to reconsider their attitudes, beliefs and behaviour. It can increase awareness, provide information, persuade and motivate people to change behaviour. Score regarding Training and Capacity Building and Standardization was good in about half of the health facilities but Leadership and Team work score was found average or below average in more than half of the health facilities.

When all the criteria regarding Hygiene Promotion were combined, it is found that slightly more than one third of health facilities were scored satisfactorily. Only 42.42% PHCs and 33.33% PHCs have scored more than 70% score. Through hygiene promotion people can understand and develop good hygiene practices, so as to prevent diseases and promote positive attitudes towards cleanliness. In a study by Arogya foundation Jharkhand, It was observed that during the organization of activities in the school, poster and chart developed by AFI were displayed to convey the message on health and hygiene. So far as the students are concerned, considerable change in hygiene practice was observed. Hand washes after use of toilet and before meal was found in practice among 98.8% of the student respondents. Behavioral changes related to personal hygiene was observed and 79% of the respondents were found habitual in nail cutting etc. 98.8% of the student respondents were found accustomed with use of toilet.^[17]

Conclusion:

Very poor performance was seen regarding water conservation like maintenance of water supply system, the preventive measures which were taken to reduce wastage and improve reuse of water and functional rain water harvesting system. Proper work place management optimizes the use of work place resources, minimizes risks, and increases productivity of employees. Half of the health facilities performed satisfactorily in work place management. Inefficient handling or processing of linen can present an infection risk both to staff and patients who subsequently use it. Scores regarding Pharmacy and store was average in health facilities. Involvement of Local community and organization in monitoring and promoting cleanliness, Patients Awareness about their responsibility of keeping the health facility clean and system to take feed-back from patients and visitors for maintaining the cleanliness of the facility was lacking in more than half of the health facilities.

Recommendations:

Measure to control stray animals should be implemented effectively. Many health centers in the study were lacking mosquito screening in windows so this should corrected with immediate effect. Larvivorous fish pond should be constructed in each and every health facility to cultivate this mosquito larvae eater fish. Maintenance of Front area, Parks, Open spaces, Internal Roads, Pathways, Herbal Garden should be done periodically. We must assign one staff who regularly inspects these all area and in case of any flaws he comes to know he must report to facility head. Facility head must have single check once a month in order to review the efforts of the assigned staff. The staff should be made conscious about junk policy of health facility and dedicated space should be in health centre for junk materials the staff should be sensitized periodically about available water conservation, as they are part of local community and can educate others only when they themselves had been sensitized enough. Water harvesting system should be installed in all health facilities. Different colored bed sheet can be used on alternate days or every day as feasible, to ensure regular change of linen on patient's bed. One of the health facilities during study was found to follow the same approach. One security guard must be available round the clock at

health facilities. It is one of the crucial recommendation regarding crowd management and staff safety at health facilities. As we found during study that some health facilities had display message pertinent to sanitation on case paper. Similar concept should be followed by other health facilities too. We must promote active and representative participation to enable all community members to meaningfully influence the decision that affect sanitation and hygiene in health facilities. Engage community members in learning and understanding sanitation issues at health facilities, and the economical, social, environmental, psychological and other impact associated with these.

Declarations:

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Conflict of Interest: Nil

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