

## CAPACITY BUILDING OF NGO WORKERS OF OPEN SHELTERS IN VADODARA CITY WITH REGARDS TO HEALTH AND NUTRITION

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**Abstract:** Government of Gujarat has recently in 2015 launched an initiative to start open shelters for homeless orphan children in different cities of Gujarat and in Vadodara city, the responsibility of running these shelters have been entrusted to an orphanage for street children, Don Bosco Snehalaya (NGO), to pilot an open shelter for children and improve health, hygiene and nutritional status of these vulnerable disadvantaged children. The present study is an attempt to partner with Don Bosco Snehalaya and build capacities of caregivers/managers to institutionalise key Water, Sanitation & Hygiene(WASH), Health and nutrition practices amongst caregivers by imparting knowledge through training modules. Ethical approval from the institutional ethics committee was obtained (IECHR/2015/01). Medical, dental/skin check-ups and nutritional assessment, morbidity profile of children enrolled in open shelters were conducted with the help of qualified doctors and nutritionist respectively voluntarily. Based on the knowledge gaps obtained from pre data, three training modules namely to improve knowledge levels regarding Key WASH, Nutrition & health issues were designed and translated in local language, before giving capacity building sessions with the help of power point presentations and skill building sessions on calculation of BMI for children. Under nutrition and dental problems were seen in almost all children (93%). Bleeding gums (gingivitis) were also seen in majority of children. Skin problems were also seen in (43%) the children. Overall knowledge about wash behaviours were good as compared to knowledge about nutrition or health issues. Capacity building of the sessions resulted in substantial improvement in knowledge levels in all the three domains namely WASH, nutrition & health. The study highlights the neglect and vulnerability of street/orphan children and appreciates efforts of government of India to recognise a need to provide them with open shelters. The capacity building of caregivers is important and effective in imparting knowledge.

**Key Words:** capacity building, open shelters, street children, sanitation, hygiene, nutrition, government, health, care givers, under nutrition.

### INTRODUCTION:

The large numbers of homeless children, pavement dwellers, street and working children and child beggars, left on their own and in need of care and support, is an urban phenomena of great concern. 29% of India's population resides in urban areas, half of which live in conditions of extreme deprivation compounded by lack of shelter and access to basic services like sanitation, safe drinking water, education, health care, recreational facilities, etc. The urban population is also expanding rapidly because of intense rural-urban migration, swelling cities and towns, further compromising the ability of civic authorities to meet people's basic needs. A large proportion of the migrant population ends up residing in inhuman conditions in slums, squatter colonies, railway platforms, pavements, bus stops, tourist spots, etc. As a result, urban poverty and hunger are increasing. In this situation, children suffer the most. A vast majority of them, with or without parental support, end up at traffic intersections, railway stations, streets, sabzi mandi (vegetable market), etc. They can be seen begging for alms, wiping automobile windscreens, rag picking, vending wares and may also be involved in petty thefts, drug peddling or controlled by a begging or stealing mafia. Many of these children also peddle sex for survival. These children are very often victims of adult abuse of all kinds: physical, sexual, emotional as well as economic exploitation (Manual, DWCD, Delhi).

For the first time in Gujarat, permission for opening an open shelter for boys and girls in Vadodara, Gujarat was given to the NGO, Don Bosco Snehalaya, from Gujarat State Child Protection Society (GSCPS), under the file number DSD/ICPS/2012/070 with permission to start the open shelter from 03/08/2015, with the objective of

keeping the shelter open for 24 hours, providing them with food and clothes, safe drinking water, recreation and entertainment facilities

Therefore it was considered prudent to develop a training module for caregivers of open shelters and build their capacities to understand key WASH, nutrition & health issues to serve as ready reckoners for training of the staff and care-givers of the organization for facilitating the admission, enrolment and guidance of the children coming to the open shelter. Hence a study was planned with the following objectives:

**Broad Objective:** To focus on nutrition, health, water and sanitation practices in open shelters managed by an NGO by capacity building of NGO managers/caregivers of a shelter home.

**Specific Objective:**

1. To assess the knowledge, attitude, and practices of NGO managers /caregivers on health, nutrition, water sanitation & hygiene practices for operation of open shelters.
2. To develop training modules for NGO Managers/caretakers on nutrition, health & WASH
3. To build capacities of NGO workers/caregivers
  - a. Identification and enrolment of children requiring open shelters in the city of Vadodara who will avail the facility.
  - b. To study their morbidity profile and plan necessary remedial measures.
  - c. To assess their nutritional status. (Anthropometric measurements of weight and height and BMI )
  - d. To conduct health check-up with the help of physicians for identifying deficiency diseases, skin diseases and dental problems etc.

**METHODS AND MATERIALS:**

**Selection of Shelter home in Vadodara city:** Government of India has the policy for providing open shelters to homeless children to prevent them from the ravages of weather and to protect the rights of children and Government of Gujarat has recently granted permission in November 2015, to Don Bosco educational society (NGO) to run an open shelter for the city of Vadodara. Since it was a new beginning, the Foods and Nutrition Department took the initiative for capacity building of its workers and care-givers on topics related to nutrition, health and WASH .

**Phase: 1:** All the public places like railway station, bus station, areas below the bridges of Vadodara city etc. were surveyed to identify, enrol & refer homeless children to open shelter which was open 24\*7 hours.

**Phase: 2:** Assessing the Knowledge Attitude and Practices of NGO workers

The interview schedule consisted of questions based on knowledge, attitude , practices of nutrition, health and WASH. A one-to-one interview was conducted to assess their knowledge regarding ‘healthy food ’, micro nutrient, macro nutrient, all micro nutrient deficiencies, balanced diet, water etc.

The details regarding their knowledge on sanitation & hygienic practices were elicited on hand-washing, foot washing, hair washing, washing clothes, care of body in every season, brushing teeth, taking bath, water borne diseases, washing kitchen area before and after cooking, clean environment, etc.

The details regarding immunization, vaccines, diseases, BMI, height, weight, MUAC, government programs, under nutrition, stunting, wasting, SAM, MAM were also dealt with.

**Phase 3:** Development of training module for the use of NGO workers/caretakers.

**Nutrition training module:** In this training module information was given about nutrition, malnutrition, macro nutrients (carbohydrate, protein, fat), micro nutrients (Iron, Vitamin A, Thiamine, Niacin, Vitamin-D, Zinc, Iodine, Vitamin B12, Folic acid, Riboflavin), signs and symptoms of deficiency diseases, sources, functions, Modes of treatment and prevention of all micro nutrient deficiencies, balanced diet, importance of water, etc.

**Health training module:** In this training module information was given about immunization, Vaccines, Immunization Program for Tuberculosis, Polio, Diphtheria, Pertussis, Tetanus, Hepatitis B, Measles. Information on how to recognize the diseases, also information about how it spreads, and also National government programs to prevent micro nutrient deficiencies like Vitamin A, Zinc, Iron, Iodine were discussed. Classes on BMI and how to take accurate height and weight were discussed. Different types of under nutrition, stunting, wasting, underweight, Mid-upper arm circumference (MUAC), Severe Acute Malnutrition (SAM), Moderate Acute Malnutrition were explained.

**WASH training module:** In this module information was given about hand washing, importance of cleaning kitchen area, information about pesticides, diseases that are caused due to polluted, stagnant and unclean water, treatment of unclean water, personal hygiene, importance of toilet cleaning, environment cleaning etc were given.

#### Phase-4: Intervention – Training session

Sessions on the above mentioned topics were taken thrice a week for three months. Each session had duration of two hours.

Care-givers were given need based Nutrition, Health and WASH (water sanitation and hygiene) education with the help of power point presentations made along with verbal explanation of the topics with practical demonstrations wherever possible.

The Nutrition-Health Education(NHE) was given for 3 months and sessions were held thrice a week. The timing of sessions were scheduled in the afternoons between 2 to 3 pm on Thursdays and Fridays and 10 to 11 am on Mondays.

To assess their knowledge regarding various aspects of nutrition and common health problems and water, sanitation & hygiene a questionnaire on each topic was used and the same questionnaire was used to assess their knowledge level post intervention.

#### Phase-5 Evaluation

Post KAP questionnaire was taken and evaluated and compared with the previous data to study the impact of the training module on the knowledge levels of care-givers. Percent responses were calculated to assess their knowledge retention.

## RESULTS & CONCLUSIONS:

**Figure: 1 Situation of children in open shelter at baseline**

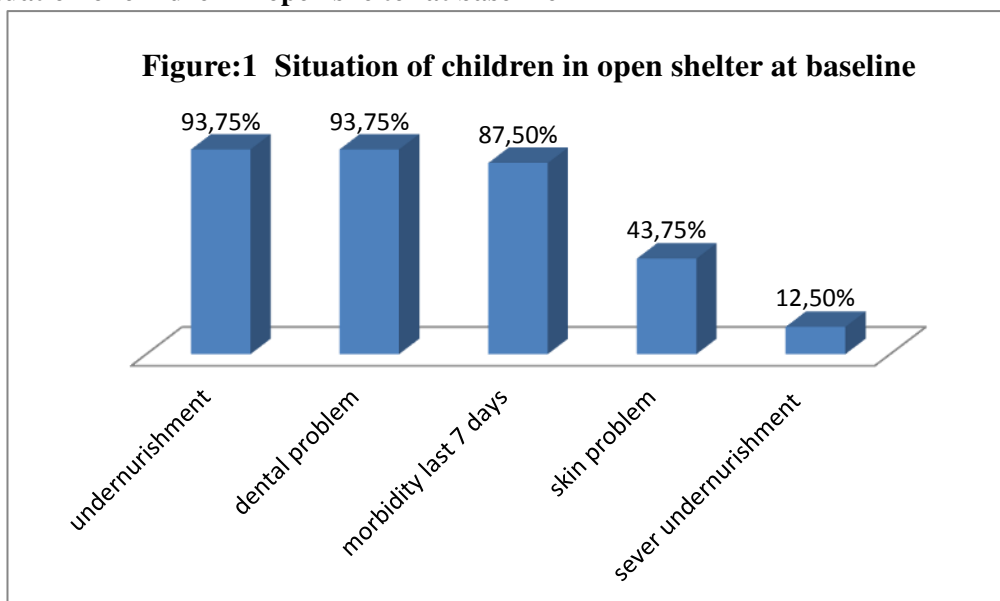


Figure:1 clearly demonstrates the situation of children at baseline. The graph clearly depicts that undernourishment and dental problems were present in almost all children (93.75%) at baseline., similarly morbidities in children based on last 7 days recall were also high (87.50%). Less than half of the children (43.75%) had skin problems with 12.5% children severely undernourished(WHO 2007 standards were used for comparison).The children in the present study had high morbidity levels (>80%) along with skin and dental problems with almost all of them having bleeding gums. High morbidity levels with skin/dental infections are the consequence of poor nutritional and hygiene status of the students. The study conducted among the street children living in 6 different places at New Delhi railway station i.e. Connaught place, Kashmere Gate, Jama masjid, Chandni Chowk, Fatehpuri, Kidwai Nagar and Karol Bagh revealed that about 49 percent slum children and 32 per cent street children were found to be underweight[1].A study conducted in Bangor Basti reported that 98 percent of the street children were estimated to have dental caries[2].

A study conducted in Mumbai city revealed that 62.5% of the street children obtained food from hotels[3].Street children in India face additional vulnerability because of their lack of access to nutritious food, sanitation, and medical care[4].

Street children have a multitude of health problem by living on the street such as poor nutrition status(malnutrition),mental illness, substance abuse, respiratory infections, and sexually transmitted disease including human immunodeficiency disease.

Quantitative research regarding the health status of both of- and on-the-street children in low-and middle-income countries is limited.

**Figure: 2 Impact of capacity building of caregivers of open shelter on their Nutrition knowledge (gain in knowledge >50%)**

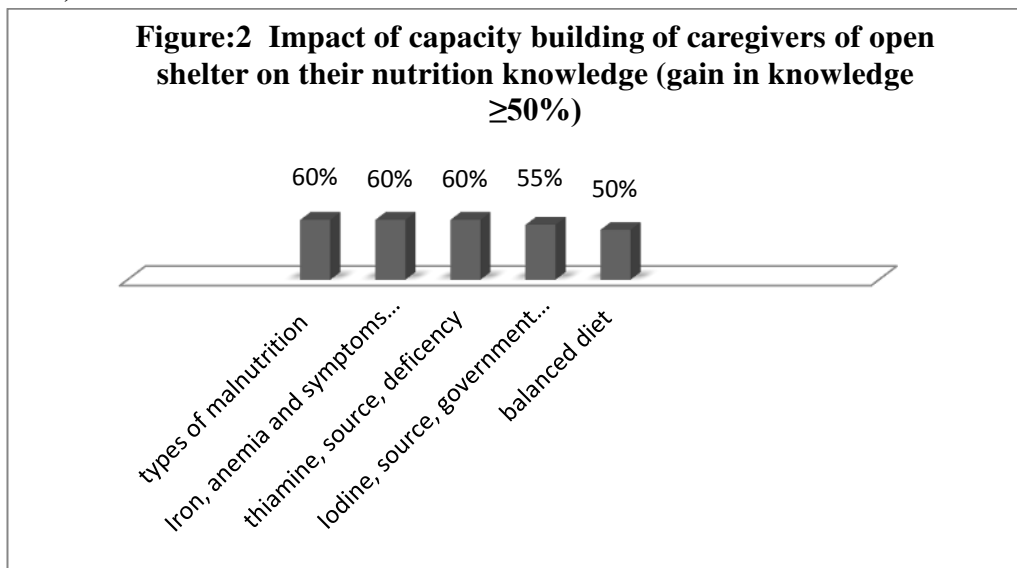


Figure:2 shows substantial gain in knowledge ( $\geq 50\%$  from baseline) after capacity building sessions in major four areas, namely types of malnutrition (60%), iron, anaemia and symptoms of anaemia (60%) and thiamine, its sources and deficiency (60%), and 55% gain in knowledge about iodine, its sources and government program for its control, followed by the concept of balanced diet (50%).

**Figure: 3 Impact of capacity building of caregivers of open shelter on their Nutrition knowledge (gain in knowledge  $\leq 50\%$ )**

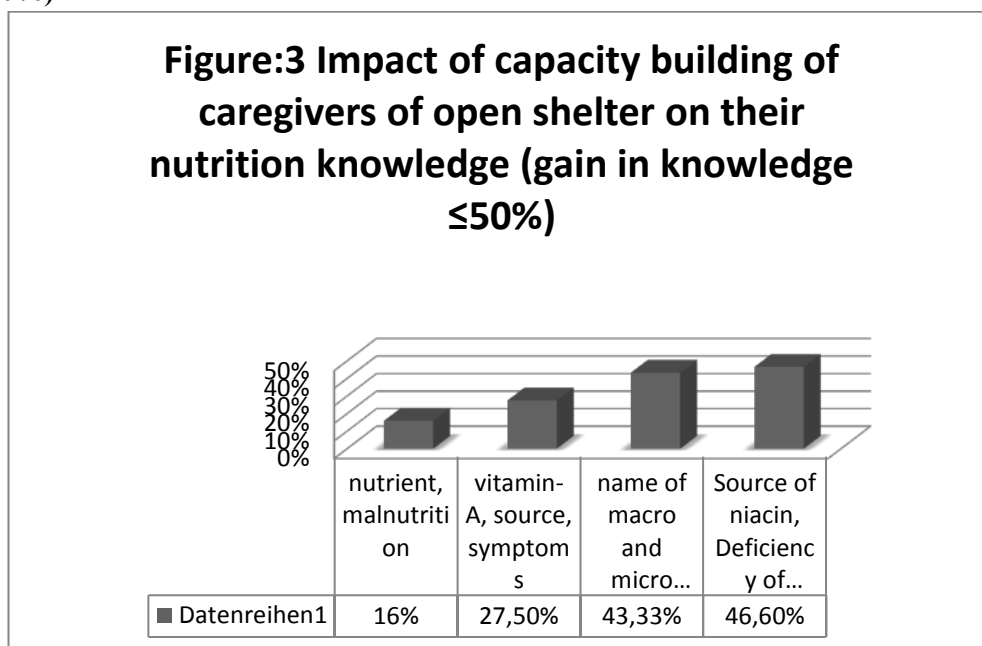


Figure:3 depicts area where more efforts need to be put in as the gain in knowledge in these aspects was less than or equal to 50%. These areas require more intense capacity building for bringing improvement in knowledge of the concepts related to nutrients/ macro & micronutrients (16%), vitamin A, their sources and symptoms (27.50%), while knowledge gain about the names of various macro & micronutrients and niacin and deficiency signs was fair (43.3 & 46.6 %) respectively.

**Figure: 4 Impact of capacity building of caregivers of open shelter on their Health knowledge (gain in knowledge >50%)**

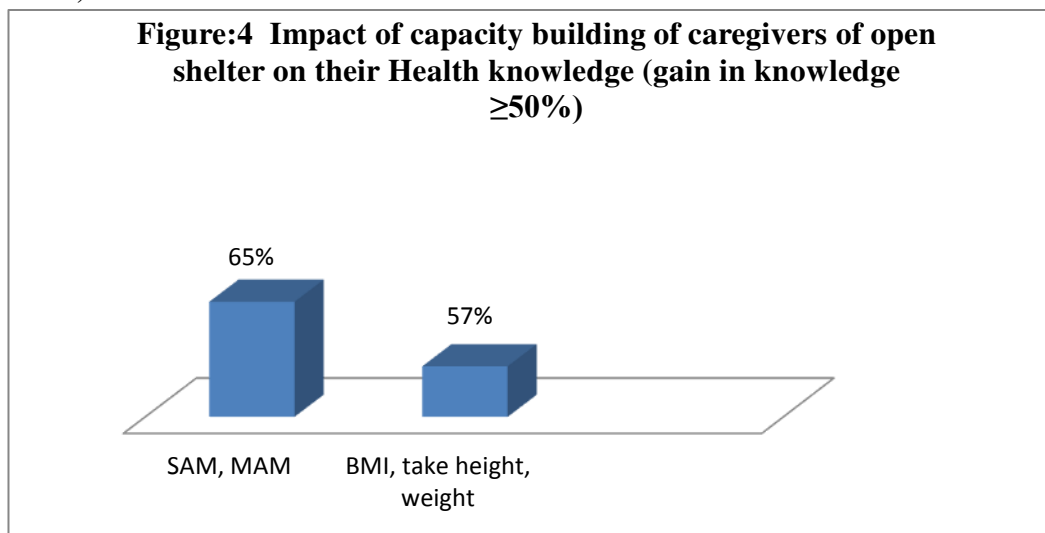


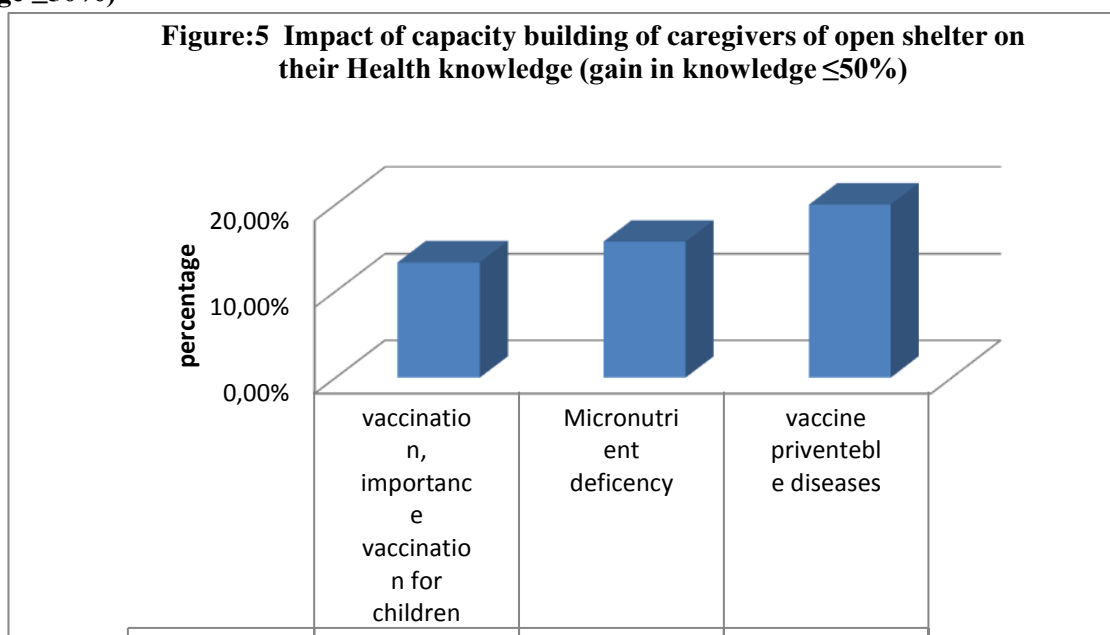
Fig:4 shows gain in knowledge of >50% on health issues related to definitions of severe acute malnutrition (SAM) or moderate acute malnutrition (65%) and about concept of Body Mass Index (BMI) and accurate measurements of weight & height (57%) . Street children in India face additional vulnerability because of their lack of access to nutritious food, sanitation, and medical care[4].

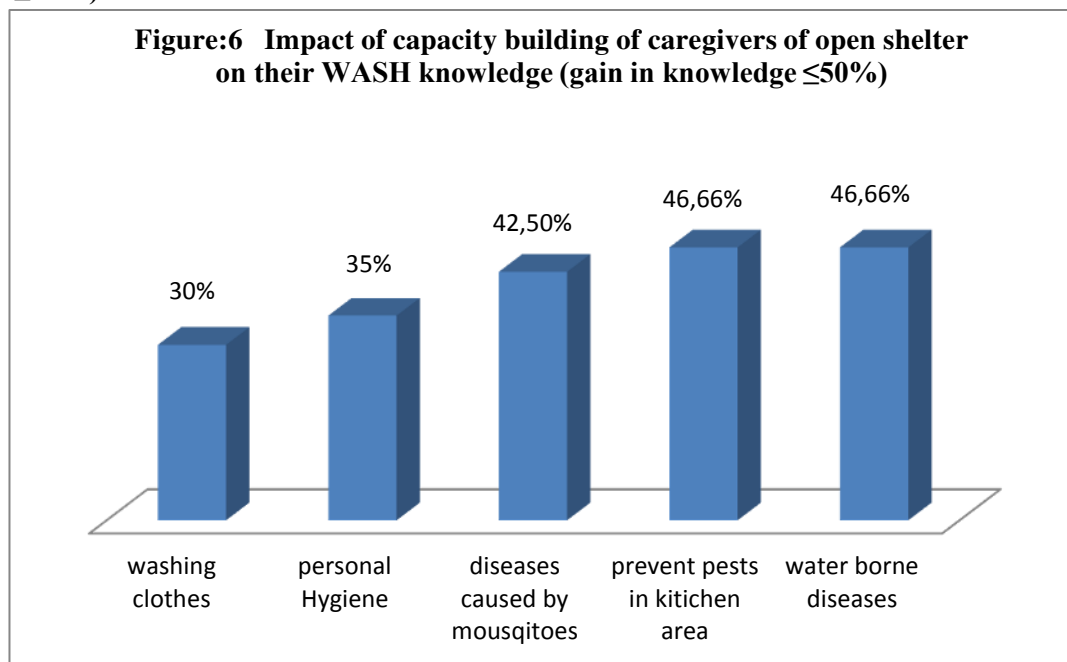
Health problems associated with these children such as, asthma, tuberculosis, influenza, pneumonia, hepatitis A, lice & scabies, are more common among them[5].As compared to general population, these children have 20 times higher rate of tuberculosis. The children having asthma problems get more exacerbations due to increased exposure to dust, smoke, mold and cockroaches. There are also higher rates of inadequate immunization among this population due to lack of stable housing and poor record keeping[6].

With respect to key health concepts ,further reinforcement is required owing to low gain in knowledge <50%. A gain of only 13.33% was seen regarding vaccinations & its importance for children,followed by micronutrient deficiencies and zinc (15.71%) and common childhood illnesses prevented by vaccines (20%).

Figure:6 demonstrates gain in knowledge in almost all aspects of WASH, namely, importance of washing clothes regularly (30%), personal hygiene (35%), diseases caused by mosquitoes (42.5%), preventing pests in kitchen (46.66%), water borne diseases (46.66%) at baseline, Baseline values with respect to WASH knowledge were already good therefore substantial gain in knowledge (>50%) could not be seen.

**Figure:5 Impact of capacity building of caregivers of open shelter on their health knowledge (gain in knowledge  $\leq 50\%$ )**



**Figure:6 Impact of capacity building of caregivers of open shelter on their WASH knowledge (gain in knowledge  $\leq$ 50%)**

. By implementing affordable and effective hand washing education programs, a reduction in infectious diseases, absenteeism, antibiotic resistance and health care costs could result[7].

The study conducted in Mumbai city reported that 29.6% of children took bath in the sea and 11.5% percent reported from pipes, wells, or canals[4].

**Conclusions:** To conclude, the present study demonstrates that children coming to open shelters were highly vulnerable as they suffered from widespread under nutrition and its manifestations such as morbidities, infections, dental and skin problems clearly justifying and appreciating the initiative of introducing open shelter for these children by the government. Baseline knowledge of caregivers about WASH was good, while knowledge about important health and nutrition issues was poor at baseline. Substantial gain in knowledge was seen on many WASH, nutrition and health issues, however there is a scope for further reinforcing these messages for those where the knowledge gain was less substantially. Also there is scope for further improving the training module to make it more easy to understand by using food groups as the base than nutrients as is done in the present module.

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