

Dental health facilities in Upazilla Health Complex in Bangladesh

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Abstract :

A cross-sectional descriptive study was conducted in districts to assess the dental health facility in the upazilla health complex of Bangladesh. Four upazilla health complexes were selected. Physical facilities, organization of dental facilities and activities of the dental unite were explored in this study according to DGHS guideline from 1st April to 30th June 2012. Dental patients and their socio-economic characteristics and service provider are also considered in this study. All the relevant information were collected by face to face interview, personal observation and reviewing medical documents of the patients. The availability of the dental health facilities & dental service activities were checked with the help of check list also opinions from the service providers & respondents included. Through the dental health facilities & service were not systemically organized. The Organogram of the dental unit, dental patients flow charts, drug chart, pathology center were accessibly by direction in all UHC. The dental equipments, sterilizer are also placed in situ. The supporting service of the dental health facilities the water supply, electricity supply, drainage system were available in the most of the UHC as common utility. Few dental materials, dental health education chart, medical waste management system in Manikgang sador dental unit was better established rather than rural. The emergency dental service were not provided any of the upazila. The upgrading dental health facilities were essential to combat the burden dental care for UHC population. Dental professionals could be more careful sensitized in monitoring dental health care program and their accessibility.

Key words: UHC: Upazilla health complex, DGHS: Director General of Health Services.

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Introduction:

Dental health refers to all aspects of the health and functioning of our mouth especially the teeth and gums. Apart from working properly to enable us to eat, speak, laugh (look nice), teeth and gums should be free from infection, which can cause dental caries, inflammation of gums, tooth loss and bad breath.¹ Good dental health is

the responsibility of individuals, communities and governments although their relative importance varies. For example in some European countries water fluoridation is not yet publicly acceptable and so responsibility for preventing tooth decay lies largely with the individual.^{2,3} Dental professionals play an essential role in monitoring dental health and treating or preventing any problems. Access to good dental care, including regular check-ups is vital. For some people, especially those from lower socio-economic groups, access to dental professionals may be limited. These groups are important targets for dental health education programmes.⁴ Schools also play an important role in educating children on the importance of good oral hygiene and diet. It's important to take care of your mouth and teeth starting in childhood. If you don't, you could have problems with your teeth and gums - like cavities or even tooth loss.⁵ Dental diseases impose both financial and social burdens as treatment is costly and both children and adults may miss time from school or work because of dental pain. Start dental care early, brush baby's teeth with a fluoride toothpaste as soon as they appear in the mouth. Visit the dentist about every 6 months for a check-up. And seek dentist's advice before

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using aesthetic products (e.g: teeth whiteners) that could have a deleterious effect on the teeth. Sometimes problems can arise that require immediate treatment. That's why it's always a relief to know that you have somewhere to turn to when you are faced with a dental crisis. Whatever the emergency, The Dental Clinic's team of experienced dental professionals are keen to assist you should you have a need for emergency dental care.⁶ You can also rest assured in the knowledge that we offer an on-call emergency dentist service for both registered and non-registered patients. Trauma an injury to your teeth, Severe bleeding in your mouth, Swelling around your mouth are serious Dental pain. Common disease of Dental department: Gingivitis, Periodontal Disease, Periodontal Surgery, Oral & Maxillofacial Surgery, Wisdom Tooth Extraction, Pulpitis, etc Regular Dental Check-up is needed for good dental health. Public health dentistry, dental specialty concerned primarily with prevention of dental decay and of periodontal disease. Public health dentistry is practiced generally through governmentally sponsored programs, which are for the most part directed toward public-school children in the belief that their education in oral hygiene is the best way to reach the general public. The pattern for such programs in the past was a dentist's annual visit to a school to lecture and to demonstrate proper tooth-brushing techniques. The 1970s saw the emergence of a more elaborate program that included a week of one-hour sessions of instruction, demonstration, and questions and answers, conducted by a dentist and a dental assistant and aided by a teacher who had previously been given several hours of instruction.⁶ Use was also made of televised dental health education programs, which parents were encouraged to observe. A range of oral health promotion programs and projects have been implemented by Dental Health Services focusing on targeting rural communities with the greatest need. Our programs are aimed at engaging and supporting rural to reduce factors that may negatively affect their oral health. Factors which can influence oral health - Nutrition, lifestyle, social connectedness, personal health and hygiene practices, socio-economic status, education, cultural beliefs, attitudes and level of health literacy. Factors also include the level of access to oral health services and programs. Working together with partnering organisations and community groups to achieve sustainable oral health outcomes is an important part of all our programs.

Materials & Methods

- a. Type of study : It is a cross sectional description study.
- b. Place of study : NIPSOM. Site of study was conducted in four Upazila Health Complex (UHC), two UHC were near to sador & two UHC were rural based .Jhinaidha & Manikgang districts were selected of this study period .
- c. Study population: The patients who has registered the UHC for the dental treatment, Concerning dental surgeon, dental assistant, pharmacist.
- d. Sampling technique: Convenience type of non probability Sampling technique was used for data collection for this specific study.
- e. Sampling Unit & Sample size: Purposive sample was taken. Selections of four upazila were urban & rural based in two districts. The selected upazila health complexes were Manikgang sador, Ghior, Jhinaidha sador, Shuilokupa. Among 110 dental registered dental patients were taken available in the study period .
- f. Period of study :The study period is 1st April to 30th June 2012
- g. Ethical Issue :
 1. Ethical clearance was taken from ethical committee of NIPSOM.
 2. Before data collection, permission was taken from the Civil Surgeon.
 3. Informed risk, burden, benefit about the reachers, and written consent of individual the patients were taken.
 4. During data collection privacy of the patients should be maintained strictly.

Data collection instruments: Data were collected by a semi-structured questionnaire. After preliminary observation, check list & review of document, questionnaire was developed. It was protested, modified & finalized for date collection. Individual questionnaire was checked for completeness & consistency.

Data collection technique: All relevant data were collected by Personal observations, questionnaire, dental activities checked by check list, review of medical documents individual discussion with service provider.

i. Data Processing: Collected data were corrected for any irrelevancy and inconsistency. Followed by data were cleaned accordingly and post - coding was done as required. Finally data was prepared for analysis in computer.

ii. Data Analysis: Data were analyzed by computer with the help of software (SPSS).

Results:

Four upazila health complexes were selected, two upazila were near to sadar, and two upazila were rural based in the districts. Observation, check list were used to explore the physical facilities, intervention, discussion alone with the provider for the activities of dental unit. The finding were provided by tables & figures. The total of 110 patients were gave written consent were enrolled in the study. Physical facilities were dental unit room size is more or less 180sqft with toilet in each of the upazila. The dental manpower in the UHC mostly one male graduate dental surgeon, one assisted by one male dental, one pharmacist. Ticket counter, Dental equipments (extraction) are available, majority Upazila Health Complexes has Reception room, Patient waiting room, Fixed room for treatment of dental patients, Dental unit were available, few Upazila Health Complexes has Dental materials, Dental equipments (other) are available. Dental ticket counter, dental emergency patient bed were not available in UHC. Organogram and Drug chart are available in the every Upazila Health Complexes, majority Upazila Health Complexes has Organizational flow chart is available, few Upazila Health Complexes has Dental health charts for health education. Sterilization facility and Pathology and X-ray facilities are available in the every Upazila Health Complexes. Majority Upazila Health Complexes has Record keeping facility is available but Dental X-ray facility and Sterilization (Dental) facility are not available in Upazila Health

Complexes. Patients referral system is available in every Upazila Health Complexes, but Dental health education activities and Dental emergency facility are not available in Upazila Health Complexes. Majority percentages of health complex were Water supply, Electricity supply, Drainage system, Waiting room is available, but few upazila Health Complexes had Medical waste management system is available and no Generator facility is available in any upazila Health Complexes. Caries were 25(27.50%) but Deciduous tooth mobility 11 (12.10%). among the taking brush regularly were 30% and majority of the patients are not taking brush regularly 70%, health education 12 (10.9%). Disease is diagnosed in the hospital 38(34.5%), Treatment facility of the disease is available 46(41.8%), Got information regarding the disease 67 (60.9%), Free drug is available 98(89.1%). Socio-demographic data of the enrolled subject were shown in table Most of the enrolled subject was married, Muslim and service holder, housewife. In this present study, highest proportion 57% out of 110 respondents in the age group of 10-20 years, Comparison between the mean and standard deviation of the age of patient Mean \pm SD 32.82 \pm 7.49. 11.8% respondents out of 110 were illiterates and the rest were literate. Among the patients 16.4% were primary, 31.8% were HSC passed. 43.6% were service and 24.5% were businessman, 20% were house wife, 8.2% were daily labor, 3.6% were farmers.

Table-I

		Status of the Upazila Health Complex				
		Jhinaidah Sadar	Shailkopa Jhinaidah	Manikganj Sadar	Ghior Manikganj	
Manpower	Dental Surgeon is available	Male	Yes	Yes	Yes	Yes
		Female	No	No	No	No
	Medical Assistant (Dental) is available	Male	Yes	Yes	Yes	Yes
		Female	No	No	No	No
Organizational Facility	Pharmacist is available		Yes	Yes	Yes	Yes
	Receptionist is available		Yes	No	No	No
	Organogram is available		Yes	Yes	Yes	Yes
	Organizational flow chart is available		Yes	No	Yes	Yes
	Patient flow chart in UH&FPO room		No	No	No	No
	Drug chart is available		Yes	Yes	Yes	Yes
Supporting Service 1	Dental health charts for health education is available		No	No	Yes	No
	Record keeping facility is available		No	Yes	Yes	Yes
	Pathology and X-ray facilities are available	Yes	Yes	Yes	Yes	Yes
	Dental X-ray facility is available	Yes	No	No	No	No
Supporting Service 2	Sterilization (Dental) facility is available		No	No	Yes	No
	Dental emergency facility is available		No	No	No	No
Utility facility	Dental health education activities are ongoing		Yes	No	Yes	No
	Patients referral system is available		Yes	Yes	Yes	Yes
	Water supply is available		Yes	Yes	Yes	Yes
	Electricity supply is available		Yes	Yes	Yes	Yes
	Generator is available		No	No	No	No
	Drainage system is available		Yes	Yes	Yes	Yes
	Medical waste management system is available		No	No	Yes	Yes
Waiting room is available		Yes	Yes	Yes	Yes	

Table-II

Age (Yrs.)	Frequency	Percent
10-20	57	51.8
21-30	27	24.5
31-40	16	14.5
41-50	10	9.09
Total	110	100.0
Mean ± SD	32.82 ± 7.49	

Table-III

Dental Service	Yes f(%)	No f(%)
Got information regarding the disease	67 (60.9)	43(39.1)
Got dental health education	12 (10.9)	98 (89.1)
Disease is diagnosed in the hospital	38(34.5)	72(65.5)
Treatment facility of the disease is available	46(41.8%)	64(58.2)
Free drug is available	98(89.1)	12(10.9)

Table-IV

Disease	Frequency	Percent
Periodontitis	16	14.54
Broken down crown	23	20.90
Caries	25	22.72
Pulpities	17	15.45
Deciduous tooth mobility	11	10.0
Gingivitis	18	16.36
Total	110	100.0
Treatment facility	Frequency	Percent
Diagnosis	34	30.90
Extraction	27	24.5
Filling	2	1.8
RCT	1	0.90
Deciduous tooth extraction	11	10
Scaling	10	9.09
Only health education	15	13.63
Total	110	100.0

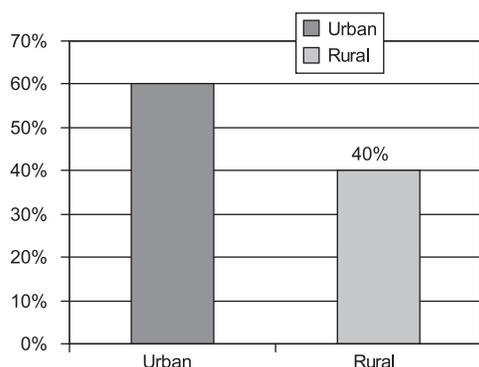


Fig.-1: Residing places of the patients

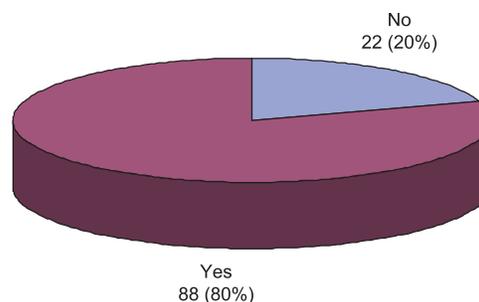


Fig.-2: Distribution of the patients by taking drug by own choice

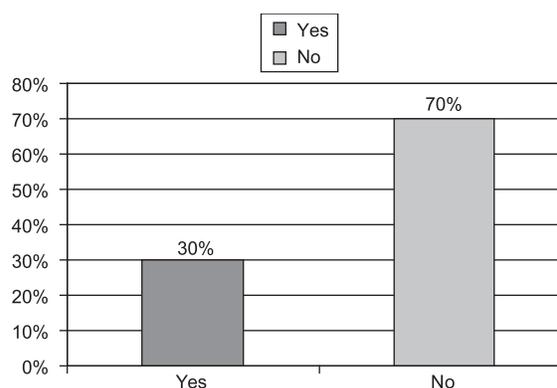


Fig.-3: Whether the patients brush teeth regularly

Discussion & Conclusion:

This study was carried off explore Dental health facilities in upazila health complex in Bangladesh. The study was conducted with a view to find out the level of knowledge about factor of total condition of upazila health complex dental department. During 1st April to 30th June 2012, 110 registered dental patients were interviewed attending four upazila health complexes two upazila were near to sador and two upazila were rural based .This study was a cross-sectional type of descriptive study.

This specific Observational Description study was conducted among hospital patients &hospital facilities in four Upazila health complex hospital. 110 registered dental patients Sample size of the study was determined four Upazilla Health Complex ,two sador ,two rural upazila out of two districts , Upazila are selected by the near to Dhaka two Upazilla Health Complex and away to Dhaka two Upazilla Health Complex conveniently considering the resource constraints and the study subjects were included on the basis of specific inclusion and exclusion criteria . All the relevant information were collected by face to face interview , observation, check list and reviewing medical documents of the patients study subjects with the help of

a questionnaire .

Dental emergency doctor, Nurses and MLSS , Medical waste management system and Generator facility are needed for dental health services any Upazila Health Complexes. Oral hygiene instruction has to be given through written documents and training which will enable both the clinicians and policy makers to formulate and implement necessary measures to combat the burden of among the UHC patients in the country.

At the end of the discussion it can be concluded that the number of patients reported in the hospital are rather limited due to various reasons.^{21,22,23} The study regarding knowledge about factors of dental facility an increased sample would be more helpful, justified. The finding of this study will help to organize preventive programs and evaluation of dental facility activities and strategies of the upazila health complex of Bangladesh.

Recommendation:

1. A detailed study with proper study design has to be undertaken to have a better understanding of the dental health facility of the upazila health complex.
2. The patient health facility and finding of the present study should further be investigated.
3. Got dental health education 10.95%, Treatment facility of the disease 41.8% Free drug is available 89.1% in this calculation we understand necessary of health care service should be provided.
4. Other manpower should be ensure for the good service of the upazila health complex.
5. Dental surgeon and medical technologist dental should be trained to identify the problem and promote health education.
6. Good manager need for good service, so arrange the good environmental room such as ventilation, electricity, water supply, drainage system, generator, x-ray, pathology, sterilization, dental unit & equipments, materials, health education matters etc in this supports are ensure for the service the hospital patients .
7. This study we found some result female doctor assistant ensure necessary, dental nurse, MLSS post are create are emergency, dental emergency are needed, emergency dental doctor , emergency dental bed, patients flow chart are needed. Other equipment such as scaler, lightcure, dental sterilizer, dental x-ray, genaretor, dental health education logistics, record

ipping system, medical waste management system, upgrading necessary. Oral hygiene instruction has to be given through written documents and training which will enable both the clinicians and policy makers to formulate and implement necessary measures to combat the burden of among the UHC patients in the country. This will definitely be helpful for the development of health program and service receiver in the UHC of Bangladesh.

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