

15. PUBLIC HEALTH DENTISTRY

a) **GOAL:**

To prevent and control oral diseases and promote oral health through organized community efforts

b) **OBJECTIVES:**

i. **Knowledge:**

At the conclusion of the course the student shall have a knowledge of the basis of public health, preventive dentistry, public health problems in India, palliative care, Nutrition, Environment and their role in health, basics of dental statistics, epidemiological methods, National oral health policy with emphasis on oral health policy.

ii. **Skill and Attitude:**

At the conclusion of the course the students shall have acquired the skill of identifying health problems affecting the society, conducting health surveys, conducting health education classes and deciding health strategies. Students should develop a positive attitude towards the problems of the society and must take responsibilities in providing health and palliative care.

iii. **Communication abilities:**

At the conclusions of the course the student should be able to communicate the needs of the community efficiently, inform the society of all the recent methodologies in preventing oral disease.

PALLIATIVE CARE:

Objective of including palliative care in to the curriculum of BDS:

Objective of the curriculum is to train future dental surgeons in the basics of Palliative Medicine. Palliative medicine is the branch of medicine involved in the treatment of patients with advanced, progressive, life-threatening disease for whom the focus of care is maximising their quality of life through expert symptom management, psychological, social and spiritual support as part of a multi-professional team. Government of Kerala has declared palliative care as part of Primary Health Care. Dental surgeons come across many patients with chronic and incurable diseases like cancer, HIV-AIDS etc. Also learning the symptom, control and communication will help them to provide better care to the patients coming under their care.

Structure of the Training:

The palliative care training will be given in the third academic year. The training to include didactic sessions, role plays, discussions, case presentations

Theory*: Introduction (3 hours), Communication (5 hours), Pain management (3 hours), Nursing care (3 hours). Total 14 hours

**Classes in Palliative care to be handled by faculty in Public Health Dentistry who have undergone training in palliative care from KUHS recognised centres.*

1: Introduction to palliative care

Learning Outcomes:

The trainee will be able to discuss the philosophy and definitions of palliative care. The trainee will demonstrate that this knowledge and understanding improves his/ her clinical practice, decision-making and management of practice.

The trainee will demonstrate the knowledge, attitudes and skills required to foster timely and efficient communication between services necessary for a smooth continuum of patient care

The trainee will demonstrate the skilful application of knowledge and understanding to prepare individuals for bereavement, to support the acutely grieving person/family. This will include the ability to anticipate / recognise abnormal grief and access specialist help

The trainee will demonstrate an understanding of the theoretical basis for applied ethics in clinical practice, and be able to evaluate personal attitudes, beliefs and behaviours.

The trainee will demonstrate an awareness of, and respect for, the social and cultural values and practices of others

The trainee will recognise differences in beliefs and personal values. The trainee will be able to deal with conflicts in the beliefs and values within the clinical team. The trainee will recognise the psycho social and spiritual components of problems in advanced diseases and understand the role of non-professional members of the community in addressing them.

Block 1: Philosophy and Principles of palliative care.

Unit 1: Definitions- hospice, palliative care and terminal care, Principles of palliative care. Quality of Life (QOL), concepts of 'Good Death', grief, bereavement team work, inter and multidisciplinary teams. Role of family and community, ethics, spirituality

- Definitions of: palliative care approach; general palliative care; specialist palliative care; hospice; specialist palliative care unit; palliative medicine; supportive care

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- Evolving nature of palliative care over the course of illness, including integration with active treatment, and the significance of transition points
- Differing concepts of what constitutes quality of life (including measurement) and a “good death”
- Re-adaptation and rehabilitation
- Shared care with other members of the team and community as a doctor and an individual
- Communication skills relevant to negotiating these roles
- Critical analysis of current theoretical approaches to: medical ethics, including ‘four principles (beneficence, non-maleficence, justice and respect for autonomy)
- Understanding the concept of spirituality

2: *Psychological issues and communication*

Learning Outcomes:

The trainee will demonstrate knowledge and understanding of psychological responses to illness in a range of situations, and skills in assessing and managing these in practice

The trainee will demonstrate good communication skills and use of reflective practice to ensure these skills are maintained.

The trainee will be able to identify obstacles to communication and demonstrate skills in overcoming these.

The trainee will demonstrate a professional attitude to confidentiality

Block 1: *Communication.*

Unit 1: Communication- Different types, barriers, how to overcome?

Unit 2: Breaking bad news, and handling uncertainty, collusion, denial, anxiety, depression, anger

- Skills in active listening, open questioning and information giving to:
- elicit concerns across physical, psychological, social and spiritual domains
- managing awkward questions and information giving, sensitively and as appropriate to wishes and needs of the individual
- facilitate decision making and promote autonomy of the individual patient
- Ensure that the patient is apprised of arrangements for the continuity of their care and whom to contact in case of need.

- Knowledge of theories and evidence base for communication practice including breaking bad news, collusion and discussing natural death
- Awareness of different styles of communications and critical evaluation of own consulting skills
- Awareness of common barriers to communication for both patients and professionals
- Awareness of common communication problems: deafness, expression and learning disabilities
- A professional understanding of the ethical and legal aspects to confidentiality

Block 2: *The family in palliative care.*

Unit 1: Terminal/ Chronic illnesses- problems of families.

Unit 2: Coping with the problems - patient to family, family to palliative Care worker, patient to palliative care worker

3: *Management of pain*

Learning outcomes:

The trainee will have the knowledge, understanding and skills to manage pain in patients with life limiting progressive diseases

Block 1: *Pharmacological Management of pain.*

Unit 1: General considerations, pathophysiology, types and assessment of pain

Unit 2: WHO analgesic ladder

Unit 3: Opioids, nonopioid analgesics and adjuvants in pain management.

Unit 4: Neuropathic pain, diagnosis and management

Unit 5: Other Pains- Breakthrough pain, incident pain, end of dose pain –management

Unit 6: Relevant invasive procedures for pain management.

4: *Nursing Care*

Learning outcomes:

The trainee will inculcate knowledge and skills required to identify, manage and refer problems in need of specific nursing interventions during the course of palliative care

Block 1: *Mouth care & nutrition*

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Unit 1: Management of oral problems in advanced/terminal disease

Unit 2: Nutritional requirements in chronic /terminal disease.

Block 2: Wound care

Unit 1: Prevention and Management of Pressure sores, fungating and Painful ulcers

Unit 2: Management of bleeding from wounds.

c) THEORY: 74 HOURS (III yr. 24hrs, Final Yr. Part I. 50 hrs)

Sl.No.	Topic	No. of hours
1.	Introduction to Dentistry: Definition of Dentistry, History of dentistry, Scope, aims and objectives of Dentistry.	3
2.	Public Health:	
	i. Health & Disease: - Concepts, Philosophy, Definition and Characteristics	4
	ii. Public Health: - Definition & Concepts, History of public health	1
	iii. General Epidemiology: - Definition, objectives, methods	3
	iv. Environmental Health: - Concepts, principles, protection, sources, purification environmental sanitation of water, disposal of waste, sanitation, their role in mass disorder	3
	v. Health Education: - Definition, concepts, principles, methods, and health education aids	2
	vi. Public Health Administration: - Priority, establishment, manpower, private practice management, hospital management	1
	vii. Ethics and Jurisprudence: Professional liabilities, negligence, malpractice, consents, evidence, contracts, and methods of, identification in forensic dentistry	3
	viii. Nutrition in oral diseases	1
	ix. Behavioral science: Definition of sociology, anthropology and psychology and their relevance in dental practice and community	3
	x. Health care delivery system: Center and state, oral health policy, primary health care, national programmes, health	2

	organizations. Primary Health care counselling	
3.	Dental Public Health	
	i. Definition and difference between community and clinical health.	2
	ii. Epidemiology of dental diseases-dental caries, periodontal diseases, malocclusion, dental fluorosis and oral cancer.	6
	iii. Survey procedures: Planning, implementation and evaluation, WHO oral health survey methods 1997, indices for dental diseases	3
	iv. Delivery of dental care: Dental auxiliaries, operational and non-operational, incremental and comprehensive health care, school dental health.	2
	v. Payments of dental care: Methods of payments and dental insurance, government plans	2
	vi. Preventive Dentistry- definition, Levels, role of individual, community and profession, fluorides in dentistry, plaque control programmes.	5
4.	Research Methodology and Dental Statistics	
	i. Health Information: - Basic knowledge of Computers, MS Office, Window 2000, Statistical Programmes	1
	ii. Research Methodology: -Definition, types of research, designing a written protocol	1
	iii. Bio-Statistics: - Introduction, collection of data, presentation of data, Measures of Central tendency, measures of dispersion, Tests of significance, Sampling and sampling techniques-types, errors, bias, blind trails and calibration.	6
5.	Practice Management	
	i. Place and locality ii. Premises & layout iii. Selection of equipments iv. Maintenance of records/accounts/audit.	4
	v. Dentist Act 1948 with amendment. Dental Council of India and State Dental Councils Composition and responsibilities.	1
	vi. Indian Dental Association Head Office, State, local and	1

	branches.	
6.	Palliative Care	
	i. Introduction	3
	ii. Communication	5
	iii. Pain management	3
	iv. Nursing care	3

d) PRACTICALS/CLINICALS/FIELD PROGRAMME IN PUBLIC HEALTH DENTISTRY:

These exercises designed to help the student in IV and V year:

- i. Understand the community aspects of dentistry
- ii. To take up leadership role in solving community oral health programme
- iii. To gain hands on experience on research methodology

e) PRACTICALS: 200 HOURS (III Yr.60Hrs.Final Yr. Part I 140Hrs.)

Sl.No.	Exercise	No. of hours
1.	<p>Short term research project: Epidemiology & Advocacy Purpose: Apply the theory and practice of epidemiology, planning and evaluation, statistics to dental public health. Most of the students are unfamiliar with research and hence this short term project which will be divided across two years (IV and V BDS) would address this issue.</p> <p>Depending on the topic chosen student can incorporate</p> <ol style="list-style-type: none"> a) Collection of statistical data (demographic) on population in India, birth rates, morbidity and mortality, literacy, per capita income b) Incidence and prevalence of common oral diseases like dental caries, periodontal disease, oral cancer, fluorosis at national and international levels c) Preparation of oral health education material posters, models, slides, lectures, plays acting skits etc. d) Oral health status assessment of the community using indices and WHO basic oral health survey methods e) Exploring and planning setting of private dental clinics in rural, semi urban and urban locations, availment of finances for dental practices-preparing project report. 	60
2.	Field visits	100

	<p>a) Visit to primary health center-to acquaint with activities and primary health care delivery.</p> <p>b) Visit to water purification plant/public health laboratory/center for treatment of wastewater and sewage water</p> <p>c) Visit to schools-to assess the oral health status of school children, emergency treatment and health education including possible preventive care at school (tooth brushing technique demonstration and oral rinse programme etc.)</p> <p>d) Visit to institution for the care of handicapped, terminally ill, physically, mentally, or medically compromised patients</p> <p>Note : Field visits should have relevance to the short term research project as far as possible</p> <p>Minimum of two visits – one per year (IV and V BDS)</p>	
3.	Preventive dentistry: in the department application of pit and fissure sealants, fluoride gel application procedure, A. R. T., Comprehensive health for 5 pts at least 2 patients.	40
4.	Statistical exercise	

Note: The colleges are encouraged to involve in the National Service Scheme. programme for students to carry out social work in rural areas.

SCHEME OF EXAMINATION

Distribution of Topics and Types of Questions for University Written Examination:

Contents	Types of Questions and Distribution of Marks	Total Marks
Any topic within the syllabus of Public Health Dentistry	Structured Essays 2x 10marks	20
	Short Notes 4 x 5marks	20
Any topic within the syllabus of Public Health Dentistry two questions from palliative care	Brief Notes 10x3marks	30
	Total	70

iii. Theory

University Written	70 Marks
Viva Voce	20 Marks
Internal Assessment	10 Marks

iv. Clinical:

University Clinical Examination:	80 Marks
Case history taking	10 Marks
Assessment of oral health status using any 2 relevant indices	30Marks
Spotters (Epidemiology, biostatistics, Preventive dentistry, Bioethics)	20Marks
Oral Health Education Talk/ Presentation of oral health education material/Short term student research project presentation /statistical test	15 Marks
Record	5Marks
Internal Assessment:	20 Marks

Grand Total 200Marks