

Journey Towards Promoting Teledentistry: Building the Competencies in Undergraduate Programme

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Teledentistry

- exchange of clinical information & images
 - remote distances
- dental consultation and treatment planning

The first practical application of TD has its root in a US project launched in 1994 to assess the dental health of the servicemen of United States army.
(U.S. Army's Total Dental Access Project)

"The evolution of a teledentistry system within the Department of Defense," (1994) M. A. Rocca et al, in Proceedings AMIA Symposium



Teledentistry

- ✓ Improve access to oral healthcare
- ✓ Improve the delivery of oral healthcare
- ✓ Lower dental healthcare costs
- ✓ Potential to eliminate the disparities in oral health care between rural and urban communities.

Bring specialized healthcare to the remote corners of the world

- Telemedical services were helpful for cases related to dental trauma in a Swiss telemedical center and provided valuable support where a specialty dentist was not available
- Teledentistry permitted distant, cost-effective specialist dental consultations for rural Australians.

**Lienert N et al. Teledental Consultations Related to Trauma in a Swiss Telemedical Center-A Retrospective Survey.*

Dent Traumatol (2010)

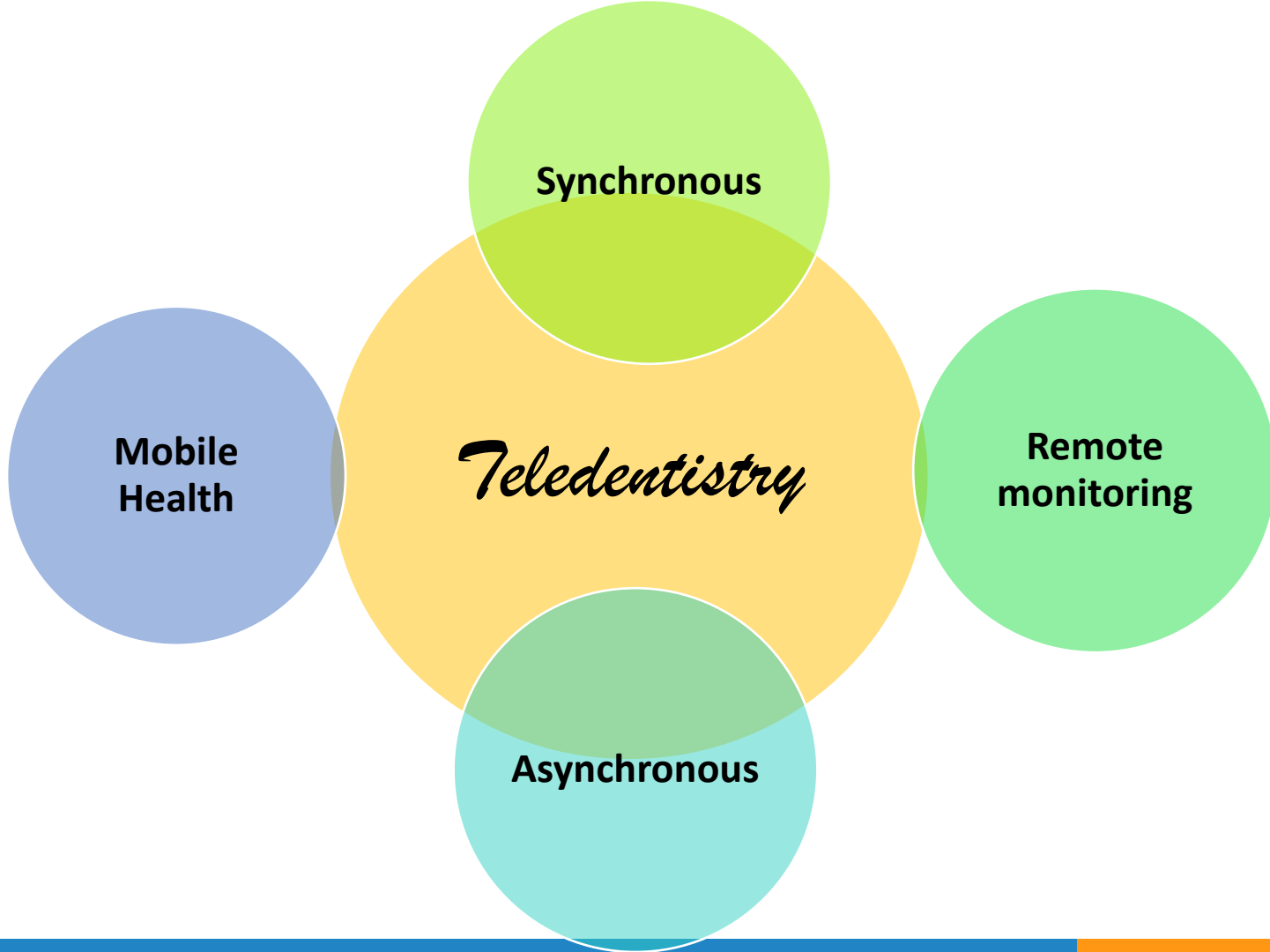
***Snow MD et al. Teledentistry Permits Distant, Cost-Effective Specialist Dental Consultations for Rural Australians.*

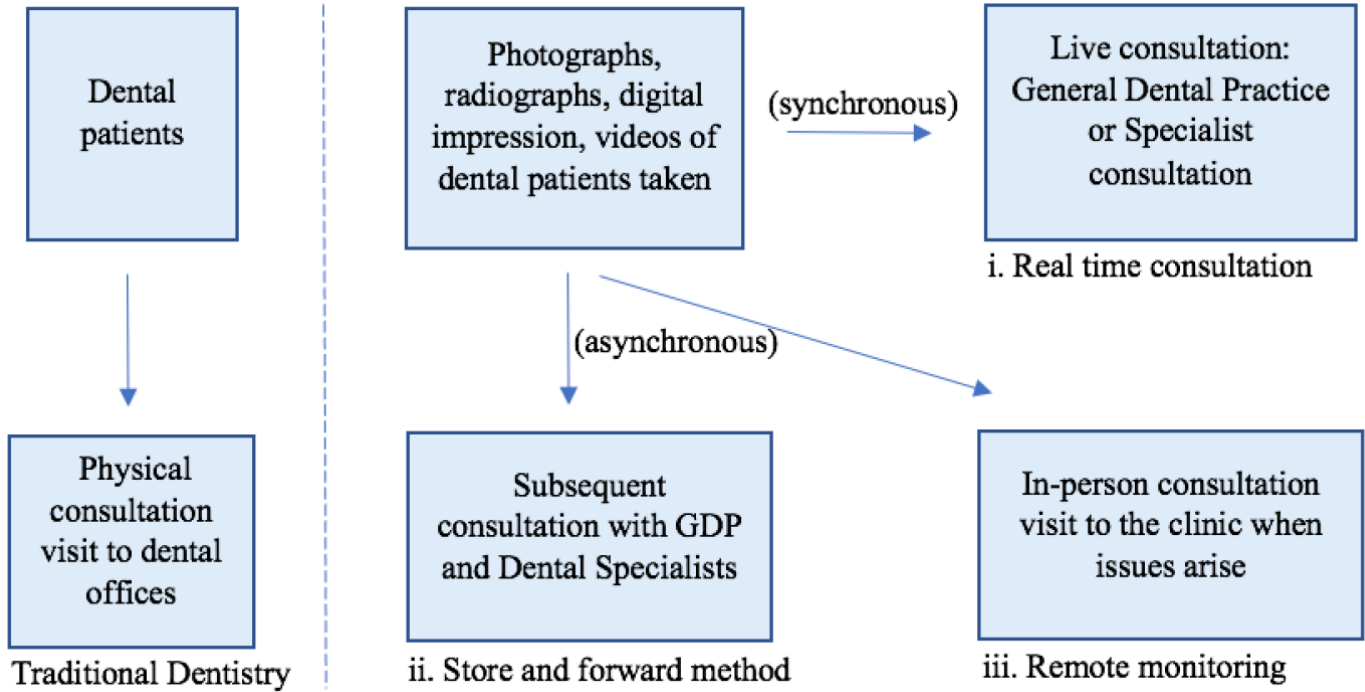
J Telemed Telecare (2000)



Teledentistry

- ✓ **Training**- collection of appropriate clinical information, including extraoral photographs, intraoral images, and radiographs (digital or scanned) to facilitate the consultation and treatment planning to be provided in a timely, targeted, and cost-effective manner





Awareness regarding Teledentistry among Dental Professionals in Malaysia

RA Khokhar (2022), BioMed Research International

- ❖ Validated questionnaire sent to 1000 dental practitioners registered with Malaysian Dental Council
- ❖ 31% response rate (two thirds in major cities)
- ❖ **70%** in agreement Teledentistry will improve **more efficient referrals, benefit patients in remote areas** and **shorten waiting list**, during pandemic- improve dentists and patients safety

- 42% of the participants felt unsure about the **diagnosis' accuracy** using teledentistry in a clinical setup
- over **90%** of respondents showed concern regarding **digital forgery**
- **84%** expressed significant concern over patient **confidentiality**

❖ *Policy, training, targeted information*

Awareness regarding Teledentistry among Dental Professionals in Malaysia
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- Dental practitioners who aim to provide Teledentistry service- should be equipped with sufficient knowledge about the nature and availability of local dental resources to provide appropriate further care to patients.
- On-site consultation would still be required for definite diagnoses and appropriate treatment planning

Patients' Readiness Towards Teledentistry in the Malaysian Urban Population Attending an UG Teaching University

E Zain (2023), J E Health

- ❖ 631 adult patients
- ❖ 77% comfortable using online communication platform
- ❖ 55% of patients felt that virtual clinics would save time
- ❖ 60% thought it could reduce travelling costs
- ❖ 51% showed willingness to use video or telephone clinics when implemented

Patients' Readiness Towards Teledentistry in the Malaysian Urban Population Attending an UG Teaching University

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Moving Forward

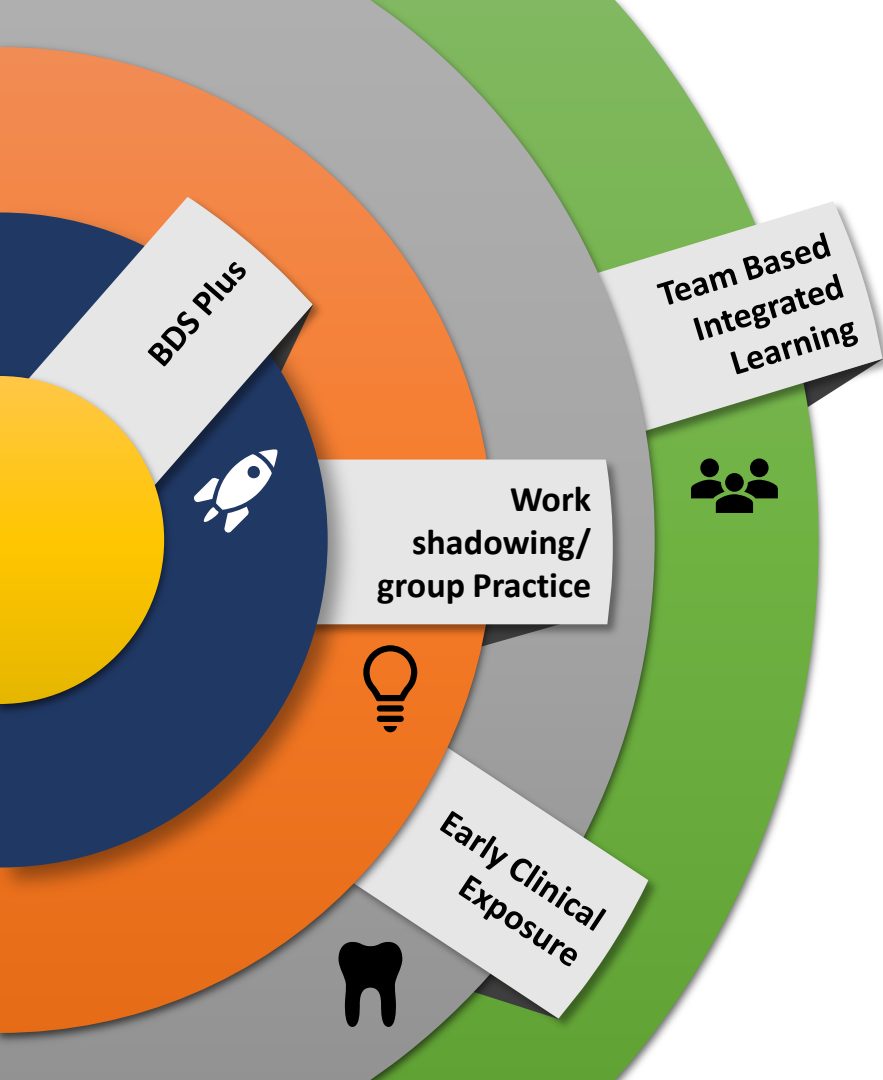
Improve acceptance—

- Accept teledentistry as an alternative method of oral care
- Provide appropriate training (dental practitioners; patients) and dental education
- Roles and responsibilities of regulators

Dentistry in Malaysia

- ✓ 13 Dental Schools- 6 Government, 7 Private
- ✓ Dental Dean's Council, work hand in hand with Malaysian Dental Council - determine dental programme standards
- ✓ *Minimum Clinical Experience (MCE)*- eligibility to sit for competency tests
- ✓ *Expected Clinical Experiences (ECE)*
- ✓ 5 year programme

Key Features of the BDS 2021 Curriculum



**EARLY CLINICAL
EXPOSURE**



BDS PLUS



Enhancing skills through BDS Plus Courses.

**DATA SCIENCE
ANALYTICS**



**TEAM BASED
INTEGRATED
LEARNING**



Development of clinical skills in an environment similar to a small-group practice..

BDS Plus Course

- Introduction to the concept and history of tele dentistry
- Exploration of the technology used in tele dentistry
- Discussion on the clinical applications of tele dentistry across dental specialties
- Addressing legal and ethical considerations, such as patient privacy and data security
- Practical training in using tele dentistry technology and conducting remote consultations

Learning Outcome	Topic	Delivery mode	Duration	Assessment	Venue	Sl't hrs
Module 1						
Introduction to Teledentistry.						
1. Define teledentistry and its role in dentistry	Introduction and impact of teledentistry on oral healthcare delivery	Lecture, discussion, recorded lectures. Presentations. Microlearning video. Self-directed learning.	1 videos 5 minutes. 1 hr lecture.	Self-evaluative quizzes. Formative assessment	Online Synchronous	4 hrs
2. Identify the benefits and limitations of teledentistry	Overcoming geographical barriers to oral health				Online Asynchronous	4 hrs
3. . Recognize the various types of teledentistry and their applications	Benefits and Limitations of Teledentistry					4 hrs
4. Understand the ethical and legal considerations of teledentistry.	Privacy and data protection issues					
	Applications of Teledentistry (triage	Recorded Lecture. Self - directed learning	1 video 5 minutes; 1 hr lecture			4 hrs

Ethical and Legal Issues

- Confidentiality of transferred patient information
- inherent risk of improper diagnosis and/or treatment planning due to limited information provided
- Informed consent- information may be intercepted, despite maximum efforts to maintain security
- Lack of well-defined standards





Thank
you!