



Identify the Dentistry Students Perception of the Learning Environment (LE): A Literature Review

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ABSTRACT

Background and aim: Learning environment in the process of medical education and the impact of the professional behavior of learners based on their understanding of learning environments is a unique role. The aim of this systematic literature review was evaluation. Identify the Dentistry Students' perception of the LE.

Materials and methods: Some papers retrieved using the search strings were chosen via consideration of specific criteria for ensuring their relevance and whether they were able to reply to each RQ. Upon reading the full-text papers, all included studies meeting inclusion criteria that considered the titles, abstracts, and keywords were regarded as the pertinent paper.

Conclusion: Recommended to plan appropriately for holding educational courses and prepare conditions, facilities, and suitable environments for the growth of these educational approaches.

1. Introduction

One of the foremost imperative missions of the health system in each community is preparing the committed strengths. Within the field of dentistry, due to its significance in giving the health of the community, consideration is paid to move forward the level of instruction of students at this organize, because it is essential, so the high quality of the instructive environment can increment the quality of services and advance the joint health of the community. the learning environment implies the recognition and encounter of faculty and students from the environment.^[1, 2] The educational environment includes a few components that contribute to learning, such as classes, other learning activities, teachers, and social relationships. The learning environment incorporates what is seen or experienced by students and teachers, and it stands out as a factor that can exacerbate or mitigate stress among dental students.^[3] The winning field of education can moreover have diverse impacts on learning and educating to move closer to or out of the standard of instruction. On the other hand, learning inspiration is effective.^[4] Notably, the students' academic achievement, success, and well-being require a positive learning environment.^[5] Nowadays, change contains an exceptionally critical part within the handle of therapeutic instruction. Instructive programs at each level and area attempt to approach the alluring and characterized guidelines for each instructing and learning movement, and the later positioning of colleges and accreditation the program of learning situations will be precious and essential, which can result within the

advancement and enhancement of the quality of instructive conditions as a result of preparing and modifications.^[6, 7] The Dundee Ready Education Environment Measure (DREEM) could be an instrument utilized significantly in the restorative and well-being callings to assess the learning environment from the students' perspectives. DREEM is one of the questionnaires applied to evaluate the students' perception of their learning environment, which is composed of Teaching, Learning, Academic self-perception, Atmosphere, and Social self-perception.^[5] Considering the original part of the learning environment in the preparation of medical education and the effect of the proficient behavior of learners on the premise of their understanding of learning situations, particularly after graduation, this has driven the overseers of therapeutic instruction frameworks to by understanding the learners of diverse instructive levels from learning situations and making the suitable changes and modifications, they give the central system for making strides the quality of the specified situations and give favorable conditions for encouraging the instructive handle and for making significant learning in learners, which eventually leads to a more palatable accomplishment of pre-defined preparing objectives will be.^[8, 9] They give the central system for improving the quality of the said environments and provide favorable conditions for encouraging the instructive handle and creating significant learning in learners.^[9-11] The aim of this systematic literature review was evaluation. Identify the dental student's perception of the LE.

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2. Materials and methods

EndNote X8 software has been applied for finding the duplicates and used for electronic title management.

Planning the review

Identifying the need for the review

The objectives and questions of the study are presented here:

- RO1: Awareness of Thyroid disorder in Dentistry Students.
- RO2: Awareness of Photodynamic Therapy in Dentistry Students.
- RO3: Awareness of Hepatitis B in Dentistry Students.
- RO4: Awareness of Antibiotics and Analgesics in Dentistry Students.
- RO5: Awareness of Evidence-Based Dentistry (EBD) in Dentistry Students.
- RQ: What are the most identify perceptions utilized in the learner models?

To answer the above question, we analyzed the included research about the Identify dental students and integrated them into an adaptive learning environment.

Conducting the review

Search strategies

In this section, the research objectives have been formulated, and research questions have been elaborated for formulating the search strategies. Moreover, for the reduction of the numbers of the papers, the keywords have been specified, search strings have been generated, the search structure has been developed, and the search procedure has been performed implemented. Notably, the keyword set was “DREEM questionnaire”, “Learning Environment”, “Thyroid disorder”, “Photodynamic Therapy”, “Hepatitis B”, “Antibiotics”, “Analgesics”, “Evidence-Based Dentistry OR EBD”, “Dentistry Students”, “Dentistry”, “dental”.

Selection criteria of the research

In this section, some papers retrieved using the search strings have been chosen via consideration of specific criteria for ensuring their relevance and whether they were able to reply to each research question. Upon reading the full-text papers, all included studies meeting inclusion criteria that considered the titles, abstracts, and keywords were regarded as the pertinent paper.

This section presents the inclusion criteria.

1. The research reported from 2015 to 2019.
2. Research wrote in English.
3. Research, which discussed a technique for identifying dental students.
4. Research presented in academic journals as well as conference proceedings.
5. Research integrated into the adaptive learning environment
6. Articles that showed the identity of the dental student's used in a learner model

This section lists the exclusion criteria.

1. Books
2. Research with inaccessible full text.
3. The abstract-only publications or PowerPoint presentations.
4. Research, which just provided the lessons learned, guidelines, as well as discussions.
5. Research, which has not addressed the adaptive learning environments or learner models.
6. Research, which published a similar investigation from distinctive academic databases.

Evaluation criteria for the research quality

It should be mentioned that the research chosen following the inclusion criteria has been assessed in terms of the quality of the quality evaluation criteria.

3. Results

A comprehensive insight into the Identify the dental student's perception of the learning environment and methods utilized for identifying the learner model would be provided.

Awareness of Thyroid disorder in dentistry

The Thyroid is the primary regulator of metabolism and affects all functions of the body. Thyroid dysfunction is the second most common endocrine disorder that can affect anybody's system, including the mouth. The oral cavity is affected by excessive or deficient hormones.^[12] By identifying the beginning side effects of the thyroid, the dentist can allude the quiet to therapeutic conclusion and treatment and constrain the potential side impacts of uncontrolled treatment.^[13] Barri Dizaj et al.^[14] performed on 121 patients with hypothyroidism and 55 patients with hyperthyroidism, Demographic data of individuals, including personal profile, age, and sex, were recorded. All dental samples, flashlights, and abslange were used to complete the questionnaire in terms of oral lichen planus. Confirm the clinical diagnosis of oral lichen planus; reticulocyte retinal tissue is considered thin white or sterile lines in the form of mesh or rings. The popular type is necessary as small white dots. Other types are lichen planus, erythematous, ulcerative, bullous, and Plaque. They find knowledge of the recognition of the clinical signs of these lesions, the interaction of the dentist and endocrinologist; accurate follow up of these patients, control of their complications and considerations while working with these patients to prevent the occurrence of possible complications should be considered, the dentist should be aware of the oral manifestations of these patients before starting treatment of thyroid patients.

The importance of this awareness:

1. The dentist may be the first person to have a severe thyroid disorder and help diagnose it early.
2. It can prevent potential complications from the treatment of patients.

Awareness of Photodynamic Therapy in dentistry

Staphylococcus Aureus is a colonized bacteria in the mouth and can cause oral diseases like caries and periodontal disease. Nowadays, a new photochemical approach, called photodynamic therapy to eliminating microorganisms has been of great interest.^[15] Photodynamic therapy generally consists of 3 parts: light, sensitive to light, and free radicals.^[16] When its optimal wavelength stimulates a light-sensitive material, it is energized from the low-energy mode. The triple state's high half-life results in a reaction between the light-sensitive material and the environment and oxygen molecules in the tissues and oxygen. It produces singlet and other free radicals that cause tissue damage.^[17] The benefits of photodynamic therapy include: non-invasive, no need for antibiotic and sensory administration, and bacterial degradation in a short period of seconds.^[16] Sanaei et al.^[17] at in a vitro study, effect of photodynamic therapy on the number of oral Staphylococcus Aureus colonies was evaluated using two indices of Indocyanine Green and Methylene Blue with sensitizer with Chlorhexidine mouthwash, Considering the importance of Photodynamic Therapy in dentistry, the dental practitioners' attitudes in terms of the exploration of and attendance in the workshops or lectures about the photodynamic therapy have been positive. Nevertheless, the photodynamic therapy handling training would be ensured, so as the dental practitioners may instill photodynamic healing in their ordinary and routine dental practices. Notably, above 90% of the clinicians at all discussed

the photo-chemotherapeutic choices with their patients due to the respective dental dysfunctions. Additionally, referral patterns were not satisfactory in terms of PDT applications, which may be ascribed to the minimum or lack of the resources to photodynamic therapy or laser therapy. However, understanding the dependence of the photodynamic therapy process's success on the necessary information and the cooperation plans between the laser specialist and an inter-disciplinary team would be crucial.^[16] Consequently, the high increased costs of the treatments and necessity of the meticulous skills/training while using the PDT deterred the clinicians for selecting these treatment choices for patients.^[18-20]

Awareness of Hepatitis B in dentistry

Hepatitis B virus (HBV) is a coating virus with a diameter of about 42 nm. The virus has an external coating that provides hepatitis B surface antigens (HBs Ag) and has an internal nucleocapsid that consists of a central body antigen (HBc Ag), an antigen (e) HBe Ag) and Polymer DNA.^[21] Dental staff are at high risk for developing a hepatitis B virus due to constant contact with blood and other biological fluids in the patient.^[22] Kaviani et al.^[23] evaluate the antibody titration against hepatitis B and its related factors in dental students; they showed despite receiving the Hepatitis B vaccine. Still, a relatively high percentage of students did not have an adequate level of immunity. Although enough documents have been provided to show the dental students' awareness of the vaccine for Hepatitis B, they had no concerns about its effects in the case of contact. Thus they made insignificant attempts to help the increase of awareness for this fulminant disease.^[24, 25]

Awareness of Antibiotics and Analgesics

Pain is one of the most indications experienced in dentistry. Hence, analgesics are drugs that are regularly shown within the schedule of dental practitioners. Moreover, the improper utilization of analgesics leads to antagonistic impacts such as side impacts, sedate intuitive, and increments in treatment expenses.^[26, 27] Patients, medical doctors, dentists, and pharmacists may be responsible for the increase in antibiotic-resistant bacteria. Several factors cause this increase; incomplete antibiotic treatment processes followed or insufficient doses taken by patients, and the prescription of antibiotics by some doctors just to eliminate the symptoms without thinking about the increase in antibiotic-resistant bacteria.^[28-30] Bas et al.^[31] Explore the knowledge, the attitude, and the awareness of patients about the use of antibiotics and analgesics. The used questionnaire, which contained 20 questions, was prepared based on similar surveys. The questionnaire entailed problems regarding attitudes towards usage, accessibility, efficiency, side-effects, usage for dental issues, and resistance. Results showed that the patients had insufficient knowledge and incorrect attitudes pertinent to the application of the antibiotic. A more detailed perspective about the level of attitude related to the use of medicines by society should be acquired by making an extensive study encompassing a higher number. At that point, the number of life-long programs to raise the awareness of primary specialists and the drug specialists and all well-being experts taking part within the handle on the signs for the utilize, the impacts, and the side impacts of drugs ought to be expanded. At long last, the well-being experts ought to use their motivating force to raise the level of information, the state of mind, and the mindfulness of the society towards the results of the utilize of drugs without specialist medicine.^[32]

Awareness of the Evidence-Based Dentistry (EBD)

It is widely accepted that EBD is a branch of evidence-based care science that is according to American Dental Association as follows: It is a method for deciding dental, medical cares that require for a rational assessment of scientific texts and deduction of the best existing evidence in combination with clinical experiences of the dentist, patient's dental conditions, medical history and medical requirements and preferences of the patient.^[33] Through preparing of EBD standards to the dentistry students, they learn how to upgrade their information based on unused considers and utilize it in clinical treatments after graduation.^[34] Due to fast improvement of science, knowledge and emerging of modern procedures inside the field of dental treatment and conclusion, it is required for the students to be familiarized with the most recent studies and to do dental tasks based on advanced science where EBD strategy is the best-organized prepare to realize this objective for recognition and mindfulness of understudies about this strategy.^[35] Khavid et al.^[36] Assessment awareness, knowledge, and attitude of dentistry students have been examined in evidence-based dentistry(EBD). They find Knowledge and awareness about EBD were at a low level; the necessity felt for arranging in this field to update their mindfulness and information. Prescribed to arrange suitably for holding instructive courses and arrangement of conditions, offices, and flexible environment for the development of these informative approaches to the existing positive and reasonable belief and attitude concerning EBD between dentistry students. Jamali et al.^[2] assessed dentistry students' understanding of the educational environment. To evaluate the learning environment, used DREEM's Assessment Questionnaire (DREEM) questionnaire. The result showed that the overall results of this research indicate that the average total score for the level of the basic science is 108.22 and for the clinical course 111.03. Based on this number, the percentage of satisfaction of students from the educational environment was evaluated to a favorable level. Among the domains, the highest score belonged to the educational atmosphere. Moreover, social self-perception emphasizes the student-based social parameters, and each area likely has minimum involvement in the identification of specific cases of the curriculum improvements. As an alternative, it may be a marker of how the educational environment, such as long hours of class, clinical commitments, and self-directed study requirements, influence students' social and personal self-esteem. Therefore, the above domain could be one of the more universal indicators of the students' well-being. Put differently, a poor social network of support could be the secondary consequence of the perceived context. Social self-perception emphasizes the student-based social components and all spaces that may contribute the slightest to recognizing particular ranges of enhancement within the educational modules. Instep, this could be one of the markers of how instructive context, as the lengthy hours of coursolongical obligations and self-directed ponder prerequisites impact the students' individual and social self-esteem.^[37] Therefore, space could be a more worldwide marker of understudy wellbeing. Put differently, a frail social arrangement of bolsters could be an auxiliary result of the seen context. However, the difference between pre-clinical and clinical stages of the curriculum implies the teaching and learning structure in the health professional degrees. Therefore, more studies should be conducted on how environmental domains have a specific correlation with the additional dimensions of the student achievement and curriculum, including wellbeing. Consequently, this may involve logistical parameters like time-tabling and their effects on the physical well-being to less significant settings with the possible impacts on the mental well-being.^[5, 11, 38-41]

5. Conclusion

It is necessary to perform more studies on how environmental domains have a more specific correlation with the other dimensions of the student achievement and curriculum. Recommended to plan appropriately for holding educational courses and preparing conditions, facilities, and suitable environment for the growth of these educational approaches.

Conflict of Interest

The authors declared that there is no conflict of interest.

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