

The use of Instagram as an educational tool in an undergraduate Oral and Maxillofacial Radiology course in Trinidad and Tobago

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ABSTRACT

Objectives: The purpose of this study was to identify the use of Instagram both prior to and during an undergraduate oral radiology course at The University of the West Indies and to ascertain the perceived impact of Instagram as an educational tool on the course's teaching and learning.

Method: A private Instagram account was created in 2017 for use in the fourth-year oral radiology course. Subjects included 30 dental students registered for the year long course. One dental radiograph was posted per week with associated questions. A piloted and previously tested questionnaire modified to our study was administered and statistically analyzed.

Results: 24 (80%) students completed the research questionnaire. 8 (33%) students indicated that they did not have an Instagram account prior to the study. 14 (61%) students agreed and 9 (39%) students strongly agreed that the radiographic posts and discussions generated throughout the course of the study were helpful.

Conclusion: The findings revealed in this study were that the use of Instagram in the oral radiology course was helpful to the students and most reported that they would enjoy the use of this platform in other courses.

INTRODUCTION

Instagram is an internet-based photo-sharing application that allows users to share pictures and videos either publicly or privately. Since its launch in 2010 it has rapidly gained popularity with an estimated 700 million users as of April 2017. (1) One study on the use of social media by dental educators in 2013 concluded that although few would dispute the influence social media has on today's students, the suitability and appropriateness of social media technology and its integration into dental curricula require further evaluation. (2) Thus, this study aims to investigate the use of Instagram as an educational tool in an undergraduate Oral and Maxillofacial Radiology course in Trinidad and Tobago.

METHOD

The study was approved by the Campus Ethics Committee, Faculty of Medical Sciences, The University of the West Indies, St. Augustine, Trinidad. A private Instagram account was created by the principal investigator in September 2017 for use in the fourth-year undergraduate oral radiology course. Subjects included 30 dental students registered for the year long course. The students were informed of the Instagram account name, "ttorad" and asked to voluntarily follow the page with an existing or newly created Instagram account. Only students registered for this course were accepted to follow the page. At least one dental radiograph was posted per week asking to "describe the abnormality and give differential diagnoses" or to "identify the anatomic landmarks". The correct answers were posted within two days. All radiographs were de-identified in compliance with international health record privacy guidelines HIPPA(Health Insurance Portability and Accountability Act USA). (3)

A one -hour live question and answer session was offered two days before each written assessment for the course by the principal investigator. On completion of the final written assessment, a voluntary anonymized questionnaire previously tested by Gonzalez et al (4) was administered to participating students. The results were analyzed using SPSS version 24.

RESULTS

Out of a class of 30 students, 24 (80%) students completed the research questionnaire. Of these 16 were female and 8 were male, with the mean age of respondents being 25 years. Addressing the reported use of Instagram, 8 (33%) students indicated that they did not have an Instagram account prior to the study. 7 (29%) of these students without an account subsequently created one during the study. The two most common reasons given for creating the Instagram account were to stay informed of other questions and answers and to view the radiographic examples posted. Most students 67% stated the main reason for having the account was for personal reasons.

Section 3 of the questionnaire investigated the student's perception of the impact of Instagram on teaching and learning (Figure 1) . 14 (61%) students agreed and 9 (39%) students strongly agreed that the radiographic posts and discussions generated throughout the course of the study were helpful. Figures 2 &3 are examples of radiographic posts and discussion generated on "ttorad" by the principal investigator and students.

When asked about whether the Instagram discussion improved accessibility to the lecturer, students were either in strong agreement (48%) or agreement (52%). They were no negative responses recorded to this question. Regarding Instagram use in future courses, only 1 (4%) student disagreed.

Figure 1: Students' perceptions of the impact of Instagram on teaching and learning

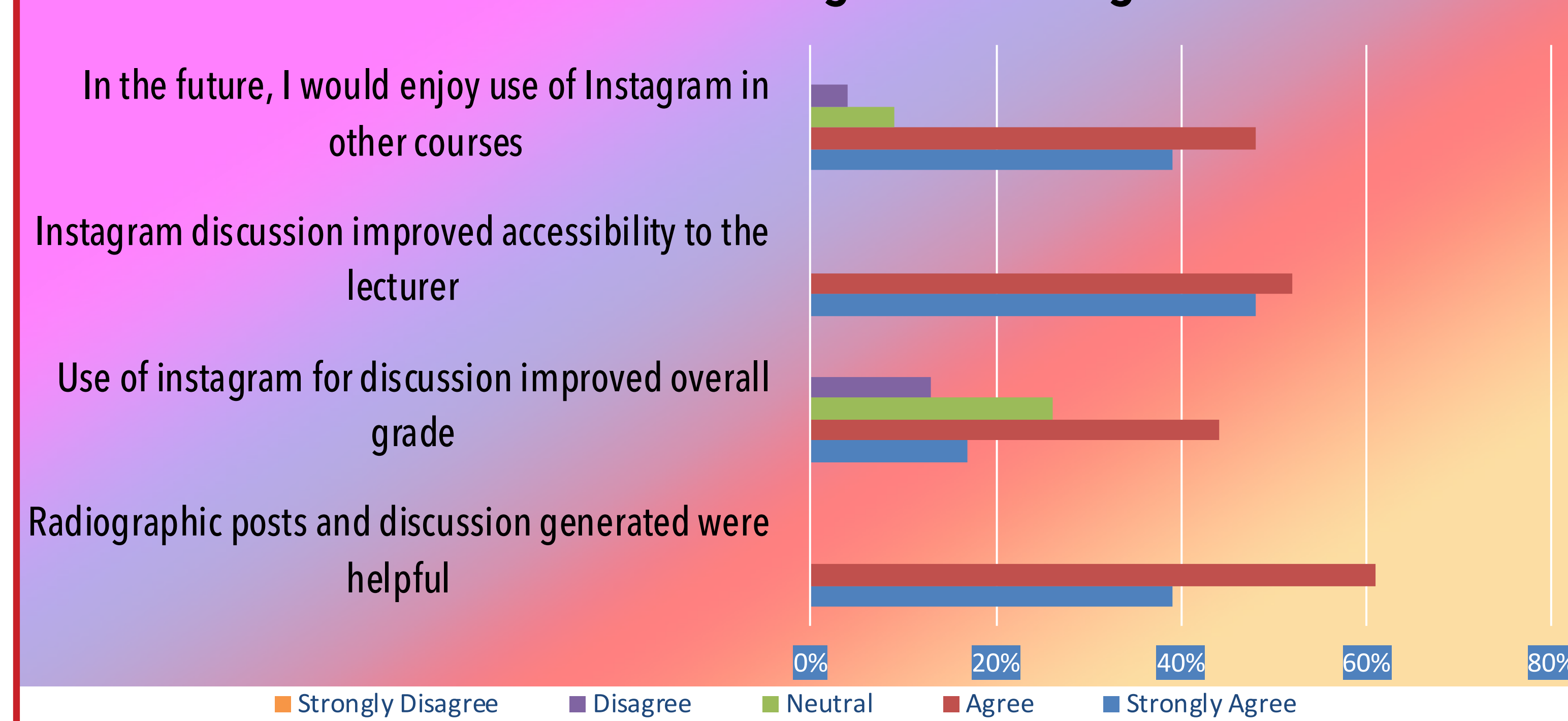


Figure 2: Example of "ttorad" radiographic posts of intraoral images

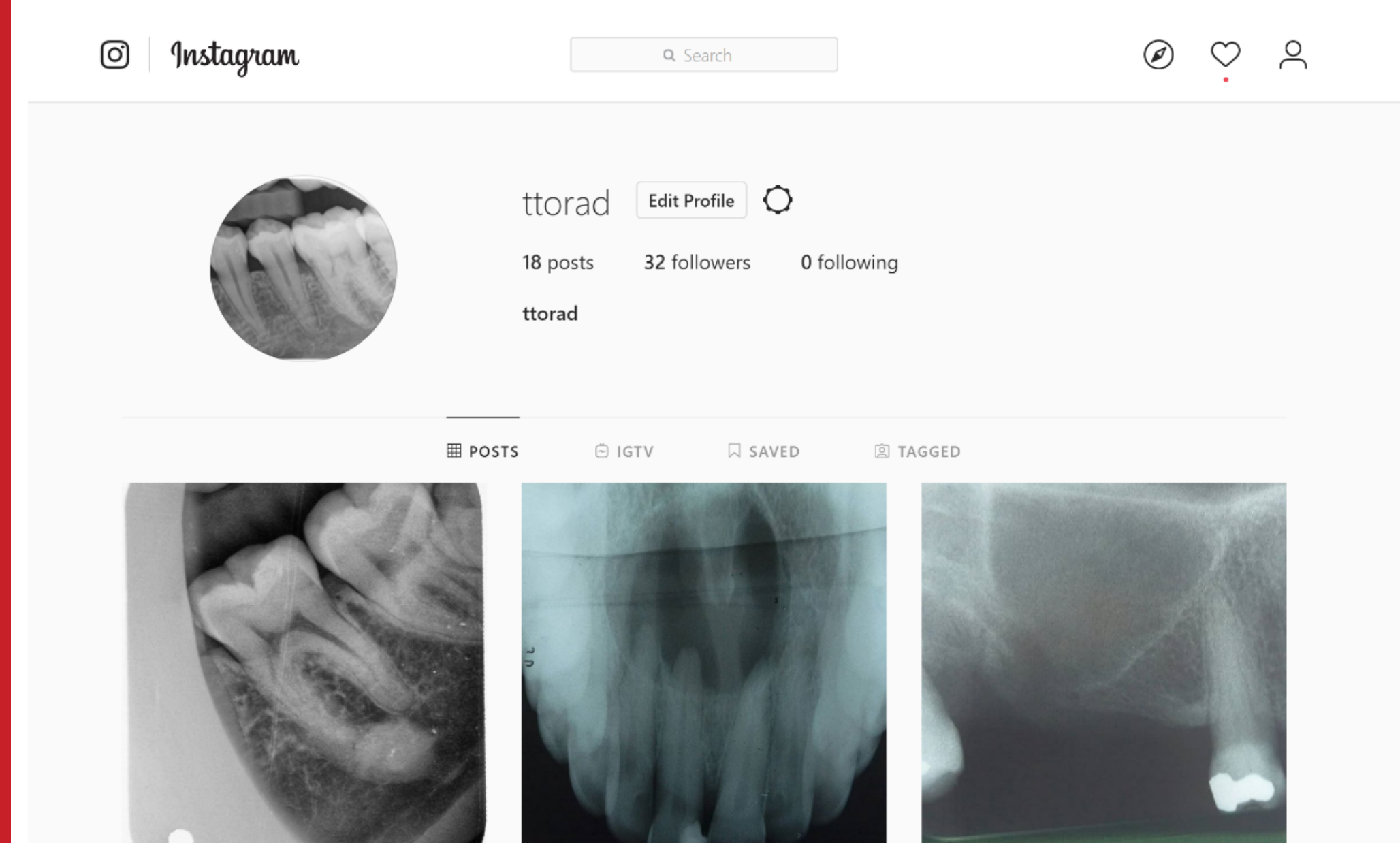


Figure 3 :Example of a "ttorad" radiographic post with discussion



DISCUSSION

Social media use in health professional education has been investigated in the past and the results of a 2010 online survey of over 1,000 health professions students indicated that they preferred online media as their primary source of information and that Facebook was their most often-used social media application.(5) However, with advent of newer platforms of social media such as Instagram which has reported to be rapidly overtaking Facebook (6) in popularity, investigation into its use as an educational tool for health professionals is necessary. One previous study suggested that a better understanding of social media and its role in the development and practice of newly qualified dental professionals could benefit both trainees and trainers.(7) To the author's knowledge this is the first study of Instagram use in undergraduate oral and maxillofacial radiology teaching.

The use of Twitter in oral radiology teaching was investigated previously and published in 2016 highlighting findings of an enhanced learning environment during the course. (4) The results of our study were concurrent with this study. Contrary to this study however, most of our students (67%) had an existing Instagram account prior to the study which indicates that social media accounts have become increasingly popular over time. The majority of students cited they created the Instagram account for personal reasons. Instagram is one of the most popular social networks worldwide with approximately one billion monthly active users as of June 2018 which increased from 800 million in September 2017. (8) Its use has been reported to be higher than Twitter with its monthly active users estimating only 321 million in 2018.(8) This finding can encourage dental educators to incorporate the use of such platforms into their courses because of the familiarity of the millennial students with this platform.

The limitations of the study included a small sample size and it being conducted in only one institution. However, these positive findings can lead the way for more extensive investigation of Instagram use in oral radiology education courses worldwide. Future investigations will be conducted into the use of this social media platform in other institutions in the region and its ability to stimulate inter- campus discussion and education in the field of oral and maxillofacial radiology.

CONCLUSION

This study revealed that using Instagram as an additional educational tool in the oral and maxillofacial radiology course was positively perceived by fourth- year dental students and most reported that they would enjoy the use of this platform in other courses. The increased accessibility to the lecturer was appreciated by the students thus, dental educators should consider incorporating this platform into their courses to improve their learning environment.

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