

# SOCIAL MEDIA FOR ENHANCED RADIOGRAPHY EDUCATION

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## Introduction

Social media (SoMe) platforms have been widely explored as an educational tool, with early adopters reporting significant success<sup>1</sup>. An increasing number of healthcare institutions have been using SoMe for patient care and education, organizational promotion and public health programs. Indeed the pervasiveness of SoMe has increased accessibility to healthcare information and can potentially improve and/or complement clinical education<sup>2,3</sup>.

Usage of SoMe enhances communication, promotes collaboration with peers and facilitates retrieval of relevant information for decision making<sup>2</sup>. However, several gaps relating to SoMe and radiography education have been identified and need to be addressed such as the under-utilization of SoMe platforms in the formal radiography undergraduate curriculum and for Clinical Educators' (CEs) professional development (PD). This may be due to the scarcity of engagement and interactive platforms with regards to Radiography education in Singapore.

**The aim of this research study is to evaluate how SoMe utilization can:**

1. Improve Diagnostic Radiography (DR) undergraduate student learning
2. Increase awareness of radiography among the general public
3. Support professional development for CEs

## Methodology

**Participants (Total: 63)**



**19 DR  
Undergraduates**



**31 General  
Public**



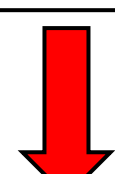
**13 Clinical  
Educators**

### Study Design

**Preliminary Survey**  
(Total duration: 2 weeks)



**Pilot Run & Monthly online  
Focus Group Discussions**  
(Total duration: 3 months)



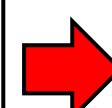
**Post-pilot run Survey**

- Ethics approval was granted by Singapore Institute of Technology (SIT) Institutional Review Board (IRB) and informed consent was sought from participating volunteers.
- Pilot run of @SgMedicalImaging page on Facebook and Instagram
- 6 content topics were generated, taking into consideration the participants' indicated preferences from the preliminary survey.
- Each content topic was customized to reach out to the three different participant groups.
- SoMe posts were designed using Canva.
- Reviewed through a team-based peer review system before the contents were published
- Each topic was presented on SoMe for 2 weeks
- At the end of each month, an online focus group discussion was conducted over Zoom.

**Aim:** Evaluate overall usefulness of the online distributed content

### Social Media (SoMe) Pilot-Run Content Topics

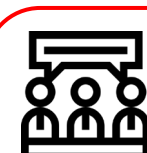
1. Addressing the different radiographic modalities
2. Career progression in Diagnostic Radiography
3. Impact of Coronavirus Disease (COVID)-19 on radiographic practices
4. Managing patients of different backgrounds during radiographic procedures
5. Addressing radiation risk and anxiety during mammography and general X-ray examination
6. Paediatric and Geriatric imaging



### General Objectives

To allow participants to have a deeper insight on Radiography, its clinical applications and current practices through topics discussed on the two SoMe platforms

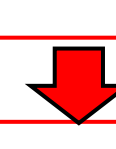
### Data Collection



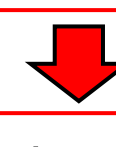
Monthly online focus group discussions (FGD)



Post-pilot survey on Qualtrics XM



Edited transcription was done and cross referenced between researchers



Qualitative Analysis

## Results

A few themes were derived through qualitative analysis of data from the FGD and post-pilot run survey.



### DR Undergraduates (Number of participants = 5 FGD, 7 post-survey)

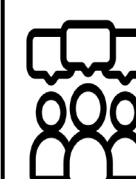
Benefits gained included:

- Access to radiography knowledge
  - Providing a platform for interactions
  - Managing expectations of student radiographers
- However, respondents highlighted areas for improvement in content delivery such as reducing frequency of posts and utilization of visual aids.

### General Public (Number of participants= 1 FGD, 2 post-survey)

Benefits gained included:

- Increased Public health awareness and perception
- Enhances recognition and appreciation of healthcare professionals
- Reinforces proficiency on Radiography education
- Promote inquisitiveness in attitude towards Radiography education



### CEs (Number of participants = 2 FGD, 4 post-survey)

Benefits gained included:

- increased accessibility to knowledge
- However, respondents highlighted a lack of in-depth content for professional development. This was followed by a discussion to broaden the scope by including specialists' inputs and providing more resources.

## Discussion

SoMe utilization is effective for radiography education for the DR Undergraduates, General Public and Clinical Educators.

### Access to knowledge in radiography

The SoMe platforms provided participants access to reliable sources to increase their knowledge, skills and awareness in Radiography. Ease of access is a key advantage for integrating social media into education with the prevalence of technology in today's society<sup>4</sup>.

### Platform for interactions and understanding perspectives

The SoMe platform encourages inquisitiveness and interactions between different groups, allowing participants to appreciate and understand different perspectives. Our findings are congruent with a study regarding the utilization of SoMe, which increases students' perspectives, and allowing them to apply what they have learned<sup>5</sup>. Another study also mentioned that the utilization of SoMe has its advantages over traditional educational methods<sup>5</sup>. A SoMe platform with a massive user base is an excellent platform for educators to teach and impart their knowledge to the general public<sup>5</sup>. Through the interactive platform between the general public and healthcare professionals, it allows the general public to obtain new knowledge, reinforcing existing knowledge and the opportunity to clarify misconceptions.

### Lack of in depth professional development content

Continuous professional development is essential for radiographers to enhance their scientific and radiography practical knowledge in order to provide high standards of care and remain competent in the field<sup>6</sup>. The provision of more resources and involvement of a wide pool of experts may potentially boost the platform's effectiveness as a professional development tool to further promote discussions on radiography practice including the latest technological developments in radiography, promoting critical thinking and further interactions with other CEs.

### Limitations

- As the FGD and post-survey responses were obtained from a small sample size of participants, the results may not truly be representative opinions of other participants
- Majority of data collected are from Instagram, thus unable to conclude participants sentiment on the utilization of other SoMe platforms

## Conclusion

Our study has found that SoMe utilization was beneficial to both DR Undergraduates in their learning and the general public awareness as SoMe improves access to radiography and functions as a convenient platform for interactions and understanding perspectives. However, clinical educators were concerned about the lack of specialist input needed to boost their professional development. Moving forward, future studies can involve engaging external experts and including both CEs and beginning radiographers on their use of SoMe to support continuous professional development.

## References

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