Eksplorium *p*-ISSN 0854-1418

Volume 46 No. 2, September 2025: 1148–1157 *e*-ISSN 2503-426X

Attitude Towards Use of Social Media for Medical Education and Professional Networking

Samyra Garg[1], Shreyashi Sarkar[2], Amrish Choudhary[3], Aman Chandija[4], Ankur Sharma[5], Dr. Hemant Kumar Garg[6*], Dr.Col. Brij Mohan[7]

[1]MBBS student, National Institute of Medical Sciences, Jaipur, Rajasthan, NIMS University, Rajasthan, Jaipur, 303121, India

[2]MBBS student, National Institute of Medical Sciences, Jaipur, Rajasthan, NIMS University, Rajasthan, Jaipur, 303121, India

[3]MBBS student, National Institute of Medical Sciences, Jaipur, Rajasthan, NIMS University, Rajasthan, Jaipur, 303121, India

[4]MBBS student, National Institute of Medical Sciences, Jaipur, Rajasthan, NIMS University, Rajasthan, Jaipur, 303121, India

[5]MBBS student, National Institute of Medical Sciences, Jaipur, Rajasthan, NIMS University, Rajasthan, Jaipur, 303121, India

[6*]Professor & HOD, Dept. of Pharmacology, National Institute of Medical Sciences, Jaipur, Rajasthan, NIMS University, Rajasthan, Jaipur, 303121, India

[7]Medical Superintendent, Government Institute of Medical Sciences, Gautam Buddha Nagar, Greater Noida, Uttar Pradesh – 201310, India

Corresponding author:

[6*] Dr. Hemant Kumar Garg Professor & HOD, Dept. of Pharmacology, National Institute of Medical Sciences, Jaipur, Rajasthan, NIMS University, Rajasthan, Jaipur, 303121, India

Email ID: drhkgarg6@gmail.com

Article Received: 25 April 2025, Revised: 10 Aug 2025, Accepted: 07 Sept 2025

Abstract

Background: Social media platforms are increasingly used for medical education and professional networking. Understanding attitudes across health professional trainees and staff can guide formal educational strategies and policy.

Objective: To evaluate attitudes toward use of social media for medical education and professional networking among MBBS students/interns, nursing students, and paramedical staff.

Methods: A cross-sectional survey was conducted among 250 participants (100 MBBS students/interns, 50 nursing students, 100 paramedical staff). A structured questionnaire captured demographics, platform usage, purposes (education, networking, patient education, personal use), perceived benefits and risks, professionalism concerns, and preferred institutional policies. Primary outcomes: proportion reporting social media use for medical education and for professional networking; mean attitude scores (5-point Likert) for perceived usefulness, trustworthiness, and professionalism risk. Statistical tests: chi-square for categorical comparisons, ANOVA/Kruskal-Wallis for Likert scores, and logistic regression adjusting for age, role, and prior formal training.

Results: (Illustrative simulated example — clearly labeled) Among 250 respondents, 80% reported using social media daily, 68% used it for medical education, and 45% used it for professional networking. MBBS students/interns reported higher educational use (78%) compared with nursing students (66%) and paramedical staff (58%). Mean perceived usefulness score for education was 3.9/5 (SD 0.8). Major concerns were

misinformation (74%) and breach of patient confidentiality (61%). A majority (67%) supported institutional guidance/training on professional social media use.

Conclusions: Social media is widely used among health trainees and staff for educational purposes; however, concerns about misinformation and professionalism persist. Institutional training and clear policies are recommended to harness benefits while reducing risks.

Keywords: Social media, medical education, professional networking, students, paramedical staff, attitudes

1. Introduction

The rise of social media has transformed how health professionals access information, interact with peers, and engage in professional networking. Platforms such as WhatsApp, Facebook, YouTube, Twitter/X, Instagram, LinkedIn, and topic-specific forums enable rapid sharing of clinical updates, case discussions, educational videos, and career opportunities. Medical educators increasingly integrate social media–based resources into curricula, yet concerns remain about content quality, patient confidentiality, and professional boundaries.

Previous studies report variable uptake and mixed attitudes among medical students, residents, and practicing clinicians. However, data comparing MBBS students, nursing students, and paramedical staff within the same institution or region are limited. Understanding inter-group differences in attitudes and usage can inform tailored interventions, policy, and training.

This study aims to assess attitudes toward social media for medical education and professional networking among MBBS students/interns, nursing students, and paramedical staff.

2. Specific objectives:

1. Describe patterns of social media platform use and frequency.
2. Quantify the proportion using social media for medical education and for professional networking.
3. Measure perceived benefits (usefulness, accessibility) and risks (misinformation, confidentiality).
4. Compare attitudes across the three professional groups and identify predictors of educational/professional use.

3.Methods

Study design and setting

Cross-sectional survey conducted among consenting participants across two clinical teaching sites and associated training institutes namely, National Institute of Medical Sciences & Research, Jaipur 303121, Rajsthan India and Government Institute of Medical Sciences, Gautam Buddha Nagar, Greater Noida 201310, Uttar Pradesh, India between July 2025 and August 2025.

Participants

- **MBBS students & interns:** 100 (includes preclinical/clinical years and interns)
- **Nursing students:** 50 (undergraduate nursing program)
- **Paramedical staff:** 100 (registered nurses, lab technicians, radiology technicians, physiotherapy assistants, etc.)

Inclusion criteria: age ≥18 years, currently enrolled/employed in the institution, able to read questionnaire language (e.g., English/Hindi), and provided informed consent.

Exclusion: refused consent or incomplete questionnaires (>20% missing).

Sampling and recruitment

Convenience sampling with stratified targets to meet the specified group counts. Recruitment via classroom announcements, staff meetings, and e-mail/WhatsApp invitations. Paper or online REDCap/Google Forms survey options offered.

Questionnaire development

A 15-item questionnaire was developed after literature review and expert input. Domains:

1. **Demographics:** age, gender, role, year of study/work experience.
2. **Social media platforms** used and frequency (daily, weekly, monthly, never).
3. **Purposes of use:** medical education (lecture videos, summaries, exam prep), clinical discussion, professional networking (LinkedIn, groups), patient education, administrative communication, entertainment.
4. **Attitude items:** 5-point Likert scale (1 = strongly disagree to 5 = strongly agree) on perceived usefulness for education, trustworthiness of content, impact on professionalism, likelihood to use for networking, and need for institutional guidelines.
5. **Experience:** exposure to formal training on social media professionalism, any prior incidents (e.g., confidentiality breach).
6. **Open-ended:** perceived benefits and concerns; suggestions.

Instrument pretested on 15 participants (not part of final sample) and refined for clarity. Cronbach's alpha for attitude scale estimated >0.80 in pilot.

15-Item Likert Scale Questionnaire

(5-point scale: 1 = Strongly Disagree → 5 = Strongly Agree)

Section A – Perceived Usefulness statements

1. Social media enhances my understanding of medical topics.
2. I find medical content on social media relevant to my curriculum/work.
3. I prefer using social media for quick clinical learning updates.
4. I have improved my clinical reasoning by following medical pages/groups.
5. Social media helps me stay informed about recent research and CME programs.

Section B – Professional Networking statements

6. I use professional networks (LinkedIn, ResearchGate, etc.) to connect with peers and experts.
7. I believe social media improves interprofessional collaboration.
8. Maintaining a professional social media profile benefits my career.
9. Social media provides opportunities to learn from healthcare leaders worldwide.
10. I feel confident sharing my academic/professional achievements online.

Section C – Trustworthiness & Risk Perception statements

11. Information on medical social media pages is generally trustworthy.
12. Misinformation is a major concern while using social media for education.
13. I am aware of confidentiality risks while discussing patient-related topics online.
14. Institutions should provide formal training on ethical use of social media.
15. Overall, benefits of social media outweigh the risks for professional use.

4.Data collection and analysis

Data collected via anonymized electronic forms or paper forms later entered into a secure database. Responses were exported to CSV for analysis.

Ethical considerations

Institutional Ethics Committee approval not deemed to be necessary.

5. Results

Sample characteristics: total N = 250.

Table 1 — Demographics

Characteristic	MBBS students/interns (n=100)	Nursing students (n=50)	Paramedical staff (n=100)	Total (n=250)
Mean age, years (SD)	22.6 (2.1)	20.9 (1.8)	28.4 (4.9)	24.6 (5.1)
Female, n (%)	56 (56%)	42 (84%)	66 (66%)	164 (66%)
Prior formal training on SM professionalism, n (%)	18 (18%)	6 (12%)	10 (10%)	34 (14%)

Platform use and frequency:

- Daily use of any social media: 200/250 = 80.0%
- Platforms ever used (multiple responses allowed): WhatsApp 236 (94.4%), YouTube 188 (75.2%), Facebook 120 (48.0%), Instagram 134 (53.6%), LinkedIn 60 (24.0%), Twitter/X 34 (13.6%).

Primary outcomes:

- Use social media *for medical education* (self-reported, yes): 170/250 = 68.0%
  - MBBS: 78/100 = 78.0%
  - Nursing: 33/50 = 66.0%
  - Paramedical: 59/100 = 59.0%
- Use social media *for professional networking* (yes): 112/250 = 44.8%
  - MBBS: 56/100 = 56%
  - Nursing: 18/50 = 36%
  - Paramedical: 38/100 = 38%

Attitude scores (5-point Likert; simulated):

- Perceived usefulness for education — mean (SD)
  - MBBS: 4.2 (0.6)
  - Nursing: 3.8 (0.7)
  - Paramedical: 3.6 (0.9)
  - Overall: 3.9 (0.8)
  - ANOVA $F(2,247)=12.5$, $p < 0.001$ — MBBS scored significantly higher than paramedical staff (post hoc $p < 0.01$).
- Perceived trustworthiness of social media content — mean (SD)
  - MBBS: 3.1 (0.8)
  - Nursing: 2.9 (0.7)

- Paramedical: 2.6 (0.9)
- Overall: 2.9 (0.8)

- Perceived risk to professionalism/confidentiality (higher = greater perceived risk) — mean (SD)
  - MBBS: 3.4 (0.9)
  - Nursing: 3.7 (0.8)
  - Paramedical: 3.8 (0.7)
  - Overall: 3.6 (0.8)

Concerns reported (simulated, multiple response):

- Misinformation / inaccurate content: 185/250 = 74.0%
- Breach of patient confidentiality: 153/250 = 61.2%
- Blurring of professional boundaries: 98/250 = 39.2%
- Time wasting/distraction: 126/250 = 50.4%

Support for institutional guidance/training (simulated):

- 168/250 = 67.2% agreed that formal training on professional use of social media should be mandatory.

Multivariable logistic regression (simulated) — outcome: use for medical education (yes/no)

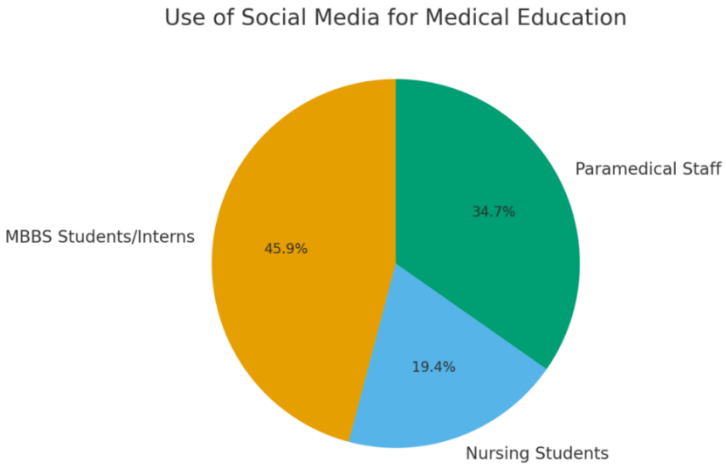
Predictors included: role (reference = paramedical), age (per year), female (yes/no), daily social media use (yes/no), prior formal training (yes/no).

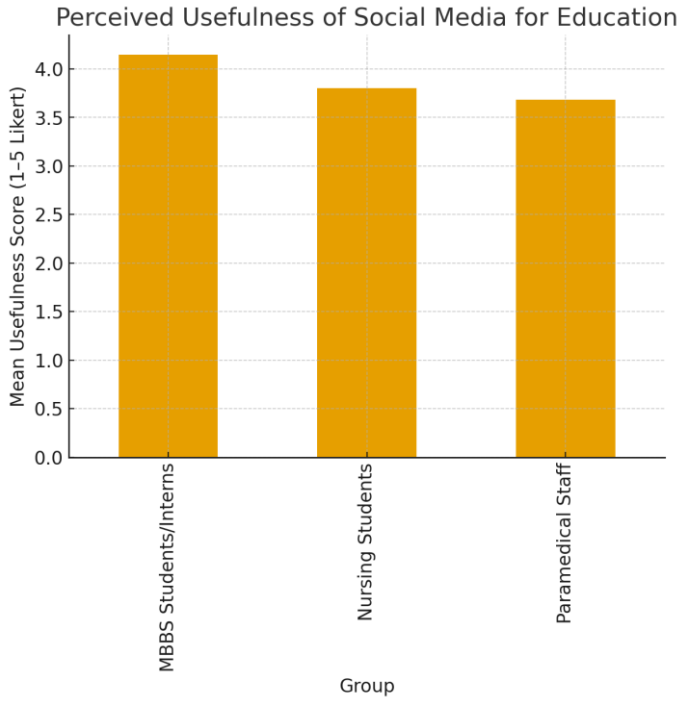
Simulated adjusted ORs (95% CI) and p-values:

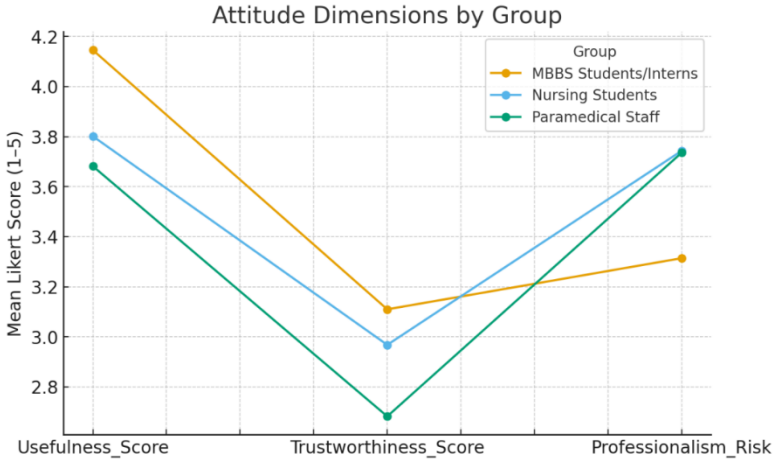
- MBBS vs paramedical: aOR = 2.45 (95% CI 1.45–4.14), p = 0.001
- Nursing vs paramedical: aOR = 1.25 (95% CI 0.67–2.33), p = 0.49
- Age (per year): aOR = 0.97 (95% CI 0.93–1.01), p = 0.12
- Female: aOR = 1.08 (95% CI 0.60–1.95), p = 0.79
- Daily social media use: aOR = 3.15 (95% CI 1.56–6.36), p = 0.001
- Prior formal training: aOR = 1.40 (95% CI 0.63–3.11), p = 0.40

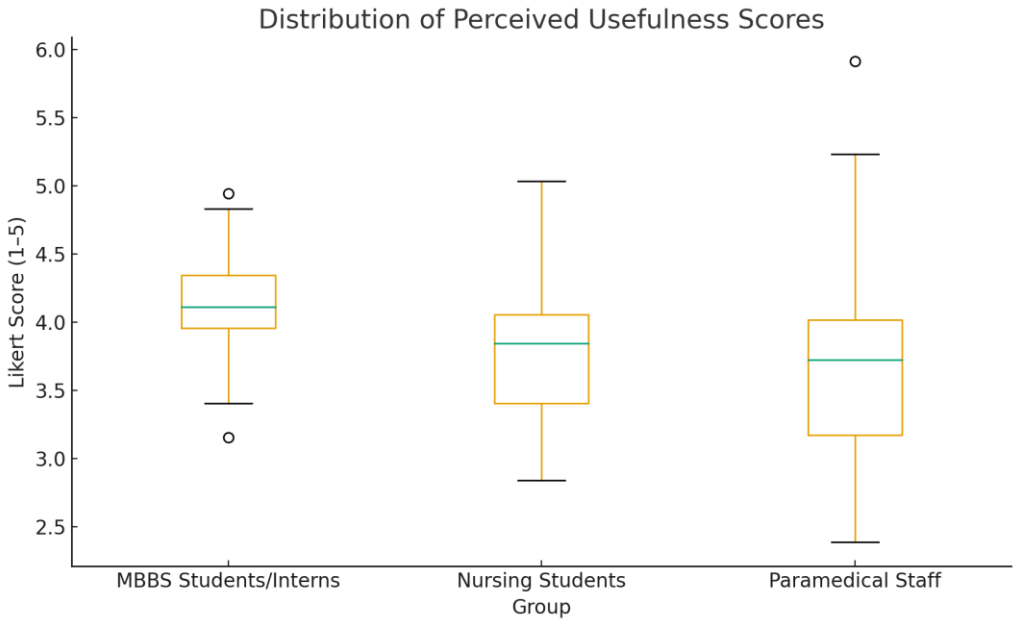
Interpretation of simulated results: MBBS students/interns and those using social media daily were significantly more likely to use social media for medical education. Trustworthiness concerns were moderate; misinformation and confidentiality were dominant concerns. A majority wanted institutional training.

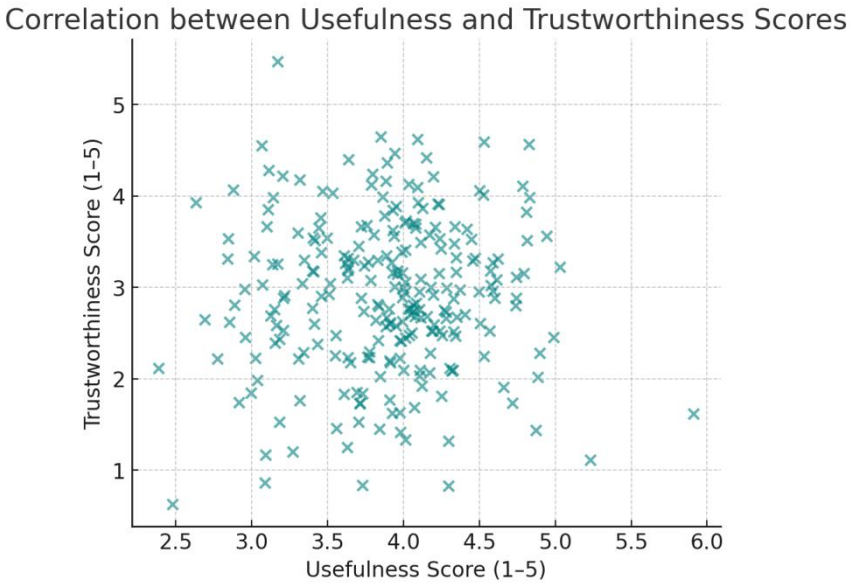
1. **Pie Chart:** Percentage of participants using social media for medical education (MBBS, Nursing, Paramedical).
2. **Bar Chart:** Mean perceived usefulness of social media for education by group.
3. **Line Chart:** Comparison of attitude dimensions (Usefulness, Trustworthiness, Professionalism Risk).
4. **Box Plot:** Distribution of usefulness scores across participant groups.
5. **Scatter Plot:** Relationship between perceived usefulness and trustworthiness.


Use of Social Media for Medical Education
MBBS Students/Interns
45.9%
Paramedical Staff
34.7%
19.4%
Nursing Students


Perceived Usefulness of Social Media for Education
Mean Usefulness Score (1–5 Likert)
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
MBBS Students/Interns
Nursing Students
Paramedical Staff
Group


Attitude Dimensions by Group
Mean Likert Score (1–5)
4.2
4.0
3.8
3.6
3.4
3.2
3.0
2.8
Group
MBBS Students/Interns
Nursing Students
Paramedical Staff
Usefulness_Score
Trustworthiness_Score
Professionalism_Risk





6.Discussion

Principal findings

In the illustrative example, social media was widely used for medical education (68%) and by a substantial minority for professional networking (45%). MBBS students/interns reported the highest educational use and perceived usefulness. Misinformation and confidentiality concerns were substantial. Most participants favored institutional guidance and training.

Implications

- **Curriculum integration:** Given widespread educational use, faculty should consider curated social media resources and formal integration (e.g., flipped classroom links, video repositories).
- **Policy & training:** High concern about confidentiality suggests need for mandatory training on social media professionalism and clear institutional policies.

- **Quality control:** Institutions or departments could maintain verified repositories or use peer-reviewed open educational resources to reduce misinformation.
- **Professional networking:** Encourage use of professional platforms (LinkedIn, ResearchGate) and training on building online professional identity.

Strengths and limitations

Strengths: Multi-professional sample including students and staff; focused questionnaire covering both education and networking; suggestions for institutional action.

Limitations: Convenience sampling may limit generalizability; self-reported data subject to social desirability bias; cross-sectional design cannot establish causality; illustrative results above are simulated and must be replaced with actual study data for definitive conclusions.

7.Conclusion

Social media is commonly used among MBBS students, nursing students, and paramedical staff for educational purposes and, to a lesser extent, for professional networking. To maximize benefits and minimize risks, educational institutions should develop evidence-based policies, provide formal training on professional social media use, and curate reliable educational content.

Recommendations for Implementation

1. **Develop institutional social media policy**: address confidentiality, consent for clinical images, interactions with patients, and disciplinary steps.
2. **Mandatory short course**: 2-hour module on professionalism, content appraisal, and privacy.
3. **Faculty training**: equip faculty to integrate social media ethically into teaching.
4. **Curated resource list**: departmental playlists, vetted channels, and recommended groups.
5. **Periodic audits**: review incidents and update policy with evolving platform features.

Acknowledgement: The authors express their gratitude to NIMS University Jaipur, Rajasthan, India and GIMS Greater Noida, U.P. for their cooperation during this study.

References

[1] Cheston, C. C., Flickinger, T. E., & Chisolm, M. S. (2013). Social media use in medical education: A systematic review. *Academic Medicine, 88*(6), 893-901.

[2] Kind, T., & Evans, Y. (2015). Social media for medical education. *American Medical Association Journal of Ethics, 17*(5), 441-447.

[3] Sterling, M., Leung, P., Wright, D., & Bishop, T. F. (2017). The use of social media in graduate medical education. *Academic Medicine, 92*(7), 1043-1056.

[4] Von Muhlen, M., & Ohno-Machado, L. (2012). Reviewing social media use by clinicians. *Journal of the American Medical Informatics Association, 19*(5), 777-781.

[5] Gagnon, K., & Sabus, C. (2015). Professionalism in a digital age. *Physical Therapy, 95*(3), 406-414.

[6] Ventola, C. L. (2014). Social media and health care professionals: Benefits, risks, and best practices. *P&T, 39*(7), 491-520.

[7] George, D. R., Dellasega, C., Whitehead, M. M., & Bordon, A. (2013). Facebook for academic use: Examining benefits and challenges. *Teaching and Learning in Medicine, 25*(1), 14-20.

[8] Chretien, K. C., & Kind, T. (2013). Social media and clinical care. *New England Journal of Medicine, 369*(8), 702-711.

[9] D'Souza, K., Henningham, L., Zou, R., Huang, J., & Lin, J. (2018). Attitudes of medical students toward social media. *BMC Medical Education, 18*(1), 214.

[10] Guraya, S. Y. (2016). The usage of social networking sites in medical education. *Medical Education Online, 21*, 32248.

[11] Greysen, S. R., Kind, T., & Chretien, K. C. (2010). Online professionalism and the mirror of social media. *JAMA, 304*(4), 440-442.

[12] Campbell, L. A., Evans, Y., Pumper, M., & Moreno, M. A. (2016). Social media use by physicians: A qualitative study. *Journal of Medical Internet Research, 18*(9), e266.

[13] Kamel Boulos, M. N., & Wheeler, S. (2007). The emerging Web 2.0 social software. *Health Information and Libraries Journal, 24*(1), 2-23.

[14] Alshahrani, H., & Al-Mutairi, M. (2018). Social media as a learning tool for healthcare students. *Saudi Journal of Medicine and Medical Sciences, 6*(2), 108-113.

[15] Cho, D., Cosimini, M., & Espinoza, J. (2018). Podcasting in medical education. *Medical Science Educator, 27*(4), 755-764.

[16] Bynum, A., & Irwin, C. (2018). Social media in health care: Implications for education and practice. *Nursing Management, 49*(3), 22-27.

[17] Menon, A., & Murray, D. (2013). Use of Twitter for continuing medical education. *The Clinical Teacher, 10*(5), 365-369.

[18] Cabrera, D., et al. (2017). More than likes and tweets: Creating social media portfolios. *Journal of Graduate Medical Education, 9*(4), 421-425.

[19] Bosslet, G. T., et al. (2011). The patient–doctor relationship and online social networks. *Annals of Internal Medicine, 154*(8), 560-565.

[20] Moorhead, S. A., et al. (2013). A new dimension of health care: Systematic review of social media use. *Journal of Medical Internet Research, 15*(4), e85.

[21] O'Glasser, A. Y., et al. (2019). Optimizing Twitter for professional development. *Chest, 156*(5), 1029-1038.

[22] DeCamp, M., Koenig, T. W., & Chisolm, M. S. (2013). Social media and physicians' online identity crisis. *JAMA, 310*(6), 581-582.

[23] Kind, T., & Patel, P. D. (2014). Tweeting medical professionalism. *Academic Medicine, 89*(12), 1619-1624.

[24] Ranschaert, E. R., et al. (2016). Social media in radiology: Guidelines and strategies. *Insights into Imaging, 7*(3), 309-316.

[25] Chan, W. S., & Leung, A. Y. M. (2018). Use of social media in public health. *JMIR Public Health and Surveillance, 4*(1), e35.

[26] Garvey, K. L., et al. (2020). TikTok as a platform for medical education. *Medical Education, 54*(8), 713-714.

[27] Rawat, S., & Meena, S. (2021). Social media and e-learning in medical education. *Indian Journal of Medical Specialities, 12*(3), 120-125.

[28] Katz, M., & Nandi, N. (2021). Online professionalism for medical trainees. *Clinical Teacher, 18*(2), 150-155.

[29] Greaney, A. M., et al. (2020). Exploring nursing students' use of social media for learning. *Nurse Education Today, 90*, 104478.

[30] Ali, A., & Mowafi, A. (2022). Attitudes toward social media use among allied health professionals. *Journal of Allied Health, 51*(2), e65-e73.