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Research Article

Trust in medical information shared on social media: a cross-sectional survey among healthcare professionals and students

Sosyal medyada paylaşılan tıbbi bilgilere güven: sağlık profesyonelleri ve öğrencileri arasında kesitsel bir anket

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Abstract

Aim: This study aimed to assess the level of trust in medical information shared on social media among different professional groups in the healthcare field, and to examine how this trust varies by age, gender, and professional role.

Material and Methods: A total of 350 participants, including 200 medical students, 75 pharmacists, 75 nurses, and 50 physicians, were included in this cross-sectional survey study. The 30-item questionnaire covered demographics, usage patterns, trust, and misinformation. Exploratory factor analysis identified a nine-item Trust and Attitudes toward Online Medical Information Scale (TAOMIS) with acceptable reliability (Cronbach's α=0.742). Scores (1–4) were rescaled to 0–100.

Results: All respondents reported daily social media use. Students and nurses more often spent >2 hours/day, while physicians and pharmacists used 1–2 hours ($p<0.001$). TikTok was preferred by students (41.5%) and nurses (56.0%), while YouTube use was higher among physicians (42.0%) and pharmacists (42.7%) ($p<0.001$). Trust in online content was low: 68% of physicians and 58.5% of students rated information as often unreliable. Physicians and pharmacists more often verified and corrected misinformation, whereas nurses and students tended to ignore it ($p<0.001$). TAOMIS scores differed significantly by role ($p<0.001$): physicians scored highest (73.5), followed by pharmacists (67.3), while nurses (51.3) and students (41.9) scored lower. Scores did not differ by gender but increased with age.

Conclusions: Healthcare professionals vary in their trust and responses to online medical information. Physicians and pharmacists showed more evidence-aligned attitudes, whereas students and nurses were more vulnerable to misinformation. Integrating digital health literacy into health professions education and strengthening institutional policies are needed to safeguard trust in medical knowledge.

Keywords: social media, misinformation, trust, healthcare professionals

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Öz

Amaç: Bu araştırmanın amacı, sağlık alanında çalışan farklı meslek grupları arasında sosyal medyada paylaşılan tıbbi bilgilere duyulan güven düzeyini değerlendirmek ve bu güvenin yaşa, cinsiyete ve mesleki role göre nasıl değiştiğini araştırmaktır.

Gereç ve Yöntemler: Bu kesitsel anket çalışmasına 200 tıp öğrencisi, 75 eczacı, 75 hemşire ve 50 hekimden oluşan toplam 350 katılımcı dahil edildi. Anket 30 madde içermekte ve demografi, kullanım alışkanlıkları, güven ve yanlış bilgiye maruziyeti kapsamaktadır. Açıklayıcı faktör analizi sonucunda dokuz maddelik Çevrimiçi Tıbbi Bilgiye Güven ve Tutum Ölçeği (TAOMIS) geliştirilmiş ve ölçeğin güvenilirliği kabul edilebilir düzeyde bulunmuştur (Cronbach α=0,742). Puanlar (1–4) 0–100 aralığına dönüştürülmüştür.

Bulgular: Tüm katılımcılar günlük sosyal medya kullandığını belirtmiştir. Öğrenciler ve hemşireler >2 saat/gün kullanım bildirirken, hekimler ve eczacılar çoğunlukla 1–2 saat kullanmıştır (p<0,001). TikTok en sık öğrenciler (%41,5) ve hemşireler (%56,0) tarafından kullanılmış, YouTube ise hekimler (%42,0) ve eczacılarda (%42,7) daha yüksek bulunmuştur (p<0,001). Çevrimiçi içeriğe güven düşüktür; hekimlerin %68'i ve öğrencilerin %58,5'i bilgileri "çoğunlukla güvenilmez" olarak değerlendirmiştir. Yanlış bilgiyle karşılaştığında hekimler ve eczacılar daha çok "doğrulama ve düzeltme"yi seçerken, öğrenciler ve hemşireler sıklıkla "görmezden gelme"yi bildirmiştir (p<0,001). TAOMIS puanları meslek gruplarına göre anlamlı farklılık göstermiştir (p<0,001): en yüksek ortalama hekimlerde (73,5), ardından eczacılarda (67,3) görülmüş; hemşireler (51,3) ve öğrenciler (41,9) daha düşük puan almıştır. Cinsiyet açısından fark yoktur (p=0,543), yaşla birlikte puanlar artış göstermiştir.

Sonuç: Sağlık profesyonelleri sosyal medyadaki tıbbi bilgilere güven ve tutum açısından farklılık göstermektedir. Hekimler ve eczacılar daha eleştirel, kanıta dayalı yaklaşımlar sergilerken; öğrenciler ve hemşireler yanlış bilgiye karşı daha savunmasızdır. Bulgular, sağlık profesyonelleri eğitimine dijital sağlık okuryazarlığı ve yanlış bilgiyle mücadele becerilerinin entegre edilmesi gerektiğini ve kurumsal politikaların güçlendirilmesinin önemini ortaya koymaktadır.

Anahtar Kelimeler: sosyal medya, yanlış bilgi, güven, sağlık profesyonelleri, dijital sağlık okuryazarlığı

Introduction

Social media has emerged as a major avenue for health information dissemination, offering unprecedented reach and interactivity. Platforms such as Facebook, Twitter, and TikTok are now regularly used by the public to seek medical advice or share health experiences (1). This digital shift can improve health literacy and patient engagement, but it also carries significant risks regarding the reliability of user-generated content (2, 3). Unverified and false medical claims spread rapidly online, contributing to what the World Health Organization has termed an "infodemic" – an overabundance of information (including falsehoods) that fosters confusion and undermines trust in health authorities (4). In 2021, the United States Surgeon General likewise warned that health misinformation on social media poses an urgent threat to public health, calling for coordinated efforts to curb its spread (5).

Survey data indicate that while over half of adults have at least occasionally sought health advice on social media, most users are skeptical about what they find (6, 7). In a 2025 nationwide poll, fewer than half of social media users described even "some" of the health content on these platforms as trustworthy, and under one in ten said they would trust "most" of it (8). Notably, younger adults tend to report slightly higher trust in health content on newer platforms: for example, over half of TikTok users aged 18–29 consider at least some of the health information they see on the app to be credible, a higher rate than that observed among older users (8). This generational difference suggests that age and digital nativeness may influence trust in online health information.

Misinformation on social media poses a growing challenge for healthcare professionals, who must navigate this "infodemic" both as information users and patient educators (9, 10). Meanwhile, today's healthcare students (who are digital natives) may rely heavily on social media for information, potentially affecting their trust and verification behaviors (11). However, there is limited research on how much trust these different groups – medical students versus practicing professionals – place in medical information obtained from social media, or how factors like professional role, age, and gender might influence this trust. This study aimed to assess the level of trust in medical information shared on social media among different professional groups in the healthcare field, and to examine how this trust varies by age, gender, and professional role.

Material and Methods

This cross-sectional, web-based survey was conducted in April 2025 and is reported in accordance with STROBE guidelines for cross-sectional studies. The questionnaire was administered in Turkish and English to accommodate a bilingual audience and to maximize participation among healthcare professionals and students who actively use social media. All procedures adhered to the ethical standards outlined by the Institutional Research Committee and were aligned with the 1964 Helsinki Declaration and its subsequent amendments. This study was approved by the Ethics Committee of Trabzon University (Date: 10.09.2024, Approval No: 2024/09). Written informed consent was obtained from all the participants.

Study Population

Eligible participants were ≥18 years old; currently a medical student, physician, pharmacist, or nurse; and reported active use of at least one social media platform. Recruitment was carried out via institutional mailing lists of medical schools, hospital networks, and professional associations, and through controlled posts on closed professional forums. Quota sampling was used to ensure adequate representation across professional groups and a balanced gender distribution. The a priori target sample size was 350, allocated as 200 medical students, 50 physicians, 75 pharmacists, and 75 nurses; recruitment continued until these quotas were reached. To approximate national distributions, the sampling frame targeted ~55% female and ~45% male overall and mean age profiles typical for each profession (students ≈21 years, physicians ≈35, pharmacists ≈40, nurses ≈30). Individuals who declined consent or submitted duplicate/incomplete surveys (>20% missing responses) were excluded.

Instrument

The survey comprised 30 items organized into eight thematic domains: (1) demographics; (2) social media usage patterns; (3) trust in online medical content; (4) preferred information sources; (5) exposure to misinformation; (6) ethical responsibilities in sharing health information; (7) regulatory preferences; and (8) perceived institutional roles. Items were multiple-choice, Likert-scale, or checkbox formats. The 30 items included multiple-choice, Likert-scale, and checkbox questions, developed and validated by a panel of health informatics and public health experts.

Prior to hypothesis testing, we evaluated the dimensionality and reliability of the trust/attitudes domain. Data adequacy and factorability were supported by Kaiser–Meyer–Olkin (KMO)=0.838 and a highly significant Bartlett's test of sphericity (χ^2=1041.6, df≈231, p<0.001). Using polychoric correlations to respect the ordinal response format, we conducted exploratory factor analysis with principal-axis extraction and oblique rotation (oblimin). A one-factor solution was retained based on an eigenvalue ≈3.0 (Kaiser's criterion) and visual inspection of the scree plot (clear elbow after the first factor). All nine items—Q6, Q7, Q8, Q9, Q12, Q13, Q19, Q20, Q23—loaded coherently on this factor (no problematic cross-loadings on inspection). The resulting Trust and Attitudes toward Online Medical Information Scale (TAOMIS) demonstrated acceptable internal consistency (Cronbach's α=0.742). For completeness, the full pool of items (Q6–Q30) showed poor unidimensional reliability (α=0.202), further justifying the focused, theory-consistent TAOMIS for group comparisons and subsequent analyses.

Items in TAOMIS were 4-point ordered responses. To align directionality, all items were coded so that higher values reflect a more critical and evidence-aligned stance toward online medical information. The primary outcome was the TAOMIS score, computed as the mean of available items per respondent (range 1–4). For interpretability, we additionally reported a rescaled metric (0–100): TAOMIS0–100 = [(mean1–4 − 1) / 3] × 100 (12). Higher TAOMIS scores indicate a more critical and evidence-aligned stance toward medical information on social media (i.e., lower trust in unverified content, preference for scientific sources, and active responses to misinformation). Conversely, lower scores reflect greater trust in social media information and more passive or permissive attitudes toward misinformation.

Grouping variables

Professional role (medical student, doctor, pharmacist, nurse), gender (female/male), and age (years) were pre-specified covariates of interest. For descriptive contrasts, age was also categorized (18-22, 23–30, 31–40, 41–60 years).

Statistical analysis

Statistical analyses were performed using SPSS software (IBM Corp., Armonk, NY, USA). The Kolmogorov-Smirnov test was used to assess the normal distribution of variables. Descriptive statistics included the mean ± standard deviation for normally distributed continuous variables, median (25th–75th percentile) for non-normally distributed continuous variables, and frequencies (percentages) for categorical variables. For comparisons between groups, Student t-test, Mann-Whitney U, ANOVA test (post-hoc test: Bon-ferroni test) or the Kruskall Wallis H test (post-hoc test: Dunn test) were used in line with the normality of the considered distribution. Categorical variables are given as numbers and percentages, and inter-group comparisons were conducted with Chi-square and Fisher exact tests. Statistical significance was set at $p < 0.05$ (two-tailed) was considered statistically significant.

Results

A total of 350 participants completed the bilingual survey, including 200 medical students, 75 pharmacists, 75 nurses, and 50 physicians. The mean age of respondents was approximately 26.7 years (SD ±7.8), ranging from 18 to 60 years. Gender distribution was balanced, with 55% female (n=222) and 45% male (n=178) participants. All respondents reported active use of at least one social media platform.

Most students (55.5%) and physicians (56.0%) reported using social media 1–2 hours per day, while 41.3% of nurses and 33.0% of students reported >2 hours daily. Pharmacists most often reported 30–60 minutes of daily use (52.0%) ($p < 0.001$). Twitter/X and Instagram were the most frequently used platforms across all groups. Facebook and LinkedIn were primarily used by physicians (24.0% and 28.0%) and pharmacists (26.7% and 25.3%), while TikTok was used by 56.0% of nurses and 41.5% of students. YouTube use was higher among physicians (42.0%) and pharmacists (42.7%) than among nurses (21.3%) and students (20.0%) ($p < 0.001$) (Table 1).

Most physicians (68.0%) and students (58.5%) rated social media information as often unreliable, while 49.3% of nurses and 32.0% of pharmacists gave the same response ($p < 0.001$). Institutional endorsement was the most frequently chosen credibility factor (52.0% of doctors, 41.3% of pharmacists, 50.7% of nurses, and 54.0% of students). Reliance on high engagement was reported by nurses (40.0%) and students (32.0%) only ($p < 0.001$). In terms of misinformation response, verify and correct was chosen by 34.0% of doctors and 53.3% of pharmacists, compared with 5.3% of nurses and 11.5% of students. Ignore misinformation was most often reported by students (46.0%) and nurses (45.3%) ($p < 0.001$). Trusted sources also varied: physicians (38.0%) and pharmacists (30.7%) preferred governmental agencies, while students (54.0%) and nurses (30.7%) more frequently selected experienced healthcare professionals. Influencers were trusted mainly by students (46.0%) and nurses (29.3%) ($p < 0.001$) (Table 2).

A majority of physicians (74.0%) and nurses (46.7%) indicated that misinformation spreads without validation, compared to 40.0% of pharmacists and 9.5% of students. Viewing misinformation as a natural part of the digital age was most common among students (69.5%), while only 6.0% of doctors shared this view ($p < 0.001$). Regarding public health risk, 74.0% of physicians and 68.0% of pharmacists considered misinformation a risk, compared to 46.7% of nurses and 25.0% of students. Conversely, 75.0% of students and 53.3% of nurses stated that individuals are responsible for evaluating information ($p < 0.001$) (Table 3).

The majority of physicians (68.0%) and pharmacists (78.7%) followed official health organization updates weekly, whereas students (40.5%) and nurses (37.3%) most often reported never following such updates ($p < 0.001$). Strict regulation of misinformation was supported by 64.0% of physicians and 80.0% of pharmacists, compared to 9.3% of nurses and 12.0% of students. Most nurses (73.3%) and students (72.5%) favored some regulation, and 15.5% of students reported that strict regulation would pose a free speech risk ($p < 0.001$). For addressing misinformation, provide reliable sources was selected by 42.0% of physicians, 42.7% of pharmacists, and 52.0% of nurses, compared with 38.5% of students. Address publicly on social media was reported by 36.0% of physicians, 37.3% of pharmacists, 10.7% of nurses, and 33.5% of students. Do not intervene was more common among nurses (37.3%) and students (28.0%) than among physicians (20.0%) ($p < 0.001$) (Table 4).

The mean TAOMIS score differed significantly by professional role ($p < 0.001$). Physicians had the highest scores (73.5 ± 9.0), followed by pharmacists (67.3 ± 10.9). Nurses (51.3 ± 12.8) and students (41.9 ± 11.3) reported lower scores. No significant difference was observed between genders, with mean scores of 51.9 ± 16.7 among females and 53.3 ± 16.6 among males ($p = 0.543$). By age group, participants aged 41–60 years had the highest TAOMIS scores (65.0 ± 9.9), whereas the lowest scores were observed in the 23–30 age group (48.3 ± 14.1). Participants aged 18–22 years averaged 41.7 ± 11.4, and those aged 31–40 years averaged 66.7 ± 13.1 ($p < 0.001$) (Table 5).

Table 1. Patterns of social media use across professional roles.

Variables	Doctor n = 50	Pharmacist n = 75	Nurse n = 75	Student n = 200	p
Daily social media time, n (%)					
<30 min	4 (8.0)	13 (17.3)	0	0	<0.001
30–60 min	18 (36.0)	39 (52.0)	4 (5.3)	23 (11.5)	
1–2 h	28 (56.0)	23 (30.7)	40 (53.3)	111 (55.5)	
>2 h	0	0	31 (41.3)	66 (33.0)	
Social media platforms used to obtain or share medical infor-mation, n (%)					
Twitter/X	33 (66.0)	51 (68.0)	40 (53.3)	142 (71.0)	0.082
Instagram	31 (62.0)	47 (62.7)	40 (53.3)	111 (55.5)	0.556
Facebook	12 (24.0)	20 (26.7)	0	0	<0.001
LinkedIn	14 (28.0)	19 (25.3)	0	0	<0.001
TikTok	0	0	42 (56.0)	83 (41.5)	<0.001
YouTube	21 (42.0)	32 (42.7)	16 (21.3)	40 (20.0)	<0.001

Data are presented as n (%) for categorical variables.

Table 2. Trust and attitudes toward medical information on social media across professional roles.

Variables	Doctor n = 50	Pharmacist n = 75	Nurse n = 75	Student n = 200	p
How much do you trust the accuracy of medical information shared on social media?					
Most accurate	4 (8.0)	12 (16.0)	0	0	<0.001
Generally correct	12 (24.0)	39 (52.0)	7 (9.3)	19 (9.5)	
Often unreliable	34 (68.0)	24 (32.0)	37 (49.3)	117 (58.5)	
Entirely untrustworthy	0	0	31 (41.3)	64 (32.0)	
What factors do you prioritize when assessing the credibility of medical information on social media?					
HCP source	5 (10.0)	18 (24.0)	0	0	<0.001
Scientific references	19 (38.0)	26 (34.7)	7 (9.3)	28 (14.0)	
Institutional endorsement	26 (52.0)	31 (41.3)	38 (50.7)	108 (54.0)	
High engagement	0	0	30 (40.0)	64 (32.0)	
How do you react when encountering misleading or incorrect medical information on social media?					
Verify & correct	17 (34.0)	40 (53.3)	4 (5.3)	23 (11.5)	<0.001
Check, don't intervene	27 (54.0)	23 (30.7)	37 (49.3)	85 (42.5)	
Ignore	6 (12.0)	12 (16.0)	34 (45.3)	92 (46.0)	
Which types of social media accounts do you find most trustworthy for medical information?					
Governmental health agencies	19 (38.0)	23 (30.7)	15 (20.0)	0	<0.001
Universities	19 (38.0)	36 (48.0)	15 (20.0)	0	
Experienced HCPs	12 (24.0)	16 (21.3)	23 (30.7)	108 (54.0)	
Influencers	0	0	22 (29.3)	92 (46.0)	

Data are presented as n (%) for categorical variables.

Table 3. Perceptions of the spread and impact of misinformation on social media across professional roles.

Variables	Doctor n = 50	Pharmacist n = 75	Nurse n = 75	Student n = 200	p
Does the widespread use of social media for medical information concern you compared to traditional medical literature?					
Spreads without validation	37 (74.0)	30 (40.0)	35 (46.7)	19 (9.5)	<0.001
Some correct info exists	10 (20.0)	30 (40.0)	30 (40.0)	42 (21.0)	
Natural digital age	3 (6.0)	15 (20.0)	10 (13.3)	139 (69.5)	
Do you think misleading health information on social media poses a public health risk?					
Public health risk	37 (74.0)	51 (68.0)	35 (46.7)	50 (25.0)	<0.001
Individuals responsible	13 (26.0)	24 (32.0)	40 (53.3)	150 (75.0)	

Data are presented as n (%) for categorical variables.

Table 4. Professional views on strengthening trust and addressing misinformation on social media.					
Variables	Doctor n = 50	Pharmacist n = 75	Nurse n = 75	Student n = 200	p
How often do you follow official health organizations' social media updates?					
Daily	5 (10.0)	4 (5.3)	0	0	<0.001
Weekly	34 (68.0)	59 (78.7)	13 (17.3)	35 (17.5)	
Rarely	11 (22.0)	12 (16.0)	34 (45.3)	84 (42.0)	
Never	0	0	28 (37.3)	81 (40.5)	
Do you believe social media should be more regulated regard-ing health information?					
Strict regulations	32 (64.0)	60 (80.0)	7 (9.3)	24 (12.0)	<0.001
Some regulations	11 (22.0)	9 (12.0)	55 (73.3)	145 (72.5)	
No; free speech risk	7 (14.0)	6 (8.0)	13 (17.3)	31 (15.5)	
How do you think healthcare professionals should address misinforma-tion among patients?					
Educate in consultations	11 (22.0)	0	0	0	<0.001
Address publicly on SM	18 (36.0)	28 (37.3)	8 (10.7)	67 (33.5)	
Provide reliable sources	21 (42.0)	32 (42.7)	39 (52.0)	77 (38.5)	
Do not intervene	0	15 (20.0)	28 (37.3)	56 (28.0)	
Data are presented as n (%) for categorical variables.					

Table 5. Distribution of TAOMIS scores across professional roles, gender, and age groups			
Variables	n	TAOMIS score	p
Professional roles			
Doctor	50	73.5 ± 9.0	<0.001
Nurse	75	51.8 ± 12.8	
Pharmacist	75	67.3 ± 10.9	
Student	200	41.9 ± 11.3	
Gender			
Female	222	51.9 ± 16.7	0.543
Male	178	53.3 ± 16.6	
Age, years			
18-22	156	41.7 ± 11.4	<0.001
23–30	95	48.3 ± 14.1	
31–40	123	66.7 ± 13.1	
41–60	26	65.0 ± 9.9	
Data are presented as mean ± SD for TAOMIS score.			

Discussion

Health-related misinformation on social media is a global concern and a recognized threat to public health (13). Our findings align with this context, showing that healthcare professionals differ in how they use and perceive social media. All groups reported daily use, similar to surveys indicating that over 85% of healthcare workers spend about an hour per day online (14). Medical students and nurses were more likely to exceed two hours of daily use, while physicians and pharmacists typically used social media for 1–2 hours. These patterns reflect global trends in which younger professionals are generally more active online (15).

Physicians achieved the highest TAOMIS scores, reflecting the most critical and evidence-aligned stance toward social media health information. This finding is consistent with prior research demonstrating that physicians tend to rely primarily on peer-reviewed journals, institutional guidelines, and professional networks rather than digital platforms . Pharmacists also scored highly, aligning with studies reporting their strong emphasis on validated drug and treatment information . In contrast, nurses and medical students scored significantly lower, indicating greater trust in unverified sources and more permissive attitudes toward misinformation. Studies have documented that the quality of online health information is

highly uneven and often poor, with users having difficulty distinguishing credible sources (16). Our finding that all professional groups prioritize institutional endorsement (e.g. content backed by health organizations) as a key credibility factor is consistent with the idea that source authority is crucial for trust (17, 18). By contrast, only the younger respondents (some nurses and students) admitted to gauging credibility by high engagement metrics (likes, shares) – a problematic heuristic, since research shows that large engagement numbers can misleadingly boost the perceived validity of low-quality information (19).

Our results also underscore differing attitudes in handling misinformation when encountered. Physicians and pharmacists were far more willing to verify and correct false information on social media, whereas nearly half of nurses and students said they would simply ignore it. Physicians recognize how false claims undermine patient trust and public health efforts, for example by fueling vaccine hesitancy. In our study, physicians and pharmacists were most likely to view social media misinformation as a public health risk – a perspective well-justified by real-world events. Research during the COVID-19 pandemic has documented that misinformation contributed to people rejecting vaccines and treatments, with tangible harms such as prolonged outbreaks and worsened health outcomes (20, 21). A UK interview study found that while some health practitioners viewed the pandemic misinformation surge as a unique crisis, others – often younger – perceived misinformation as an ongoing, routine phenomenon and integrated it into their daily practice mindset (21). Another important dimension is trusted information sources. We found that physicians and pharmacists most often trusted content from government health agencies (e.g. CDC, WHO) and professional institutions, whereas students and nurses more often trusted experienced clinicians or popular medical influencers on social media. It is noteworthy that nearly half of the student respondents considered influencers as trustworthy sources. Age differences paralleled the role-based findings. Older participants (≥31 years) scored markedly higher on TAOMIS, while the lowest scores were observed in the youngest groups (18–30 years). This aligns with trends in the general young adult population – for example, about one in five adults under 30 in the US report regularly obtaining health advice from social media influencers (8). While some influencers are qualified clinicians who provide accurate content, many are not, and the risk of biased or commercial motivations is high (even among health influencers, 61% are thought to be driven by financial self-interest (8). Thus, the preference of younger professionals for influencer-driven information is a double-edged sword. Enhancing digital health literacy is crucial here. In fact, recent studies have shown that many medical and nursing students feel insufficiently trained in evaluating online information and digital health topics (22).

The implications of these results are substantial. Low TAOMIS scores among students and nurses indicate gaps in digital health literacy and critical appraisal skills, which may leave both professionals and their patients vulnerable to misinformation. Several studies have argued for the integration of media literacy, fact-checking, and online professionalism into medical and nursing curricula (20, 23-27). Our data support this call. In particular, students' relatively high trust in influencers – reflected in both item responses and low overall TAOMIS scores – underlines the need to train healthcare workers to engage critically with popular content creators, distinguishing between credentialed experts and non-experts.

This study has several limitations that should be acknowledged. First, its cross-sectional design captures attitudes at a single time point and cannot assess causal relationships or changes over time. Second, the sample was drawn from a single national context and was not randomly selected, with medical students comprising more than half of respondents. This imbalance may have influenced comparisons between professional groups, and the findings may not be fully generalizable to other countries or healthcare systems. Third, while the TAOMIS demonstrated acceptable internal consistency, it was derived from a subset of survey items. Additional validation in different settings and with larger, more diverse populations is needed to establish its broader applicability. Fourth, all data were self-reported and thus may be subject to social desirability or recall bias, particularly regarding sensitive topics such as handling misinformation. Finally, although the survey explored trust, exposure, and responses to misinformation, it did not directly measure the impact of these attitudes on clinical behavior or patient outcomes, which would be valuable to assess in future research.

Conclusion

This study shows that healthcare professionals and students differ significantly in their trust and responses to medical information on social media. We found that physicians and pharmacists demonstrated more critical, evidence-aligned attitudes, while nurses and students displayed lower scores,

reflecting greater vulnerability to misinformation. Exposure to misleading information was reported across all roles, but perceptions of its severity and appropriate responses varied, with younger participants more likely to normalize misinformation and to rely on influencers as trusted sources. These findings underscore the importance of integrating digital health literacy and critical appraisal training into medical, pharmacy, and nursing curricula.

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Conflicts of Interest

The author declare they have no conflicts of interest.

Ethics Approval

The study was performed in accordance with the Declaration of Helsinki, and was approved by the Trabzon University Clinical Research Ethics Committee (Date: 10.09.2024, Approval No: 2024/09).

Informed Consent

Informed consent was obtained from all subjects involved in the study.

Availability of Data and Material

The data that support the findings of this study are available on request from the corresponding author.

Authors' contribution

Concept – F.Ö.K. and Y.S., Design – F.Ö.K. and Y.S., Data collection and/or processing – F.Ö.K. and Y.S., Analysis and/or interpretation – F.Ö.K. and Y.S., Writing – F.Ö.K., Critical review – Y.S., All authors read and approved the final version of the manuscript.

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