SCIENTIFIC Publishing Limited

Digital Humanities and Society Studies
https://ojs.ukscip.com/index.php/dhss

Article

Health Professionals' Peer Engagement in the Digital Age: Exploring the Use of Online Platforms and Communities

Lillian Li [1], Rowena Forsyth [2], Brad Ridout [2] and Krestina Len Amon [2,*]

[1] Faculty of Medicine and Health, The University of Sydney, Sydney 2006, Australia
[2] Cyberpsychology Research Group, Faculty of Medicine and Health, The University of Sydney, Sydney 2006, Australia
[*] Correspondence: krestina.amon@sydney.edu.au

Received: 28 January 2026; **Revised:** 30 April 2026; **Accepted:** 14 May 2026; **Published:** 29 May 2026

Abstract: Online communities are valuable tools for information exchange, professional networking, and peer support for health professionals. However, evidence of how and why health professionals are engaging with their peers online is lacking. This study aimed to identify the types and frequency of peer online interactions conducted by health professionals across a broad range of online platforms and identify factors influencing their use. We used online questionnaires to capture health professionals' online behaviours, digital competency, feelings of online social connectedness, and well-being. Participants (n = 119) used an average of 3.4 platforms. Facebook (66.39%), LinkedIn (64.71%), and WhatsApp (46.22%) were the platforms with the highest account ownership relative to Instagram (45.38%), X (39.50%), YouTube (27.73%), TikTok (14.29%), and Reddit (11.76%). The types of interaction (active vs. passive) health professionals used to engage with their peers varied by platform. A key factor motivating participants to engage in online communities was that our participants possessed the knowledge and skills to leverage the online resources provided by their collective peers for professional benefits. The study revealed a positive association between broader online platform use and greater feelings of social connectedness, while the relationship between social connectedness and well-being was more complex after adjustment for demographic factors. The results of this study highlight the benefits of online peer engagement but also identify strategies that can be implemented to support and enhance the use of online communities for health professionals. Continuing work in this field will enhance understanding of the professional and social benefits provided by online communities for health professionals.

Keywords: Online Communities; Social Media; Health Professionals; Communication; Health Information

1. Introduction

Online platforms, including discussion forums, group messaging applications and social media sites, facilitate a convenient means of synchronous and asynchronous communication. Online communities are spaces where individuals can connect and engage in conversation with friends and other users, and exchange professional knowledge with peers, anywhere, anytime [1]. Among the various applications of online communities, one significant area of interest is their role in the health sector. Research on online communities for health has predominantly focused on its use by patients to engage both with other patients with common health issues [2], and with health professionals [3]. However, health professionals are also using online platforms to facilitate communication and collaboration with their peers [4].

These technologies have been shown to be useful for local team interactions. For example, instant messaging

applications, such as WhatsApp, serve as an efficient channel for clinical team members to ask each other questions, relay instructions, and send clinical photos and videos [5]. Beyond immediate clinical needs, health professionals are leveraging these platforms to network with existing and new peers from diverse geographical locations and disciplines [6]. LinkedIn is used to maintain existing professional connections and establish new networks [7,8] providing health professionals opportunities to discuss clinical cases, collaborate on projects and publications, and remain current within their field [9]. Health professionals can further use their established online networks to promote their practices, services, and products [10,11], facilitate content dissemination [12], and form virtual communities of practice to engage in sustained knowledge sharing [7,13]. Using online forums and networking sites, like Facebook and LinkedIn, these informal learning environments promote the diffusion of both evidence-based practices and experiential knowledge [14]. Health professionals are increasingly harnessing online communities to engage with their peers [13], yet there is limited understanding of their experiences of this practice.

Health professionals recognise the value of social media, yet they face several barriers to engage with it as part of their profession. These include limited time due to professional and social commitments [9,15], lack of technological skills [12,16] and uncertainty about appropriate online etiquette [17,18]. Additional challenges include a lack of practical skills, such as difficulty locating medical content on various platforms [19], a lack of formal training in online platforms, and limited awareness of institutional social media policies and guidelines [20].

Many studies examining the use of online platforms by health professionals have been monodisciplinary, in fields such as plastic surgery and rheumatology [12,21]. This is reflective of the tendency of health professionals to form disciplinary silos online [22–24], which can inhibit the diffusion of interprofessional knowledge and limit the generalisability of results across disciplines [25,26].

While previous literature has focused on understanding the reasons behind health professionals' online platform use, there has been limited exploration into the advantages they gain from participation. General practitioners reported the most useful aspect of social media is its ability to facilitate increased interactions and collaboration with their peers and physicians have highlighted the value of online peer engagement for circumventing professional challenges [27]. For example, compared to traditional methods of education, such as journal publications, establishing trusted professional networks online provides health professionals with peer-filtered and reviewed information which improves the relevance and breadth of knowledge that they engage with [9].

Beyond practical benefits, feelings of increased peer support and reduced professional isolation are reported as key benefits of online engagement [27,28]. Offline, lower social support and connectedness are associated with increased anxiety, depression, and post-traumatic stress disorder in health professionals [29,30]. Research has shown that social connectedness can be fostered through online engagement and is associated with lower depression and anxiety, as well as increased subjective well-being [31]. A growing body of work has investigated how digital communities and online connectedness relate to well-being among health professionals [32,33]. However, as their intensive job demands heighten their vulnerability to various mental health issues [34–36], continued exploration of the links between online social connectedness and well-being in health professionals is crucial for uncovering and promoting the benefits of how using online communities can support health professionals' well-being.

2. Methods

2.1. The Current Study

Our study addressed the following research question: How do health professionals use online communities for peer engagement? To address this, this study aimed to 1) identify the various online platforms utilised by health professionals and examine the types of online interactions conducted and frequency of use, 2) compare online platform use between varying health professions, 3) identify the factors influencing health professionals' use of online platforms and 4) analyse the relationship between online engagement, social connectedness, and well-being.

2.2. Study Design

This was an exploratory study designed to capture health professionals' self-reported use of online platforms for peer engagement. A two-phase mixed methods approach was employed. Phase 1 involved quantitative data collection from 7 online questionnaires delivered on Qualtrics. Phase 2 collected qualitative data using online semi-structured in-depth interviews. This article presents findings from Phase 1.

2.3. Participants

This study was approved by The University of Sydney Human Research Ethics Committee (2022/151) and was conducted in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki Declaration and its later amendments. Although established in Sydney, Australia, the online nature of this study enabled recruitment of domestic and international participants, who fulfilled the following inclusion criteria: (1) held a professional health qualification, (2) used at least one online platform for peer engagement, (3) were fluent in spoken and written English, and (4) were at least 18 years old. Purposive sampling was conducted through online advertisements across social media platforms, including Facebook, Instagram, LinkedIn, X (formerly Twitter), and Reddit. The study was published in online newsletters and distributed to electronic mailing lists of national and international health services and societies. Hardcopy flyers were also displayed around health discipline buildings at the Camperdown Campus of the University of Sydney.

2.4. Measures

Seven questionnaires were included in this study. Three questionnaires (Demographics, Engagement in Online Communities and Online Community Participation) were designed by RF and KLA. The remaining four were adapted from existing questionnaires (Social Media in Healthcare [19], Technology Acceptance Model [37], Social Connectedness Scale [38] and Physician Well-being Index [39] modified for the requirements of this study.

2.4.1. Demographics Questionnaire

This non-standardised questionnaire included 15 questions and was created to report on the participants' demographic information, including their age, gender, country of residence, current health profession, and employment details (e.g., private/public sector and rural/urban geographic classification).

2.4.2. Engagement in Online Communities

Here, participants reported their use of eight popular platforms—Facebook, Instagram, LinkedIn, Reddit, TikTok, X, WhatsApp, and YouTube—by selecting from four options: do not have an account, use a few times a month or less, use weekly or fortnightly, and use daily. The suggested platforms were based on the identified platforms frequently used by health professionals in previous literature and current social media trends. An open-ended 'other' option was included where participants could add the names of other platforms they used. Results focused on the platforms used professionally (defined as being used with the purpose of obtaining work-related information and connecting with other health professionals).

2.4.3. Online Community Participation

This non-standardised questionnaire included platform-specific interactions (e.g., comment on a post) developed by the researchers. Participants indicated the types and frequency of interactions conducted by choosing from seven options, ranging from never to multiple times a day. If additional platforms were reported in the previous question, participants also provided a brief description of the reason and frequency of use.

2.4.4. Social Media in Healthcare

The Social Media in Healthcare [19] questionnaire includes 13 items that examine participants' knowledge, skills, and attitudes towards online community use, using a 5-point Likert scale (ranging from 1 = strongly disagree to 5 = strongly agree). The knowledge (Cronbach's $\alpha = 0.80$), and skills (Cronbach's $\alpha = 0.84$) subscales demonstrated good internal consistency in the present sample, while the attitudes subscale was slightly below the conventional acceptable threshold (Cronbach's $\alpha = 0.68$).

2.4.5. Technology Acceptance Model

To measure external variables that influenced the participant's use of social media, two components of the Technology Acceptance Model [37] were included in this study: i) access to peers, and ii) barriers. This model proposes that the perceived usefulness and ease of use of online platforms are determinants of usage behaviour. Responses were measured on a 7-point Likert scale (ranging from 1 = strongly disagree to 7 = strongly agree). Both

the access to peers subscale (Cronbach's α = 0.83) and barriers subscale (Cronbach's α = 0.83) demonstrated good internal consistency in the present sample.

2.4.6. Social Connectedness Scale

The Social Connectedness Scale was modified from a Facebook-specific version [38] to apply to online communities in general. It included 20 questions examining positive (10 items) and negative (10 items) perceptions of social connectedness within online communities. Responses were measured using a 6-point Likert scale (ranging from 1 = strongly disagree to 6 = strongly agree). Negative items were reverse scored prior to summing all items to create a total score. Possible scores ranged from 20 to 120, with a higher score indicating greater levels of online social connectedness. Internal consistency in the present sample was high (Cronbach's α = 0.90).

2.4.7. Physician Well-Being Index

The Physician Well-being Index [39] is a 7-item questionnaire measuring burnout, depression, stress, fatigue, and mental and physical quality of life domains. It used yes/no responses (1 = yes, 0 = no). Summed scores ranged from 0 to 7, with a higher score indicating poorer well-being. Internal consistency in the present sample was adequate (Cronbach's α = 0.74). Noting that this was developed and validated for physicians, its use with a multidisciplinary population, including allied health professionals, may carry limitations.

2.5. Data Collection

Data was collected between 1st of June 2022 and 18th February 2025. Participant Information Statements for both Phase 1 and 2 outlined the study's purpose, voluntary nature of participation, and right to withdraw at any time without penalty. Participants needed to read the statement and agree that consent was given upon return of the questionnaire before progressing. Responses were anonymous, thus, once submitted, questionnaires could not be withdrawn as responses were unidentifiable.

2.6. Data Analysis

Questionnaire responses were downloaded as Excel spreadsheets and cleaned by removing incomplete entries, instances of data straight lining, and responses from participants who did not meet the inclusion criteria. Descriptive statistical methods summarised demographic data and reported on responses for the Engagement in Online Communities, the Online Community Participation, the Social Media in Healthcare, and the Technology Acceptance Model questionnaires. Spearman's rank-order correlation was used to examine the relationship between scores on the Social Connectedness Scale and the Physician Well-being Index questionnaires, and the number of platforms used by participants. To address potential confounding, multiple linear regression analyses were conducted to examine whether core associations remained after adjusting for age and gender.

To further examine differences between types of online engagement, platform-specific active and passive interaction scores were calculated by averaging responses to relevant items within each platform. Mean active and passive engagement scores were then derived across platforms used by each participant. Spearman's rank-order correlations were conducted to examine associations between active and passive engagement and scores on the Social Connectedness Scale and the Physician Well-being Index.

To assess for confounding variables, differences between groups (medical vs allied health practitioners) were analysed using independent t-tests for continuous variables and chi-square tests for independence for nominal variables. For all quantitative data analyses, SPSS Statistics Version 29 (IBM Corp) was used, and the significance level was set at $p < 0.05$. False discovery rate correction using the Benjamini-Hochberg procedure was applied to the family of platform-specific active and passive engagement correlations with social connectedness and well-being outcomes.

3. Results

3.1. Participant Demographics

A total of 319 questionnaire responses were collected. Following data clean-up, 200 responses were removed: 193 were incomplete, 5 demonstrated straight lining, and 2 were completed by participants who did not meet the inclusion criteria (for example, reported an occupation that was not a health profession). Of the remaining 119

participant responses, 97 (81.51%) were younger than 50 years of age, with a mean age of 37.13 years (SD = 11.88) (**Table 1**). Most identified as female (73.11%) and resided in the Australia and Oceania region (78.99%). A total of 55 (46.22%) participants reported they were medical practitioners (MPs; i.e., medical doctors, nurses, and dentists), 58 (48.74%) were allied health professionals (AHPs; e.g., dietitians, psychologists, physiotherapists), and 6 participants (5.04%) were classified as other (e.g., health educators). Over half (n = 62, 52.10%) of the participants had more than 5 years of experience within their current profession. Most participants reported working full-time (n = 80, 67.23%) and in major cities (n = 97, 81.51%). Less than half (n = 54, 45.38%) of the participants worked solely within the public hospital system and 34 (28.57%) solely in private practice.

Table 1. Participant demographics.

Variable and Category	Frequency, n (%)
Age	
20–29	38 (31.93)
30–39	38 (31.93)
40–49	21 (17.65)
50–59	18 (15.13)
60–69	3 (2.52)
70+	1 (0.84)
Gender	
Male	31 (26.05)
Female	87 (73.11)
Unclear	1 (0.84)
Current Location of Residence	
Australia/Oceania	94 (78.99)
North America	14 (11.76)
South America	1 (0.84)
Europe/UK	3 (2.52)
Asia	1 (0.84)
Africa	3 (2.52)
Middle East	3 (2.52)
Study/Employment Status	
Working full-time	80 (67.23)
Working part-time	33 (27.73)
Working casually	11 (9.24)
Studying full-time	14 (11.76)
Studying part-time	17 (14.29)
Employed & on parental/other leave	1 (0.84)
Retired	0 (0.00)
Not employed & not studying	0 (0.00)
Location of Employment	
Major city	97 (81.51)
Regional centre	14 (11.76)
Rural	8 (6.72)
Type of Health Care Practice Employed	
Solely public hospital system	54 (45.38)
Solely private hospital system	7 (5.88)
Mix of public and private hospitals	11 (9.24)
Solely private practice	34 (28.57)
Mix of public and private practice	13 (10.92)
Experience in Current Profession/Specialty	
0–2 years	29 (24.37)
3–5 years	28 (23.53)
6–10 years	30 (25.21)
10+ years	32 (26.89)
Health Discipline	
• Medical Practitioners	55 (46.22)
➢ Medical doctors	32 (26.89)
➢ Nurses	21 (17.65)
➢ Dentists	2 (1.68)

Table 1. *Cont.*

Variable and Category	Frequency, n (%)
Health Discipline	
• Allied Health Professionals	58 (50.43)
➢ Chiropractor	1 (0.84)
➢ Dietitian	4 (3.36)
➢ Exercise physiologist	2 (1.68)
➢ Genetic counsellor	1 (0.84)
➢ Occupational therapist	5 (4.20)
➢ Optometrist	1 (0.85)
➢ Pharmacist	5 (4.20)
➢ Physiotherapist	9 (7.56)
➢ Podiatrist	4 (3.36)
➢ Prosthetist Orthotist	1 (0.84)
➢ Psychologist/Psychotherapist	12 (10.08)
➢ Speech and Language pathologist	13 (10.92)
• Other	6 (5.04)
➢ Epidemiologist	1 (0.84)
➢ Health educator	1 (0.84)
➢ Health manager	1 (0.84)
➢ Medical laboratory scientist	1 (0.84)
➢ Public health officer	1 (0.84)
➢ Systems analyst (nursing)	1 (0.84)

3.2. Online Community Engagement and Participation

To identify the online platforms used by health professionals and examine the online interactions conducted and frequency of use, descriptive statistical analysis was used to report on the Engagement in Online Communities questionnaire and Online Community Participation responses for the 8 platforms most frequently used professionally by participants.

3.3. Online Platforms

Facebook had the highest professional account ownership (66.39%), followed by LinkedIn (64.71%), WhatsApp (46.22%), Instagram (45.38%), X (39.50%), YouTube (27.73%), TikTok (14.29%), and then Reddit (11.76%) (**Figure 1**). The highest number of participants used LinkedIn daily (36.13%), with only a small proportion engaging in Facebook daily (10.92%).

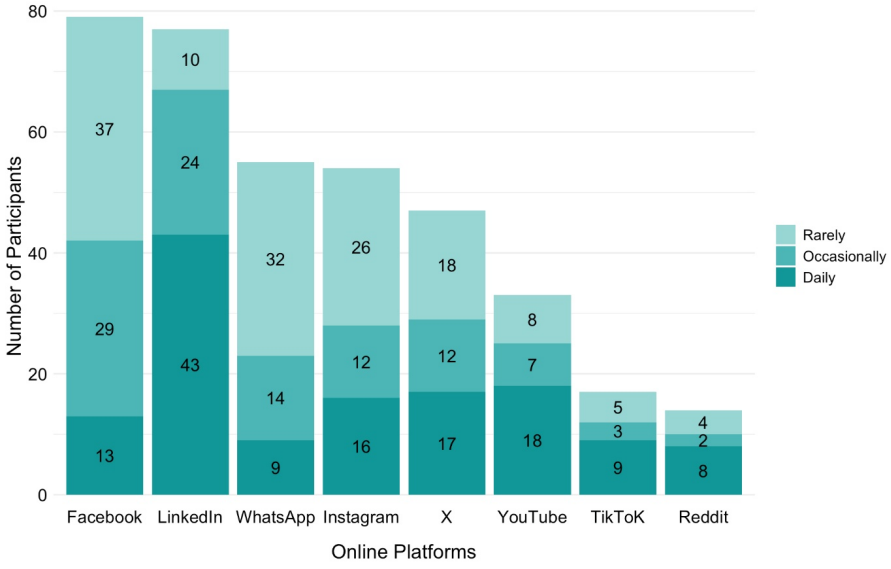

Figure 1. Online platform account ownership and frequency of use by participants.

In addition to the eight listed platforms, participants identified 24 additional platforms under 'other'. **Table 2** presents the additional online platforms that participants independently reported using for connecting with their peers. Taking into account the eight platforms provided in our questionnaire (**Figure 1**), and the additional platforms participants mentioned (**Table 2**), the majority of our participants (n = 103; 86.5%) held accounts with more than one platform (average = 3.4 platforms). Participants reported using up to 8 platforms (n = 4; 3.3%) (**Figure 2**) with most participants reporting using two platforms (n = 27; 22.6%).

Table 2. Online platforms reported by participants in the free-text option.

Online Platforms	Participants (n)
Instant Messaging and/or VoIP	
Signal	5
Telegram	1
Discord	3
Zoom	3
Skype	1
Cloud-Based Collaboration	
Microsoft Teams	8
Dropbox	1
Google Groups	1
Slack	1
Microsoft SharePoint	1
Web-Based Discussion Forums	
Discourse	1
Podiatry forum (unspecified)	1
Email Software/Forums	
Outlook	1
Discussion Bounce	1
Research	
ResearchGate	2
Community Platforms	
Pharmacy Club	1
Pharmacy Connect	1
Allnurses.com	1
Speech Pathology Australia	2
Agency for Clinical Innovation	1
Australian Physiotherapy Association	1
AusDoc	2
The Pulse	1
Australian College of Nursing	1

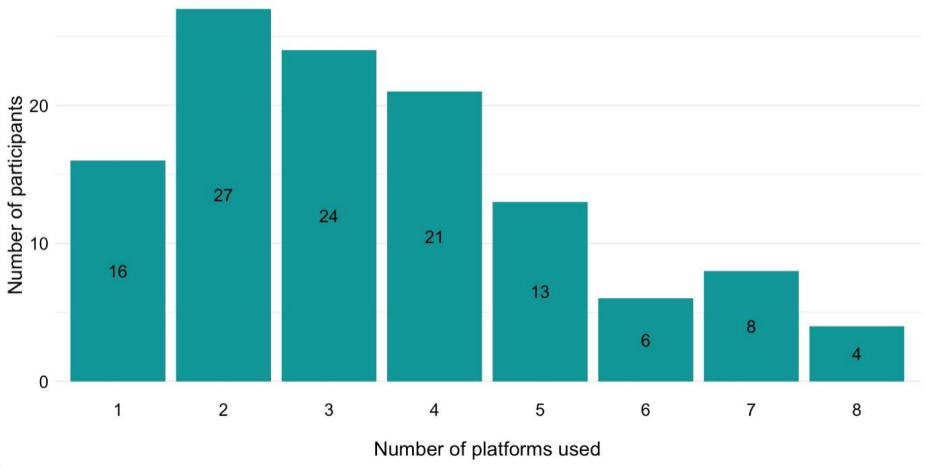

Figure 2. Number of platforms used by participants.

3.4. Online Interactions

To improve readability, detailed platform-specific interaction figures are presented in the main text for Facebook and LinkedIn, the two platforms with the highest account ownership. Figures for the remaining platforms are provided in **Supplementary Materials Figures S1–S6**.

3.4.1. Facebook

Participants frequently engaged actively on Facebook for work-related activities, with the most common daily interactions being making text (40.51% of Facebook users) and image (34.18%) posts, as well as posting in groups they were members of (32.91%) (**Figure 3**). Passive interactions, such as searching for groups (35.44%) and profiles (29.11%) were also common activities in their daily Facebook engagement. While most participants reported reading their Facebook friends' updates and posts (94.94%), they primarily engaged in this activity monthly (70.89%). Participants used Facebook more to engage with a broader professional network than with their known connections.

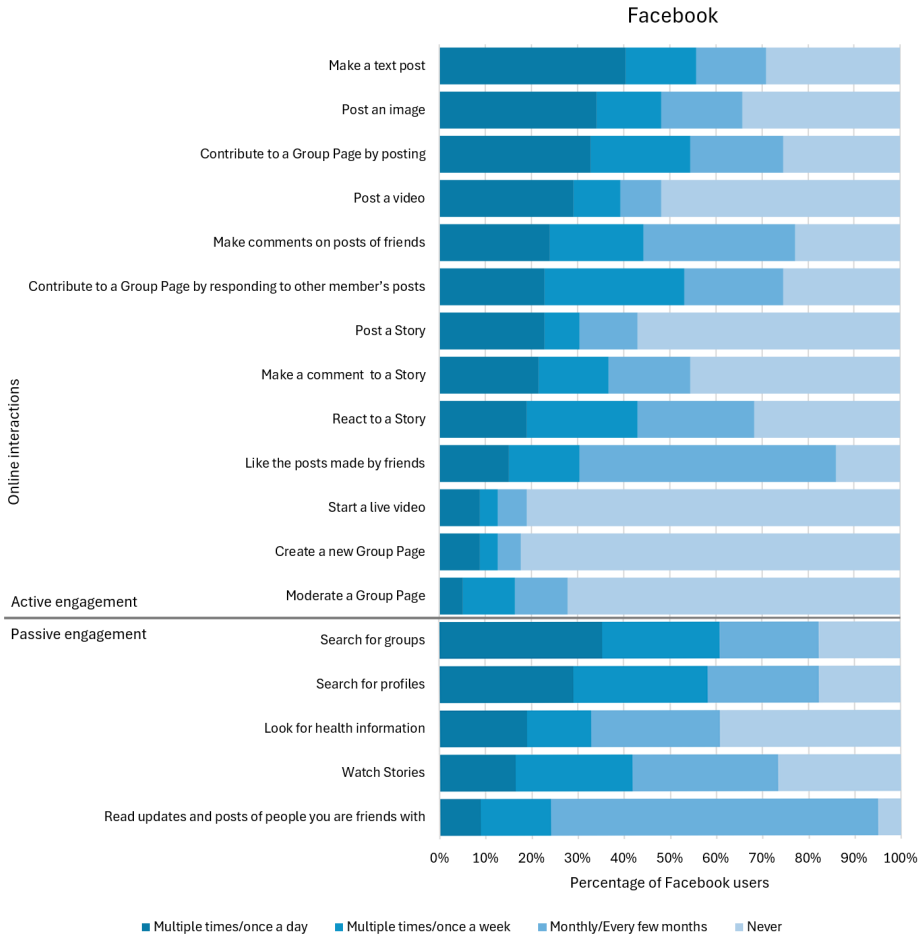

Figure 3. Frequency of online interactions conducted by Facebook users.

3.4.2. LinkedIn

The types of interactions participants used to engage with their peers on LinkedIn are detailed in **Figure 4**. Updating their profiles (64.94%) and searching for profiles (53.25%) were the most frequent daily interactions. In contrast to Facebook use, most participants never contributed to group pages on LinkedIn by posting (67.53%) or responding to posts (72.73%), indicating that LinkedIn was used more for individual networking rather than group engagement.

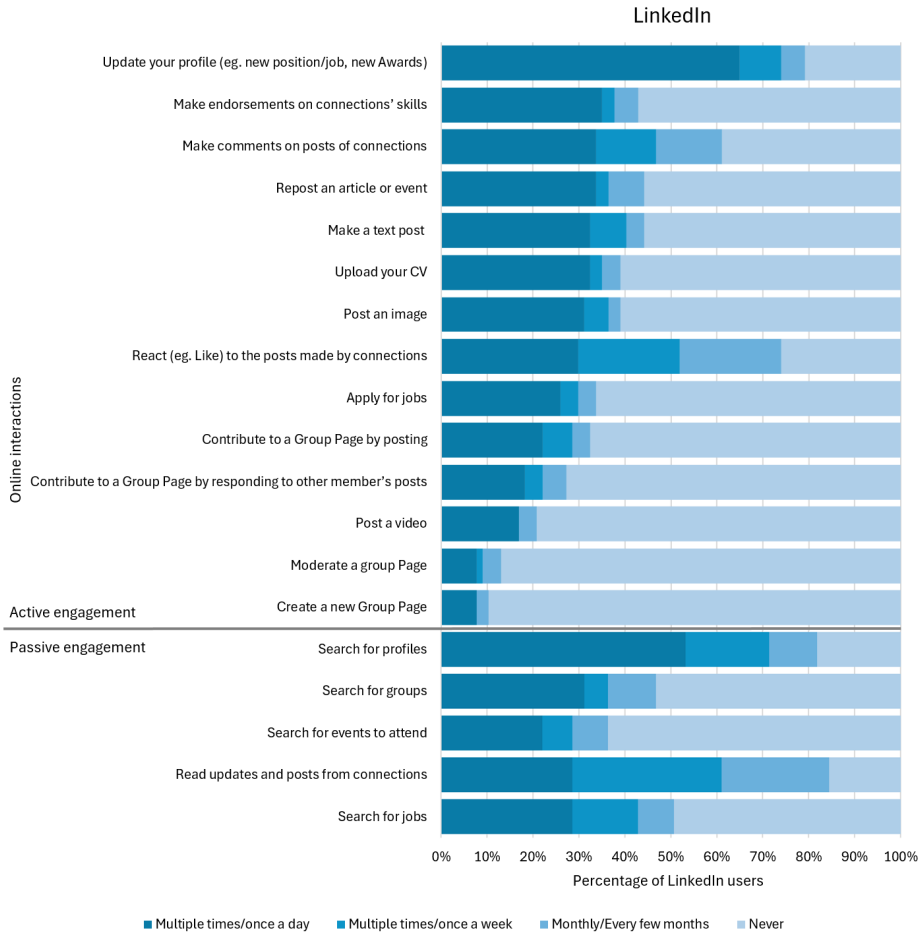

Figure 4. Frequency of online interactions conducted by LinkedIn users.

3.4.3. WhatsApp

Participants used WhatsApp to send work-related text messages to individuals (94.55%) and groups (92.73%), however, this primarily occurred monthly or every few months (**Supplementary Materials Figure S1**). In contrast, daily users were more likely to send links (29.09%) and video files (30.91%) to both individuals and groups, indicating a distinct use of WhatsApp for exchanging multimedia information or resources rather than for basic communication.

3.4.4. Instagram

Participants used Instagram for work to send a direct message (53.70%) and tag (42.59%) other users in posts, at least once a week (**Supplementary Materials Figure S2**). Participants also frequently added an image to their story (42.59%) and posted an image (44.44%), video (42.59%) or reel (38.89%). However, most participants only liked posts of their followers (59.26%) and watched stories (64.81%) monthly. Thus, participants actively used Instagram professionally, to share and post content, more than passive consumption.

3.4.5. X

On X, a higher proportion of participants shared a link (44.68%) and image (42.55%) as part of their daily engagement, compared to passive activities, such as replying to (27.66%), liking (14.89%), or reading (12.77%) posts from profiles they follow (**Supplementary Materials Figure S3**). Many participants searched for profiles (44.68%) and hashtags (40.43%) daily, suggesting that X was commonly used to explore their professional field.

3.4.6. YouTube

A higher proportion of participants consumed rather than actively engaged in content on YouTube. Most participants searched for health clips (60.61%) and watched videos created by health professionals, both known (63.64%) and unknown (66.67%) to them, at least once a week (**Supplementary Materials Figure S4**). However, many reported having never created and uploaded videos (57.58%), or posted (57.58%) or replied (69.70%) to comments on videos.

3.4.7. TikTok

Two of the most common daily interactions with TikTok were passive engagements, with 47.05% of participants searching for profiles and 35.29% searching for hashtags daily, indicating frequent content exploration. Common active daily engagements included posting a video (35.29%) and tagging someone in a post they think that person would enjoy (29.41%). Active public interactions with the posts of others such as making a comment on a post (41.1%) and liking a post (35.29%) more commonly occurred weekly than daily (**Supplementary Materials Figure S5**).

3.4.8. Reddit

The main daily activity conducted by 50% of the participants was to contribute to a community subreddit by posting. Other common active daily engagements on Reddit were to post an image, make a text post, make a comment, and respond to a community subreddit post (28.57%). The most common passive activities engaged with daily were to search for groups (35.71%) and search for profiles (28.57%). Half of the participants indicated that they would simply use Reddit to read posts on a monthly basis (50%). A large proportion of participants reported never having created or moderated a community subreddit (71.42%) (**Supplementary Materials Figure S6**).

3.5. Comparison between Medical Practitioners (MPs) and Allied Health Professionals (AHPs)

Descriptive statistical analysis was conducted to identify differences in online platform use between MPs (n = 55) and AHPs (n = 58). The Engagement in Online Communities questionnaire was used to compare the frequency of online platform use between the groups. The Online Community Participation questionnaire for the two platforms with the highest account ownership (Facebook and LinkedIn) were also compared to reveal any differences in the online interactions conducted.

An examination for potential confounding factors found no significant difference in experience, employment status, and the location of employment and residence between MPs and AHPs. An independent-samples *t*-test revealed a significant difference in age between MPs (M = 39.45 years, SD = 12.43) and AHPs (M = 34.52 years, SD = 10.26); $t(113) = 2.31$, $p = 0.023$ (two-tailed), d = 0.43, 95% CI [0.06, 0.80] (indicating a small-to-moderate effect), with MPs an average of 4.94 years older (95% CI [0.70, 9.18]) than AHPs. A Chi-square test for independence revealed a significant association between discipline and employment sector, χ^2 (2, n = 113) = 26.01, $p < 0.001$, Cramer's V = 0.48, indicating a strong association. Post hoc comparisons revealed a higher proportion of MPs worked in the public sector (63.64% vs. 24.14%) or in a mix of public and private settings (23.64% vs. 18.97%) whereas a higher proportion of AHPs were employed in the private sector (56.90% vs. 12.73%).

3.6. Online Platforms Compared between MPs and AHPs

When online platform use was compared between MPs and AHPs, Facebook was the platform with the highest account ownership for both MPs (63.64%) and AHPs (72.41%). This was followed by WhatsApp (60.00%), LinkedIn (58.18%), and X and Instagram (41.82%) for MPs, and LinkedIn (70.69%), Instagram (51.72%), and X (39.66%) for AHPs. Only a small proportion of MPs and AHPs used TikTok and Reddit to engage with their peers (**Figure 5**).

3.6.1. Facebook Use between MPs and AHPs

Of the 79 total Facebook users within the sample, 35 (44.30%) were MPs and 42 (53.16%) were AHPs. Of the MPs, 10 (28.57%) were daily users, 11 (31.43%) were occasional users, and 14 (40.00%) were rare users (**Figure 6**). The majority of AHPs were occasional (42.86%) or rare (52.38%) users. Although only two of the 42 AHPs (4.76%) self-reported using Facebook daily, a higher proportion indicated that they used Facebook daily when responding to

the online interaction questionnaire. Making a text post was the most frequent daily online interaction conducted by MPs (34.29%) and AHPs (45.24%). For both groups, there were minimal distinct differences in types and frequency of online interactions used to engage with their peers.

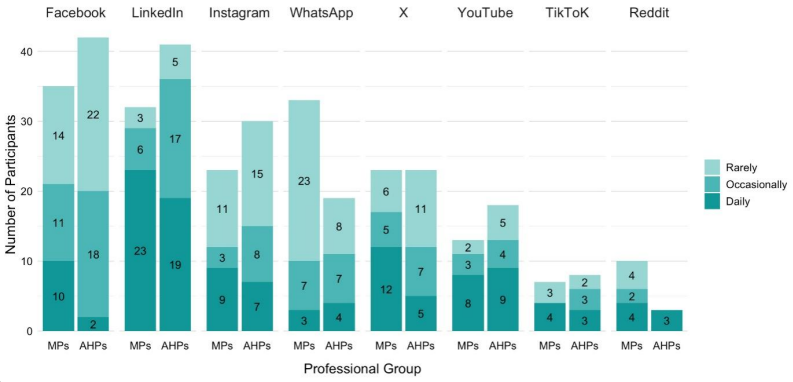

Figure 5. Comparison of online platform account ownership and frequency of use between medical practitioners (MPs) and allied health professionals (AHPs).

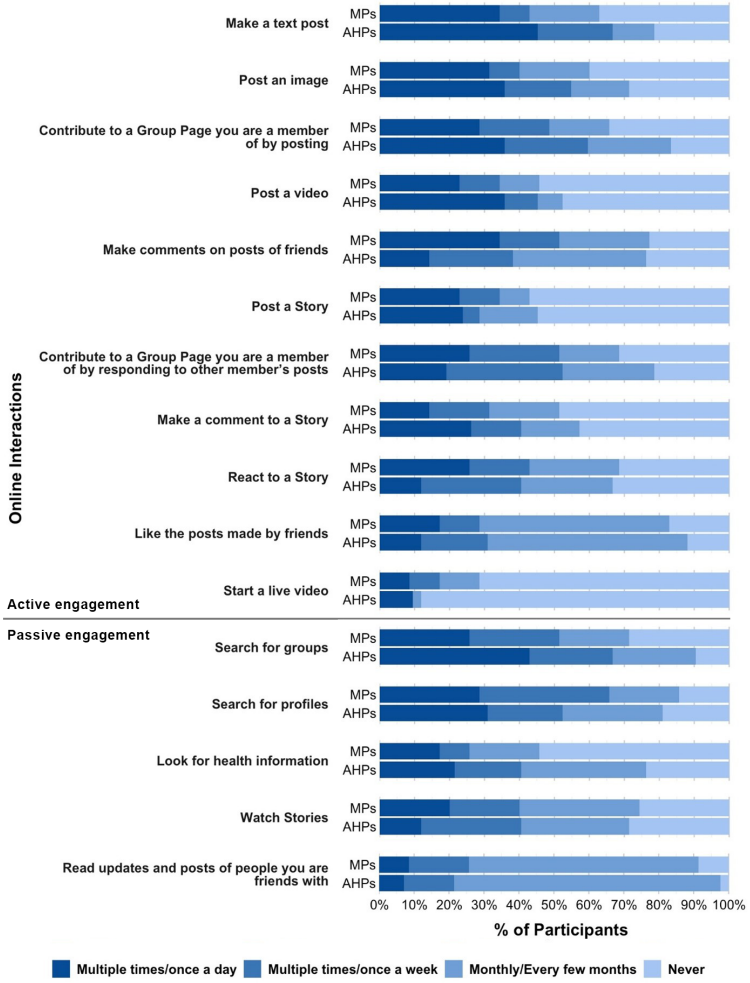

Figure 6. Comparison of the frequency of online interactions conducted on Facebook between medical practitioners (MPs) and allied health professionals (AHPs).

3.6.2. LinkedIn Use between MPs and AHPs

Among the 76 LinkedIn users within our sample, 32 (42.11%) were MPs and 41 (53.95%) were AHPs. Within this subset, most MPs (71.88%) were daily LinkedIn users and the majority of AHPs were daily (46.34%) or weekly (41.46%) users. A comparison of LinkedIn interactions between MPs and AHPs is depicted in **Figure 7**. Both groups frequently networked with their peers online LinkedIn by engaging with their connections' posts and endorsing their skills. However, AHPs also used LinkedIn just as often for employment purposes, with many using the platform to seek (39.02%) and apply (36.59%) for jobs daily. In contrast, most MPs reported having never used LinkedIn to search (68.75%) or apply (81.25%) for jobs.

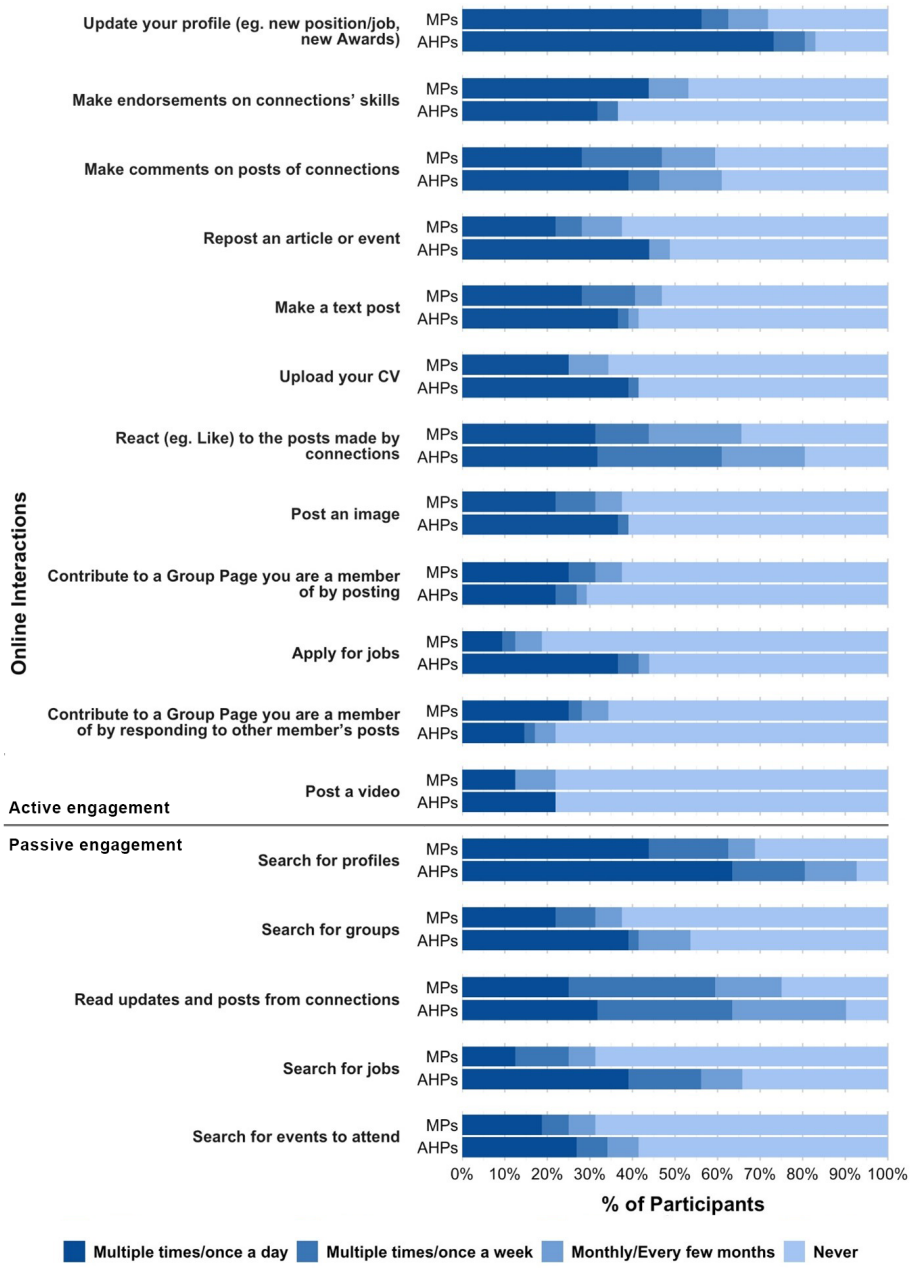

Figure 7. Comparison of the frequency of online interactions conducted on LinkedIn between medical practitioners (MPs) and allied health professionals (AHPs).

3.7. Factors Influencing Online Platform Use

Descriptive statistical analysis was conducted on responses to the Social Media in Healthcare and Technology Acceptance Model questionnaires to identify the factors influencing health professionals' use of online platforms for peer engagement. Correlation analysis was used to explore the relationship between Social Connectedness Scale scores and both the number of platforms used and Physician Well-being Index scores.

3.7.1. Findings from the Social Media in Healthcare

Participants' social media knowledge, skills, and attitudes are shown in **Figure 8**. When asked about their knowledge, most participants reported having the ability to promote their professional accomplishments on social media (86.55%) and were aware of the social media presence of professional health organisations (89.08%) and social media terminology (81.51%). Many participants reported possessing the skills to interact with social media accounts (87.39%), search for medical content (84.03%), and create and curate medical topics within social media (60.50%). Regarding attitudes towards professional social media use, many participants were comfortable protecting their personal and patients' privacy online (69.75%) [19].

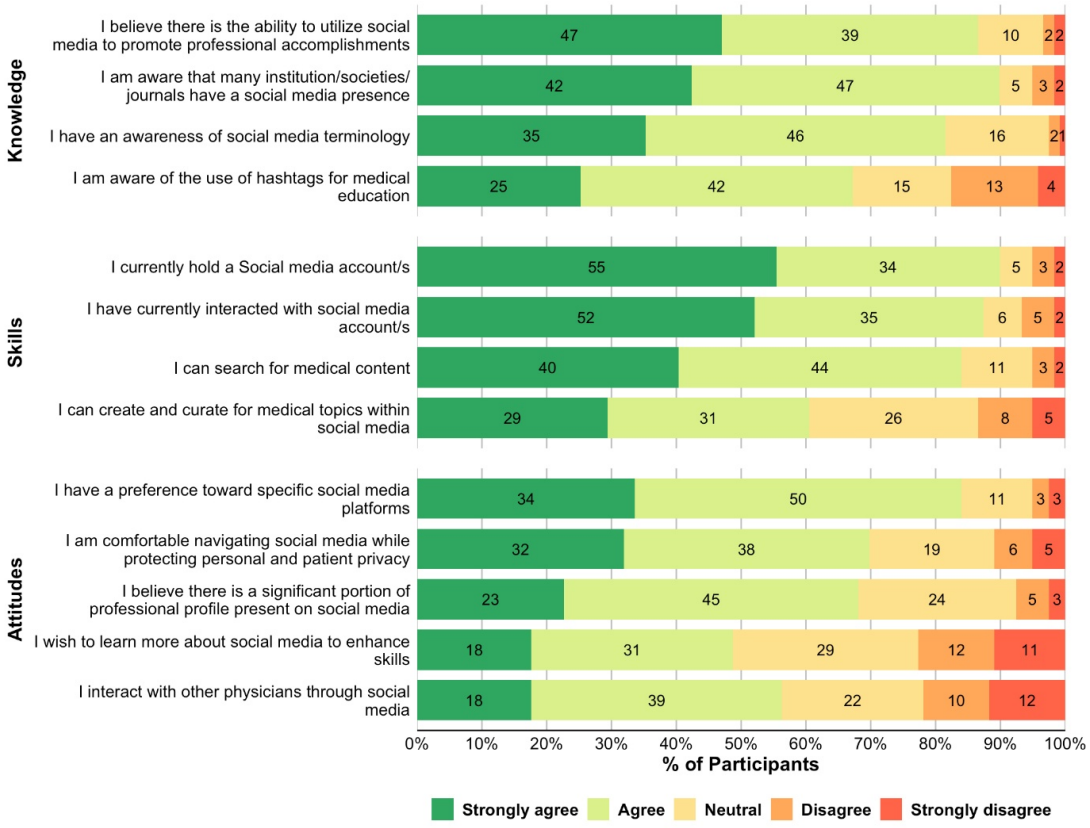

Figure 8. Participant responses to the Social Media in Healthcare questionnaire.

3.7.2. Findings from the Technology Acceptance Model

Most participants agreed that they could access a strong health professional community (79.83%) and a critical mass of other health professionals (73.11%) using social media (**Figure 9**). However, less than half of the participants reported being encouraged to use social media by peers who were important to them (47.06%) or had an influence on them (44.54%), suggesting that support within the health professional community for online peer engagement may not be widespread. When asked about the barriers to social media use, less than half of the participants agreed that they were concerned about the time consumed on social media (47.06%) and were too busy to participate on social media (41.18%) [37].

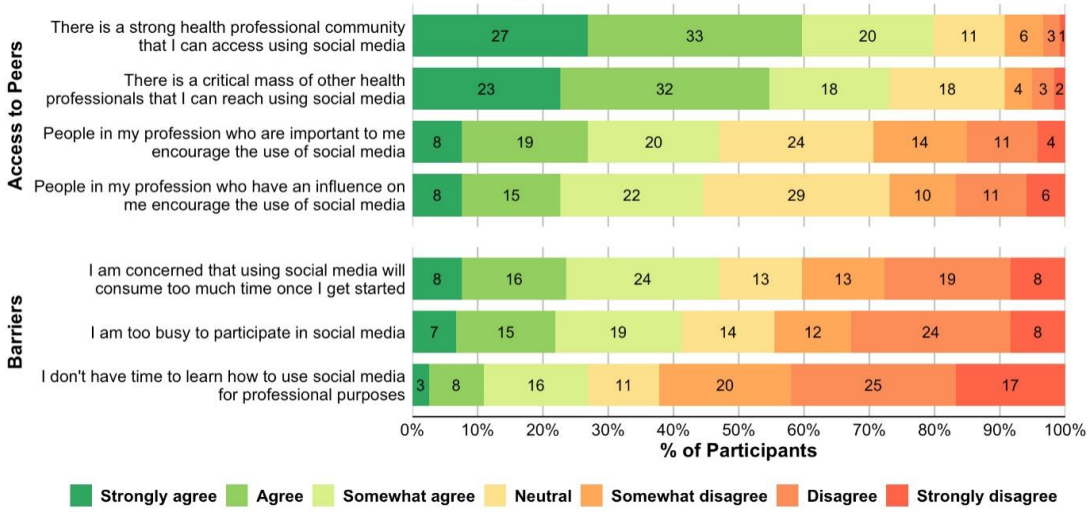

Figure 9. Participant responses to the Technology Acceptance Model questionnaire.

3.7.3. Findings from the Social Connectedness Scale

The mean social connectedness score among participants was 78.31 (SD = 12.90), ranging between 46 and 118 (higher scores indicate greater feelings of online social connectedness). A Spearman's rank correlation test revealed a small-to-moderate positive correlation between social connectedness scores and the number of platforms used, $r_s = 0.25$, $p = 0.006$, 95% CI [0.07, 0.41]. No significant correlation was found between age and social connectedness scores, nor between age and the number of platforms used, indicating that age did not substantially influence social connectedness, or the range of platforms used [38].

To examine whether this association remained after accounting for potential confounding variables, a multiple linear regression was conducted with social connectedness as the dependent variable and number of platforms used, age, and gender as predictors. The overall model was significant, $F(3,114) = 2.87$, $p = 0.039$, explaining 7.0% of the variance in social connectedness scores. Number of platforms used remained a significant independent predictor of social connectedness ($\beta = 0.23$, $p = 0.015$), while age ($\beta = 0.07$, $p = 0.456$) and gender ($\beta = -0.11$, $p = 0.254$) were not significant predictors.

3.7.4. Findings from the Physician Well-Being Index

Physician Well-being Index (PWI) scores ranged from 0–7 (higher scores indicate poorer well-being), with a mean score of 3.18 (SD = 2.05). A Spearman's rank correlation analysis revealed a small negative correlation between social connectedness and PWI scores, $r_s = -0.196$, $p = 0.032$, 95% CI [−0.37, −0.01], indicating that higher social connectedness scores (greater feelings of online social connectedness) were associated with better well-being (i.e., lower PWI scores) [39].

To examine whether this association remained after accounting for potential confounding variables, a multiple linear regression was conducted with PWI scores as the dependent variable and social connectedness, number of platforms used, age, and gender as predictors. The overall model was significant, $F(4,113) = 3.89$, $p = 0.005$, explaining 12.1% of the variance in well-being. However, social connectedness was not a significant independent predictor of well-being after adjustment ($\beta = 0.15$, $p = 0.115$). Age was a significant predictor of well-being ($\beta = 0.25$, $p = 0.006$), with older participants reporting higher PWI scores, indicating poorer well-being. Gender showed a non-significant trend, with females tending to report lower PWI scores, indicating better well-being ($\beta = -0.18$, $p = 0.051$). Number of platforms used was not a significant predictor ($\beta = -0.07$, $p = 0.421$).

3.7.5. Active and Passive Engagement

Additional analyses examined whether active and passive forms of online engagement were differentially associated with social connectedness and well-being outcomes. Across platforms, active and passive engagement scores were strongly positively correlated, indicating that participants who reported more frequent active interactions also

tended to report more frequent passive interactions.

Several small associations were observed at the unadjusted level. Social connectedness was positively associated with both active and passive Instagram interactions ($r_s = 0.34$, $p = 0.013$, and $r_s = 0.35$, $p = 0.009$, respectively), as well as mean active engagement across platforms ($r_s = 0.23$, $p = 0.012$). Higher scores on the Physician Well-being Index (i.e., poorer well-being) were negatively associated with active and passive LinkedIn interactions ($r_s = -0.28$, $p = 0.012$, and $r_s = -0.31$, $p = 0.006$, respectively) and active WhatsApp interactions ($r_s = -0.31$, $p = 0.024$). However, these associations did not remain significant following Benjamini-Hochberg false discovery rate correction across the exploratory family of platform-specific active/passive engagement correlations (q-values ranged from 0.088 to 0.136; see **Supplementary Materials Table S1**).

Overall, the associations were similar in magnitude and direction for active and passive engagement, with no consistent pattern suggesting that one form of interaction was more strongly related to social connectedness or well-being than the other.

4. Discussion

Online communities provide health professionals with opportunities to exchange knowledge, engage in discussions, seek advice and engage in social support with their peers. With health professionals increasingly leveraging these communication technologies, it is imperative that we gain a more nuanced understanding of their use—not only to enhance the recognition and optimisation of its benefits but also to help health professionals navigate the personal, ethical, and legal challenges of online spaces.

Our results demonstrate that health professionals' interactions with their peers varied across different online platforms. Our analysis identified patterns of platform engagement that map closely with established distinctions in the literature between active and passive social media use. Specifically, the two categories involved direct interaction with other online users (active) and actions characterised by observation without participation (passive). Active use includes behaviours that promote interpersonal exchange, such as reacting to content (Liking a post), commenting or initiating communication. Passive use was reflected in the actions of browsing or searching for posts, profiles or hashtags without engaging with other users directly [40]. Consistent with previous studies, LinkedIn and Facebook were the most popular platforms used by health professionals [12]. The most frequent daily interactions on LinkedIn were passive, in contrast to Facebook where there were more active interactions, which suggests that these platforms may support different forms of professional engagement. Participants also used visual content-based platforms, with Instagram use skewed more towards active content sharing and YouTube towards passive content consumption. Consistent with previous research, participants used Instagram to post advocacy, educational, and promotional content [10,41] and YouTube as an educational resource [16,42]. Interestingly, few participants reported frequently using WhatsApp, which contrasts with previously reported research on hospital settings where it was prevalently used to facilitate instant communication [16,42]. These results were not intended to infer generalisability, instead, they provide detailed evidence of how health professionals are engaging with their peers online.

Our results found variations in the frequency of use and online interactions conducted between medical practitioners (MPs) and allied health professionals (AHPs). On LinkedIn, more AHPs were exploring job opportunities compared to MPs. Although, the higher proportion of AHPs working in the private sector compared to MPs in our sample may have influenced these results. The discrepancy between a few AHPs reporting to use Facebook daily (**Figure 5**) compared with the higher proportion of their daily interactions (e.g., making a text post) (**Figure 6**) is more prominent in the responses from AHPs compared to MPs, suggesting a possible distinction in use between the groups. One possible explanation is the tendency for more frequent internet users to underestimate the time they spend online, particularly when these activities are integrated into their daily routines, making them less memorable [43]. Therefore, AHPs who frequently use Facebook may perceive their use more as a routine extension of their professional activities compared to MPs. Thus, while MPs and AHPs may be engaging with their peers through similar interactions, the type of content they post or choose to engage in may still vary. Our sample size limited the statistical power needed to compare platform usage between specific health disciplines and specialties. Therefore, we recommend that future studies with larger sample sizes pursue these comparisons to uncover any discipline-specific trends.

Numerous factors influenced health professionals' use of online platforms for peer engagement. Three promi-

nent factors in our results were: i) access to a broad audience, ii) privacy, and iii) sense of community and social connectedness.

4.1. Access to a Broad Audience

Participants reported feeling competent in using social media professionally. When the Social Media in Healthcare questionnaire was originally conducted with internal medicine physicians, only 20% reported having professional social media profiles [19]. Our results were consistent with this previous study as most health professionals believed that they possessed general social media knowledge. However, a considerably higher proportion of our participants were aware that they could promote their professional accomplishments online and possessed the skills to search for and curate medical and educational content on social media. Therefore, aligning with the Technology Acceptance Model [37,44], proficiency for social media functionalities that are professionally advantageous to health professionals (i.e., perceived usefulness and ease of use) facilitates the increased use of online platforms. Our results further indicate that access to a rich peer network online—whether for self-promotion or educational resources—enhances health professionals' perceptions of the usefulness of online communities.

These findings were corroborated by participants' Technology Acceptance Model responses. The original study that developed the questionnaire revealed that perceived access to peers was a determinant for increased social media use in health professionals; however, only social media use for knowledge exchange was examined [37]. In our study, although participants engaged with their peers online for broad and varying reasons, most perceived that there was a strong health professional community and critical mass of other health professionals available online.

Current literature exploring online communities has been criticised for its bias towards documenting observable (active) engagement [45,46] and the lack of measurement tools to capture passive interactions [40]. Research has also demonstrated that an individual's reasoning about the role of social media in their lives is skewed towards the positive or negative impact of its use [47]. Our results demonstrated that searching for profiles was a notably frequent activity conducted across multiple social media sites investigated, including Facebook, Instagram, X, and LinkedIn. This suggests that access to a wide audience of peers for activities such as networking, benchmarking, gathering information about colleagues, or simply satisfying their curiosity, are important, yet overlooked, reasons driving health professionals to use online communities. The ability to reach large, diverse audiences then suggests that health professionals may appreciate clearer organisational and regulatory guidance on what constitutes appropriate professional engagement in public or semipublic online spaces.

4.2. Privacy

Health professionals have highlighted the risk of accidentally breaching patient privacy when discussing clinical cases online, along with the resulting professional and legal repercussions [9, 48]. Confidentiality concerns also extend to health professionals' personal information, as online engagement risks the exposure of details that would ordinally remain private offline. This access provokes concern over damage to the integrity of doctor-patient relationships [49] and public and peer perceptions of their professional image [50]. These privacy concerns towards using online platforms for peer engagement are also perpetuated by the limited support and conservative policies within workplaces [9]. However, in our study, a considerably higher proportion of health professionals were comfortable protecting their personal and patient privacy online, compared to samples where fewer health professionals used social media professionally [19,49].

The greater confidence in managing privacy expressed by participants may reflect broader shifts in digital competence within the healthcare workforce. Our sample was relatively younger (mean age of 37), which aligns with evidence that younger clinicians typically demonstrate higher confidence and more positive attitudes towards using digital systems [51]. Higher digital literacy and certainty navigating digital environments can be related to greater confidence in managing privacy-related tasks. This pattern may also mirror findings among digital natives showing that how capable individuals feel does not always align with how capable they actually are. This overconfidence was a cognitive bias identified by Ma and Chen [52] which found that elevated confidence among younger clinicians may reflect both genuine digital fluency and a tendency to overestimate their skills in privacy management.

These concerns point to a need for more structured support. Clearer policies from employers and regulators, particularly around acceptable use of mixed-purpose platforms, could reduce ambiguity and help clinicians navigate privacy risks more confidently. Incorporating these issues into digital professionalism training would equip

healthcare professionals with practical strategies for managing privacy across different platform types.

4.3. Sense of Community and Social Connectedness

Social connectedness relates to the meaningful relationships [53] and bonds contributing to a broader sense of community and a mutual sense of belonging within a group [54]. In our study, higher social connectedness scores in health professionals were associated with the use of a larger number of online platforms. Note that a causal relationship cannot be established, thus it is unclear whether using a higher number of online platforms leads to greater feelings of social connectedness, or if feeling socially connected online motivates the use of more platforms. In support of the former, research has demonstrated that giving and receiving positive online interactions (e.g., likes and comments) elicits feelings of social connectedness [55–57]. Therefore, our results may indicate that engaging across multiple platforms could relate to opportunities for positive interactions, which in turn may be associated with health professionals' perceived social connectedness. In support of the latter, higher extraversion and openness to experience have been linked to increased Facebook social connectedness [31]. Moreover, Self-Determination Theory proposes that individuals are intrinsically motivated to engage in activities that satisfy the innate desire for relatedness [58]. Thus, another interpretation of our results could be that health professionals who exhibit more sociable personality traits may experience greater feelings of social connectedness online, both of which motivates engagement with a higher number of online platforms.

Additionally, our results revealed that greater feelings of online social connectedness were associated with increased well-being. This finding reflects existing literature which has demonstrated the association between Facebook use and increased feelings of social connectedness, social support, and social capital [59], which in turn could contribute to increased well-being [60]. However, this association did not remain significant after adjusting for age, gender, and number of platforms used, suggesting that the relationship between online social connectedness and well-being should be interpreted cautiously. While both correlations regarding social connectedness are small, the effect size may have been diluted due to the exploratory nature of this study which warranted the use of broad variables. For instance, the number of platforms used may not entirely reflect the online behaviours of health professionals that can enrich social connectedness. The Physician Well-being Index also measures an array of factors, including anxiety, burnout, and physical quality of life, which may not all be improved by social connectedness. Nonetheless, the finding that number of platforms used remained associated with social connectedness after adjusting for age and gender suggests that broader online platform engagement may be linked to perceived professional connectedness, even though its relationship with well-being appears more complex.

To further examine whether different forms of engagement were associated with distinct outcomes, we explored relationships between active and passive interaction patterns and measures of social connectedness and well-being. Contrary to expectations, the findings did not show a clear distinction between active and passive use.

Across platforms, active and passive engagement were strongly positively correlated with each other, suggesting that these behaviours tend to co-occur rather than represent separate modes of use. Although some moderate platform-specific associations with social connectedness and well-being were, these were observed for both active and passive interactions, and did not remain significant after false discovery rate correction. This suggests that the frequency of engagement with a platform may be more relevant to perceived connectedness and well-being than the specific type of interaction, but this interpretation should be considered exploratory.

These findings suggest that, within professional online communities, passive engagement may also contribute meaningfully to connection and professional belonging, rather than representing a less valuable form of participation. This may reflect the goal-oriented nature of professional platform use, where both active contribution and passive information gathering serve complementary roles in supporting peer engagement. However, further research with larger samples is needed to clarify whether active and passive forms of engagement have distinct relationships with social connectedness and well-being.

The broader pattern of findings observed regarding online social connectedness and wellbeing should also be interpreted in light of the gender composition of the sample, which was predominantly female. Although gender was not a focus of this study and no gender-based analyses were conducted, existing evidence indicates that women tend to both give and receive higher levels of social support in online environments than men [61]. Research also suggests that social relationships may be more strongly protective of women's mental health [62] which may help contextualise the association between connectedness and well-being observed in our data. In adjusted regression

models, gender did not emerge as a statistically significant predictor, although the sample composition remains relevant to the generalisability of the findings.

Participants valued the peer support and professional community they found online, but also described uncertainty about how to engage safely and appropriately. Training modules that address boundary management, role expectations, and the dynamics of online professional communities could help clinicians participate in these spaces while maintaining professional standards. Such training would complement clearer policy guidance and support the positive aspects of online connectedness identified in this study [63].

4.4. Limitations

With the increasing support and action to improve interdisciplinary collaboration among health professionals [64], the current study is one of the few to reflect these attitudes by incorporating a multidisciplinary sample. This study highlights the opportunities and benefits provided by online communities to enhance interprofessional collaboration, which may encourage a shift away from the disciplinary silos that persist offline [26], online [22], and in research [23].

While specific limitations have been discussed earlier, the exploratory measures used in this study should be considered in the overall interpretation of results. Due to the cross-sectional nature of this study, causality between the quantitative variables investigated cannot be inferred. Moreover, this data collected self-reported responses. Although this approach increased accessibility for busy health professionals, there may be inaccuracies between their self-reported and actual social media use [65].

Recruitment of participants was slow, which extended our data-collection window. This coincided with shifts in the broader digital communication landscape, including changes in platform ownership, naming, functionality, and user norms. These developments may or may not have shaped how healthcare professionals engaged with particular platforms at different points in time, introducing the possibility that participants' experiences reflected the digital environment present when they were recruited. Although the study focused on broader patterns of professional engagement that are conceptually stable across platforms and no clear temporal differences were evident in the data, pooling responses across this period may still mask subtle period effects or evolving practices. Our study contributes evidence on how participants engage behaviourally with these platforms, focusing on patterns of use within a context where the platforms themselves are continually evolving and changing. This potential for temporal bias should be considered when interpreting the findings.

Recruitment was predominantly conducted through social media and other online channels, which likely overrepresents healthcare professionals who are already more digitally engaged or comfortable participating in online environments. This introduced selection bias that may inflate estimates of the prevalence or frequency of certain online community behaviours, as individuals who are less active online or who do not use social media regularly were less likely to encounter or respond to the study invitation. However, the number of health professionals using these technologies continue to grow and as such we believe that our findings are suggestive of behaviours of a considerable portion of this group.

A further limitation concerns the gender distribution of the sample, which was predominantly female. Although gender differences were not a focus of the study and were therefore not included in the analysis of findings, this pattern is consistent with the composition of the global health and social care workforce, where women represent approximately 70% of workers [66]. While our sample therefore reflects the broader demographic profile of the international health workforce rather than an atypical sampling bias, the gender imbalance may still influence patterns of online engagement and social connectedness and should be considered when interpreting the findings.

Since the study recruited participants through purposive sampling and the sample size was smaller than intended, the results may not be generalisable to the broader population of health professionals. Despite our limited sample size, our findings reflect responses from an international sample from 7 northern and southern hemisphere regions, over 20 health professions and identifies over 30 platforms used by health professionals demonstrating the diversity and strength of our sample. These limitations present important avenues for future research.

4.5. Future Research

Our findings suggest that possessing the knowledge and skills to engage in professionally beneficial activities while protecting personal and patient privacy can facilitate health professionals' online platform use. Future stud-

ies should examine the impact of digital literacy on the adoption and sustained use of online communities. Specifically, this work should focus on understanding the types of knowledge and skills required for different engagement purposes (e.g., networking vs. medical education) and the nuances associated with varying levels of social media experience.

In contrast, health professionals were hindered from capitalising on online communities by time constraints and concerns about peer scrutiny and potential professional repercussions. These disciplinary concerns were heightened due to their workplaces' ambiguous social media policies and a lack of awareness surrounding them. Therefore, future research is needed to clarify the desired areas for improvement (i.e., which components of existing policies need further specification) and levels of supervision (i.e., how much more oversight is needed and how much infringes on personal freedoms) in regulatory and institutional social media policies. Furthermore, developing effective and feasible strategies to educate health professionals on these policies is also crucial to support their engagement with peers online.

Lastly, we proposed a positive association between the use of online communities and perceived online social connectedness and well-being. To potentially leverage online communities for enhancing the well-being of health professionals, a deeper understanding of how, when, where, and for whom positive social connectedness and well-being outcomes are elicited is needed. Furthermore, future research should examine how various influences, such as the type of interaction (active vs. passive), different online platforms, and mediating factors (e.g., extraversion), impact on perceived social connectedness and well-being.

5. Conclusions

Online communities have immense potential to support health professionals in ways that traditional offline methods cannot. They can help health professionals navigate the overwhelming amount of existing and emerging medical information, facilitate opportunities to expand professional networks, and offer emotionally supportive connections. This study serves as the foundation for further exploration of the field. Further research building on these recommendations can clarify how online communities may support health professionals professionally and socially, and under what conditions these benefits are most likely to occur.

Supplementary Materials

The supporting information can be downloaded at https://ojs.ukscip.com/files/DHSS-2381-Supplementary-Materials.docx.

Author Contributions

Conceptualization, R.F. and K.L.A.; methodology, R.F. and K.L.A.; formal analysis, L.L. and B.R.; investigation, R.F. and K.L.A.; data curation, L.L.; writing—original draft preparation, L.L.; writing—review and editing, R.F., B.R., and K.L.A.; visualization, L.L. and B.R.; supervision, R.F. and K.L.A.; project administration, R.F. and K.L.A. All authors have read and agreed to the published version of the manuscript.

Funding

This research received no external funding from funding agencies in the public, commercial, or not-for-profit sectors.

Institutional Review Board Statement

The University of Sydney Human Research Ethics Committee approved this study on April 27, 2022 (2022/151). This study was conducted in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki Declaration and its later amendments.

Informed Consent Statement

All participants provided informed consent.

Data Availability Statement

The data supporting the findings of this study are not publicly available due to privacy and confidentiality considerations. However, the dataset is available from the corresponding author upon reasonable request.

Conflicts of Interest

The authors declare no conflict of interest.

AI Use Statement

The authors declare that no artificial intelligence (AI) tools were used for content generation or data analysis in the preparation of this manuscript.

Abbreviations

Abbreviation	Full Name
AHP	Allied health professional/s
MP	Medical practitioner/s
PWI	Physician Well-being Index

References

1. Rains, S.A. Groups in Health Contexts: Online Health Communities. In *Group Communication*; Reimer, T., Park, E.S., Bonito, J.A., Eds.; Routledge: New York, NY, USA, 2023; pp. 293–304.
2. Farsi, D.; Martinez-Menchaca, H.R.; Ahmed, M.; et al. Social Media and Health Care (Part II): Narrative Review of Social Media Use by Patients. *J. Med. Internet Res.* **2022**, *24*, e30379. [CrossRef]
3. Bernardi, R.; Wu, P.F. Online health communities and the patient-doctor relationship: An institutional logistics perspective. *Soc. Sci. Med.* **2022**, *314*, 115494. [CrossRef]
4. Anawade, P.A.; Sharma, D.; Gahane, S. Connecting Health and Technology: A Comprehensive Review of Social Media and Online Communities in Healthcare. *Cureus* **2024**, *16*, e55361. [CrossRef]
5. Al Adwan, M.N.; Safori, A.; Habes, M.; et al. Why New Media app during the Healthcare Crisis? WhatsApp Based Study. *Stud. Media Commun.* **2023**, *11*, 5985. [CrossRef]
6. Fazil, A.W.; Hakimi, M.; Akrami, K.; et al. Exploring the Role of Social Media in Bridging Gaps and Facilitating Global Communication. *Stud. Media Journalism Comm.* **2024**, *2*, 13–21. [CrossRef]
7. Dong, C.; Cheema, M.; Samarasekera, D.; et al. Using LinkedIn for continuing community of practice among hand surgeons worldwide. *J. Contin. Educ. Health Prof.* **2015**, *35*, 185–191. [CrossRef]
8. Guerra, F.; Linz, D.; Garcia, R.; et al. The use of social media for professional purposes by healthcare professionals: The #intEHRAct survey. *EP Europace* **2022**, *24*, 691–696. [CrossRef]
9. Panahi, S.; Watson, J.; Partridge, H. Social media and physicians: Exploring the benefits and challenges. *Health Informatics J.* **2014**, *22*, 99–112. [CrossRef]
10. Amon, K.L.; Brunner, M.; Campbell, A.J. The Reel Health Care Professionals of Instagram: A Systematic Review. *Cyberpsychol. Behav. Soc. Netw.* **2024**, *27*, 172–186. [CrossRef]
11. Fox, K.; Singh, P. What are dental professionals posting on Facebook? A cross-sectional content analysis. *J. Orthod.* **2022**, *49*, 185–194. [CrossRef]
12. Nikiphorou, E.; Studenic, P.; Ammitzbøll, C.G.; et al. Social media use among young rheumatologists and basic scientists: Results of an international survey by the Emerging EULAR Network (EMEUNET). *Ann. Rheum. Dis.* **2017**, *76*, 712–715. [CrossRef]
13. Shaw, L.; Jazayeri, D.; Kiegaldie, D.; et al. Implementation of Virtual Communities of Practice in Healthcare to Improve Capability and Capacity: A 10-Year Scoping Review. *Int. J. Environ. Res. Public Health* **2022**, *19*, 7994. [CrossRef]
14. Hara, N.; Foon Hew, K. Knowledge-sharing in an online community of health-care professionals. *Inform. Technol. People* **2007**, *20*, 235–261. [CrossRef]
15. Chang, J.B.; Woo, S.L.; Cederna, P.S. Worth the "likes"? The use of Facebook among plastic surgeons and its perceived impact. *Plast. Reconstr. Surg.* **2015**, *135*, 909e–918e. [CrossRef]
16. Antheunis, M.L.; Tates, K.; Nieboer, T.E. Patients' and health professionals' use of social media in health care: Motives, barriers and expectations. *Patient Educ. Couns.* **2013**, *92*, 426–431. [CrossRef]

17. Barry, A.R.; Pearson, G.J. Professional use of social media by pharmacists. *Can. J. Hosp. Pharm.* **2015**, *68*, 22–27. [CrossRef]
18. Campbell, L.; Evans, Y.; Pumper, M.; et al. Social media use by physicians: A qualitative study of the new frontier of medicine. *BMC Med. Inform. Decis. Mak.* **2016**, *16*, 91. [CrossRef]
19. Bhuiyan, M.N.; Medina-Inojosa, J.R.; Croghan, I.T.; et al. Internal medicine physicians and social media: Knowledge, skills, and attitudes. *J. Prim. Care Community Health* **2020**, *11*, 2150132720969022. [CrossRef]
20. Jeyaraman, M.; Ramasubramanian, S.; Kumar, S.; et al. Multifaceted Role of Social Media in Healthcare: Opportunities, Challenges, and the Need for Quality Control. *Cureus* **2023**, *15*, 39111. [CrossRef]
21. Economides, J.M.; Fan, K.L.; Pittman, T.A. An analysis of plastic surgeons' social media use and perceptions. *Aesthetic Surg. J.* **2018**, *39*, 794–802. [CrossRef]
22. Ikioda, F.; Kendall, S.; Brooks, F.; et al. Factors that influence healthcare professionals' online interaction in a virtual community of practice. *Soc. Networking* **2013**, *2*, 174–184. [CrossRef]
23. Rolls, K.; Hansen, M.; Jackson, D.; et al. How health care professionals use social media to create virtual communities: An integrative review. *J. Med. Internet Res.* **2016**, *18*, e166. [CrossRef]
24. Stewart, S.A.; Abidi, S.S.R. Applying social network analysis to understand the knowledge sharing behaviour of practitioners in a clinical online discussion forum. *J. Med. Internet Res.* **2012**, *14*, e170. [CrossRef]
25. Sheehan, J.; Laver, K.; Bhopti, A.; et al. Methods and effectiveness of communication between hospital allied health and primary care practitioners: A systematic narrative review. *J. Multidiscip. Healthcare* **2021**, *14*, 493–511. [CrossRef]
26. Tasselli, S. Social networks and inter-professional knowledge transfer: The case of healthcare professionals. *Organ. Stud.* **2015**, *36*, 841–872. [CrossRef]
27. Barnett, S.; Jones, S.C.; Bennett, S.; et al. Usefulness of a virtual community of practice and Web 2.0 tools for general practice training: Experiences and expectations of general practitioner registrars and supervisors. *Australas. J. Primary Health* **2013**, *19*, 292–296. [CrossRef]
28. Deane, J.A.; Clunie, G. Healthcare professionals in research (HPiR) Facebook community: A survey of U.K. doctoral and postdoctoral healthcare professionals outside of medicine. *BMC Med. Educ.* **2021**, *21*, 236. [CrossRef]
29. Berthelsen, M.; Pallesen, S.; Magerøy, N.; et al. Effects of psychological and social factors in shiftwork on symptoms of anxiety and depression in nurses: A 1-year follow-up. *J. Occup. Environ. Med.* **2015**, *57*, 1127–1137. [CrossRef]
30. Feldman, T.R.; Carlson, C.L.; Rice, L.K.; et al. Factors predicting the development of psychopathology among first responders: A prospective, longitudinal study. *Psychol. Trauma* **2021**, *13*, 75–83. [CrossRef]
31. Grieve, R.; Kemp, N. Individual differences predicting social connectedness derived from Facebook: Some unexpected findings. *Comput. Human Behav.* **2015**, *51*, 239–243. [CrossRef]
32. Calica, K.A.N.; Paterson, R.E. The listening project: A qualitative study on the experiences of pre-registered nurses during the Covid-19 pandemic in Scotland. *Heliyon* **2023**, *9*, e12664. [CrossRef]
33. Whitesman, S.; Mash, R. Examining the effects of a mindfulness-based distance learning professional training module on personal and professional functioning: A qualitative study. *BMC Med. Educ.* **2016**, *16*, 287. [CrossRef]
34. De Cieri, H.; Shea, T.; Cooper, B.; et al. Effects of Work-Related Stressors and Mindfulness on Mental and Physical Health Among Australian Nurses and Healthcare Workers. *J. Nurs. Scholarsh.* **2019**, *51*, 580–589. [CrossRef]
35. Tang, Y.; Zhang, M.; Huang, Y.; et al. The dose-response relationship between work hours and mental health in healthcare workers: A cross-sectional study in a Chinese medical consortium. *Saf. Sci.* **2026**, *196*, 107093. [CrossRef]
36. Zeinolabedini, M.; Motlagh, M.E.; Heidarnia, A.; et al. From source identification to preferential interventions: Determinants of a workplace mental health promotion program to control workplace stress among health care workers based on a qualitative study. *PLoS One* **2026**, *21*, e0340575. [CrossRef]
37. McGowan, B.S.; Wasko, M.; Vartabedian, B.S.; et al. Understanding the factors that influence the adoption and meaningful use of social media by physicians to share medical information. *J. Med. Internet Res.* **2012**, *14*, e117. [CrossRef]
38. Grieve, R.; Indian, M.; Witteveen, K.; et al. Face-to-face or Facebook: Can social connectedness be derived online? *Comput. Human Behav.* **2013**, *29*, 604–609. [CrossRef]
39. Dyrbye, L.N.; Satele, D.; Sloan, J.; et al. Ability of the physician well-being index to identify residents in distress. *J. Grad. Med. Educ.* **2014**, *6*, 78–84. [CrossRef]

40. Trifiro, B.M.; Gerson, J. Social media usage patterns: Research note regarding the lack of universal validated measures for active and passive use. *Social Media + Society* **2019**, *5*, 2056305119848743. [CrossRef]
41. Dzienny, A.C.; Toal, C.T.; Fitzgerald, J.J.; et al. Who's posting what? A qualitative, cross-sectional study comparing Twitter and Instagram patterns between health care professionals and patients. *Urogynecology* **2022**, *28*, 492–499. [CrossRef]
42. Koya, K.D.; Bhatia, K.R.; Hsu, J.T.; et al. YouTube and the expanding role of videos in dermatologic surgery education. *Semin. Cutan. Med. Surg.* **2012**, *31*, 163–167.
43. Araujo, T.; Wonneberger, A.; Neijens, P.; et al. How much time do you spend online? Understanding and improving the accuracy of self-reported measures of internet use. *Commun. Methods Meas.* **2017**, *11*, 173–190. [CrossRef]
44. Hazzam, J.; Lahrech, A. Health care professionals' social media behavior and the underlying factors of social media adoption and use: Quantitative study. *J. Med. Internet Res.* **2018**, *20*, e12035. [CrossRef]
45. Casemajor, N.; Couture, S.; Delfin, M.; et al. Non-participation in digital media: Toward a framework of mediated political action. *Media Culture Society* **2015**, *37*, 850–866. [CrossRef]
46. Lutz, C.; Hoffmann, C.P. The dark side of online participation: Exploring non-, passive and negative participation. *Inform. Commun. Society* **2017**, *20*, 876–897. [CrossRef]
47. Lee, A.Y.; Katz, R.; Hancock, J. The role of subjective construals on reporting and reasoning about social media use. *Social Media + Society* **2021**, *7*, 2056305211035350. [CrossRef]
48. Shrestha, A.; Graham, D.M.; Dumaru, P.; et al. Understanding the Behavior, Challenges, and Privacy Risks in Digital Technology Use by Nursing Professionals. In *Proc. ACM Hum.-Comput. Interact.*; 2022, *6*, 343. [CrossRef]
49. Brown, J.; Ryan, C.; Harris, A. How doctors view and use social media: A national survey. *J. Med. Internet Res.* **2014**, *16*, e267. [CrossRef]
50. Tunnecliff, J.; Ilic, D.; Morgan, P.; et al. The acceptability among health researchers and clinicians of social media to translate research evidence to clinical practice: Mixed-methods survey and interview study. *J. Med. Internet Res.* **2015**, *17*, e119. [CrossRef]
51. Kuek, A.; Hakkennes, S. Healthcare staff digital literacy levels and their attitudes towards information systems. *Health Informatics J.* **2020**, *26*, 592–612. [CrossRef]
52. Ma, S.; Chen, C. Are digital natives overconfident in their privacy literacy? Discrepancy between self-assessed and actual privacy literacy, and their impacts on privacy protection behavior. *Front. Psychol.* **2023**, *14*, 1224168. [CrossRef]
53. Lee, R.; Robbins, S. Measuring belongingness: The social connectedness and the social assurance scales. *J. Couns. Psychol.* **1995**, *42*, 232–241. [CrossRef]
54. McMillan, D.W.; Chavis, D.M. Sense of community: A definition and theory. *J. Community Psychol.* **1986**, *14*, 6–23. [CrossRef]
55. Burke, M.; Marlow, C.; Lento, T. Social network activity and social well-being. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, Atlanta, GA, USA, 10–15 April 2010; pp. 1909–1912. [CrossRef]
56. Voggenreiter, A.; Brandt, S.; Putterer, F.; et al. The role of likes: How online feedback impacts users' mental health. In Proceedings of the 16th ACM Web Science Conference, Stuttgart, Germany, 21–24 May 2024; pp. 302–310. [CrossRef]
57. Zell, A.L.; Moeller, L. Are you happy for me … on Facebook? The potential importance of "likes" and comments. *Comput. Human Behav.* **2018**, *78*, 26–33. [CrossRef]
58. Ryan, R.M.; Deci, E.L. Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *Am. Psychol.* **2000**, *55*, 68–78. [CrossRef]
59. Deters, F.G.; Mehl, M.R. Does posting Facebook status updates increase or decrease loneliness? An online social networking experiment. *Soc. Psychol. Personal. Sci.* **2013**, *4*, 579–586. [CrossRef]
60. Liu, C.-Y.; Yu, C.-P. Can Facebook use induce well-being? *Cyberpsychol. Behav. Soc. Netw.* **2013**, *16*, 674–678. [CrossRef]
61. Tifferet, S. Gender Differences in Social Support on Social Network Sites: A Meta-Analysis. *Cyberpsychol. Behav. Soc. Netw.* **2020**, *23*, 199–209. [CrossRef]
62. Shin, H.; Park, C. Gender differences in social networks and physical and mental health: Are social relationships more health protective in women than in men? *Front. Psychol.* **2023**, *14*, 1216032. [CrossRef]
63. Gagnon, K.; Sabus, C. Professionalism in a Digital Age: Opportunities and Considerations for Using Social Media in Health Care. *Phys. Ther.* **2015**, *95*, 406–414. [CrossRef]

64. Bitter, J.; van Veen-Berkx, E.; Gooszen, H.G.; et al. Multidisciplinary teamwork is an important issue to health-care professionals. *Team Perform. Manage.* **2013**, *19*, 263–278. [CrossRef]
65. Shaleha, R.; Roque, N.; Andrews, H.; et al. Screen Use Measurement Tools: A Mapping of Instruments, Gaps, and Future Directions. *Cyberpsychol. Behav. Soc. Netw.* **2026**, *29*, 140–150. [CrossRef]
66. World Health Organization. *Delivered by Women, Led by Men: A Gender and Equity Analysis of the Global Health and Social Workforce*; World Health Organization: Geneva, Switzerland, 2019. Available online: https://www.who.int/publications/i/item/9789241515467