

**Using social media to raise awareness among critical care
workers: LinkedIn as a case study. An analytical study.**

Moayed Abdullah Al-Nakhli

253002483

Midocean University

Dr. Mahitab Elrafii

Date (2026)

The content	Page
Cover page	1
Table of Contents	2
List of tables and figures	3
Introduction	4
Literature review	5
Research gap and commentary on previous studies	6
Problem of study	7
Importance of study	7
Objectives of the Study	7
Study questions	8
Study concepts	8
Study Hypotheses and Assumptions	8
The Theoretical Framework	9
Research Design, Data Collection and Data analysis	9
Study Limitations	9
Quantitative Content Analysis Form	10
Results	13
Discussion	15
Recommendations:	15
Conclusion:	15
The reference	16

Table number	Topic of tables and figures	Page
Table 1	Mathematical Operationalization of Operational Variables.	10
Table 2	Digital content analysis form about LinkedIn posts that discuss the most popular abnormal artificial respiration waves.	11
Table 3	Digital content analysis form about LinkedIn posts that discuss The most common points during VC mode.	11
Table 4	Digital content analysis form about LinkedIn posts that discuss The most common points during PC mode.	12
Table 5	Digital content analysis form about LinkedIn posts that discuss Analysis expiratory phase on ventilator wave-forms.	12
Table 6	A digital content analysis form for LinkedIn posts that compiles a collection of posts into a single presentation.	13

Introduction:

The number of users who use social media has dramatically risen, and social media has become an essential part of sharing information in our daily lives. According to the most recent data, there were actually almost 294 million new users in the digital world during the previous year [1].

Social media involves a number of digital platforms that have played a major role in the sharing of knowledge among students, educators, critical care providers, and learning environments. Among the most popular social media platforms worldwide are Facebook, Twitter, LinkedIn, YouTube, Instagram, Wikis, Blogs, Podcasts, and WeChat [2].

Writing digital content related to the intensive care unit (ICU) is considered one of the most complex types of content, both in terms of developing the concept and in conveying it to the target audience in the simplest and most accurate way. Even today, many ICU staff struggle with the abundance of information about the health field on social media, often written by non-experts or by experts who use artificial intelligence tools to create their digital content, or who write overly complex scientific material in just a few lines, claiming to have conveyed the idea to the public [3].

LinkedIn is a valuable platform for digital content creation, boasting high-quality scientific writing from experts in their respective fields. However, recently, many science writers and healthcare professionals on LinkedIn have begun utilizing artificial intelligence (AI) tools in their content. AI provides valuable information, particularly regarding ventilators, but this information is still not entirely reliable for digital content creation. Even respiratory care specialists may overlook errors in AI-generated digital content, and these errors can only be detected by those with extensive experience in the field.

Ventilation waves are a crucial scientific topic that remains largely overlooked, particularly in intensive care. As Eduardo Mireles-Cabodevila, Matthew T Siuba, and Robert L Chatburn (2022) said, ventilator waves are as vital as cardiac waves in diagnosing cardiac diseases[4]. Furthermore, there is a significant lack of scientific resources on ventilator waves from experts in the field. The need for scientific books and digital content on ventilator waves is growing, especially with the increasing use of new ventilators in Saudi Arabian hospitals.

This study aims to evaluate how providing specialized digital scientific content (posts) on mechanical ventilation waves on LinkedIn has contributed to simplifying mechanical ventilation waves for critical care workers, emergency health workers, and anesthesiologists through comments, likes, shares, and other actions that increase engagement on the platform regarding ventilator waves.

Literature review:

Social media platforms are an important tool for disseminating medical information. However, digital health content still suffers from several challenges, including content creation by non-specialists or by specialists with limited experience and knowledge. Another ongoing issue for critical care specialists is the use of artificial intelligence in writing critical care digital content, which has resulted in a superficial understanding of complex information and numerous unchecked errors. There is a severe lack of research on digital content related to intensive care unit health information. While some studies exist, they are limited in scope and offer some insight into this topic.

- **Evaluating the Functions, Benefits, and Barriers of Using Social Media for Communication Among Healthcare Professionals. Chan WS, Leung AY (2018).**

The study, titled "Evaluating the Functions, Benefits, and Barriers of Using Social Media for Communication Among Healthcare Professionals," defines social media as web-based services that allow individuals to create profiles and build networks with other users within the system. It also notes that social media platforms are increasingly used for health communication and research, providing a space for the public to access health information and seek support when needed [7].

- **Use of Social Media for Professional Development by Health Care Professionals: A Cross-Sectional Web-Based Survey. Alsobayel H (2016).**

Based to this particular study, social media significantly contributes toward professional development in Saudi Arabian hospitals. The author notes toward the fact that social media is a tool for professional communication, education, patient care, public health initiatives, and the promotion of organizations and research in addition to assisting with professional development. The accuracy, quality, and dependability of information; patient privacy and confidentiality; the blurring of personal and professional life boundaries; a greater likelihood of legal liability; and the lack of methodological rigor in social media-based research are only a few of the risks associated with social media that the researcher recognizes [5].

- **How Health Care Professionals Use Social Media to Create Virtual Communities: An Integrative Review. Rolls K, Hansen M, Jackson D, Elliott D. (2016).**

The goal of this study was to learn how healthcare providers use social media to create online communities. While being somewhat outdated—it was published in 2016—it offers useful data. According to the report, healthcare professionals frequently establish virtual communities for several reasons:

1. Creating a professional forum to exchange knowledge and discuss relevant academic and professional topics.
2. Handling isolation in the workplace.
3. Promoting business correspondence.
4. Encouraging cooperation and collaboration among coworkers.
5. Encouraging professional development.
6. Using scientific evidence and performing research to improve clinical practice.
7. Receiving clinical advice or opinions [6].

Research gap and commentary on previous studies

Previous studies have shown that social media platforms have a significant impact on the healthcare field and on building the professional reputation of healthcare workers. While no one can deny the benefits of digital platforms, there is a severe lack of research investigating whether

the focus and value of digital content on LinkedIn, as a professional platform, actually influences the performance of healthcare professionals or not.

Furthermore, studies lack information on whether critical care-focused digital content on LinkedIn receives adequate engagement. There are also no focused studies on healthcare professionals' interaction with digital content related to ventilator waves. Digital content related to ventilator waves still needs to be re-evaluated, and ventilator waves should be treated as an important tool in critical care.

Problem of study:

Optimizing mechanical ventilation and increasing outcomes for critically ill patients depend on an understanding of ventilator waveforms. Critical care professionals and anesthesiologists frequently have knowledge gaps since deciphering these waveforms is still a challenging clinical skill. Although professional social media sites like LinkedIn provide previously unheard-of chances for medical education and quick information sharing, there is no empirical study assessing how well they work at making complex clinical concepts understandable through evidence-based content.

Thus, this study evaluates the effects of focused, reference-based LinkedIn posts on ventilator waveform awareness and information sharing among critical care providers around the globe.

Importance of the Study:

Studies that focus on how digital platforms affect the awareness of critical care workers are very few. In our study, we contribute to clarifying a practical model through the special page on the LinkedIn application of how digital content contributes to simplifying medical information relevant to the field of critical care, especially regarding waves for artificial respiration.

1. To analyze how healthcare professionals consume content related to ventilator waves.
2. **To assess** the perceived effectiveness of evidence-based, simplified digital posts in supporting the continuing medical education (CME) of critical care workers.
3. to evaluate the impact and interaction of professional social media-produced health awareness information in comparison to more traditional teaching techniques.

Objectives of the Study:

1. Understanding how users interact with digital content related to artificial respiration waves through: Engagement Rate (ERImp), Virality Index (VI), Information Value / Utility Ratio (VR), Follower Conversion Rate (FCR) and Reach Efficiency Ratio (RER).
2. Understand how specialized digital content contributes to enhancing professional expertise and how it contributes to building a professional network among health care professionals.

Study Questions:

1. What is the engagement rate (likes, comments, saves, follows, and profile visits) for content specializing in respiratory wave analysis?
2. Does the engagement behavior (sharing and saving) reflect the audience's reliance on digital content as a sustainable reference source on respiratory wave analysis?

Study Concepts

1. **Social media:** "A collection of online platforms that enable the creation and distribution of content generated by users" describes the way social media (SM) is defined. This includes the growth of digital communities and the dissemination of data, ideas, opinions, messages, images, and videos [8].
2. **Awareness:** The degree to which a person is cognizant of the stimulus that begins a particular process, how that process operates, and/or the outcomes that the process creates is known as awareness [9].
3. **A critical care worker:** is a person who assists the sick or injured, either directly as doctors and nurses or indirectly as lab technicians, assistants, assistance workers, or even medical waste handlers [10].

Study Hypotheses and Assumptions:

Study hypothesis:

Our study aims to determine the impact of personalized digital content on building professional networks for healthcare professionals and the extent to which healthcare professionals engage with this content. In our research, we measure the impact of digital content and test its validity through the following hypotheses:

Hypothesis 1: The degree of clinician interaction (as measured by likes, comments, and shares) is positively correlated with the presence of scientific evidence in specialist LinkedIn posts.

Hypothesis 2: Health care workers' professional networks grow as a result of the regular publication of specialized, evidence-based digital content, as indicated by connection requests and professional queries.

The Theoretical Framework:

The starting point of this research is Connectivism Learning Theory (Siemens, 2005), which highlights the significance of networks and connections in the process of learning.[11]. When we apply this theory to our LinkedIn profile, we find that it serves as a specialized, open-source learning node for health care worker. Since connectionism posits that current knowledge is distributed across digital networks and that learning occurs through continuous interaction with these nodes, our study reveals that some critical care workers utilize LinkedIn as part of their learning network. Specifically, we observed significant engagement from critical care workers with posts about mechanical ventilation. This study demonstrates the contribution of informal networking to bridging the gap in continuing medical education.

Research Design, Data Collection and Data analysis:

In our study, we used content analytics to analyze digital content published on LinkedIn between January 13, 2025, and June 11, 2026. Specifically, we analyzed posts related to respiratory care and breath wave analysis. This analysis examined 40 LinkedIn posts, and all data was collected via Excel files linked to each post on its LinkedIn page to ensure the accuracy of the information as of July 26, 2026. A content analysis form was used to analyze post-performance by examining impressions, reach, profile activity (post views), and the number of new followers. Furthermore, we analyzed engagement through social interactions, including shares, saves, and LinkedIn shares.

Study Limitations

1. Measuring audience engagement through shares, comments, saves, likes, Impressions, and Followers.
2. algorithmic distribution updates on LinkedIn introduce variance in content reach. Analyzing posts published from [January 13, 2025] to [June 11, 2026].
3. Results analyzed from the LinkedIn profile. The study is quantitative analyzing only the data available on LinkedIn platform.

Quantitative Content Analysis Form

A systematic Quantitative Content Analysis Protocol is necessary for assessing audience engagement and organic professional reach in digital media research. This coding tool is intended to assess professional knowledge translation in critical care on LinkedIn, with a focus on ventilator waveform analysis content.

Mathematical Operationalization of Operational Variables:

Variable construct	Mathematical formula	Scientific & analytical significance
Engagement Rate (ERImp)	$ERImp = (Total\ Engagements / Impressions) \times 100$	Measures immediate audience interaction intensity relative to total feed impressions.
Virality Index (VI)	$VI = ((Reposts + Sends) / Total\ Engagements) \times 100$	Quantifies content diffusion capacity and peer-to-peer recommendation propensity.
Information Value / Utility Ratio (VR)	$VR = (Saves / Total\ Engagements) \times 100$	Indicates post bookmarking rate, serving as a proxy for instructional and reference value.
Follower Conversion Rate (FCR)	$FCR = (Followers\ Gained / Impressions) \times 1000$	Normalizes follower acquisition per 1,000 algorithmic feed impressions.
Reach Efficiency Ratio (RER)	$RER = (Impressions / Members\ Reached)$	Measures exposure frequency per unique member (where reach data is logged).

Table 1: Mathematical Operationalization of Operational Variables.

Summary Aggregate Dataset Overview (N = 40)

1. Total Impressions: 181,531.
2. Total Engagements: 2,640.
3. Followers Gained: 581.
4. Total Saves: 304.
5. Mean ERImp: 1.45%.

Content Analysis Codebook & Observation Form (Posts 1 – 40)

Every post item in the dataset is systematically documented and quantitatively separated down in the table below, which classifies raw metrics into standardized indices for empirical research.

Post number	Publication Date & Time	Content Description / Category Tag	Impressions (Reach)	Social Engagements	Reactions / Comments	Reposts / Saves	Followers Gained	ER % / Virality Index
01	1/13/2025 08:31 AM	The most common abnormal vent waveforms	7,021	110	89 / 5	15 / 1	+21	1.57%VI: 13.6%
02	1/15/2025 08:31 AM		14,399	155	130 / 3	22 / 0	+94	1.08%VI: 14.2%
03	1/18/2025 08:23 AM		17,697	189	150 / 4	34 / 1	+63	1.07%VI: 18.0%
04	1/21/2025 09:46 AM		9,026	114	93 / 2	17 / 1	+38	1.26%VI: 15.8%
05	1/27/2025 06:48 PM		11,983	187	143 / 11	31 / 2	+69	1.56%VI: 16.6%
06	2/1/2025 10:43 AM		6,769	74	62 / 1	11 / 0	+17	1.09%VI: 14.9%
07	2/4/2025 01:17 PM		4,387	46	37 / 0	8 / 1	+13	1.05%VI: 17.4%
08	2/11/2025 06:54 AM		8,603	110	93 / 2	14 / 1	+37	1.28%VI: 12.7%
09	2/19/2025 07:45 PM		3,729	55	44 / 7	4 / 0	+8	1.47%VI: 7.3%
10	3/9/2025 04:14 PM		2,499	44	34 / 6	4 / 0	+3	1.76%VI: 9.1%
11	3/25/2025 04:10 PM		5,664	103	84 / 0	16 / 3	+31	1.82%VI: 15.5%
12	4/7/2025 05:13 AM		2,143	18	16 / 0	2 / 0	+4	0.84%VI: 11.1%
13	4/26/2025 08:29 PM		1,626	15	13 / 1	1 / 0	+1	0.92%VI: 6.7%
14	5/1/2025 03:34 PM		2,087	27	22 / 0	5 / 0	+1	1.29%VI: 18.5%

Table 2: Digital content analysis form about LinkedIn posts that discuss the most popular abnormal artificial respiration waves.

Post number	Publication Date & Time	Content Description / Category Tag	Impressions (Reach)	Social Engagements	Reactions / Comments	Reposts / Saves	Followers Gained	ER % / Virality Index
15	6/24/2025 11:54 PM	The most common points during VC mode.	2,862	62	40 / 2	6 / 10	+4	2.17%VR: 16.1%
16	7/2/2025 02:28 PM		3,201	70	43 / 4	3 / 18	+9	2.19%VR: 25.7%
17	7/11/2025 03:03 PM		1,425	22	17 / 0	0 / 5	+0	1.54%VR: 22.7%
18	8/28/2025 08:53 AM		2,458	44	27 / 0	5 / 11	+2	1.79%VR: 25.0%
19	9/2/2025 04:20 PM		2,101	45	24 / 6	2 / 13	+6	2.14%VR: 28.9%
20	9/11/2025 06:21 AM		3,806	75	44 / 2	8 / 21	+6	1.97%VR: 28.0%
21	9/21/2025 11:42 AM		2,685	37	25 / 0	4 / 8	+1	1.38%VR: 21.6%

22	10/16/2025 07:37 AM		2,653	59	37 / 0	5 / 15	+5	2.22%VR: 25.4%
23	10/23/2025 01:28 PM		1,964	39	21 / 0	3 / 14	+1	1.99%VR: 35.9%
24	11/10/2025 08:40 AM		2,831	54	37 / 2	3 / 12	+7	1.91%VR: 22.2%

Table 3: Digital content analysis form about LinkedIn posts that discuss The most common points during VC mode.

Post number	Publication Date & Time	Content Description / Category Tag	Impressions (Reach)	Social Engagements	Reactions / Comments	Reposts / Saves	Followers Gained	ER % / Virality Index
25	12/17/2025 01:56 PM	The most common points during PC mode.	3,774	98	52 / 13	5 / 23	+2	2.60%VR: 23.5%
26	12/28/2025 07:18 AM		2,188	34	26 / 0	2 / 6	+2	1.55%VR: 17.6%
27	1/4/2026 09:21 AM		2,575	53	26 / 1	1 / 12	+3	2.06%Sends: 13
28	1/19/2026 07:28 AM		1,587	29	16 / 0	2 / 11	+1	1.83%VR: 37.9%
29	1/27/2026 10:41 AM		5,084	121	76 / 0	12 / 29	+16	2.38%VR: 24.0%
30	2/3/2026 08:40 AM		1,535	25	17 / 0	3 / 4	+0	1.63%VR: 16.0%
31	2/10/2026 08:57 AM		1,339	19	13 / 0	1 / 5	+0	1.42%VR: 26.3%

Table 4: Digital content analysis form about LinkedIn posts that discuss The most common points during PC mode.

Post number	Publication Date & Time	Content Description / Category Tag	Impressions (Reach)	Social Engagements	Reactions / Comments	Reposts / Saves	Followers Gained	ER % / Virality Index
32	2/18/2026 04:34 PM	Analysis expiratory phase on ventilator wave-forms	3,475	92	59 / 0	10 / 19	+7	2.65%VR: 20.7%
33	3/8/2026 09:07 AM		1,499	22	15 / 0	2 / 5	+1	1.47%VR: 22.7%
34	3/28/2026 10:45 AM		1,516	19	14 / 0	1 / 3	+0	1.25%VR: 15.8%
35	4/12/2026 11:04 AM		1,089	12	6 / 0	1 / 4	+0	1.10%VR: 33.3%
36	4/25/2026 02:17 PM		1,872	33	17 / 4	2 / 8	+4	1.76%VR: 24.2%
37	5/11/2026 01:23 PM		1,444	25	14 / 1	1 / 9	+5	1.73%VR: 36.0%

Table 5: Digital content analysis form about LinkedIn posts that discuss Analysis expiratory phase on ventilator wave-forms.

Post number	Publication Date & Time	Content Description / Category Tag	Impressions (Reach)	Social Engagements	Reactions / Comments	Reposts / Saves	Followers Gained	ER % / Virality Index
38	5/18/2025 03:45 PM	The most common abnormal ventilator wave-forms slide	20,188	215	151 / 16	40 / 7	+88	1.07%FCR: 4.36‰
39	11/17/2025 08:48 AM	Analysis ventilator waveforms during VC mode slide	6,343	70	34 / 5	7 / 17	+10	1.10%VR: 24.3%
40	6/11/2026 01:53 PM	Analysis ventilator waveforms during expiratory phase slide	2,404	19	11 / 0	1 / 5	+1	0.79%VR: 26.3%

Table 6: A digital content analysis form for LinkedIn posts that compiles a collection of posts into a single presentation.

Results:

With 14 posts covering "The most popular abnormal mechanical ventilator waveforms" (**Table 2**), the foundational series had a significant overall reach of 97,633 impressions, 1,147 social engagements, and 400 new professional followers. 81.25% (+325 followers) of the network growth in this series came from the first distribution phase (Posts 01–05), which showed remarkable audience conversion. Post 03 produced the most total engagements (189) and single-post impressions (17,697). In contrast to later specialized series, Table 2's content distribution heavily depended on public reposting instead of private content saving (e.g., Post 03: 34 reposts vs. 1 save; Post 05: 31 reposts vs. 2 saves). Post 11 saw the highest engagement rates, which varied from 0.84% to 1.82%.

Ten postings in the Volume Control (VC) mode-focused thematic series (**Table 3**) produced a total of 25,986 impressions, 507 social engagements, and 41 new professional followers. Throughout the deployment, reach remained remarkably stable, with 80% of posts exceeding 2,100 impressions and reaching a peak of 3,806 (Post 20). Engagement Rates (ER) peaked in Post 22 and regularly fluctuated between 1.38% and 2.22%. Content bookmarking greatly exceeded public sharing across all posts, just like in prior technical series (e.g., Post 20 recorded 21 saves vs. 8 reposts; Post 16 recorded 18 saves vs. 3 reposts). At 35.9%, Post 23 had the highest Virality Index.

Seven digital posts covering the most important points during Pressure Control (PC) mode in mechanical ventilation are evaluated using the data in **Table 4**. The topic series generated 379 social engagements and gained 24 new followers, with a total of 18,082 impressions. With 28.1% of all impressions (5,084 reach) and 66.6% of all network acquisition (+16 followers), post 29 showed remarkable engagement. A persistent structural bias toward content saving over public reposting was identified by engagement metrics (e.g., Post 29 recorded 29 saves vs. 12 reposts; Post 25 recorded 23 saves vs. 5 reposts). However, at 37.9%, Post 28 produced the highest Virality Index.

Over the course of three months, six successive posts on LinkedIn that covered the "Analysis of the expiratory phase on ventilator waveforms" were assessed, as shown in **Table 5**. Post 32, the introductory post, had the highest engagement rate (ER = 2.65%), the highest overall reach (3,475 impressions, 31.8% of the total series reach), and 41.1% of all new followers (+7). Content retention metrics showed that saving content was consistently preferred over reposting it across all posts (e.g., Post 32: 19 saves vs. 10 reposts; Post 37: 9 saves vs. 1 repost).

Broad educational subjects about critical care devices—especially common abnormal ventilator waveforms (Post 38)—generated the highest overall reach (20,188 impressions) and community growth (+88 followers), according to an analysis of LinkedIn posts using presentation formats (**Table 6**). On the other hand, highly particular analytical content, including expiratory phase waveforms (Post 40), produced lower reach but displayed significant save-to-repost ratios and higher Virality Indices (up to 26.3%). These results suggest that specialized clinical topics encourage high value retention and focused professional engagement among critical care practitioners, while extensive overview content drives audience acquisition.

Discussion

This study assessed LinkedIn users' interaction with content related to waveform interpretation and specialized mechanical ventilation. The main finding shows that healthcare professionals exhibit a significantly high engagement rate (ER [imp] = 1.45%) and a strong tendency to save reference materials (304\text[saves]) despite the technical complexity and relative scarcity of digital content devoted to respiratory mechanics.

These findings demonstrate that critical care providers are increasingly depending on informal digital e-learning to support formal training, which is consistent with the larger development of Free Open Access Medical Education (FOAMed). Although foundational textbooks (such as Chatburn

and Arnal) offer extensive theoretical frameworks about ventilator wave-forms, our results show that there is an increasing need on professional networks for easily readable, visually appealing bedside analysis about ventilator waveform topic.

Looking back at the most successful posts, we find that besides the timing of publication, other factors contributed to their success, such as the depth of the content, the way the content was presented, the title, the frequency with which the problem addressed in the post was discussed in intensive care units, and the rarity of the topic on social media. These were key factors in the success of the digital content. We also shouldn't forget that sharing, saving, likes, and algorithmic influence also play a role.

Recommendations:

Based on the preceding analysis, LinkedIn may represent a useful platform for disseminating health-related professional content. However, we recommend that healthcare practitioners utilize this platform not only for building their professional identity but also for writing posts related to their field. We also recommend that specialists and educators in respiratory waveform interpretation and mechanical ventilation pay particular attention to these topics, given the limited representation of such content observed in our analysis and its clinical relevance to respiratory care. . Furthermore, healthcare practitioners should review publications by specialists, not just skimming them, but reading them critically and citing reliable scientific sources.

Conclusion:

With a focus on mechanical ventilator waveform analysis, this empirical study examined how specialized, evidence-based digital information on LinkedIn can improve clinical awareness and knowledge exchange among critical care providers. The study offered empirical support for Connectivism Learning Theory in contemporary medical education by examining quantitative interaction metrics across 40 targeted postings (producing 181,531 impressions and 2,640 engagements).

The results show a clear trend of audience behavior within the Free Open Access Medical Education (FOAMed) ecosystem: highly technical and analytical content fosters deep, professional utility, as shown by exceptionally high save-to-repost ratios and sustained engagement rates, while foundational, high-level overview content drives broader reach and follower acquisition. This conduct demonstrates that healthcare professionals actively use LinkedIn as a digital archive for

clinical decision-support and continuous professional growth, rather than only seeing it as a networking tool.

In conclusion, it is both possible and extremely effective to close the gap between complex respiratory mechanics and simplified digital instruction. This study highlights the potential of professional social networks to open up specialized clinical knowledge and improve critical care practices globally, serving as a fundamental standard for healthcare communicators, educators, and critical care professionals.

The reference:

1. DataReportal. (2026, April). Global social media statistics. DataReportal – Global Digital Insights. <https://datareportal.com/social-media-users>
2. Guraya, S. S., Guraya, S. Y., & Yusoff, M. S. B. (2021). Preserving professional identities, behaviors, and values in digital professionalism using social networking sites: A systematic review. BMC Medical Education, 21(1), Article 342. <https://doi.org/10.1186/s12909-021-02804-0>
3. Journal of Health Sciences. (2024). Journal of Health Sciences article. <https://johs.com.sa/article/JOHS.2024.41236>
4. Mireles-Cabodevila, E., Siuba, M. T., & Chatburn, R. L. (2022). A taxonomy for patient-ventilator interactions and a method to read ventilator waveforms. Respiratory Care, 67(1), 129–148. <https://doi.org/10.4187/respcare.09316>
5. Alsobayel, H. (2016). Use of social media for professional development by health care professionals: A cross-sectional web-based survey. JMIR Medical Education, 2(2), Article e15. <https://doi.org/10.2196/mededu.6232>
6. Rolls, K., Hansen, M., Jackson, D., & Elliott, D. (2016). How health care professionals use social media to create virtual communities: An integrative review. Journal of Medical Internet Research, 18(6), Article e166. <https://doi.org/10.2196/jmir.5312>
7. Chan, W. S., & Leung, A. Y. (2018). Use of social network sites for communication among health professionals: Systematic review. Journal of Medical Internet Research, 20(3), Article e117. <https://doi.org/10.2196/jmir.8382>
8. Primack, B. A., Perryman, K. L., Crofford, R. A., & Escobar-Viera, C. G. (2022). Social media as it interfaces with psychosocial development and mental illness in transitional-age youth.

Child and Adolescent Psychiatric Clinics of North America, 31(1), 11–30.

<https://doi.org/10.1016/j.chc.2021.07.007>

9. ScienceDirect. (n.d.). Awareness. ScienceDirect Topics. Retrieved July 11, 2026, from <https://www.sciencedirect.com/topics/immunology-and-microbiology/awareness>
10. Joseph, B., & Joseph, M. (2016). The health of the healthcare workers. Indian Journal of Occupational and Environmental Medicine, 20(2), 71–72. <https://doi.org/10.4103/0019-5278.197518>
11. Alam, M. (2023). Connectivism learning theory and connectivist approach in teaching and learning: A review of literature. International Journal of Educational Research, 12, 1–15.