Original Research

HEALTH INFORMATICS

Family doctors' and dentists' access and dissemination of medical information through social media

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Abstract

Aim. The study purpose is to analyze how doctors in contract with the Health Insurance House in Romania use social media (SM) to access and disseminate medical information.

Method. Family doctors and dentists who had a contract with the Romanian National Health Insurance House during the year 2017 represented the targeted sample. Eight thousand four hundred ninety-seven e-mail addresses and 5,422 telephone numbers were identified and collected from the National Health Insurance House web page. The invitation to participate in the study (including the link to the online questionnaire) was sent via SMS, WhatsApp, and / or e-mail from 24 May to 14 July 2017. The experimental design was cross-sectional. In the statistical analysis the following generations were defined: "Baby Boomers", aged between 51-70 years, Generation X as people aged 38-51, and Millennials under 38 years.

Results. One hundred and twenty valid questionnaires were analyzed. The profile of the respondent was: woman (61%), from urban (71%), and specialist (50%) working in a private practice (70%). The majority of respondents use Facebook (85%). Generation X connect more to SM from public places than Baby Boomers ($p = 0.007$). Respondent doctors seek medical information on SM monthly (83%), but rarely give advice through SM to colleagues (28%) or contribute to patients' medical education (32%). Most physicians interact with their patients through SM (59%), but do not discuss with them how to search for health information.

Conclusion. Social media has low professional usage among the respondents who perform their medical activity in Romania and is mainly used to search for medical information, but it does not contribute to patients' medical education. As expected, age is a factor that determines the susceptibility of SM usage.

Keywords: social Media (SM), physician, health Information

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Introduction

In Romania of 2017, internet penetration was 58% (11.24 million people), out of which 49% (9.4 million) were active social media users, according to Hootsuite [1]. According to the same research, on average, there would be 1.42 mobile subscriptions per capita, and mobile access represented 41% of the social media logs [1].

In December 2017, the top ten most popular websites in Romania, according to the Alexa traffic ranking [2], were the search engine Google.com, along with its Romanian version, Google.ro, Facebook.com, and its Russian competitor vk.com (Social networking websites), Youtube.com, used for the community for video sharing, Yahoo.com, the internet portal for e-mail, search engine or news. The highest-ranked Romanian websites were eMAG.ro and OLX.ro, the free online encyclopedia, Wikipedia.org, the movie ratings, and

reviews website, Imdb.com and the file-sharing site Filelist.ro.

In May 2017, the five most popular social media websites were visited by 80.5% of the country's internet users based on GemiusAudience data from desktops and laptops [3]: Facebook (5.5 million users, 79.8% of the internet users), Pinterest (724,400 users, 10.5% of internet users, 3.9% of the market share), Instagram (660,700 users, 9.5% of internet users), LinkedIn (644,000 users, 9.2% of internet users), and Twitter (582,000 users (8.4% internet users).

Based on market share, the dominant social media is Facebook, with 91.47% of the market share, followed by Pinterest (3.9%), YouTube (2.26%), Twitter (0.98%), Instagram (0.58%) and Tumblr (0.41%) [4].

Research among the Romanian population of 2014 reported the preferred place to use social media as homes, with a mean duration from 3 to 5 hours, frequently during the evening. The Romanians' most frequently used social media platform were Facebook, Wikipedia, YouTube, Google+, Twitter, Hi5, and LinkedIn [5].

Healthcare professionals from different countries across North America [6-9], Europe [6,8], China [10], Australia [6,11] have revealed that social media platforms are used for professional purposes. Social media is used to communicate with patients, peers or colleagues, to seek information when facing a specific medical situation, sharing and passing on medical knowledge to contribute original information and have a positive impact on the medical practice (e.g., effectiveness in education, increasing public understanding of science, and a means of communication with patients). In the US, social media is also used by doctors to promote their services [8,12]. Furthermore, physicians use social media, like traditional media, as a one-way communication platform, rather than as a "social" forum. Regarding the time spent on social media, it was considered either easy to fit into daily routine or an impediment [13].

Twitter [6,12,14,15], LinkedIn [6,14,15], Facebook [6,14] along with blogs [6], YouTube [14], Instagram [12,14], Snapchat [14] or Wikipedia [16] are the most common networks used for communication with colleagues, community engagement, professional development, and market services.

A high reluctance among doctors to engage professionally on social media is observed despite the community's demands [11,17]. The threat that healthcare professionals point out regarding social media is the reliability of the information regarding illnesses [6,9]. The communication barriers encountered were the uncertainty concerning when, how, and to what extent social media should be used, the impact upon the followers [13,18], lack of skills [6,15], and time [6].

Five generations can be considered as actively participating in the society [19,20] (Figure 1). Different generations tend to inherit the educational styles of their eras. Younger generations that were brought up under the influence of the Internet, ubiquitous mobile devices, social networks, and streaming online content embrace more openly social media-based communication [21]. UK graduates after 1985 [22], younger Australian [11] or Canadian doctors [23] are more commonly involved in personal social media activities and seem more likely to envision its future impact on the dissemination of information, inter-professional communication, and online interaction with patients, compared with their elder colleagues. Older generations infrequently engage in social media activities and are almost universal in avoiding social media for professional use.

Although world-wide social media usage is high, a lack of research on perceptions and usage among healthcare workers in developing countries wasobserved in 2016 [16]. Two research papers interrogating Romanian doctors in 2017 identified Facebook as the most used network. Social media was recognized as providing a support platform through which clinicians have access to information, communication, or support [24,25]. Due to the lack of insight regarding Romanian doctors, our study aimed to evaluate existing generational differences in the professional use of social media among Romanian family physicians and dentists.

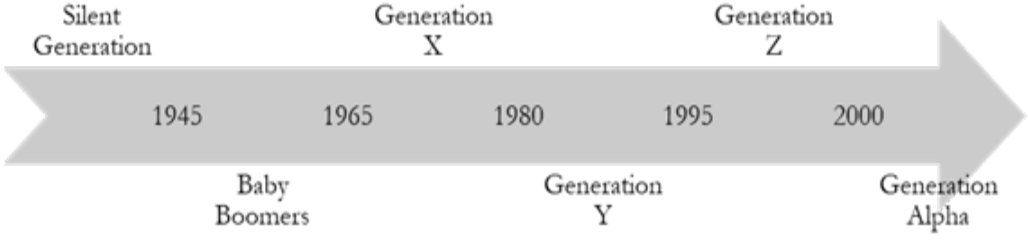

Figure 1. Generation timeline.

Methods

Anonymous exploratory research was conducted to analyze the most commonly used SM in the general population, namely Facebook, by family physicians and dentists as a tool to communicate with peers or if they encouraged their patients to use it to access medical information.

The research has "Iuliu Haţieganu" University of Medicine and Pharmacy's Ethics Committee approval (no. 185/10 May 2016).

Survey Instrument

Data collection was done through an online questionnaire, in Romanian, which was validated before the administration [26]. The questionnaire contained 17 questions structured in three parts. The first part addressed the general use of social media containing five closed questions: three multiple-choice and two single choice. The second part querying the use of social media for identifying medical information, contained nine questions: three with five points Likert scale, one open question, one with multiple choice answers, and all others with single choice answers. The third part requested demographic information regarding age, gender, type of settlement location (urban/rural), type of physician based on the Romanian hierarchy (senior, specialist physician or resident), the presence of an academic title, hospital's funding (public/private). The Google Forms [27] platform was used for data collection.

Participants

The family doctors and dentists listed on the Romanian National Health Insurance House's website in 2017 represented the available population. Their e-mail addresses (8,497) and phone numbers (5,422) available on the web page were collected on May 23, 2017. Addresses and phone numbers were verified for accuracy with Microsoft Excel. Standard e-mail format deviations like yaho / yahu instead of yahoo for e-mail addresses, and the number of digits or characters such as: ",", ".", "/" or "-" for phone numbers were corrected if necessary. Finally, the pool of valid e-mails and phone numbers consisted of 3,573 e-mails plus phone numbers, and 3393 e-mails for family doctors and 1246 emails, 603 phone numbers and 285 e-mails for dentists.

The invitation to participate in the study was sent via short message service (SMS), WhatsApp, and e-mail. For each sending option, an invitation letter was sent with the following information:

- SMS: the link to the survey with a short message (116 characters) about the purpose of the study.
- WhatsApp: the link to the survey and an explanatory message (566 characters). One thousand one hundred thirty-seven messages were sent to dentists.
- E-mail: the link to the survey and an informative letter explaining the reason for the study.

The SMSs were sent in batches of 100 per day, WhatsApp messages were sent in batches of 256 per day, and the e-mails were sent in batches of 500 per day. The WhatsApp messages were sent 10 days after the last SMS message was sent and the e-mails were sent starting the 10th day after sending WhatsApp messages. The SMS sending activity began on 24 May 2017 for dentists and on 14 June 2017 for family physicians. The questionnaires sent via WhatsApp and e-mail had an initial filtering question, to separate the responders that have already filled in the questionnaire from the ones that had not.

The questionnaire was left open 30 days from the date of sending the SMS messages. Further details were provided upon request by WhatsApp message or e-mail, but no reply at the SMSs.

Data Analysis

The summary of the qualitative variables was done by reporting the absolute and relative frequency, accompanied by the associated confidence intervals calculated using an exact method similar with the one reported by Jäntschi and Bolboacă [28]. The quantitative variables were summarized as mean and standard deviation for data with a normal distribution, respectively median and [Q1 to Q3] (where Q is the quartile) for data that did not follow the normal distribution.

The respondents were divided into three subgroups according to generation: Generation Y (persons aged 37 and below), Generation X (ages 38 to 52 years), and Baby Boomers (older than 52 years). Comparisons of qualitative variables between groups were made with the Chi-squared test whenever theoretical frequencies were at least 5; otherwise, the Fisher exact test was used. The summary statistics were made with Microsoft Excel, the Chi-squared test with OpenEpi (https://www.openepi.com/RbyC/RbyC.htm) and Fisher exact test with Simple Interactive Statistical Analysis [29]. All tests were two-sided and a p-value less than 0.05 was considered statistically significant.

Results

A total of 180 answers were received, 113 (5.3%, 95% CI [5.1 to 5.5]) out of the 2,134 e-mails and phones available for dentists. From the 6,966 family doctors 0.96% (95% CI [0.8 to 1.1]) answered the questionnaire. The distribution of participants reported to the invitation method is presented in table I. Three respondents to the questionnaire sent by e-mail had already completed the questionnaire sent by SMS. Three e-mail addresses and four phone numbers did not belong to the doctors. Forty-five respondents do not use SM.

One hundred twenty questionnaires with valid answers were evaluated. Nine questionnaires were excluded as the data regarding the respondent's age were missing. The profile of the respondents was female (61.3%, 95% CI [51.4 to 70.3]) practicing in urban area (71.2%, 95% CI [62.2 to 79.3]), specialists (50.5%, 95% CI [40.6 to 60.4]) working in a private practices (70.3%, 95% CI [61.3 to 78.4]). Most respondents did not have an academic title (82.9%) Table 2). The profile of the respondents, according to the generation, is presented in table II.

Table I. Distribution of questionnaires received according to the distribution mode .

	Dentists (n=113)	Family doctors (n=67)
SMS no. (% [95% CI])	78 (3.6 [59.3 to 77.9])	35 (0.5 [40.3 to 64.2])
WhatsApp no. (% [95% CI])	0 (0 [0 to 3.5])	1 (0.0 [0.02 to 7.4])
E-mail no. (% [95% CI])	35 (1.6 [22.1 to 40.7])	31 (0.5 [34.4 to 58.2])

[95%CI] represents the [lower bound to upper bound] of 95% confidence interval.

Table II. Respondents profile by generation (*missing data not included when the Chi-squared test was applied; n.a. – Fisher's exact test was applied).

	Generation Y (n=34)	Generation X (n=54)	Baby Boomers (n=23)	χ^2 (p)*
Gender				
Female	18 (52.9 [35.4 to 70.5])	32 (59.3 [44.5 to 72.2])	18 (78.3 [56.7 to 91.1])	Female vs. Male 3.8 (0.1484)
Male	16 (47.1 [29.5 to 64.6])	21 (38.9 [25.96 to 53.7])	5 (21.7 [8.9 to 43.3])	
Missing Data	0 (0 [0 to 8.7])	1 (1.9 [0.0 to 9.2])	0 (0 [0 to 12.9])	
Practice area				
Urban	23 (67.7 [50.09 to 82.27])	28 (51.9 [37.1 to 66.6])	17 (73.9 [52.4 to 91.1])	Rural vs. Urban 5.2 (0.0732)
Rural	6 (17.7 [6.0 to 35.2])	21 (38.9 [26.0 to 53.7])	5 (21.7 [8.9 to 43.3])	
Both	5 (14.7 [6.0 to 32.3])	5 (9.3 [3.7 to 20.3])	1 (4.4 [0.2 to 21.6])	
Missing Data	5 (14.7 [6.0 to 32.23])	5 (9.3 [3.7 to 20.3])	1 (4.4 [0.2 to 21.6])	
Academic titles				
With	2 (5.9 [0.1 to 20.5])	2 (5.88 [0.1 to 20.5])	2 (5.88 [0.1 to 20.5])	With vs. Without n.a. (0.9337)
Without	27 (79.4 [61.9 to 91.1])	27 (79.41 [61.9 to 91.1])	27 (79.41 [61.9 to 91.1])	
Missing Data	5 (14.7 [6.0 to 32.3])	5 (14.71 [6.0. to 32.2])	5 (14.71 [6.0. to 32.2])	
Practice type				
Public	4 (11.8 [3.0 to 26.4])	5 (9.3 [3.7 to 20.3])	7 (30.4 [13.2 to 52.0])	Public vs. Privat 4.9 (0.0864)
Private	24 (70.6 [53.0 to 85.2])	38 (70.3 [55.6 to 81.4])	14 (60.9 [39.3 to 82.4])	
Both	5 (14.7 [6.0 to 32.2])	10 (18.5 [9.3 to 31.4])	2 (8.7 [0.2 to 25.9])	
Missing Data	1 (2.9 [0.1 to 14.6])	1 (1.9 [0.0 to 9.2])	0 (0 [0 to 12.9])	
Seniority				
Senior physician	5 (14.7 [5.8 to 32.2])	19 (35.19 [22.3 to 50.0])	15 (65.2 [43.7 to 82.4])	Senior vs. Specialist 8.8 (0.0123)
Specialist physician	17 (50 [32.4 to 67.6])	31 (57.41 [42.6 to 70.3])	8 (34.8 [17.6 to 56.3])	
Resident physician	7 (20.6 [8.9 to 38.2])	0 (0 [0 to 7.3])	0 (0 [0 to 12.9])	
Missing Data	12 (35.3 [20.7 to 52.9])	0 (0 [0 to 7.3])	0 (0 [0 to 12.9])	

Most respondents (84.7%, 95% CI [76.6 to 91.0]) used Facebook without significant differences between generations ($\chi2 = 2.8$, $p = 0.246$). Comparing the groups, a significantly higher percentage of Generation X respondents used Google+ (36/54 vs. 16/23 Baby Boomers and 14/34 Generation Y; $\chi2 = 6.9$, $p = 0.033$). A similar pattern in using LinkedIn is observed between Generation X (16/54) and Baby Boomers (7/23), while none of the respondents from Generation Y use this SM platform. Similar distribution in using YouTube ($\chi2 = 1.3$, $p = 0.533$), Wikipedia ($\chi2 = 0.8$, $p = 0.672$) and Instagram ($\chi2 = 2.7$, $p = 0.255$) were observed among generations.

Almost all respondents connected to SM from home (96.4%, 95% CI [91.0 to 99.1]). Comparing generations, a statistically significant percentage of Generation X responders connected from public places ($\chi2 = 7.3$, $p = 0.007$) compared to Baby Boomers (Table III).

The average time spent on SM was less than one hour per day (61.3%, 95% CI [51.4 to 70.3]) without significant differences among generations ($\chi^2 = 2.4$; $p = 0.299$). The most used device to access SM was the smartphone (73.0%, 95% CI [64.0 to 81.1]), with a significantly higher percentage of the Generation Y (29/34, $\chi^2 = 4.6$; $p = 0.032$) compared to Generation X (41/54, $\chi^2 = 7.5$; $p = 0.006$) connected using smartphones, compared to Baby Boomers.

Physicians who answered the questionnaire sought medical information (82.9% [74.8 to 89.2]) on SM monthly (30.0%, 95% CI [18.9 to 36.0]). Most of the responders annually provided advice through SM to colleagues (31.3%, 95% CI [19.8 to 36.9]) or contributed relatively rarely to patients' medical education (35.4%, 95% CI [23.4 to 41.4]) (Table IV).

Table III. Places from where different generations connect to the social media.

	Generation Y (n=34)	Generation X (n=54)	Baby Boomers (n=23)	χ2 (p)
Home	33 (97.1 [85.4 to 99.9])	51 (94.4 [85.2 to 98.1])	23 (100 [87.2 to 100])	1.5 (0.4735)
Work	25 (73.5 [56.0 to 88.2])	38 (70.4 [55.6 to 81.5])	16 (69.6 [48.0 to 86.8])	0.1 (0.9334)
Public places	15 (44.1 [26.6 to 61.7])	29 (53.7 [38.9 to 66.6])	4 (17.4 [4.5 to 38.9])	8.7 (0.0130)

Table IV. Social media usage and medical information by generation (comparison done for never and annually vs. monthly and weekly and daily).

	Generation Y (n=34)	Generation X (n=54)	Baby Boomers (n=23)	χ2 (p)
Seeking medical information				
Never	8 (23.5 [11.9 to 41.1])	13 (24.1 [13 to 37])	6 (26.1 [8.9 to 47.6])	2.9 (0.237)
Annually	8 (23.5 [11.9 to 41.1])	20 (37 [24.1 to 51.8])	3 (13 [4.5 to 34.6])	
Monthly	6 (17.6 [6 to 35.2])	3 (5.6 [1.9 to 14.8])	4 (17.4 [4.5 to 38.9])	
Weekly	1 (2.9 [0.1 to 14.6])	1 (1.9 [0 to 9.2])	1 (4.3 [0.2 to 21.6])	
Daily	1 (2.9 [0.1 to 14.6])	3 (5.6 [1.9 to 14.8])	0 (0 [0 to 12.9])	
Missing Data	8 (23.5 [11.9 to 41.1])	9 (16.7 [7.4 to 29.6])	4 (17.4 [4.5 to 38.9])	
Offering advice to other healthcare professionals				
Never	3 (8.8 [3 to 23.4])	7 (13 [5.6 to 24])	2 (8.7 [0.2 to 25.9])	2.8 (0.255)
Annually	8 (23.5 [11.9 to 41.1])	17 (31.5 [18.6 to 46.3])	10 (43.5 [21.9 to 65])	
Monthly	8 (23.5 [11.9 to 41.1])	12 (22.2 [11.1 to 35.2])	1 (4.3 [0.2 to 21.6])	
Weekly	5 (14.7 [6 to 32.3])	2 (3.7 [0 to 12.9])	4 (17.4 [4.5 to 38.9])	
Daily	2 (5.9 [0.1 to 20.5])	4 (7.4 [1.9 to 18.5])	1 (4.3 [0.2 to 21.6])	
Missing Data	8 (23.5 [11.9 to 41.1])	12 (22.2 [11.1 to 35.2])	5 (21.7 [8.9 to 43.3])	
Contributing to the improvement of patients' medical knowledge				
Never	1 (2.9 [0.1 to 14.6])	1 (1.9 [0 to 9.2])	0 (0 [0 to 12.9])	7.5 (0.023)
Annually	1 (2.9 [0.1 to 14.6])	9 (16.7 [7.4 to 29.6])	8 (34.8 [17.6 to 56.3])	
Monthly	12 (35.3 [20.7 to 52.9])	15 (27.8 [16.7 to 40.7])	3 (13 [4.5 to 34.6])	
Weekly	7 (20.6 [8.9 to 38.1])	8 (14.8 [5.6 to 27.7])	4 (17.4 [4.5 to 38.9])	
Daily	5 (14.7 [6 to 32.3])	12 (22.2 [11.1 to 35.2])	4 (17.4 [4.5 to 38.9])	
Missing Data	8 (23.5 [11.9 to 41.1])	9 (16.7 [7.4 to 29.6])	4 (17.4 [4.5 to 38.9])	

Although 26.1% (95%CI [18.0 to 35.1]) of the respondents acknowledged that there is a community of health professionals in SM, these platforms were not acknowledged to improve work performance (21.6% 95%CI [14.4 to 30.6]). SM was considered by 21.6% (95%CI [14.4 to 30.6]) of the respondents to slightly or moderately help the responders in performing their daily tasks and 24.3% (95% CI [16.2 to 33.3]) of the respondents stated that the use of SM increased the quality of the medical services delivered.

A little more than half of the responders stated that they interacted with their patients through SM (58.6% [48.7 to 67.6]), the most preferred platform being Facebook (45.1%, 95%CI [35.1 to 55.0]), without significant differences between generations ($\chi2 = 1.2$; $p = 0.5368$). Most of the doctors who answered the questionnaire did not discuss with their patients about the use of social media to search for health information (75.7%, 95%CI [48.0 to 86.8]).

Discussion

The responder's profile corresponded to a female doctor working in urban, private funded healthcare facility, using Facebook for professional activities, at home, less than 1 hour per day, from a smartphone. Most of the respondents searched for medical information on social media. Still, they do not interact with their patients via these platforms, nor discuss the usage of social media in search of health-related information.

Given that the survey was initially sent via SMS, the response rate for this channel was higher than the response rate for the other means of engagement e-mail (Table I).

Being the most utilized SM in Romania [2-5] including among doctors [24], Facebook was the most used SM by the responders of this questionnaire (Table II), similar to the utilization of this platform by doctors world-wide [6,14]. With a SM market share of 2.26% [4] and being one of the top 3 most accessed websites in

Romania [2], YouTube [14] is second in the Romanian doctor's classification, as it has also been shown in previous research [5]. Google+ resulted in the third place at the top of the preferences of the respondents (Table II). However, this answer could have been mistaken for the name of the Google search platform, as previous research shows that the search engine is the most visited website in Romania [2]. Moreover, there is no previous research that places Google+ at the top of social media platforms used [3,5]. Being one of the top 10 most accessed websites in Romania [2], Wikipedia [16] is the last one, with over 50 responders of this questionnaire.

Twitter, LinkedIn or Instagram, are highly used by healthcare professionals in different parts of the globe [6] like Netherlands [15], Saudi Arabia [14] or United States [12], and also in Romania [3,4], were classified lower by the doctors responding this survey.

By comparing the two groups of our respondents, a higher statistically significant percentage of the responders from the Generation X respondents used Google+ and LinkedIn. Previous research has shown that Romanians connect to social media mostly from home [5], this pattern has also been followed by the doctors that answered this questionnaire, although the Generation X responders, connect significantly more compared to the elderly group also from public places ($p < 0.001$) (Table IV) integrating more openly a social media-based communication [21].

The Romanian doctors that answered this questionnaire spent less than one hour per day on social media, mostly using their smartphones. Younger generations, more dynamic, choose mobile technologies compared to their elderly colleagues ($p < 0.001$).

Aligned with their colleagues from China [10], the doctors that answered this questionnaire seek specific information when facing a medical problem or situation monthly (Table IV), acknowledging the existence of a healthcare professionals' community on social media. Opposite to doctors from North America [6,7], Europe [8] or China [10], the Romanians use social media like traditional media, as a one-way communication platform, rather than as a "social" forum [13], rarely sharing medical knowledge with peers or colleagues (Table IV).

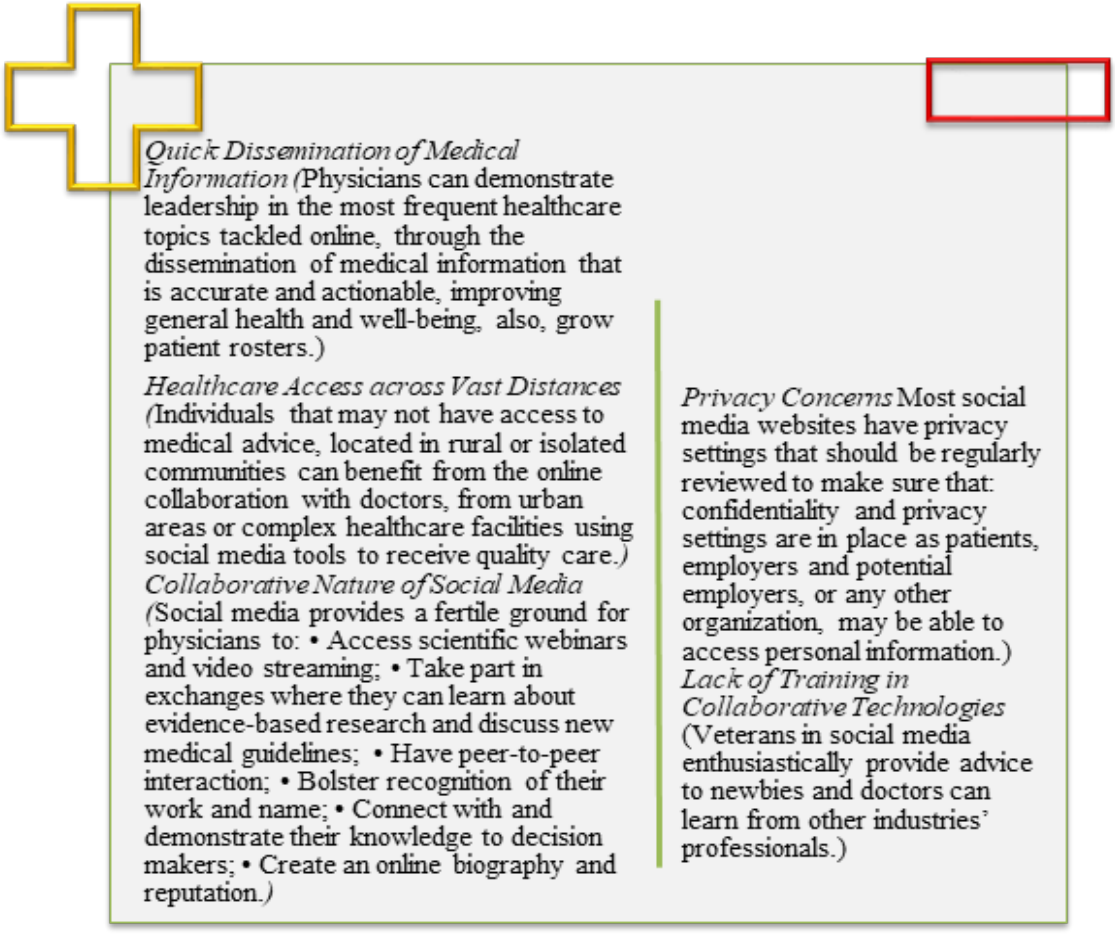

Figure 2. Advantages and risks of using social media.

Doctors are generally highly reluctant to engage via social media [11,17]. As other research has proven [24,25], Romanian doctors consider social media to help slightly to moderately in accomplishing daily tasks, increasing the quality of the medical services delivered. Previously identified communication barriers like uncertainty concerning when, how and to what extent social media should be used, and the impact upon the followers [13,18] might be the reasons why the Romanian doctors do not contribute to the enrichment of healthcare knowledge of patients or do not discuss with their patients the utilization of social media for health information search. Most of our respondents interact with their patients via social media, preferring Facebook, but they did not discuss with their patients about using social media to search for health information. Facing barriers like the lack of knowledge [15], time or social media content's scientific validity [6,9] drive doctors away from these platforms.

Limitations of the study

First, our results are subject to limitations inherent in the methodology applied. This refers to the possibility that respondents did not answer questions honestly and accurately or that respondents may have answered questions in a manner that was compatible with what they assumed the surveyors wanted to hear. We safeguarded against this bias by making the survey anonymous and offering no incentive or disincentive for participation. Furthermore, the methodological limitation refers to the niched population addressed with no control group from the general population. With this in mind, this is single-country research, therefore we cannot be certain that the views expressed by the respondents are representative of neither the medical professionals nor the general population within the geographical area. Thirdly, the small sample size, encompassing a relatively small number of healthcare professionals in Romania limits the generalization. Moreover, cultural and geographical differences among the population across the world may limit the generalization of this paper and hence similar studies in multiple geographical locations are required. Nevertheless, the results provide new data concerning social media usage for professional development among healthcare professionals in Romania.

Implications for practice

This study investigated Romanian general and dental practitioners' social media usage, as the information available is scarce. Several advantages and risks (Figure 2) can be listed to better leverage the benefits of using these services [30].

Conclusions

Although social media has many merits and can bring many conveniences to daily medical practices, our study showed that the usability of social media among Romanian family physicians and dentists is low.

The most used social media platforms are Facebook, YouTube and Wikipedia. Being more aware of their career challenges, Generation X is also more present on LinkedIn.

The respondent doctors connect to social media mostly from mobile devices and from home, although there is a tendency for younger generations to integrate social media in their daily routine, hence Generation X seems to engage also from public places, while the Millennials seem to prefer the smartphone.

Our respondents acknowledge the existence of a healthcare professionals' community on social media, which they use to seek specific information when facing a medical problem or situation on social media. The respondent doctors timidly integrate new technologies like social media into their daily routine and the traditional sources of information: scientific literature. Interaction with patients via social media exists, but the respondents do not contribute to improving their healthcare knowledge nor discuss how to use social media for health information searches.

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