

Doctors' access and dissemination of medical information through social media

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Abstract

Aim. The purpose of the study was to analyze the way in which doctors, in contract with the Health Insurance House in Romania use social media (SM) in accessing and disseminating medical information.

Material and method. Family doctors and dentists who during the year 2017 had a contract with the Romanian National Health Insurance House represented the targeted sample. 8,497 e-mail addresses and 5,422 telephone numbers were identified and collected from the web page of the National Health Insurance House. The invitation to participate in the study (including the link to the online questionnaire) was sent by SMS, Whatsapp, and/or e-mail during 24 May–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 women (61%), from urban (71%), specialist physician (50%) working in privat practice (70%). The majority of respondents use Facebook (85%). Generation X connect more to SM from public places as compared to Baby Boomers ($p=0,007$). 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 about how to search for health information.

Conclusion. SM has a low usage among the doctors who perform their medical activity in Romania. As expected, age is a factor that determines the susceptibility of SM usage by Romanian doctors. SM is mainly used to search medical information but not contribute to patients' medical education.

Key words: 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 a research published by the company Hootsuite. 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 [15].

In December 2017, the top ten most popular websites in Romania, according to the Alexa traffic ranking [2], werethe 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 (gemiusAudience, 2017): 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%) [28].

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 most frequently used social media platforms for the Romanians are Facebook, Wikipedia, YouTube, Google+, Twitter, Hi5, and LinkedIn [11].

Healthcare professionals from different countries across North America [9, 18, 27, 29], Europe [9, 27], China [20], Australia [6, 9] revealed that social media platforms are used for professional purposes. The social media is used to communicate with patients, peers or colleagues, seeking specific 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 [26, 27]. Furthermore,

physicians use social media like traditional media, as a one-way communication platform, rather than as a «social» forum. In terms of the time spent on social media, it was considered either easy to fit into daily routine or it was seen an impediment [7].

Twitter [1, 3, 9, 26,], LinkedIn [1, 3, 9], Facebook [1, 9] along with blogs [9], YouTube [1], Instagram [1, 26], Snapchat [1] or Wikipedia [24] are the most common networks used for communication with colleagues, community engagement, professional development, and market services.

A high reluctance among doctors to engage with social media is observed despite the demands of the community [6]. The threat that healthcare professionals point out that using social media is the reliability of the information regarding illnesses [9, 29]. The communication barriers encountered were regarding the uncertainty concerning when, how, and to what extent social media should be used, the impact upon the followers [7], lack of skills [3, 9], and time [9].

Today, five generations can be considered as actively participating in society [22, 25] (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 [17]. UK graduates after 1985 [8], younger Australian [6] or Canadian doctors [12] are more commonly involved in personal social media activities and seem more likely to envision its future impact for the dissemination of information, inter-professional communication and online interaction with patients, compared with their elder colleagues. Elder generations infrequently engage in social media activities and are almost universal in avoiding social media for professional use.

Although world-wide usage of social media is high, there is a paucity of research on perceptions and usage among healthcare workers in developing countries [24]. 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 [11, 21].

Due to the lack of insight regarding Romanian doctors, our study aimed to evaluate existing generational differences in the use of social media among Romanian physicians.

Material and Method

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

The research has «Iuliu Hatieganu» 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 [5].

The questionnaire contained 17 questioned structured in 3 parts. The general use of social media part contained 5 closed questions: 3 multiple choice and 2 single choice. The part quering on the use of social media for identifying medical information was formed of 9 questions: 3 with 5 points likert scales, one opened question, one with multiple choice answers and the rest of them with single choice answers. The demographic section requested information regarding age, gender, type of settlement location (urban/rural), type of physician based on the Romanian hierarchy (senior, specialist physician or resident), if academic title, hospital's funding (public/private). The questionnaire was previously validated. The platform Google Forms [14] 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.

The invitation to participate in the study was sent by SMS, Whatsapp, and e-mail. For each sending option, there was an invitation letter that included the link to the online version of the questionnaire as follows:

- By SMS, participants received a link to the survey with a short message (116 characters) about the purpose of the study.
- Through WhatsApp, participants received a link to the survey and an explanatory message (566 characters): there were sent 1137 messages to dentists and
- By e-mail, the participants received a link to the survey and an informative letter explaining the reason for the study.

The SMSs were sent in batches of 100, Whatsapp messages were sent in batches of 256, 10 days after the last SMS message was sent, and the e-mails were sent in batches of 500 per day starting the 10th day after sending Whatsapp messages. The 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 have 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 answer for the SMSs.

Data Analysis

The statistical analysis of the data was descriptive. The summary of the qualitative variables was done by calculating the absolute and relative frequency of the answers, accompanied by the associated confidence intervals calculated by exact methods that respect the type of data distribution. The summary of the quantitative variables was done using the mean and standard deviation

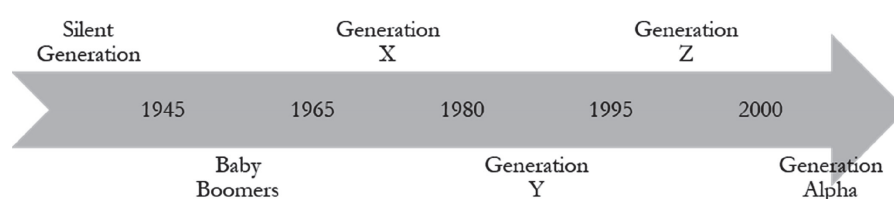


Fig. 1. Generation timeline.

if the data followed normal distribution, respectively median and for data that did not follow the normal distribution.

The respondents were categorized by age into three groups: Generation Y (persons aged 37 and below), Generation X (age from 38 to 52) and Baby Boomers (age from 53 and above).

Results

For the dentists there were collected 1246 emails and phone numbers, 603 phone numbers and 285 emails. 2134

For family doctors there were collected 3573 emails + phone numbers, and 3393 emails. 6966

A total of 180 answers were received, of which 113 (5,3%, 95% CI [5,09; 5,51]) out of the 2134 emails and phones available for dentists. From the 6966 family doctors 0,96% (95% CI [0,843; 1,08]) answered the questionnaire. The distribution of participants reported to the method of invitation is presented in Table 1. Three respondents to the questionnaire sent by e-mail had already completed the questionnaire sent by SMS, and five respondents refused to answer the questions. 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 had to be excluded as the data regarding the age of the respondent were missing. The profile of the respondents was female (61,3%, 95% CI [51,4 to 70,3]) practicing

Tab. 1. 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.

Tab. 2. Respondents profile by generation.

	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])	4,9 (0,2961)
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])	8,3 (0,2163)
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])	0,5 (0,9712)
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])	7,2 (0,3037)
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])	49,5 (0)
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])	30,7 (0)
Resident physician	7 (20,6 [8,9 to 38,2])	0 (0 [0 to 7,3])	0 (0 [0 to 12,9])	3,7 (0,0557)
Missing Data	12 (35,3 [20,7 to 52,9])	0 (0 [0 to 7,3])	0 (0 [0 to 12,9])	24,1 (0)

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 2.

Most respondents (84,7%, 95% CI [76,6 to 91,0]) used Facebook without significant differences between generations ($\chi^2=2,8$; P-value=0,2462). 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; $\chi^2=6,9$; P-value=0,0325). 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 ($\chi^2=1,3$; P-value=0,53249), Wikipedia ($\chi^2=0,8$; P-value=0,6716) and Instagram ($\chi^2=2,7$; P-value=0,2547) 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 signifi-

cant percentage of Generation X responders connected from public places ($\chi^2=7,3$; p=0,007) compared to Baby Boomers (Table 3).

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=0,2985). 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 4).

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

Tab. 3. Places from where different generations connect to the SM.

	Generation Y (n = 34)	Generation X (n = 54)	Baby Boomers (n = 23)	χ^2 (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 (0,013)

Tab. 4. SM usage and medical information by generation.

	Generation Y (n = 34)	Generation X (n = 54)	Baby Boomers (n = 23)	χ^2 (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])	13,41 (0,2018)
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])	9,37 (0,4973)
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])	9,92 (0,4474)
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])	

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 a half of the responders stated that they interact 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 ($\chi^2=1,2$; $p=0,5368$). 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, at home, less than 1 hour per day, from a smartphone. Most of the respondents search medical information on social media, but do not interact with their patients via these platforms, nor discuss with them the usage of social media in search for 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 1).

Being the most utilized SM in Romania (Amazon, 2017; gemiusAudience, 2017; Statcounter, 2018; Cordoş, et al., 2015) [2, 10, 13, 28] including among doctors [21], Facebook was the most used SM by the responders of this questionnaire (Table 2), similar to the utilization of this platform by doctors world-wide [1, 9]. With a SM market share of 2,26% [28] and being one of the top 3 most accessed websites in Romania [2], YouTube [1] is second in the Romanian doctor's classification, as it has been also shown in previous research [10]. Google+ resulted the third in the top of the preferences of the respondents (Table 2). 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+ in the top of social media platforms used [10, 13]. Being one of the top 10 most accessed websites in Romania [2], Wikipedia [24] is the last one with over 50 responders of this questionnaire.

Twitter, LinkedIn or Instagram, highly used by healthcare professionals in different parts of the globe [9] like Netherlands [3], Saudi Arabia [1] or United States [26], and also in Romania [13, 28], were classified lower by the doctors responding this survey.

Though, comparing the two groups, 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 [11], this pattern has been followed also by the doctors that answered to this questionnaire, although the Generation X responders, connect significantly more comparing to the elderly group also from public places ($p=0,0007$) (Table 4) integrating more openly a social media-based communication [17].

The Romanian doctors that answered this questionnaire spend less than one hour per day on social media, mostly using their smartphones. Younger generations being more dynamic, choose mobile technologies comparing to their elderly colleagues ($p=0,006$).

Aligned with their colleagues from China [20] the doctors that answered this questionnaire seek specific information when facing a medical problem or situation, monthly (Table 4), acknowledging the existence of a healthcare professionals' community on social media. Opposite to doctors from North America [9, 18], Europe

[27] or China (Long, et al., 2017)[20], the Romanians use social media like traditional media, as a one-way communication platform, rather than as a «social» forum [7], rarely sharing medical knowledge with peers or colleagues (Table 4).

There is a high reluctance among doctors to engage via social media [6]. As other research has proven [10, 21], Romanian doctors consider social media to slightly to moderately help 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 should social media be use, and the impact of upon the followers [7] 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 the doctors that answered the questionnaire interact with their patients via social media preferring Facebook, but they did not discuss with their patients about the use of social media to search for health information. Facing barriers like the lack of knowledge [3], time or social media content's scientific validity and similarly [9, 29].

Limitations

First, our results are subject to limitations inherent in survey data, including 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. Second, this is a single-country research, thus, we cannot be certain that the views expressed by the respondents are representative for the geographical area. Thirdly, the small sample size, encompassing a relatively small number of healthcare professionals in Romania limiting the generalizability. Moreover, cultural and geographical differences among 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 physicians' 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.

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 physicians is low.

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

Romanians 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.

The Romanian doctors acknowledge the existence of a healthcare professionals' community on social media, which they use to seek specific information when facing a medical problem



	
<p>Quick Dissemination of Medical Information Physicians can demonstrate thought leadership in the most frequent healthcare topics tackled online, through the dissemination of medical information that is accurate and actionable, improving general health and well-being, also, grow patient rosters.</p> <p>Healthcare Access across Vast Distances Individuals that may not have access to medical advice, located in rural or isolated communities can benefit from the online collaboration with doctors, from urban areas or complex healthcare facilities, using social media tools to receive quality care.</p> <p>Collaborative Nature of Social Media Social media provides a fertile ground for physicians to:</p> <ul style="list-style-type: none"> • Access scientific webinars and video streaming. • Take part in exchanges where they can learn about evidence-based research and discuss new medical guidelines • Have peer-to-peer interaction. • Bolster recognition of their work and name. • Connect with and demonstrate their knowledge to decision makers. • Create an online biography and reputation. 	<p>Privacy Concerns Most of the social media websites have privacy settings that should be regularly reviewed to make sure that: confidentiality and privacy settings are in place as patients, employers and potential employers, or any other organization, may be able to access personal information.</p> <p>Lack of Training in Collaborative Technologies Veterans in social media enthusiastically provide advice to newbies and doctors can learn from other industries' professionals.</p> <p>Limits on Holistic Patient Information Interacting with patients online limits a physician's access to important information, creating the liability for misdiagnosis.</p>

Fig. 2. Advantages and risks of using SM.

or situation on social media. Romanian doctors timidly integrate new technologies like social media in their daily routine along with the traditional sources of information: scientific literature. The Romanian doctors interact with patients via social media but do not contribute to the improvement of their healthcare knowledge nor they discuss the utilization of social media for health information search.

The studies were carried out in compliance with international bioethical standards and the provisions of the Helsinki Declaration (as amended in 2013). The authors of the article, Ariana-Anamaria Cordoș, Tudor Călinici, Sorana D. Bolboacă, confirm that they have no conflict of interest.

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Доступ до лікарів та розповсюдження медичної інформації в соціальних мережах

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Резюме

Мета. Метою дослідження було проаналізувати метод, яким лікарі разом з медичним страхуванням в Румунії використовують соціальні мережі (СС) для доступу та поширення медичної інформації.

Матеріал та методи. Сімейні лікарі та стоматологи, які в 2017 році підписали договір з Румунським Національним Будинком Медичного Страхування отримали зразки: 8 497 електронних адрес та 5 422 телефонних номерів були визначені та зібрані на веб-сторінці Національного Будинку Медичного Страхування. Запрошення взяти участь у дослідженні (включаючи посилання на кількість онлайн) було надіслано до SMS, WhatsApp та/або електронною поштою протягом 24–14 травня 2017 року. Експериментальний дизайн був крос-секційним. У статистичному аналізі були визначені такі покоління: бебі-бумери, у віці від 51 до 70 років, покоління X у віці 38–51 років та найбільша соціальна група в цьому столітті, віком до 38 років.

Результати. Було проаналізовано сто двадцять фактичних профілів. Профіль респондентів: жінки (61%), мешканці міста (71%), фахівці (50%) лікарі, які працюють на приватній практиці (70%). Більшість респондентів використовують Facebook (85%). Покоління X більше пов'язане з соціальними мережами (СМ) з громадських місць порівняно з бебі-бумерами ($p=0,007$). Лікарі шукають медичну інформацію в соціальних мережах протягом місяця (83%), але рідко дають поради через СС колегам (28%) або сприяють медичній освіті пацієнтів (32%). Більшість лікарів взаємодіють зі своїми пацієнтами через СС (59%), але не обговорюють з ними, як шукати інформацію про здоров'я.

Висновки. Системні засоби масової інформації мають низьке використання серед лікарів, які виконують медичну діяльність у Румунії. Як і очікувалося, вік є фактором, який визначає сприйнятливість до використання СС румунськими лікарями. СС в основному використовується для пошуку медичної інформації, але не сприяє медичній освіті пацієнтів.

Ключові слова: соціальні мережі; лікар; інформація про здоров'я.

Доступ к врачам и распространение медицинской информации в социальных сетях

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Резюме

Цель. Цель исследования состояла в том, чтобы проанализировать способ, которым врачи, в контракте с медицинским страхованием в Румынии, используют социальные сети (СС) для доступа и распространения медицинской информации.

Материал и методы. Семейные врачи и стоматологи, которые в 2017 году заключили контракт с Румынским Национальным Домом Медицинского Страхования, который представил целевую выборку: 8 497 адресов электронной почты и 5 422 телефонных номеров были выявлены и собраны на веб-странице Национального Дома Медицинского Страхования. Приглашение принять участие в исследовании (включая ссылку на онлайн-анкету) было отправлено SMS, WhatsApp и/или по электронной почте в течение 24 мая–14 июля 2017 года. Экспериментальный дизайн был кросс-секционным. В статистическом анализе были определены следующие поколения: беби-бумеры, в возрасте от 51 до 70 лет, поколение X в возрасте 38–51 года и наиболее доминирующая социальная группа в данном столетии, в возрасте до 38 лет.

Результаты. Были проанализованы сто двадцать действительных анкет. Профиль респондентов: женщины (61%), городские (71%), врачи специалисты (50%), работающих в частной практике (70%). Большинство респондентов используют Facebook (85%). Поколение X больше подключаются к социальным сетям (СМ) из общественных мест по сравнению с беби-бумерами ($p=0,007$). Врачи ищут медицинскую информацию в социальных медиа в течение месяца (83%), но редко дают советы через СС коллегам (28%) или вносят вклад в медицинское образование пациентов (32%). Большинство врачей взаимодействуют со своими пациентами через СС (59%), но не обсуждают с ними как искать информацию о здоровье.

Выводы. Системные медиа имеют низкое использование среди врачей, которые выполняют свою медицинскую деятельность в Румынии. Как и ожидалось, возраст является фактором, который определяет восприимчивость к использованию СС румынскими врачами. СС в основном используется для поиска медицинской информации, но не способствует медицинскому образованию пациентов.

Ключевые слова: социальные сети; врач; информация о состоянии здоровья.