

SOCIAL MEDIA: OPPORTUNITIES FOR EXPRESSION AND PROFESSIONAL DEVELOPMENT FOR PHYSICIANS

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INTRODUCTION. Recently, social media (SM) has revolutionized intensely, offering multiple opportunities for most professional domains. Today, practically all organizations and professionals in the field of economics use SM tools for professional purposes, especially for communication, information dissemination, education, self-improvement, promotion, exchange of experiences, and encouraging teamwork, among others [3; 4; 6; 7; 8; 9; 10; 11; 12; 13; 14]. However, the opportunities provided by SM come along with potential risks, conditioned by the lack of knowledge, skills, and practices in using these tools. Physicians are also drawn to the popularity of social networks and the possibilities they can offer. Considering the specificities of the health care system, both the benefits and risks resulting from the use of SM networks can have a more pronounced impact compared to other fields. The abundance of information can create confusion and confuse the population in the perception of risks related to the disease or the benefits of protection methods, as well as negative attitudes/perceptions regarding the actions of the authorities in possible pandemics [15].

To maximize the opportunities offered by social networks for the professional development of doctors and, implicitly, the development and strengthening of the healthcare system, a more detailed evaluation of physicians' attitudes and practices regarding SM is necessary.

The prominence of doctors using social networks is mainly determined by the increased interest of the population in online health-related information. Several studies indicate that the proportion of social network users interested in health topics varies from 50 to 90% [1; 2; 5; 15]. Social networks currently play a significant role in meeting the population's need for health information, as they can influence the formation of values, attitudes towards health, and the perception of a healthy lifestyle.

In the Republic of Moldova, the use of social media by healthcare professionals for professional purposes was insufficiently studied, practically unregulated, and lacking coordination. Studies to identify opportunities to encourage the effective use of these tools and avoid the risks they may pose proved being necessary. The present study

CONTEXT. Social Media (SM) provides multiple/various opportunities for physicians, including: health promotion through public messaging, professional development through access to webinars and other training resources, and promotion of personal profile and the institution they represent.

METHODS. A total of 988 physicians from the Republic of Moldova were surveyed by adapting the questionnaire developed by EHRA (E-Communication Committee and the EHRA Scientific Initiatives Committee). Methods: historical, sociological and statistical.

RESULTS. The level of SM use by physicians for professional purposes shows specificities depending on living environment, geographical area, age, gender and field of activity. Physicians aged 36-45 are most aware of the effectiveness of SM for health communication (92.5%). Only 34.2% of all physicians reported using SM to distribute information to patients or the general public. SM networks are primarily used to follow new scientific publications, attend lectures/webinars and scientific events.

Less appreciated are the promotion of personal image (17.9%) and effective communication with patients/general public (19.0%). Although representing a rather small share (9.6%), those who do not use SM at all claim lack of time, lack of skills, lack of interest in the online environment and sometimes lack of technical means. The main advantages in using SM are: availability and easy access to professional materials and information, access to some information that cannot be obtained through live contact, and avoidance of the financial expenses inherent in traditional training and meetings.

CONCLUSIONS. Although most physicians consider social media to be an effective channel of communication in healthcare, the number of those actively using this tool in their professional practice is quite low. At the same time, there is a lack of awareness of the benefits of SM as an effective communication channel with patients or the general public, which highlights the need for training on the use of social media as a personal and institutional promotional tool.

Keywords: social media, professional development, physicians, health promotion, health

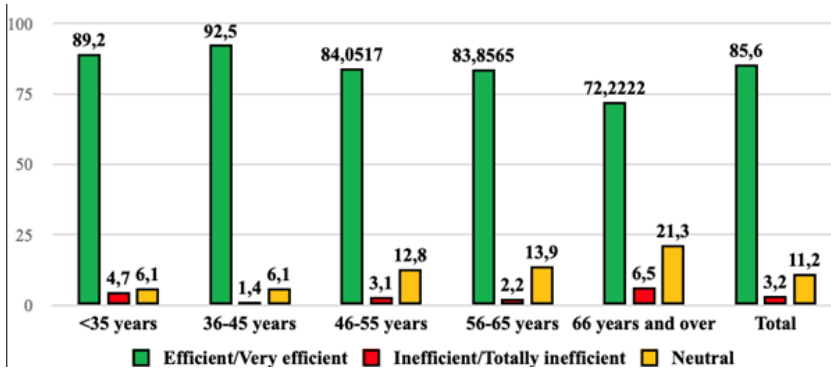
comes not only with a local perspective, but also with results that can be applied on a larger scale by identifying variables that can influence the online behaviors of physicians in general.

THE STUDY'S PURPOSE was to determine the opportunities for manifestation and professional development for doctors through the use of social media in their activities.

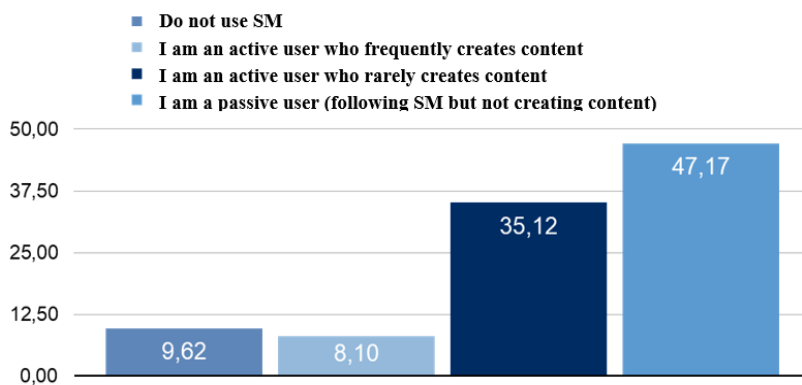
METHODS: To achieve the research objective, a quantitative study was conducted on a representative sample, by surveying 988 doctors from medical and sanitary institutions in the main areas of the Republic of Moldova. The questionnaire developed by the EHRA (E-Communication Committee and the EHRA Scientific Initiatives Committee) was adapted and employed as the data collection tool. The research employed the following methods: historical, sociological, and statistical. It was conducted within the Public Health Management School of Nicolae Testemitanu SUMPh in the Republic of Moldova, during the period 2022-2023.

RESULTS: Out of the total number of doctors interviewed, 78.5% are from urban areas and 21.5% from rural areas. Doctors aged 66 and over →

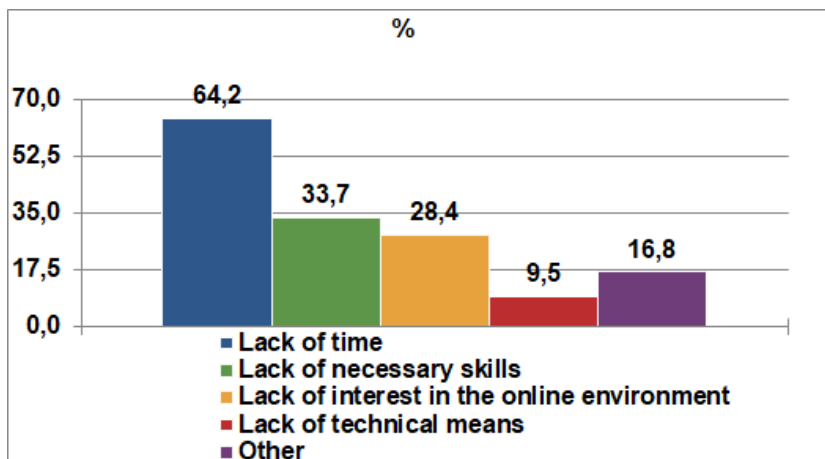
Graph 1. Share of study participants depending on their view on the importance of SM as a means of health communication, (%)



Graph 2. The level of use of SM networks by doctors, (%)



Graph 3. Share of doctors who confirmed that they do not use the SM networks, depending on the cause cited, (%)



constituted the smallest share at 10.93%, while the largest share belonged to doctors aged 46-55 and 56-65 years, accounting for 23.48% and 22.57%, respectively. Doctors aged 35 and under constituted 21.56%, and those aged 36-45 – 21.46%. According to official statistical data, more women than men work in the medical field, and the distribution of the study group according to gender was as follows: women – 66.5%, and men – 33.5%. At the same time, we note that female doctors were more receptive in providing their consent to participate in the study compared to men.

Physicians aged between 36 and 45 (92.5%), as well as those under 35 (89.2%) are most aware of the effectiveness

of social media (SM) for health communication (graph 1). In the other categories, the assessed index shows a decreasing trend with increasing age, with the lowest value recorded for doctors older than 66 years (72,2%), (95%, \bar{I} 10,4601 – 31,4930%, $\chi^2=19,894$, $p<0,0001$).

In the rural sector, the percentage of doctors who consider the use of social media (SM) as an ineffective means of communication in health is 1.6 times higher compared to the urban sector (95%, CI – 17.7018 – 35.0792%, $\chi^2= 0.045$, $p= 0.8327$). Less access to the Internet and the reduced popularity of SM networks in villages could be contributing factors to these views.

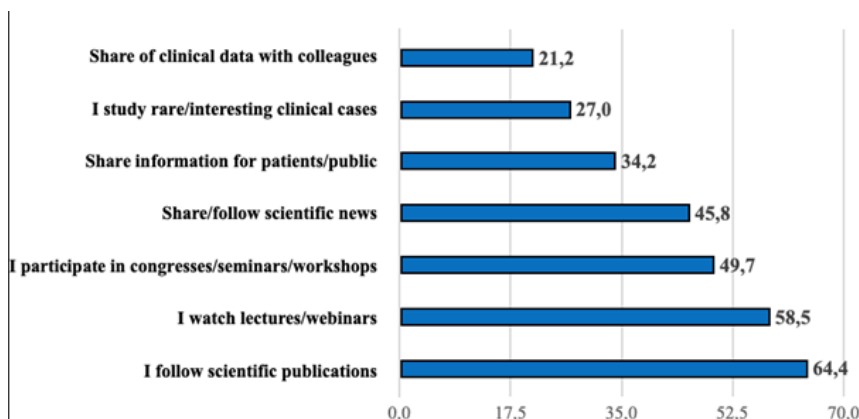
Most physicians (47.2%) use social media passively (only follow, do not create content), while 35.1 declare themselves active users, and 9.6% say they do not use MS at all (Graph 2). The percentage of doctors who do not use SM networks is in direct dependence with age: the older it is, the higher the rate of those who do not use SM for some reason. Not surprisingly, if among young doctors up to 35 years old the rate of those who do not use SM was 4.7%, then among doctors over 66 years old this percentage was about 6 times higher (27.8 %) (95%, CI – 8.93% – 41.4%, $\chi^2=2.27$, $p=0.1317$). The same legitimacy is also specific for doctors who confirmed that they are passive users, for young people this rate is 35.7%, and for those aged 66 and older, 51.9% (95%, \bar{I} -0.807% – 32.14%, $\chi^2=3.43$, $p=0.0038$).

We also observed that female physicians are more active in using social media (SM) compared to males. The percentage of female doctors who actively use SM is 1.4 times higher compared to male doctors (95%, CI -3.75% – 16.28%, $\chi^2=1.54$, $p=0.2139$). Conversely, the share of women who use SM passively (45.8%) is below the level of male doctors (49.8%) (95%, CI - 5.41% – 13.36%, $\chi^2=0.683$, $p=0.4086$). The percentage of female doctors who do not use SM networks by default is 2.4% lower compared to that of male doctors (95%, \bar{I} -9.68% – 17.23%, $\chi^2=0.147$, $p=0.7019$).

The main reasons for not using SM networks for professional purposes (graph 3), as cited by doctors who confirmed their absence in the online environment, include lack of time (64.2%), lack of knowledge and skills necessary to use online platforms (33.7%), lack of interest in the online environment (28.4%), and lack of technical means to connect to online networks (9.5%). Lack of time was mentioned as a reason for not using SM networks by doctors in all age groups, with small variations, more significant for those aged between 56-65 years and ≥ 66 years, corresponding to 21.3% and 29.5%, respectively. However, it should be noted that the lack of time is a subjective answer, which can conceal a lack of knowledge and skills in the given field, as well as a fear of the online environment.

Lack of necessary skills was the primary reason

Graph 4. Areas of use of SM networks for professional purposes by doctors selected in the study, (%)



for doctors aged 66 and over (68.8%) for not using SM networks, while the lack of technical means prevailed among young doctors (33.3%).

While no essential gender-based differences were found in the reasons for not using social media (SM) networks, significant differences emerged depending on the living environment. Doctors from rural areas cited the lack of necessary skills as a reason for not using SM 1.7 times more often compared to doctors from urban area, and the reason for the lack of technical means 3.5 times often than their counterparts from cities. Lack of time was the primary reason for the not using SM, for both doctors from rural areas (68.0%) and doctors from cities (67.1%), with insignificant variations.

However, it is necessary to recognize that the rate of doctors in the country who use SM networks is quite high, a fact largely conditioned by the COVID-19 pandemic situation. The qualitative aspect remains unexplained regarding how specialists use these tools to achieve maximum effectiveness and avoid the risks associated with them.

Considering that one of the top reasons given by study participants for not using SM networks was lack of time, we set out to analyze how much time physicians spend online. The obtained results show that almost half of the doctors who use SM (48.7%) are online for less than one hour a day. 44.9% of respondents use SM networks daily for 2-3 hours, and 6.4% of the surveyed doctors admitted to spending four hours or more daily on SM networks.

The amount of time dedicated by physicians to the use of social media (SM) is directly correlated with the age of the study participants. Thus, most doctors who access SM networks daily within the limits of 2-3 hours and those who spend four or more hours are among specialists up to 35 years old (respectively, 57.2% and 12, 7%).

Another criterion to evaluate how active doctors are on social networks is to determine the frequency of posting information in the online environment. In this context, we found that only 6.3% of the interviewed doctors post content online daily, 28.0% confirmed that they post information once every few days, and 65.7% of the study participants confirmed that they post less often than once a week.

The high awareness level (84.1%) among doctors regarding the need to control and monitor medical information

in the online environment indicates a strong perception of the risks induced by false medical information, disclosure of patients' data, and potential violations of professional ethics by doctors. Only 6.7% (95% CI 68.2975% – 81.9829%, $\chi^2=216.1$, $p<0.0001$) of doctors consider it unnecessary to monitor medical information on SM networks, and an additional 9.2% (95% CI -66.7595% – 79.8733%, $\chi^2=257.24$, $p<0.0001$) could not respond to this aspect. There is an indirect correlation here with the age of the respondents, as younger doctors (aged 35 and under, 92.0%) consider online monitoring and control more necessary than their older colleagues (aged 66 and older, 75.0%), (95% CI 2,359% – 21,73%, $\chi^2=6,656$, $p=0,0099$).

The results obtained in the study indicate that doctors primarily use social media (SM) networks for professional purposes, with a focus on continuing professional education. The top responses in the self-assessment of the areas of using SM networks for professional purposes were as follows (graph 4): Following newly published scientific publications – 64.4%; Watching lectures/webinars – 58.5%; Participating in congresses/seminars/workshops – 49.7%; and Distributing/following news from the scientific field – 45.8%. The high percentage of these responses is attributed to the fact that, during the COVID-19 pandemic, these activities were exclusively conducted online and demonstrated their effectiveness fully.

Regrettably, the percentage of doctors who confirmed their use of social media (SM) networks for professional purposes to distribute information to patients/the general public is comparatively small (34.2%). This fact highlights that the online environment is underutilized by doctors in health promotion and education, an area that should ideally be predominant in the activities of doctors on social networks.

Among the top advantages of SM in their professional activity, doctors emphasize the availability and easy access to materials and information in the practiced field (82.2%) and access to information not easily obtained through live contact (54.2%).

Approximately one-third (32.0%) of doctors consider reduced financial expenses compared to traditional training and meetings as an advantage offered by the online environment for professional purposes. Creating and expanding professional relationships is considered an advantage by 30.1% of the doctors interviewed. Less appreciated is the promotion of personal image and effective communication with patients or the general public, mentioned by only 17.9% and 19.0% of the respondents.

The doctors selected in the study also highlighted several disadvantages they associate with the online environment. In this context, 40.0% of the doctors express concern that the increasingly frequent online meetings might eventually replace traditional meetings, which they consider more effective. About a third of doctors (31.5%) believe that SM networks cannot offer them the opportunity to train practical skills in online training. The lack of control over the accuracy of information in the online environment is also a concern.



environment and the challenges in creating personal contacts were mentioned as disadvantages of social networks by 29.1% and 29.3% of the surveyed doctors, respectively. Exposure to excessive messages from patients and negative feedback was cited as a disadvantage of using the online environment for professional purposes by 27% and 22.5%, respectively, and 24.9% of respondents believe that using SM in professional activity limits their ability to travel. However, it is essential to mention that many of the disadvantages doctors associate with SM networks are influenced by their lack of skills and knowledge in using these tools in the professional field.

Based on the results obtained regarding the level of awareness of opportunities and needs in the use of SM networks for professional purposes by doctors, significant opportunities for improvement were identified in this targeted area. This calls for interventions aimed at developing and implementing communication strategies, training programs, and measures for the coordination and management of the targeted field. It is noteworthy that more than half of the interviewed doctors, both users (58.8%) and non-users of SM networks (56.8%), acknowledge the need for training in the effective use of online tools.

DISCUSSIONS: The results of the current study demonstrated that 85.6% of the physicians participating in the study consider SM to be an effective health communication tool. Only 43.2% of doctors actively use SM in their professional practice, while 9.6% of doctors do not apply it at all. The level of social media use by doctors for professional purposes shows some particularities depending on the living environment, geographical area, age, gender, and field of activity. The identified dependencies are determined by the different levels of knowledge, professional practice, access to MS, and equipping medical institutions with modern equipment for connecting to the online environment. The main reasons cited by doctors for not using SM networks in medical practice are lack of time (64.2%), lack of skills (33.7%), lack of interest in the online environment (28.4%), and lack of technical means (9.5%). The doctors selected in the study, as a priority, use SM networks to follow newly published scientific publications – 64.4%; to participate in lectures/webinars – 58.5% and in scientific events – 49.7%. Regrettably, the share of doctors who confirmed that they use SM networks for professional purposes to distribute information to patients/the general public is quite small (34.2%). The main advantages of using SM, stated by the doctors, are availability and easy access to professional materials and information (82.2%), access to some information that cannot be obtained through live contact (54.2%), avoiding financial expenses unavoidable in the case of training and traditional meetings (30.1%). Only a small number of doctors (19.0%) mentioned effective communication with patients or the general public as an advantage. Thus, doctors would require training on the use of social media as a personal and institutional promotion tool.

Notes: The paper was presented orally during the public defense of the master's theses at the School of Management in Public Health, during the period of June 26-29, 2023. An abstract (different from the one presented above) was published in a collection of scientific abstracts

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