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The use of Social Media in Healthcare. An experience in nursing

L'uso dei social media nella sanità. Un'esperienza infermieristica

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Abstract

Social media have found a broad acceptance in the healthcare sector because of the numerous advantages on a communicative level, in particular the rapidity and the diffusion of information. Social media are involved in a wide range of applications, in different contexts, in the communication between both professionals and assisted persons. However, since health issues may require the exchange of sensitive information, the use of social media requires a good knowledge and responsibility on the side of professionals. This article describes an explorative research in which the use of social media by the nurses has been analysed in order to contextualise the use of good practices.

<u>Keywords:</u> social network; healthcare; lifelong learning; responsibility.

Abstract

I social network trovano largo consenso in ambito sanitario per i numerosi vantaggi a livello comunicativo, soprattutto nella rapidità e nella diffusione di informazioni. Numerose applicazioni, in contesti diversi, li vedono impiegati nella comunicazione sia tra professionisti sia con le persone assistite. Tuttavia, poiché i temi della salute possono richiedere lo scambio d'informazioni sensibili, l'uso dei social necessita di conoscenza e responsabilità da parte dei professionisti. Questo articolo descrive una ricerca esplorativa in cui si è analizzato l'uso dei social network da parte di infermieri per contestualizzare buone pratiche di utilizzo.

<u>Parole chiave:</u> social network; assistenza sanitaria; apprendimento permanente; responsabilità.

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1. Introduction

The social media (hereinafter referred to as SM) currently represent a significant method of access to information and knowledge, above all with respect to communication possibilities. However, some issues have become an object of controversy, such as: handling of one's own identity and reputation, the regressive behaviours, the hatespeech, the power to influence the minds, and the so-called fake news. In that sense, the SM appear to constitute most of our ways of being and thinking. In fact, these first ten years, have shown, on an incredible number of occasions on Google Scholar, the string *social media* covers about 2.480.000 quotes, while *Google Trends* shows a marked peak in the years 2004 to 2010, and a subsequent fall, probably due to addiction. Such data highlights several aspects of amplification or mitigation of behaviours, attitudes, cognitive abilities and handling of emotions. This means that the web, and particularly the social context, has the power to distort and alterate our main faculties of comprehension. After 2004, many researchers began to conduct activities of *social network analysis*, through a system of social matrices which represent organization of relational data highlighting the complexity of the system and the generated networks (Trobia & Milia, 2011). A particularly interesting aspect is the one of the so-called *echo chambers* (Bennato, 2015; Quattrociocchi & Vicini, 2016), showing an increasing tendency of people to *polarise* their opinions based on a simple mechanism, leading to communicate more often with *friends* and momentaneous contacts which share similar ideas and opinions, ignoring the others. Hence, the risk of strengthening the *single thought*, able to relegate us in a *comfort zone* of the social media, but also of the strengthening of the subjacent algorithm which decides how to make the digital environments work with regard to our cognitive, emotional and behavioural trends.

SM are become facilitation tools in social interaction and also in professional services (Levati, 2014). The use in healthcare is consolidating, mainly because of the advantages in the communication offered by these tools. Among nurses, Facebook is the most widely used (Casella, Mills & Usher, 2014) for information, confrontation and updating purposes, as well as for participation in professional discussion groups and consultation of institutional pages. Nurses access it both using individual profiles and the professional ones. Some of the advantages related to the use of SM include the promotion of professional relationships (National Council of State Boards of Nursing, 2011; Nursing Council of New Zeland, 2012), the encouragement of contacts between colleagues (Casella et al., 2014), the facilitation of professional updating (National Council of State Boards of Nursing, 2011), the chance to participate in discussion forums in order to share knowledge (Piscotty, Voepel-Lewis, Lee, Annis, Lee & Kalisch, 2015), the diffusion and the discussion of good practices in assistance and research (Vanzetta, Vellone, Dal Molin, Martellotti & Alvaro, 2015). Such aspects are fundamental for professional training in their clinical practice, also in regard to the difficulties which the healthcare organizations meeting creating working environments which support the development of individual capital, extending and acquiring knowledge and research outcomes in everyday practice (Oborn, Barrett & Racko, 2010) Some authors highlight that the increase in the use of SM act in favour of mobile and social learning forms (Giustini, Ali, Fraser &i Kamel Boulos, 2018).

In relation to the effects on assistance, the use of SM in the relationship with the assisted person and his/her family, reduces the response and the interaction time, facilitates information and educational paths (National Council of State Boards of Nursing, 2011; Nursing Council of New Zeland, 2012). Despite the high communicative potential of SM, those tools require responsibility in their use in order to avoid some unintended consequences, mainly related to the transmission of sensitive information. Among them:

the violation of professional borders, the risk of compromising the image of the nurse, the image of one's organization or of the Health System, the violation of the privacy of the assisted persons, of the organizations and of the colleagues (Vanzetta et al., 2015). With the aim of leading the professionals to a conscious, safe and ethical use of social media, a number of recommendations and guidelines have been elaborated by some international nursing associations, as the American Nurses Association (ANA) in 2011, and the National Council of State Boards of Nursing (NCSBN) in 2011, for a correct use in the professional environment. Also in Italy the IPASVI National Boards Federation (Federazione Nazionale Collegi IPASVI, now FNOPI, Federazione Nazionale degli Ordini delle Professioni Infermieristiche) has published some recommendations about good practices in communication through the social media, inspired by the international indications and transposed into the Italian context (Vanzetta et al., 2015); (http://www.fnopi.it/attualita/gli-infermieri-sui-social-media-usarli-correttamente-e-un-opportunita-id1109.htm) moreover, in May 2019 the new Code of Conduct for Nurses was published which includes two articles on the use of social media (http://www.fnopi.it/norme-e-codici/deontologia/il-codice-deontologico.htm).

The study had two main aims: analysing the use of SM, by nurses in the Italian context, highlighting the main topics of discussion debated online and contextualising good practices of use by nurses in SM within the discussion groups.

2. Materials and methods. The analysis of profiles, quality of materials and relationships in SM

A descriptive and retrospective study has been carried out; the individual profiles of people who posted materials within the professional groups visualising general features, personal and professional information, have been analysed, as well as the contents posted. The social network observed was Facebook, in professional groups; with respect to the individual profile, general characteristics have been identified personal and professional information, concerning images, videos, links and comments. The study concerned the contents published over a one-week period, considered as a sufficient time, both because of the repetition of topics and the type of the work organized in shifts, which influences access to social media. In addition, the period chosen was the one without trade union or political events which could influence the discussions. The choice of the groups to be observed was preceded by a search, within the SM, by keywords, as *nurse*, *nurses*, *nurses and health*, *professional nurses*, in order to simulate a potential search on social media carried out by the citizen which uses this tool to search information. It was decided to exclude the discussion groups of specific clinical areas, scientific societies and institutional groups, in order to analyse forums and topics typical of the nursing profession and to avoid specific information and data concerning too specific issues. It was also decided to exclude groups with less than 200 members, because that kind of groups have generally a limited number of discussions. Lastly, only groups whose content was public without any visualisation restriction have been included, in order to be able to collect and analyse data without any duty of registration to the group itself. The features of the profiles have been assessed by means of the common procedures of descriptive statistics, using the software SPSS for Windows (https://www.spss.it/), version 18. The data obtained have been layered in terms of gender, age, region of origin, years of service, year of enrolment at the Board (now OPI) and specific qualifications, to verify if the debate on specific topics was related to one of these variables. The variables have been compared with the Chi-Square test and it has been

considered as statistically significant a *p-value* of < 0,05. For collecting data were used only the public information available online on the social media pages, and for the socio-demographic data, as date of birth, region of origin and year of enrolment at the Board of the professional, it has been consulted the database of the IPASVI National Federation. Therefore, it was not necessary to require the consent for the collection of the online information. All the information analysed has been processed anonymously and for research purposes only. The contents of the blog posts have been analysed by a qualitative method through the categorisation of the collected materials. The definition of categories, for example organization, judgements and privacy has been carried out considering the functions and responsibilities, as defined by the professional regulations and by the Code of Conduct, in addition to some contractual regulation elements (for example in the category organization, some posts referred to work organization have been inserted).

2.1. The identification of good practices

As to the legal aspects, two lawyers were involved in the research; the former is a legal expert of the web and the latter is an expert of the aspects related to the nursing profession; for the aspects regarding the National Recommendations about the use of social media, a member of the IPASVI Federation was involved, and for the organizational aspects the Director of the Assistance Service of a University Hospital.

How has changed the concept of privacy with the advent of the web?

In addition to the requirements of the Guarantor, are there other regulatory references with regard to the protection of its privacy and to the conduct for participating in social media and in professional discussion groups?

How can the nurse, with respect to the loyalty obligation and the privacy, participate in online discussion groups regarding organizational aspects (for example shift work, employment contract, remuneration or welfare model)?

The Guarantor states that before publishing information on behalf of the organization it is necessary to request authorisation; what are the features and the modalities of this kind of request?

According to the guidelines given by the Guarantor and the Workers' Statute on the use of social media, can the organization collect and use information about professionals before and during the employment relationship? For what reason?

Can a nurse during working hours publish a photo showing himself/herself wearing uniform, with the environment and the people not clearly recognisable (for example a photo in which the name of the hospital/structure does not appear)? If not, why?

Before publishing information and photos concerning one's colleagues, in the work environment, it is necessary that they give their consent; what should be the features of this consent (in addition to being effective, informed, current and truthful)?

Do exist any training obligation, as a responsibility of the organization, on privacy and web issues, addressed to the health professionals?

Figure 1. The interview outline.

It was proposed to each professional an interview consisting of eight questions (Figure 1), concerning the right behaviour a nurse should adopt on SM, in relation to the protection of personal privacy, of the colleagues privacy and of the organization where they work, the

publication of material during working hours and the training obligations of the company. The interviews were conducted by telephone, were recorded via a dedicated device with the prior consent of the respondents, and then entirely transcripted; during the transcription, both the linguistic part and the paralinguistic aspects were maintained. The material acquired has been stored anonymously and for research purposes only.

3. Results. The analysis of profiles, quality of materials and relationships in SM

Eight professional discussion groups have been analysed, with 863 published interventions. Of these, 330 are blog posts imported as links, 46 are posts containing written text, 14 are images related to the published contents, but without references to persons, situations or professionals, 25 are videos, and 448 are comments. Most people are nurses and of female gender, although the participation in discussion groups of social-health operators, doctors and students has been noted. The most frequent information appearing on their personal pages refers to the place of residence and to the work place. The average age is 24,8 years (sd ± 20,6 years); there are no differences statistically significant on the basis of the region of origin (p = 0,465). Each discussion group that has been assessed has a number of members from a minimum of 50 up to 40.000 participants. Figure 2 shows the socio-demographic, personal and professional features declared.

Gender	n. (%)
Female	158 (52,8)
Male	141 (47,2)
Profession	
Nurse	194 (64,9)
Doctor	8 (2,7)
Student	10 (3,3)
Other	20 (6,7)
Not specified	67(22,4)
Place of residence	159 (53,2)
Relationship status	79 (26,4)
Sexual orientation	65 (21,7)
Political orientation	6 (2,0)
Religious orientation	10 (3,3)
Names of family members	59 (19,7)
Profile picture	231 (77,3)
Workplace	117 (39,1)
Qualification/title	47 (15,7)

Figure 2. Characteristics of the profiles (N = 299).

It was not possible to gather information about the enrolment year to the IPASVI Board, the age and the region of origin of 144 nurses (48,2%) because they participate in social media with a nickname which made it impossible to identify the professional, or because

they were not recorded in the database of the IPASVI Federation. Figure 3 shows a summary of the topics debated in posts and comments. It is necessary to specify that 326 comments (72,8%) were also a manifestation of the level of agreement/disagreement or a support to the input post (the main post), as *thank you*, *you are right*, *I agree*; in this case it was not possible to assign a reference category, so this kind of information is part of a different category. In light of this consideration, the sum of the posts containing written text and the comments is of 346.

	n. (%)		n. (%)
Organization	86 (24,8)	Colleagues updating	5 (1,4)
Judgements	76 (22)	Workers' rights	5 (1,4)
Professional skills	52 (15)	Job offers	4 (1,2)
Clinical discussions	23 (6,6)	Relationship with the patient	3 (0,9)
Research	18 (5,2)	Values	3 (0,9)
Support staff	13 (3,7)	Shortage of staff	3 (0,9)
Experiences	13 (3,7)	Comparison working abroad	2 (0,6)
Free profession	13 (3,7)	Request of information	2 (0,6)
Salary	10 (2,9)	Unethical behavior	1 (0,3)
Demotion	7 (2)	Quotes	1 (0,3)
Privacy	6 (1,7)		

Figure 3. Main topics debated in posts and comments (N = 346).

The most trending topics were related to general organization, judgements regarding the organization, about trade unions or about the IPASVI Boards, discussions and debates about the allocation of activities to social-health operators and clinical discussions.

Posts n.	Contents n. (%)
Organization (86)	Services: 47 (55)
	Shift schedules: 12 (14)
	Organization of healthcare: 11 (13)
	University courses, human resources, work:16 (18)
Judgements (76)	On nurses: 38 (50)
	On Healthcare System: 23 (30)
	On trade unions and IPASVI: 8 (11)
	On their organization: 6 (9)
Clinical discussions (23)	Administration of medicines:19 (83)
	Nursing diagnoses, medications: 4 (17)

Figura 4.

Regarding the category *judgements*, it should be noted that these consist in judgements of disagreement. The categories which emerged from the analysis of the imported posts are summarised in Figure 5.

	n. (%)
Conferences Seminars ECM Conventions	42 (12,7)
Competitive exams	26 (7,8)
Articles, magazines	23 (6,9)
Legislation	20 (6)
Job offers	33 (10)
Clinical aspects	51 (15,4)
Current events	134 (40,6)
Commerce	1 (0,3)

Figure 5. Categories of the imported posts (N = 330).

With respect to images, during the observation period, 14 pictures have been analysed. About personal photos, two of these portray nurses in uniform, one profile picture portrays the professional in the swimming suit, two photos show the workplace, and five are satirical and/or ironic representations of the profession. About the photos of the patient, three pictures show parts of the body exclusively highlighting wounds or injuries, and only 1 picture shows some elements identifying the person.

No statistically significant differences were noted on the basis of the age of the people who published posts about competitive exams ($p = 0,04$), job offers ($p = 0,001$), organizational aspects ($p = 0,030$), and on the basis of the years of service of the people who posted clinical discussions ($p = 0,049$).

3.1. The identification of good practices

All the experts agreed that, with the advent of the web, many aspects related to the protection of the privacy have changed.

To orientate the online behaviour, the experts refer to the recommendations of the Guarantor (http://www.garanteprivacy.it/web/guest/home/autorita/garante) the body responsible for technical, digital, practical and jurisdictional updates, in addition to the Code of Conduct, as a reference for the professional responsibility (Vanzetta et al., 2015). As regards to the protection of the privacy of one's colleagues, the publication of material within a social media requires the *right of use*; it is therefore necessary to have a written consent of the colleagues themselves. With respect to the professional responsibility towards the organization, the latest indications of the Guarantor are to participate online only if this action is useful for scientific purposes and guided by the principle of the *strictly necessary*. Further, the publication of information related to the organization, should be preceded by a written permission, and take in account any internal regulation in use. With respect to the publication of images or other material during the working hours, the experts underline the evidence of a behaviour concerning activities which are not related to the work, and that may lead to disciplinary sanctions. About the quality of contents, the publication of judgements, criticisms, derogatory remarks towards colleagues or one's organization constitutes an illegal action on which could also intervene the Professional

Board. About the research and the use of information related to the employee by the organization, the indications given by the Guarantor and by the Workers' Statute underline the absolute prohibition for the employer to verify the employee personal information, also if there is not a specific regulation about it.

About training obligations which should be provided by the organization, in relation to the privacy and the web, and dedicated to health professionals, the experts declare that, despite the importance of the subject, there are no training or educational obligations as a responsibility of the organizations.

4. Interpretation of the data

The analysis conducted on the use of SM by nurses shows that this kind of technology is mostly used by young professionals. The results show that, even if there is no difficulty in the practical use of this technology, some problems are encountered in relation to the quality of the posted material, concerning the consequences on the ethical level. The conduct adopted by the professionals in the social communication has proved to be protective towards the assisted person, because no information or pictures damaging the privacy were detected. Most of the activities observed in the use of SM concern the debate between professionals, not always with the aim of solve the problems, but sometimes just in order to share moods and reflections. In relation to the discussion areas, the debate was mainly focused on organizational topics, which stresses a widespread unease due to the reorganization of the health service, to the reduction in personnel, and to the quality of the services. The debate often appears more as a *tale* of personal experiences than a real discussion. The debates on professional skills were mainly focused on its own care activities or on those referred to the support staff, highlighting some technical aspects of the activity that do not take into account the centrality of the assisted person and the meaning of professional competence (Spencer & Spencer, 1995). SM are also used in order to discuss some clinical aspects; however, the answers and the materials shared in the discussions often show a lack of elements able to confirm the scientific nature of this kind of discussions. Further, the situations requiring a discussion, regardless of the nature of the discussion itself (organizational, clinical, relational), are often not detailed and lack elements that would be useful for giving an in-depth opinion. However, in the face of the posted material, not always updated or well-supported by scientific sources, the approach of the professionals towards searching comfort through social networks is in compliance with the one adopted by other professionals in the international context, rich in social learning forms and in rapid expansion of knowledge (Reinbeck & Antonacci, 2019). The use of social networks for comparison and discussion helps professionals to complete the passage from the academic knowledge to the applied one, especially through the development of decision-making process, which is at the basis of healthcare professions. What is more, the comparison among professionals in online learning environments is facilitated by the culture of altruism, trust and reciprocity in addition to respect and non-competitiveness (Rolls, Hansen, Jackson & Elliott, 2016).

About the safety of the information provided in the online groups analysed, because they count thousands of registered members, it is very difficult to verify the professional affiliation of the participants or supervise the quality of the published contents; these are elements which lower the safety standards. Moreover, among the greatest criticalities, there is a risk of an inadequate protection of one's privacy, of the privacy of the colleagues or of the privacy of one's organization, besides the fact of using the SM as a way to express

negative judgements. In particular, about the protection of the individual privacy, the study shows that the professionals often participate in discussion groups with a private profile, showing personal photos and private information. In order to protect confidentiality of such data, it may be appropriate diversifying the profiles within the SM, one for personal purposes and another for professional purposes and for participating in discussion groups among peers; moreover, it is recommended to read the general terms and conditions and the privacy guarantees indicated in the contract for the membership of an open access social networking service. About the protection of the privacy of the colleagues, any inappropriate image or post were found; but some information allowed the immediate identification of the colleagues themselves (for example the shift schedules of a structure in which appeared names and surnames of all the employees). On this issue, both the Code of Conduct and the recommendations for a proper use of the SM, underline the importance of protect the privacy of its own colleagues, and that, in case of information or photos concerning them, they should express their consent. About the privacy of the organization, the post analysed showed some negative comments, but there were no elements which led to identify the organizations. The good conduct actually doesn't allow any form of reference to the organization; the right behaviour would be using closed groups and make requests of clarification through information not containing explicit references (Vanzetta et al., 2015). The confrontation with experienced professionals in legal matters highlighted how the new scenarios related to the use of the web for the discussion, the information and the professional collaboration, have generated new regulatory needs, because many laws are outdated, as prior to this phenomenon; this also because the technological innovation goes very fast, and the regulatory aspect immediately become obsolete. In relation to the possibility for the organization of obtaining and using information related to its professionals, before and after the employment relationship, through the search on SM, this kind of practice has been identified as damaging to the right of privacy and to the Workers's Statute.

5. Conclusions

The study showed an extensive use of SM by the professionals, mainly for information purposes and to discuss aspects related to work organization. The communication adopted was protective towards the assisted person. Nevertheless a few situations of improper use have been noted, not in relation to the technical knowledge of the SM but to the accurate contextualization of the international recommendations on good practices.

This aspect highlights the need to start a synergic programme among Professional Associations, training agencies and organizations, in a proposal of educational and empowering paths towards good practices of SM use. Moreover, publishing two articles in the new Code of Conduct for Nurses, in May 2019, does not clarify what behaviour should be adopted by professionals, but it highlights its ethical and relational importance in the professional practice.

The research study should proceed in order to revalue the phenomenon in two years' time, after numerous interventions of sensitization on the topic, also in conjunction with the new regulations regarding privacy and consent. In addition, it would be useful to investigate nursing students' behaviour, bearing in mind that no in-depth study on the use of communication technologies in healthcare is included in the study plan, even if the course prepares the students for work, providing them within the three years with professional behaviours and competences.

In view of lifelong learning, however, the study proposals could be oriented to understand how to improve the spread of evidence-based healthcare information through SM, guaranteeing reliability and content safety so that it can impact the learning and decision-making processes of the professionals.

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