Social media and nursing practice: Changing the balance between the social and technical aspects of work

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Summary Modern communication methods are drastically changing the way people interact with each other. Professions such as nursing need to evolve to remain relevant as social infrastructure changes. In the 1960s, researchers developed a sociotechnical theory that stated workers were more motivated and productive if there was a good balance between the social and technical aspects of their work. Today’s technology is blurring the boundaries between the social and the technical whereby transforming human contact and communication into a multi-method process. In Australia, people are adept at utilising social media technology to become more efficient, creative and connected; Australian nurses also need to embrace changing technology to capitalise on the professional opportunities offered by social media. This paper imagines a world where nurses integrate social media into assessing, diagnosing, planning, implementing and evaluating care. Discussion draws on a combination of real-world examples of best-practice and blue-sky thinking to demonstrate that evidence-based care must be combined with the adoption of future-forward technology.

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Introduction

Sociotechnical theory revolutionised workplace reality in the 1960s (Weisbord, 2012). The concept was coined by an “unpretentious” Englishman called Eric Trist, then enlarged by an “anti-authoritarian” Australian — Fred Emery (Weisbord, 2012, pp. 168–169). The pair studied an interesting phenomenon within a coalmine that introduced
new practices during the 1950s. Workers who had been performing simple, mundane tasks with little or no contact with colleagues were introduced to a new method of mining. The new duties changed the tasks workers were performing, but also led to an unexpected shift in the culture of the mine. Workers began to operate and communicate in a different manner. Miners began working in self-regulating groups, collaborating on larger tasks and sharing duties. As a consequence miners began communicating extensively and became more flexible and adaptable in their approach to work (Trist, 1981).

Trist noted that, as the new system of work evolved, personal commitment of workers increased, absenteeism decreased, accidents were scarce and productivity was high (Trist, Higgin, Murray, & Pollock, 1963). Deciding that this phenomenon needed further investigation, Trist began developing and testing sociotechnical systems (Trist, 1981). During his investigation, Trist (1981) found that, under the old system, individual worker’s tasks were “dumbed down” and creativity was suppressed. This was spirit-crushing for workers. Furthermore, previous types of work-related communication were limited because workers were encouraged to compete with one another rather than cooperate. Control was external and people were thought of as extensions of the machines they operated. The original intention of these old systems of work was to create efficiency through the simplification of tasks (Trist, 1981).

Trist and Emery developed a new system of work, based on their observations in the mines, that was said to “flip the paradigm” on previous systems. This new system, based on sociotechnical theory, brought fragmented, simplistic duties back together, encouraged the development of multiple broad skills and allowed for the autonomy of workers (Trist, 1981). The system also encouraged cooperative behaviour instead of competitiveness, increased communication networks, and brought an overall balance to the social and technical aspects of work (Trist, 1981).

Within the context of nursing, sociotechnical theory has been used to develop socially and technically-balanced workplace systems, resulting in higher efficiency (Tonges, 1992) and enhanced client care (Valentine & Behara, 2001). In contemporary society, however, social infrastructure is evolving rapidly, especially through the exponential development of technology. This type of social development appears to be occurring outside the nursing workplace at a far greater rate than it is within the workplace, causing an imbalance in the social and technical aspects of work. Such unrelenting social change calls for nursing as a profession to evolve in ways that keep it relevant to society. As evidenced by Trist et al. (1963), I argue that sociotechnical theory can be used to generate balance in the nursing profession by identifying shifting social infrastructures and adapting workplace systems accordingly. This paper presents an overview of social media, its types and uses, and describes how social media can be used within the nursing process to enhance client care.

Social media

Social media is changing the way humans communicate. The rapid emergence of social media will be fundamental to the evolution of nursing into the contemporary world of communication. A sociotechnical lens can be used to make sense of the changes needed within nursing in the future. Sociotechnical systems encourage flat organisational participation through multifaceted communication (Weisbord, 2012). Therefore, social media can be used as a means to heighten sociotechnical systems by facilitating communication between nurses and between patients and nurses. Health professionals have demonstrated some resistance to the integration of social media in their work due to concerns about its usefulness and compatibility (Lau, 2011). Moreover, resistance has also been caused by the many accounts of punitive outcomes resulting from social media misuse (Spector & Kappel, 2012). Such concerns and malpractices should be addressed because social media has the potential to balance the sociotechnical systems of nursing and bring the profession into the future. Before this possibility is discussed, some of the key aspects of social media will be defined and described.

Types of social media

Social media is a collective term that takes in social networking (like Facebook), content sharing (Flickr and YouTube), web publishing (blogging) and wikis. Social media comprises “tools for sharing and discussing information among people. It refers to user generated information, opinion, and other content shared and discussed over digital networks” (DECCD, 2013). Basic knowledge of social media functions, specific to the forms in which it exists, is essential for appropriate use. The forms in which social media are available are extensive and distinct and each has many advantages and disadvantages.

Social networking

Social networking is one of the most commonly-used forms of social media and offers a convenient platform to share information and stay in touch with people (Fraser, 2011). Social networks can also operate like directories, providing a way to search for and connect with people, while sharing information and communicating in a structured manner (Fraser, 2011). One advantage of social networks is that they allow professionals to develop and maintain connections with colleagues and peers. Facebook is one social networking website dedicated to giving “people the power to share and make the world more open and connected” (Facebook, 2013). Facebook has provided an unequalled platform to connect with people and stay in touch and had 800 million users as of 2011 (Nelson, Joos, & Wolf, 2011). Facebook is focused on personal relationships; other social networks focus on professional relationships. LinkedIn, for example, states its mission is to “connect the world’s professionals to make them more productive and successful” (LinkedIn, 2013). LinkedIn allows professionals to customise their user profile to include education, work experience, skills, and expertise. Through the development of a comprehensive profile, a professional may become an attractive employee or a sought-after peer. A professional can develop significant contacts through LinkedIn, which has more than 200 million users (LinkedIn, 2013). Social networks can provide
many valuable tools for the nursing profession, which will be explored further in this presentation.

Web publishing

Web publishing allows anyone to publish material on the web providing an opportunity for professionals to share and promote their ideas (Fraser, 2011). Nurses might also use web publishing to explore the online material of other professionals to gain ideas and inspiration for their own practice. Blogging is a prominent form of web publishing where users create a web page and upload content onto it in chronological order. The uploaded content is displayed to the public who may then comment on it. Blogging provides a platform for in-depth discussions guided by the material uploaded by the original user. Such public comment informs the administrator of others’ opinions and contributions about their own material and ideas. WordPress is a popular website that allows users to create blogs easily for free.

Microblogging creates an interface where users can publish small amounts of information, usually 140 characters or fewer. A popular microblogging interface is Twitter. Twitter is used by people in nearly every country (Twitter, 2013) and is available for use with many mobile devices. Through microblogging, information is made available to the user’s “followers”, who are able to then repeat or comment on the information. This interface creates a convenient way to disseminate important snippets of information to relevant people without having to write mass e-mails. By following people of interest, microblog users are presented with a constant flow of information of interest to them, resulting in the provision of user-tailored information.

Content sharing

Content sharing is another popular form of social media whereby users can share a diverse range of media and document files (Fraser, 2011). Users upload video content onto a sharing interface such as YouTube where public viewings are possible. Such videos can be commented on, which creates a forum to connect, inform and inspire people around the world (You Tube, 2013). Audio files can also be shared via platforms such as Soundcloud then shared easily through social networking sites. Listeners can comment on the piece as a whole or on specific sections. Pictures or online picture albums can be shared conveniently in a structured manner via interfaces such as Flickr. Documents (PowerPoint presentations or lecture notes, for example) can also be uploaded, organised, and shared via document-sharing sites such as Blackboard.

Social media is also a useful tool for collaboration, allowing users to work together on projects even when they are separated by significant distance (Fraser, 2011). One example of a collaborating tool is the document-editing website Google Docs. Users can upload a document and invite others to access and edit that document online. Wikis are another tool for collaboration that allow the user to create a shared website where a number of participants can upload and edit information. Wikis create a platform to collaborate and disseminate information, resulting in a constantly-evolving information hub. A popular example of a wiki is Wikipedia – an online encyclopaedia written, edited and critiqued by anyone who has an Internet connection.

Usefulness of social media for nursing

Social media can be incorporated into the nursing process in many different forms and used in a number of productive ways. The nursing process, as described by (Berman, Kozier, & Erb, 2012), consists of five overlapping and often continuous phases – assessing, diagnosing, planning, implementation and evaluation (Fig. 1).

The assessing phase involves the collection, organisation, validation and documentation of client data. The second phase – diagnosing – consists of analysing and synthesising the data. This phase is followed by planning, wherein nurses determine the possible prevention, reduction or resolution of identified client problems, along with determining how to support the client and implement nursing interventions. The implementing phase follows with the execution or delegation of planned interventions. Finally, the evaluating phase measures whether planned outcomes have been achieved and considers the positive and negative factors influencing the client’s progress.

Social media can be incorporated extensively into the assessing phase of the nursing process, especially with the development of mobile technology. In recent years, mobile technology has been assimilated into health care, creating what has been called mHealth. mHealth capitalises on the ability of mobile devices to send and receive information in a variety of ways (Speciale & Freytsis, 2013). Various forms of mHealth exist as health-based mobile applications that have been developed to interact with social media to monitor and assess client data (Larkin, 2011). An example of this interaction is the use of an app designed for teenagers with diabetes. Users are prompted to enter real-time blood glucose data, which the app uses to track trends while users correspond with a Twitter-like community, enabling health professionals to monitor the youth’s diabetes management (Larkin, 2011). Similar applications are being developed for older adults who prefer to live independently at home. Their health will be assessed remotely by a nurse using social networks connected to mHealth-enabled devices (Larkin, 2011). Social media has also been used by school nurses to connect with students and assess their health via social
networks such as Facebook (Chilvers, 2011). School nurses were able to use social networks to develop contact lists of students and their treatment needs, and the nurses could connect with students easily when they needed treatment (Chilvers, 2011). These few examples of the potential of social media give insight into how nurses may use online and mobile communication tools in the assessment process.

Content sharing could also be used in the assessing phase and applied, for example, to wound-healing assessment. Clients could use devices like smart phones to film their wounds being re-dressed at home and upload the footage to a private content sharing site. A nurse could assess the client’s wound-dressing techniques and the wound itself. Comments, in the form of advice, could be attached to the video for the client’s viewing. If this process was repeated the nurse could compare the videos to assess the extent of wound healing. This would lead to fewer complications in wound healing outside hospital which would, in turn, lead to fewer re-admissions. The nurse could identify complications via video and give a prompt referral to seek medical care to prevent exacerbation of the problem. This is an example of the positive outcomes social media could bring to the assessment phase of nursing through the expansion of communication techniques.

In the diagnosing phase, professional web-based information-sharing might provide nurses with a wealth of diagnostic knowledge. Health care professionals are currently melded in the blogosphere; many practitioners offer advice, ideas, news and opinions about nursing diagnostics (Thielst, 2011a). Nurses might take information from blogs, critically-analyse it, investigate its evidence-base for validation and apply it to their diagnoses. In this way, nurses could benefit from having a wider range of diagnostic knowledge, which could lead to advanced diagnosing of client problems. Furthermore, nurses could add their ideas, opinions and advice to existing blog articles, further contributing to the collaborative diagnostic knowledge base within the blogosphere.

Diagnostic collaboration via social media could be developed further to build more extensive diagnostic knowledge. One such possibility is the creation of social media-based diagnostic games. Nurses could join the game through social networks like Facebook and challenge nurses from their ‘friends’ list to play. Such games would test nurses, asking them to make a nursing diagnosis from a given case study; the most accurate diagnosis would win. The complexity of case studies would increase at each new level of the game. The case study data could be summarised as each level is completed, resulting in nurses absorbing more diagnostic information. Points, badges, and leader boards promoting reputations of mastery could be used as motivation to excel in the diagnostic game, while online diagnosing teams could be used within the game to promote nurse collaboration. The use of such games could be an effective way to improve real-practice diagnosing because games provide a low pressure learning environment conducive to exploration, collaboration and the exchange of ideas (Cohen, 2011).

The planning phase of the nursing process can also benefit from the use of social media collaboration tools. Some nurses are already making use of wikis to plan nursing care. Wikis allow multiple participants to upload and edit information so wiki can be advantageous when nurses source, share and comment on evidence-based practice. Some hospitals have also begun to create secure intranet wikis onto which employees are encouraged to upload, critique and edit evidence-based information about client care (Thielst, 2011a). Such practice of ward-specific wiki development has the potential to create pertinent, client-centred care plans, as the information on the wiki has been sourced, critiqued, and made available directly by the nurses caring for the clients. Nurses investigating potential care plans can refer to the wiki to search for possible interventions that have been successful in the past for similar client cases. If there are no relevant interventions, the nurse can search the literature for evidence-based practices, which can then be uploaded to the wiki. This process of knowledge-seeking and building would contribute to rigorous care planning while adding to the body of existing wiki knowledge. Microblogging, by way of Twitter, has also been used to plan care in hospital settings. Health professionals have used secure Twitter accounts in emergency situations, such as power outages, to communicate with clients in re-planning their appointments and necessary care (Thielst, 2011a). Social media communication can expand the social infrastructure of nurse/client relationships and lead to more effective and efficient care planning.

Social media has already begun to support the planning phase of the nursing process but there remains many unexplored possibilities for its use. One such possibility is ward-specific, private Facebook groups. The Facebook group could provide a platform for notifications of new evidence-based practices on an intranet wiki system, as mentioned previously. Long-term clients and their families could be temporarily added to the group to facilitate more effective and efficient communication about client care. Experts on ward-specific care (renal, respiratory and so on) could also be added to the group. These ideas could contribute to a profoundly-connected health care system, promoting collaboration and better care competency.

Incorporating social media into the implementing phase has many benefits. Social media can increase the level of support offered to clients while requiring fewer in-person sessions (Pellegrini et al., 2012). Such practice improves the cost effectiveness of health care whilst making it significantly more accessible (Pellegrini et al., 2012). Nurses have begun using blogs, wikis and Twitter to implement client education and to provide clients with weekly health education sessions (Nelson et al., 2011). Nurses can care for multiple clients with similar conditions at the same time and this can be done outside the health care setting as long as the client has access to the Internet. An increased cyber presence of nurses within the community would lead to more effective community education. Another real-world example of social media use during the implementation phase is the use of Facebook for medication reminders. Facebook can be used to deliver healthcare efficiently to the wider community and might increase drug compliance and decrease hospital readmissions (Gebhart, 2012). Nurses can send alerts and reminders to clients via private messaging on Facebook resulting in better medication compliance (Nelson et al., 2011).

Facebook-generated medication reminders are a good way to start utilising social media in client care but there is
much scope for expansion. High-risk clients receiving out-of-hospital care, such as people living with recurring diabetic complications, could be identified and enrolled into private Facebook groups. A nurse could be designated as the group leader and use the social network as a platform to promote diabetes management. Such management might involve sending alerts to check blood glucose levels, posting healthy recipes, uploading exercise ideas and inspiration and encouraging clients to become more socially-involved in dealing with their diabetes management. By sharing experiences of diabetes management through social media, clients could gain ideas, inspiration and a sense of connectedness with other people experiencing similar issues. The nurse could also use content-sharing sites in collaboration with the social networking group; the nurse could record and upload videos of exercise techniques, ulcer care strategies and condition-specific educational videos. By implementing health education and connecting clients, the nurse empowers clients to better-manage their conditions (Taibot & Verrinder, 2010), which can result in fewer re-admissions to hospitals and reduce costs to the healthcare system.

In the evaluation phase of the nursing process, social media communication can be used to improve client feedback. Clients often use blogs to narrate their experiences of illness and speak about the healthcare provided to them (Kuhns, 2012). Nurses might scan and analyse these narratives to support their own reflective practice, thereby breaking through social norms and nurse/client power relations to better understand client experiences. Some hospitals from Illinois, in the United States of America (USA), use internal social media tools to disseminate client feedback to staff to improve morale and encourage client-centred care (Thielst, 2011a). This large-scale sharing of feedback gives staff an impression of how clients feel about the healthcare being delivered and highlights an organisation’s strengths and areas for improvement. A hospital in Cleveland, USA, has developed public Facebook pages, making client feedback transparent (Thielst, 2011b). Transparency has led to better client care, resulting in an increase in positive feedback and bolstering the reputation and image of the hospital (Thielst, 2011b). Moreover, the hospital analyses the profiles of its Facebook fans each year to find out what they value in healthcare. As a result, the hospital’s service is more-easily tailored for the consumer (Thielst, 2011b).

Ward-specific Twitter accounts could expand social media use and improve evaluation of client care. Present and past clients could tweet their feedback directly to the ward. This strategy would result in ward-level transparency of client care, allowing nurses to constantly adapt their care strategies to suit changing client needs. The constant flow of feedback would provide nurses with individualised feedback leading to more opportunities for reflective practice. Accounts would need to be kept professional, which would necessitate the exclusion of all personal information and limit the use of accounts to the healthcare setting. Hospital-specific blogs could also be developed to encourage clients to leave comprehensive narratives about their health care. This advanced nursing communication would provide feedback of greater complexity and transparency, allowing nurses to carefully-analyse client stories and resulting in a greater understanding of client values and needs. Increased transparency of health care service has been shown to positively-influence healthcare practice (Thielst, 2011b). These blue-sky thinking examples illustrate how social media could be used in the evaluating phase to improve the sociotechnical balance.

Conclusion

Sociotechnical theory states that social and technical aspects of work must be balanced to achieve optimal performance. Social media technology has changed the way society communicates. Nurses have begun to participate in this evolution of workplaces, bringing some balance to work systems but nurses must further develop the ways they use social media to keep up with contemporary society. This article suggests that further implementation of social media into nursing would expand multifaceted communication and bring the profession in-line with the complex ways in which society now communicates. Social media has the potential to profoundly connect nurses to their clients and to other professionals resulting in more comprehensive, accessible care and a greater social presence. Many nurses feel apprehensive about the integration of social media into healthcare, but as society evolves, so too must the nursing profession.

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