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The benefits and challenges of online professional-patient interaction: Comparing views between users and health professional moderators in an online health community

Sara Atanasova [a, *], Tanja Kamin [b], Gregor Petrič [a]

[a] University of Ljubljana, Faculty of Social Sciences, Centre for Methodology and Informatics, Kardeljeva pl. 5, 1000 Ljubljana, Slovenia
[b] University of Ljubljana, Faculty of Social Sciences, Centre for Social Psychology, Kardeljeva pl. 5, 1000 Ljubljana, Slovenia

A B S T R A C T

Online health communities (OHCs) have become new venues for online professional-patient interactions in which patients, as OHC users, can undertake online consultations with health professional moderators. This interaction has previously been investigated mainly from the user's perspective, whilst neglecting the insights of health professional moderators. The aim of this study is to explore and compare the benefits and challenges of online professional-patient interactions for users and health professional moderators and the effects on face-to-face medical encounters. The study employed a qualitative research design, with in-depth, semi-structured interviews conducted with users ($n = 8$) and health professional moderators ($n = 7$) from the largest OHC in Slovenia. Data analysis utilised inductive thematic analysis and principles of grounded theory. The results of this small study demonstrate that the OHC enabled users and health professional moderators to overcome weaknesses of face-to-face medical encounters. Both users and professionals view the primary benefits of online professional-patient interaction as delivering informational and emotional support for users' health-related needs. The main challenges for users and health professional moderators stem from the limitations of computer-mediated communication (CMC). Users and health professional moderators expressed different and ambivalent attitudes toward the OHC and its effect on face-to-face medical encounters.

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1. Introduction

Online health communities (OHCs) have become one of the most important sources for searching and exchanging health-related information, experiences, advice, support and opinions (Johnston, Worrell, Di Gangi, & Wasko, 2013). As Internet-based platforms, OHCs connect various groups of individuals with similar health-related interests; thus, they represent important venues for connecting people with similar health conditions and sometimes access to health professionals (Johnston et al., 2013; van der Eijk et al., 2013). Generally, OHCs can be divided into two types: First are OHCs, which are mainly devoted to peer support groups and are usually referred to as online support groups (Coulson, Buchanan, & Aubeeluck, 2007). The second type, which are most commonly associated with the term of OHC, refer to online platforms that include both patients and health professional moderators that are usually health care professionals or doctors. In the latter type of OHCs, health professional moderators deliver health consultations and offer professional and reliable health-related information and advice to OHC users (Johnston et al., 2013; Petrovčič & Petrič, 2014; Vennik, Adams, Faber, & Putters, 2014; Zhao, Ha, & Widdows, 2013; van der Eijk et al., 2013). Most popular OHCs usually offer both online support groups and integrate health professional moderators (i.e. PatientsLikeMe, WebMD, MedHelp).

The importance of OHCs is growing and have been increasingly studied in the recent years, yet it is surprising that the research currently does not give much attention to the fact that OHCs are also new venues of communication and interaction between patients or caregivers on one hand and health professionals (doctors) on the other (Vennik et al., 2014). OHCs have broadened and diversified channels for professional-patient interactions, which has transformed the perceptions of face-to-face medical

encounters (Guo, Guo, Vogel, & Li, 2016; Wu & Lu, 2017). Patients, as OHC users, are now aside to interaction with their personal doctors able to consult also with other health professionals (i.e. health professional moderators) and can thus receive additional information, before or after medical encounter with their personal doctor (Li, Orrange, Kravitz, & Bell, 2014; Umefjord, Petersson, & Hamberg, 2003). Online professional-patient interactions in OHCs have been primarily researched from the users' perspectives (Himmel, Meyer, Kochen, & Michelmann, 2005; Peng, Sun, Zhao, & Xu, 2015; Umefjord et al., 2003; Vennik et al., 2014; Yang, Guo, & Wu, 2015). Also the effects of online professional-patient interactions on face-to-face medical encounters in health care settings have been so far focused mostly on how these effects were perceived by patients (Broom, 2005; Petrič, Atanasova, and Kamin, 2017; Rupert et al., 2014; Wicks et al., 2010). How both parties (users and health professional moderators) perceive online professional-patient interactions in OHCs and their effects on face-to-face medical encounters in health care settings, by contrast, have remained under-researched. We believe that this is an important shortcoming that needs to be addressed by studying both OHCs' users' and health professional moderators' perspectives.

1.1. The benefits and challenges of OHCs for users and health professional moderators

Researchers have examined online professional-patient interaction in OHCs from various perspectives, often focusing on benefits and challenges for users as patients (Himmel et al., 2005; Peng et al., 2015; Rupert et al., 2014; Umefjord et al., 2003; Vennik et al., 2014; Yang et al., 2015) and less frequently on benefits and challenges for professionals (Atanasova, Kamin, and Petrič, 2017; Guo, Guo, Zhang, & Vogel, 2017; Guo, Guo, Fang, & Vogel, 2017).

Existing research shows that consultation with health professional moderators in OHCs provide the users with many benefits: a convenient, accessible, geographically independent and reliable source for informational and emotional support (Himmel et al., 2005; Peng et al., 2015; Umefjord et al., 2003; Vennik et al., 2014). OHC users often perceive online professional-patient interaction as beneficial for their health outcomes, health-related knowledge, management of personal health issues, competence in relationship with their doctors and the use of health services (Peng et al., 2015; Vennik et al., 2014). Himmel et al. (2005) have demonstrated that interaction with health professional moderators in OHCs can increase users' informational and emotional support when confronted with health-related issues and distress. The exchange of evidence-based medical knowledge provided by health professional moderators was most valued by OHCs' users, as it importantly contributes to their health-related knowledge and management of their own disease (Vennik et al., 2014). These studies have mainly focused on exchange of social support in OHCs with emphasizing users' perspectives and behaviours. Recent research indicates that OHCs provide benefits also for health professional moderators; they can gain professional recognition and respect, access additional education and research, social and even economic resources (Atanasova et al., 2017; Guo, Guo, Zhang, et al., 2017; Guo, Guo, Fang et al., 2017). Online supportive communication, which refers to the social support resources produced through online interpersonal communication aiming to provide assistance to another person in need (Bambina, 2007; Burleson & MacGeorge, 2002; Chang, 2009; Chuang & Yang, 2010; Oh, Ozkaya, & LaRose, 2014), presents additional important part of online professional-patient interactions (Peng et al., 2015). Health professional moderators can provide social support resources to users, which can meet various health-related needs and potentially bring about beneficial and/or even challenging health-related outcomes

(Chang, 2009; LaCoursiere, 2001).

Interactions in OHCs are not without challenges. Studies of the effects of online peer support groups revealed that users are confronted with high amount of information, which can be misleading, confusing and can guide users to problematic self-diagnosis and/or self-treatments (Bartlett & Coulson, 2011). Although in OHCs health professional moderators provide clinical expertise and reliable health-related information to users' queries, users' nevertheless rely on information from different sources in OHCs, which are not necessarily screened and verified by professionals (Vennik et al., 2014). Because of the availability of online health delivery service in OHCs users often have high expectations of receiving rapid responses from health professional moderators (Yang et al., 2015), which can be a challenging task especially when health professional moderators are confronted with users' serious and complicated health-related situations (Atanasova et al., 2017). OHCs can thus have a disempowering effects also for health professional moderators. In the study of Atanasova et al., 2017 health professional moderatos reported about several disadvantages related to their participation in OHCs, such as feelings of overload, overcommitment, uncertainty, and lack of control over their personal life as well as their professional role.

1.2. The effects of online professional-patient interaction on face-to-face medical encounters

Professional-patient interaction in OHCs can have effects also on face-to-face medical encounters in offline health care settings. Studies thus far mainly focused on user's perspective, demonstrating that users' online interactions with health professional moderators increased users satisfaction with their subsequent care, improved their involvement in personal health care and improved relationships with their personal doctors (Himmel et al., 2005; Peng et al., 2015; Petrič et al., 2017; Umefjord et al., 2003; Yang et al., 2015). Users emphasised that interactions with health professional moderators were especially useful for addressing unmet needs by their personal doctor (Himmel et al., 2005). Participation in OHCs has been related to the increased motivation for users as patients to actively collaborate with their personal doctors (Bartlett & Coulson, 2011) and to the empowering outcomes for patients in the professional-patient relationship (Petrič et al., 2017). Health professional moderators' perspective on the impact of OHCs on professional-patient relationship has been thus far (to the best of our knowledge) completely overlooked and thus presents a significant research gap that should be addressed.

We need to acknowledge that some research reported challenges of health professionals in face-to-face medical encounters with "Internet-empowered" patients (Seale, 2005), but such analysis were focused on health professionals in general, not on those who participate as moderators in OHCs. Health professionals perceived the use of Internet and OHC-based information in face-to-face medical encounters as burdensome interference, manifested in patients' unrealistic expectations, tendencies toward self-medication and tensions because of the transformation of traditional roles in the professional-patient relationship (Ahmad, Hudak, Bercovitz, Hollenberg, & Levinson, 2006; Rupert et al., 2014; Sommerhalder, Abraham, Zufferey, Barth, & Abel, 2009). Health professionals reported also some beneficial outcomes of the use of OHC-based information in face-to-face medical encounters, such as assistance in decision-making process, empowering patients and increasing their sense of control (Broom, 2005).

Views between OHC users and health professionals reflect different and even conflicting understanding of the impact of OHCs on face-to face medical encounters. Health professional moderators' perspectives on the effects of online professional-patient