

**The impact of visitor restrictions in hospital during covid-19 pandemic:
the role of nurses and caregiver-reported experience**

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Abstracts

In response to the COVID-19 pandemic, Italian hospitals changed protocols and regulations and invoked visitors' restrictions to minimize contagion and protect healthcare workers, and patients in the inpatient wards. These measures could have had an important impact on the experience with care of healthcare services' users, particularly elderly and vulnerable patients and their caregivers, for instance in terms of relational and communicational aspects. A bottom-up quality improvement action was adopted in a Tuscan hospital: a group of nurses involved patients' families during the hospitalization by frequently giving them additional information via phone calls. The aim of this study is to investigate the impact of the above-mentioned bottom-up action by exploring the caregivers' experience with their cared ones' hospitalization during the COVID-19 pandemic, and by analysing if the activities implemented by nurses have made a difference in their perception of experience. A comparative analysis was performed between the experimental group in the hospital where the above-mentioned action was implemented, and a control group in another hospital that did not adopt the same practice, but serves a similar population, geographical area and has the same clinical manager. We defined a survey to hospitalized patients' families and caregivers and administered it between May 2021 and January 2022. We performed data entry and analysis between January and April 2022. The survey respondents were 70 caregivers. About hospital stay, we detected the effect of the nurses' actions during patient's hospitalization using Chi squared tests. Several dimensions of experience were found more positively evaluated in the experimental group, in particular those related to the nursing care. Caregivers reported the importance of involving during the hospital stay even from a distance, to know what happened in the hospital and patient's health status.

Key Words: caregiver-reported experience, COVID-19 pandemic, visitation restrictions, nursing practice

Introduction

The patients' experience with healthcare services is a key indicator of quality and outcome (De Rosi et al., 2019). Already in 1988, Donabedian underlined the importance of listening the voice of patients to evaluate the service quality, to implement quality improvement actions and to evaluate the impact of quality improvement actions. A focus on the customer's experience is advocated as starting point for a new service orientation within marketing (Schembri, 2006). Among the most influential factors of the patient's experience there is the human interaction, e.g., communication, quality of information and patients' listening, responsiveness, courtesy, respect, compassion, kindness and interactions with nurses and doctors (Attebery et al., 2020). Therefore, services' users appreciate those characteristics that are related to relation and interaction with professionals. This is true also in relation to the nursing care (De Rosi et al., 2021). According to Zhang and colleagues (2020), considering the frequency and duration of contact with patients than any medical professionals, nurses play a crucial role in the healthcare system, and nursing is inextricably linked to the improvement of patient experience. This relates to the fact that healthcare services are high-emotion (Berry et al., 2015) and relational-intensive (McColl-Kennedy et al., 2015; Berry, 2019). "Caring communication" is key for a good experience of patients (Schembri and Sandberg 2011). These latter are mostly in a situation of information asymmetry, which increases anxiety and fears, and makes important clear information and trustful relation. In addition, the most important users of healthcare services are elderly people, and the role of caregivers is becoming increasingly relevant. It is therefore important to partnering and collaborating with caregivers as part of the nursing care to improve quality and continuity of care for patients who are hospitalized (Hagedoorn et al., 2021). Involving caregivers is particularly important for vulnerable patients and patients with communications' difficulties, for two main reasons. First, caregivers are increasingly involved in the care pathway of their cared ones and, for this reason, are key actors of the same patient journey, with specific informative needs (Partinico et al., 2008). Second, it is often difficult to gather the direct experience of elderly and vulnerable patients, and caregivers can provide key additional information or be a privileged channel to communicate with this specific target group. The importance of the experiential factors we mentioned above has additionally increased during the COVID-19 pandemic. In response to the pandemic, from March'20 hospitals changed regulations and invoked restrictions on visits (Helmerts et al., 2022). These measures have had an impact on the psychosocial and emotional well-being of caregivers (Cornally et al., 2022), increasing their dissatisfaction and distrust (Gonella et al., 2022). Visitor restrictions were associated with reduced communication between relatives and staff and for this reason, hospitals had to understand how to improve remote communication with caregiver (Fenton et al., 2022). Simultaneously, the pandemic led to a rapid implementation of technology-based tools, accelerating the switch from traditional "face-to-face" contact to digital ones (De Stefano, 2022) to grant access to virtual consultations and remote visits and monitoring (Bosa et al., 2020). During the COVID-19 outbreak, hospitals needed to redesign system with a particular focus on ICT and e-health. In fact, it was found a high increase of new telemedicine solutions after March'20 compared to the pre-pandemic period when there were difficulties in planning telemedicine as a part of the health system (Ferrè et al., 2021). According to Goldberg and colleagues (2022), telehealth enhanced also communication with patients and caregivers. There is initial evidence on the role of communication in the healthcare services' provision during this crisis. Some authors showed that professionals can actually help people in coping with stressful situations, as in the pandemic period, reducing the anxiety related to the disease management, by providing informative and emotional support (Hamza et al. 2020). It was also found that a good communication by professionals is effective in maintaining users' satisfaction with services in time of crisis (채상미 & Min-Kyun Kim 2015). In Italy, the first country hit by COVID-19 contagion, several actions were implemented by professionals to cope the critical situation and to address changes in the healthcare services' delivery (Bonciani et al., 2022). In a Tuscany hospital, a group of nurses changed their usual practice related to the informative and emotional support to caregivers of elderly, fragile and vulnerable patients. The usual communication

practice encompassed two kind of phone calls: the doctors' calls were provided every two/three day for providing clinical information on the health status of patients; nurses' calls were mostly aimed at communicating practical needs (e.g., changing clothes for patients) and were done when needed. The new practice designed and implemented by nurses in the experimental hospital encompassed more frequent calls for providing the usual information, as described above, with additional non-clinical information. For example, nurses reported to caregivers' parameters measured by nurses, psychological state, requests of the patient, quality and quantity of nutrition and rest. They also increased the number of phone contacts with caregivers, so providing this full information calls every two days, in addition to the calls of clinicians. This bottom-up action was proposed by nurses and agreed with the clinical manager of the hospital. The goal of this study is to investigate the impact of this bottom-up action, by exploring the caregiver-reported experience during the COVID-19 pandemic. We argued that the new nursing practice could make a positive difference on the caregivers' experience by improving their perception of: (i) the emotional support (management of fears and anxieties), (ii) the engagement (involvement into decision making about patients' care), (iii) the informative support (access to information, clarity of the answers to caregivers' questions, perception of the importance of the telephone contacts, clarity of information at discharge about self-care, medicines and patient autonomy), (iv) the satisfaction with hospitalization (general satisfaction with hospitalization, willingness to recommend the ward). The dimension of experience related to emotional and informative support (i and iii) were investigated asking separately for the experience with nurses and with doctors, in order to analyse whether the action had a general or a specific effect on the experience with the nursing care. The choice to investigate these dimensions from the caregiver's perspective was made to encourage relatives' participation in the evaluation and improvement of hospital care.

Method

The setting of this study are the medicine wards of two Tuscan hospitals. The two serve a similar population, are in a similar geographical area and have the same clinical manager. We called HO1 the experimental hospital, where the above-mentioned action was promoted, and HO2 the second hospital used as control group since the action was not performed but it presents very similar characteristics. For this study we used a quantitative approach through the definition and administration of a questionnaire to caregivers, on the base of a patient experience questionnaire already in use in the Tuscan PREMs Observatory (De Rosis et al. 2019). The questionnaire consists of four sections: experience during hospitalization (i.e., access to the hospital, managing fears and anxieties, involvement, access to information, clear information, perception of the importance of telephone contact), discharge phase (i.e., clear information about how to take care of the patient's health, what to keep under control at home after discharge, what drugs to take and when patient will be independent), caregiver satisfaction (i.e., overall evaluation and willingness to recommend to other people) and sociodemographic features. The questionnaire was paper-based and administered between June '21 and January '22. The comparison between the respondents of two groups was tested using a chi-square test.

Preliminary findings

The respondents were 70: 34 from HO1 and 36 from HO2. 70% of the respondents were female. Most were over 65 years old, but with higher proportion of younger caregivers in the HO1 ($p=.039$) where there were more nephews among respondents. 93% were Italians and 55.7% reported a low educational level. We found a statistically significant different time duration of caregiving in the two groups: in HO1 one third have assisted patients for more than 10 years, while in HO2, nearly 70% have cared them for less than 4 ($p=.035$). Finally, more than 55% declared to be caregiver the whole week. Almost all caregivers affirmed they did not choice the hospital, but patients arrived there via emergency services or because the hospital was the closest to the residence. About the hospital stay, a significant difference emerged in relation to the management of fears and anxieties by nurses

($p=.001$), the access to information ($p=.000$), the clarity of information provided by nurses ($p<.001$), the importance of the telephone contact with nurses ($p<.001$), the clarity of information at discharge about self-care ($p=.006$), medicines ($p=.014$) and patient autonomy ($p<.001$). More than 40% declare a good experience. A significant difference emerged for the willingness-to-recommend ($p<.001$): it seems that respondents of the HO1 were more likely to recommend the ward to other people rather than the caregivers of patients cared in the HO2.

Discussion

This is one of the first studies on the experience reported by caregivers, during critical circumstances such as the COVID-19 pandemic. There are some studies on the digitally mediated communication between patients, maybe supported by caregivers, and nurses during the pandemic (Vitale et al., 2021; Happ, 2021). Other studies investigated the patient perception of nursing care and nurses' communication during COVID-19 (Nistal et al., 2021). The findings of this study present a twofold implication related to: (i) the key role of nursing care and nursing communication, (ii) the importance of the caregivers' experience and of the collection of their voice. The results of this study emphasize how a new practice of communication, built also considering the caregivers' informative needs and emotional responses, can make a difference in the patients and caregivers experience with care. The significant difference on the experience with communication provided by specific groups of professionals (doctors vs nurses), where only nurses of one hospital changed the communication practice, shows that a great impact can be generated with apparently small changes in the daily practice. Changing the information provided and the frequency of calls was an idea of nurses in the intervention presented in this paper. This is confirmed by studies that showed how nurses felt the need to change their previous prioritization of time and energies to patient and family communication (Pariseault et al., 2022). The results of caregivers' experience and satisfaction in the experimental hospital are more positive than control group in relation to emotional support, engagement, informative support, satisfaction with hospitalization. The intervention helped people to manage fears and anxieties, and this could have positively affected the patients' and caregivers' psychological well-being. Moreover, this practice improved the access to information, the perception of the importance of telephone contact and the perception of clarity of information provided to caregivers, which is positively related to the management of the patient conditions at home (i.e., what to keep under control when back home; what drugs to take; resumption of independence). This is in line with previous studies that demonstrated the role of clear information and emotional support given by the healthcare professionals in helping people with stressful situations, by reducing anxieties related to the period the hospital discharge (Sonis et al., 2020). Therefore, according to Keuning-Plantinga and colleagues (2021), a good communication and relationship between nursing staff and caregivers increases satisfaction with care and caregivers feel reassured when healthcare personnel recognize the importance of their role with the patient and involve them in care. This is particularly important in an era of transformation of healthcare services' provision where the patients and caregivers' contributions to the production of health outcomes is increasingly crucial in cocreating health (Pennucci et al., 2022). This study contributes to the services literature by exploring the value co-creation activities of family members for improving health services and their well-being and that of the patients.

Conclusion

In the context of a lockdown period due to the COVID-19, our aim is to investigate the impact of nurses' actions on a sample of Italian caregivers and to find practical solutions that can help healthcare staff to improve users' experience and satisfaction. An improved experience of caregivers and

patients is per se an improvement in the outcomes produced by healthcare organizations, as in Donabedian model of care quality.

Limitations

The study has limitations that offer insights for future research. First, we only captured the perspectives of caregivers, while it could be interesting to collect the perspective of professionals (e.g., the nurses involved). For deepen professionals' view, interviews could be performed for investigating their experience with this new practice (e.g., change in time of care and tasks, motivational aspects, costs and savings of actions). Moreover, the study offers a picture of the short-term effect of the action on the caregivers' perception of the healthcare services. Future studies could investigate long-term impact on health outcomes – e.g., related the health conditions' self-management, and on users' trust into the healthcare organizations. Finally, additional analysis could be performed on quantitative data (i.e., regression models), for investigating the effect of the action controlled for socio-demographic variables.

Managerial Implications

In a crisis period, the importance of maintaining the relationship with caregivers becomes fundamental to better manager fears and anxiety of both patients and caregivers, and provide information needed for caring patients after discharge. Healthcare organizations should adapt to changes finding channels and tools to communicate at distance with people and make them feel safe and supported. Simple changes in the daily practice can greatly change the experience, and probably also health outcomes. The hospitals considered in this study are in a rural area in Tuscany where there're logistical and technological limits (e.g., bad public transportations, limited Internet connection). Therefore, an effort is required from healthcare organizations, but also from all institutions to support patients and families. Finally, this study emphasized the opportunity to see to organizations as potentially learning entities. To this end, detect and collect bottom-up actions are a great learning opportunity for organizations. Positive experiences could be spread in the organizations, so that these can be replicated for the improvement of users' experience.

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