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Titolo tesi: Mutuality and self-care of the patient-caregiver dyad in multiple chronic conditions

Introduction

The prevalence of multiple chronic conditions (MCCs), defined as the coexistence of two or more chronic illnesses, has increased significantly worldwide, especially in older adults. People with MCCs have low health outcomes, dysfunctional disease management, and high healthcare service utilization. MCCs results in a decline in patient health and an increase in healthcare system costs. Therefore, it is critical to encourage the elderly population to perform self-care, because it reduces mortality, reduces unplanned hospital admissions, reduces healthcare costs, and improves patients' quality of life. The challenge of symptom management and the difficulty of taking care of themselves lead patients to require the help of a caregiver. Caregivers collaborate with the patient in the self-care process. For this reason, patient and caregiver constitute a dyad taking care of the patient. A variable that directs the relationship between two people is mutuality. Previous studies have shown how mutuality influences patient selfcare behaviors and caregiver contributions to self-care. For this reason, studying the relationship and mutuality of the patient-caregiver dyad is crucial in improving the self-care process. Also, the ways in which the patient interacts with the caregiver to manage his/her chronic conditions and different typologies of patient-caregiver dyads are important topic to explore. However, the COVID-19 pandemic emergency influenced self-care and the caregivers' contribution to self-care behaviors in patient-caregiver dyads. For this reason, we need to explore further the selfcare experiences of patients with MCCs and the contributions of caregivers to patient self-care during the COVID-19 pandemic.

Methods

This is a secondary analysis of an ongoing study in self-care. A convenience sample of patient and caregiver dyads was recruited in community and outpatient in Italy.

To assess measurement of invariance of Mutuality Scale between patients and caregivers, we used Mutuality Scale and a socio-demographic questionnaire to assess sample characteristics. We assessed configural invariance, metric invariance, scalar invariance, and strict invariance. We used comparative fit index and root mean square error of approximation.

To describe dyadic care types and their associated factors in MCCs, the Dyadic Symptom Management Type Scale was used to categorize dyads by type. Self-care, self-efficacy, comorbidities and cognitive impairment were measured in patients, whereas caregiver contributions to patient self-care, self-efficacy, caregiver burden and hours of caregiving were measured in caregivers. Sociodemographic characteristics, perceived social support, and mutuality were measured in both patients and caregivers. Univariate and multivariate analyses were performed.

To explore self-care and the caregivers' contribution to self-care behaviors during COVID-19 pandemic, individual semi-structured interviews were used to collect data from patients with MCCs and caregivers selected from our dataset. Data analysis was performed through deductive thematic analysis. The middle-range theory of self-care of chronic illness, which entails the three dimensions of self-care maintenance, monitoring and management, was used as a theoretical framework to guide data collection and analysis. **Results**



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Regarding Mutuality Scale, cross informant validity of the scale was confirmed; full configural, metric, scalar and strict invariance were reached. In MCCs context, the most frequent dyadic care type was the collaborativeoriented. In the patient-oriented type, patients scored higher on self-care compared with caregivers; in the caregiver-oriented and collaborative types, caregivers scored higher than patients supporting the typology. The patient-oriented type was associated with younger, healthier male patients with better cognitive status, who scored higher for mutuality and whose caregivers scored lower for burden. The caregiver-oriented type was associated with older, less educated patients, with caregivers experiencing higher burden and unemployment. The collaborative type was associated with sicker patients, with the caregiver more probably to be female and employed, with higher perceived social support, mutuality, and burden. The incongruent dyadic care type was associated with lower caregiver mutuality. Finally, during the pandemic, some patients reported remaining unchanged in their self-care maintenance, monitoring and management behaviors, others intensified their behaviors, and others decreased them. Caregivers played an important role in protecting patients from the risk of contagion COVID-19 and in ensuring patients' self-care of chronic diseases through direct and indirect interventions.

Conclusions

In this thesis it was proved that the mutuality scale has high levels of measurement invariance (MI), it was demonstrated the validity and applicability of a dyadic care typology categorization in MCCs dyads, and it was proved that the COVID-19 pandemic modified self-care behaviors in MCCs patient-caregiver dyads.