CHAPTER 9

Impact paragraph
Life expectancy has risen considerably in the last few decades. This is due to developments in the fields of clinical medicine and public health such as invention of new medical technologies and treatments, as well as enhancement of living conditions due to societal and economic progress. Living longer does not always imply living in good health and many people have multiple chronic conditions throughout their older age; moreover, there are increasingly young individuals with multiple diseases.

Co-existence of two or more chronic conditions within an individual where one is not by definition more important than the other is usually defined as multimorbidity. The concept is often confused with the term comorbidity, which signifies an occurrence of other illnesses(s) in addition to an already existing index disease; for example cardio-vascular conditions in addition to diabetes. This distinction between the two terms, which is also underlined in the thesis, is necessary as they may require different treatments and approaches. While comorbidity is believed to be better fit to the perspective of specialised care, multimorbidity requires often a more comprehensive, holistic and patient-centred approach strongly combining primary and secondary care, but also other health disciplines such as public health. Moreover, there is a strong need for someone to oversee and coordinate the care!

Consequences of living with multimorbidity are numerous and include increased risk of death, disability, high health care expenditures and poorer quality of life (QoL). The latter has become particularly relevant with the increasing value put to patient autonomy and with consideration of patient preferences in medical decision-making. Optimising QoL and other patient reported outcomes has been therefore set as one of the main goals in the field of multimorbidity research and clinical management.

This thesis focused on investigating how multimorbidity impacts QoL. It explains that QoL declines when number of diseases increases and that certain disease combinations such as geriatric and psychological impact QoL more than others. This relation between multimorbidity and QoL may be different for men and women although evidence is inconclusive, and it changes with socio-economic gradient implying higher vulnerability for more deprived groups. The thesis also unveiled the difference in the association between multimorbidity and QoL among European nations, in such that QoL declines less in countries with higher GDP and higher investments in health. Similarly, a stronger deterioration of QoL was noticed for countries in southern and eastern regions of Europe. This implies that it might be impossible to develop one universal strategy to improve QoL for all patients with multimorbidity, although some common factors were found to be important, independent of the geographic context.

Larger number of symptoms, feeling lonely, limitation in performing daily activities or intake of multiple medications accounted for a large portion of QoL deterioration, in addition to multiple diseases. This finding is relevant as it pinpoints that, for example reducing polypharmacy, where possible or providing social and practical support could significantly improve patient QoL. Polypharmacy for example, can be a result of insufficient communication between the specialists involved in treatment. Increasingly, validated tools for the evaluation of polypharmacy are available. Further implementation of these tools could support the QoL of patients with multimorbidity. Unsatisfactory communication between medical specialists originates largely from the current organisation of care which traditionally focuses on one illness or one body system at the time. Under circumstances where each health professional treats diseases within
its specialty with insufficient consideration for other ongoing treatments, multiplication of medications often occurs, frequently with adverse events. This flags the need for better interprofessional collaboration. Ensuring one would require for instance, designing structures for secure and efficient exchange of information across sectors and strengthening patient care coordination through general practitioners or e.g. multidisciplinary teams’ nurses.

Clinical guidelines are likewise built around one disease what is neither helpful for providing clinicians with sufficient information and support when choosing the therapy. Moreover, polypharmacy in this thesis was used to indicate burden of treatment, that is the load patients carry while managing care such as attending numerous medical appointments or complying with complex recommendations. Such care is fragmented and suboptimal for patients with multimorbidity.

Building more integrated and efficient care however, is not an easy task bearing in mind the variety of medical conditions that multimorbidity implies. One of the ways forward may be identifying common combinations of diseases. The thesis provides novel evidence by identifying distinctive disease patterns in men and women in the European Region. This may be a promising path to improve organisation of care although more research is warranted. Furthermore, one needs to be careful not to exclude the large populations that are not represented by the common combinations, or who have diseases additional to the common combinations.

Findings from this thesis can serve to inform policy discussions in further raising awareness on the growing prevalence of multimorbidity, particularly among younger individuals. Evidence generated here can support advocacy for better care organisation as it provides additional information which may be helpful in further guiding the process.

The findings are relevant for clinicians, as a constant reminder that in an encounter with a patient, they should see an individual with multimorbidity and avoid focusing on individual diseases only. Clinicians should be aware of the patient treatment load and their capacities to maintain care. Discussion on patient QoL should be put forward in doctor-patient relationship as even small adjustments, taking into account patient preferences, could bring significant results such as improved patient satisfaction and possibly better adherence to treatment. Also, through medical associations clinicians likewise should bring to the attention of policymakers their difficulties and needs in practice in the context of multimorbidity, as well as provide suggestions to facilitate decisions towards better health management.

The findings are relevant for patient associations and family members. To our knowledge there is no patient organisation for individuals with multimorbidity. Naturally, some of the patients will already be part of certain well-established disease specific associations. These may however, be able to respond to their needs only to a certain degree. Having general patient platforms and organisation for older people where relevant results could be communicated to the wider public could be beneficial. Being aware how far patient voice can go, such structures may be a strong advocate for patients with multimorbidity. Support, mental and/or logistic is crucial in the context of multiple illnesses. Loneliness and limitations in performing daily tasks came out as significant triggers of QoL decline in this thesis. Family members and friends play an essential role in ensuring easier life for patients with multimorbidity. Their commitment needs also to be recognised and assisted.
Findings in this thesis advocate for adding multimorbidity and QoL contents in medial curricula, which is not yet commonly the case. As multimorbidity has become the norm in clinical practice, it is essential to sensitize students early on these subjects. This should encourage students’ holistic approach to a patient, including developing natural attentiveness to patient’s preferences and reinforce interprofessional thinking and collaboration.

The work described in this thesis has been published in recognised international journals in the field and presented at well-known international scientific conferences. Findings have been as well discussed within academic and research institutes in Luxembourg, the Netherlands, Canada and France.

We are committed to further sharing main outputs of this thesis within the circles where they need to be heard, as well as continue working on creating more evidence for improving QoL and care for patients with multimorbidity.