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Challenges in managing multiple conditions: The patient experience of multimorbidity

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Comorbidity, multimorbidity, polypathology… a range of terms have been used clinically and in the research literature as variations of a core concept, the co-occurrence of multiple conditions in an individual (Valderas, Starfield, Sibbald, Salisbury, & Roland, 2009). A review of the literature almost 20 years ago which asked “Comorbidity or multimorbidity: What's in a name?” suggested that no generally accepted terms exist and that the definitions used are ambiguous (van den Akker, Buntinx, & Knottnerus, 1996). This remains true at least to an extent today, although in recent years the term multimorbidity has been recommended to describe the co-existence of two or more chronic conditions, where one is not necessarily more central than the others (Boyd & Fortin, 2010).

Despite differences in terminology and measurement, a number of overall findings from the multimorbidity literature are clear. Firstly, across studies conducted in different parts of the world, co-existing illness is becoming increasingly prevalent, particularly in older populations and lower socioeconomic groups. Accordingly, multimorbidity has been described as the most common chronic condition as a quarter of all patients, and more than half of patients with one chronic condition, actually have two or more (Barnett et al., 2012; Tinetti, Fried, & Boyd, 2012). Secondly, although the prevalence of multimorbidity does increase with age, it is not solely a phenomenon of old age, with the absolute number of people living with multimorbidity higher in those younger than 65 years of age (Barnett et al., 2012). Finally, multimorbidity is associated with a range of adverse outcomes for patients including increased mortality and healthcare costs, decreased functional status and reduced quality of life (Fortin et al., 2004; France et al., 2012).

But what does it really mean to live with multimorbidity? Take as an example a 78-year old woman with type 2 diabetes, osteoarthritis, chronic obstructive pulmonary disease, depression and a previous history of myocardial infarction (Hughes, McMurdo, & Guthrie, 2013). For this patient to adhere to treatment guidelines for each of her conditions, she would need to take a minimum of 11 medications daily, with the potential for 10 supplementary medications to be prescribed depending on disease progression and severity. She would be advised to undertake nine self-care activities every day and to make additional lifestyle changes as recommended. Each year she would be scheduled to attend up to six GP appointments, ten physical health appointments and to receive psychosocial support for depression. She would be required to navigate confusing and conflicting recommendations for different conditions and would be susceptible to the harmful effects of interactions between medications. Regardless of the exact terms used by the research community, this is the reality of living with multiple chronic conditions.

The above treatment regime, developed through the application of existing single condition UK National Institute of Health and Clinical Excellence (NICE) guidelines to a hypothetical patient with multimorbidity, highlights the failure of existing guidelines to cater for complex real life situations. Although multimorbidity is increasingly prevalent, a single condition focus in both research and clinical care remains and limits our ability to think about and care for the whole person. The development of clinical care guidelines and patient-centred interventions first requires an understanding of challenges associated with the management of multimorbidity from a patient perspective. The below quotes, taken from qualitative studies conducted with patients with multimorbidity, highlight a number of potential difficulties in the management of multiple conditions.

> *"Well you seem to concentrate on getting one thing better and don't think about the other things… I'd get in a terrible muddle if I thought about everything at the same time."*
>
> *(Mc Sharry, Bishop, Kendrick, & Moss-Morris, 2013)*

For all of us, the management of our health competes for attention with work commitments, social interactions, and the business of everyday life. In multimorbidity, these difficulties are exacerbated by increased treatment burden and reduced self-management capabilities, particularly in the case of highly symptomatic conditions. The struggle to appropriately allocate resources can be immense and result in the prioritisation of certain conditions to the neglect of others.

Focusing on one condition at a time can help patients to feel more in control of their health and reduce the sense of everyday management burden. Condition prioritisation is a dynamic process and changes in condition severity and symptomology, interactions with healthcare and life events can all impact on patients' on-going self-management decisions (Morris, Sanders, Kennedy, & Rogers, 2011). The prioritisation of conditions, and the use of time during consultations, can be an area of disagreement and tension between patients and their healthcare providers. For patients, current impact on life and everyday functioning may be of most importance. For clinicians, longer term outcomes and the reduction of future risk may be the preferred focus of the consultation.

> *"I'm on so many tablets I rattle."*
>
> *(Mc Sharry, Bishop, Moss-Morris, & Kendrick, 2013)*

Multi-medication issues are a common challenge described by patients with multimorbidity. Many chronic conditions require medications to both alleviate symptoms and to prevent future complications and as the number of conditions increases so does the number of prescribed medications. The imagery of rattling is a vivid representation of the experience of taking large numbers of tablets, and the burden associated with multiple medications is echoed across the qualitative research literature. For patients, taking medicine as prescribed acts as a constant reminder of the presence of conditions and can impact on daily routines. Greater numbers of prescribed medications increases the potential for the development of side-effects and for harmful interactions to occur between medications. Long-term multiple medication use can also be the source of unease, with the regular intake of tables being seen as both inconvenient and unnatural by some patients.

Multi-medication issues can lead to both unintentional and intentional non-adherence as previously described in the single condition literature (Horne, 2006). Non-intentional non-adherence occurs when a patient does not implement their medication regime as prescribed due to forgetfulness or poor comprehension of the drug regime. Multimorbidity can lead to uncertainty over the purpose and dosage instructions of each medication leading to an increased risk of not taking medications as prescribed. Intentional non-adherence describes patients' conscious decisions to not take medications as prescribed, and in multimorbidity can occur when patients decide to stop or reduce intake of particular medications in an attempt to limit overall medication burden.

> *"On an island of sickness, left to cope alone."*
>
> *(Williams, 2004)*

This quote, from a study exploring multimorbid patients' perceptions of quality of care, is a stark reminder of how healthcare can fail to meet the needs of the most vulnerable populations. Numerous editorials and articles in recent years have highlighted how the current fragmentation of care by illness type does not reflect the complexity of multimorbidity and may undermine physicians' attempts to treat patients who are in most need of care (e.g. Haggerty, 2012; Hughes et al., 2013). Limited integration across the healthcare system can result in patients seeing a range of different providers and juggling multiple appointments at inconvenient times. Time-limited consultations may be insufficient for the discussion of multiple concerns, leaving patients feeling uncertain, uncared for or isolated. Healthcare providers also struggle within the constraints of existing systems and cite multiple barriers to the provision of optimal care for patients with multimorbidity (Sinnott, Mc Hugh, Browne, & Bradley, 2013).

> *"Not everybody is alike. And not all diseases are alike."*
>
> *(Bayliss, Edwards, Steiner, & Main, 2008)*

This final quote highlights the difficulties inherent in developing interventions and clinical care guidelines for people with multiple conditions. Multimorbidity is a broad term, not a well-defined medical diagnosis, and covers a wide spectrum of experience from a patient effectively managing two conditions with ease to a patient struggling to cope with a number of highly symptomatic conditions. There is no such thing as a typical multimorbid patient and different disease combinations may result in very different types of experiences. Clusters of conditions with similar management strategies (e.g. concordant conditions such as hypertension, coronary heart disease, and diabetes) may be easier for both patients and healthcare professionals to manage than discordant conditions. The combination of physical and mental health conditions can be particularly challenging; a World Health Organisation study across 60 countries found chronic physical disease with depression to be associated with lower self-reported health than depression alone, physical chronic illness alone, or any combination of physical diseases without depression (Moussavi et al., 2007).

In addition, even patients with the same conditions and similar illness trajectories, who might be expected to face similar challenges, can have very different experiences. The challenges outlined in this article, while very salient to some patients, may not apply to others. There is no one size fits all solution to multimorbidity and continued work in understanding multiple conditions from a patient perspective is required to inform health care interactions and optimal self-management. The vast majority of chronic illness management happens outside of the healthcare system and patients are the true experts on the reality of living with multiple conditions. A consideration of the patient perspective, both in research and in healthcare interactions, is an important first step in addressing the challenges of multimorbidity.

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