

# Multimorbidity in Low and Middle-Income Countries “A Progressive Global Research Priority”

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**M**ultimorbidity is one of the rising global health challenges especially faced by the Lower and Middle-Income Countries (LMIC) including Pakistan.<sup>1</sup> Although multimorbidity is a complex term to describe, however the cut-off definition widely used in the literature is “Existing of two or more chronic diseases in a single individual”.<sup>2</sup> In most of the high-income countries, multimorbidity is considered as a norm in their primary health care system due to increase in their ageing population.<sup>3</sup> However, since life expectancy is continues to rise globally, as a result; multimorbidity is becoming a particular concern to deal with in the LMIC. Moreover, with low socioeconomic conditions the risk of developing multimorbidity is not only in the elderly population but in young adults too.<sup>4</sup>

It is evident that, LMICs are suffering from double-edged sword burden. At one hand, non-communicable diseases (NCDs) such as cancer, diabetes, hypertension, heart and renal disease are increasing, causing high morbidity, disability and mortality rates, at the same time they have little control on communicable diseases (CDs). In addition to existing CDs, new infections such as dengue, bird flu, chikungunya and so on, the nutritional, maternal and child health care problems are augmenting the burden on health care systems.<sup>4</sup>

The countries with weaker health systems have higher burden; but limited data is available regarding commonly occurring combinations of diseases. Although, no specific definition exists for a combination of diseases to be included in multimorbidity, patients can suffer from a wide range of combination of diseases. Some combinations

have almost similar underlying risk factors and their line of treatment follows the same track. On other hand, some combinations appear completely unrelated to each other.<sup>3</sup> Importantly, the combination of diseases considered as multimorbidity vary in different countries depending on their geographical and epidemiological status which requires different approaches for its management.<sup>5</sup>

In most of the LMICs including Pakistan, diseases are managed in isolation, as there is a very weak concept of developing and implementing an integrated management in health care delivery system, making this condition more complex. Indeed, it is obvious that trends of multimorbidity as compared to morbidity in isolation are rising, it is resulting in higher economic burden on already poor countries.<sup>6,7</sup> Multimorbidity is directly proportional to the increase in health expenditure of countries,<sup>8,9</sup> low quality of life and high mortality rates.<sup>10</sup> Epidemiological and demographic shift of populations are some of the reasons contributing to the growing prevalence of Multimorbidity.<sup>5</sup> While, baseline prevalence in many LMICs is still unknown, literature provides a wide range of multimorbidity prevalence in various countries from 4.5%,<sup>11</sup> 13% to 39.5%<sup>12-14</sup> to 83%<sup>15</sup> and so on depending upon countries’ socioeconomic conditions, living standards, health policies and inequalities in development and implementation of health care systems and the lack of research culture.

Accepting the fact that, multimorbidity is increasing global health challenge to deal with, nevertheless there is a wide gap in the underlying information about it. The lack of data regarding number of people, type of people, type of conditions and underlying risk factors commonly causing multimorbidity is calling for research to provide evidence-based information in the area. Moreover, even in developed countries the treatment strategies applied in healthcare delivery system are to treat the patients in isolation without respecting patient’s perspectives regarding treatment, having

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no guidelines to manage multimorbidity as a special entity.<sup>16</sup>

To address all the given facts, there is a dire need to understand gaps in defining, prevention and management of multimorbidity, the uniform response of health systems worldwide and the evidence based clinical trials of different medications. Hence, quality research must be a priority to develop cost effective patient centered evidence-based health policies to deal with the menace of multimorbidity.

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