INTEGRATIVE MEDICINE: COMORBIDITY AND MULTIMORBIDITY BRING SEPARATED BRANCHES OF MEDICINE CLOSER TO EACH OTHER

Miro Jakovljević¹ & Milenko Bevanda²

¹University of Zagreb, School of Medicine, Zagreb, Croatia ²University of Mostar, School of Medicine, Mostar, Bosnia and Herzegovina

The simultaneous presence of multiple diseases and illnesses in the form of multi-comorbidity and comorbidity is more a rule than an exception, particularly in the elderly (see Jakovljevic & Ostojic 2012). According to some authors 60-80% of adults over 65 years suffer from two or more diseases. Comorbidity, multi-morbidity and multisystem diseases represent huge problems and challenges to contemporary medicine in theory and practice. Medical specialization and specialist fragmentation, disease-centered approach, clinical guidelines developed for single diseases and fragmentary approach reducing complex disease problems to their biological aspects demand holistic approaches that offer a promising framework for increasing effectiveness and efficiency in contemporary medicine. Trans-disciplinary integrative medicine addresses the challenges, problems and complications posed by multi-morbidity and comorbidity in a new way. It also offers all health scientists and practitioners a common language that may bridge epistemic gaps and facilitates the exchange of insights and paradigms across academic borders.

EPISTEMOLOGICAL CHALLENGE: UNDERSTANDING MULTISYSTEM DISEASES, COMORBIDITY AND MULTI-MORBIDITY

Few topics are as familiar yet not as well understood as integrative medicine, multisystem diseases, multimorbidity and comorbidity - largely due to confusing and inconsistent definitions. Multisystem diseases, multi-morbidity and comorbidity are the rock on which many attractive theories are wrecked and upon which better ones can be built and these issues are of the paramount epistemological importance to contemporary medicine (see Jakovljević & Crnčević 2012). Surprisingly, comorbidity and multi-morbidity are commonly used in literature and research as interchangeable terms. The term comorbidity was introduced by Feinstein (1970) to denote presence of any additional condition co-occurring with an index or primary disease. Some authors denote comorbidity as the simultaneous presence of two or more medical

conditions more frequently that it would be expected to happen by chance and which are associated with each other through pathogenetic mechanisms in contrast to multi-morbidity when medical conditions appear randomly not having any pathogenetic connection (Jakovljevic & Ostojic 2013). Multisystem diseases or systemic disorders are medical conditions affecting multiple mind-body systems and which are treated by different medical specialists. According to some authors more than 45% of all illnesses are systemic diseases or have systemic implications. As simultaneous existence or sequential appearance of two or more diseases or disorders are multiinterpretable phenomena, there are several options and perspectives how to evaluate, explain and describe them:

- etiological vs. non-etiological relationship
- primary vs. secondary disease
- concurrent or simultaneous vs. sequential or successive diseases
- causal vs. random relationship
- undirectional vs. biderctional relationship
- homotypic vs. heterotypic entities
- concordant vs. discordant entities
- syntropic or direct vs. dystrophic or inverse entities (see Jakovljevic et al. 2021).

Our journal stresses importance of conceptual clarity, whole person assessment, collaborative health-care and multimodal treatment interventions.

THE INTEGRATIVE MEDICINE FRAMEWORK

With advent of modern biomedicine or allopathic medicine, the older regional medical approaches were categorized as complementary and alternative medicine (CAM) and recently the term CAM has been replaced with "integrative medicine" (Mukhopadhyay et al.2022). In addition to the CAM, integrative medicine has been known by several other names such as holistic medicine, traditional medicine, mind-body medicine, functional medicine (see also Mukhopadhyay et al. 2022). Integrative systems network medicine is a holistic, comprehensive, complementary and individualized approach to

healthcare that combines official or conventional medicine with nonofficial or nonconventional medicine considering the whole person dimensions: somatic, psychic, social and spiritual (Jakovljevic & Bevanda 2024). The concept involves several essential elements:

- Comprehensive and complementary interdisciplinary approach enabling information and knowledge synergism in theory and practice
- Person (body/brain-mind-spirit) centered care, not only to decrease illness, but also to increase mental, social and spiritual wellness, resilience and support salutogenesis
- Emphatization-based clinical relationship and therapeutic partnership
- Promoting human rights at individual, family, community and global level
- Holistic healthcare continuity understanding
- Public and global health promotion

This concept is attractive as it offers all health scientists and practitioners a common language that may bridge epistemic gaps and facilitates the exchange of insights and paradigms across academic borders. It also offers more effective promotion of health, wellness and well-being, as well as more effective and efficient treatment of comorbidity, and multi-system diseases. Integrative medicine promotes the empathic therapeutic communications and relationship between healthcare workers and patients aiming to establish empathic partnership between them involving also families of the patients. The goal is not only to decrease and eliminate illness, but also to increase wellness and promote integrative health.

Comorbidity and multi-morbidity are indifferent to professional specialties and ever growing subspecialization in medicine so integrative multi-system medicine bringing separated branches of medicine close to each other is more and more important. Integrative medicine as a conceptual scientific frame and practical approach attempts to bring coherence to theory and practice of health care.

THE HEALTH CARE SYSTEMS

The Corona Virus Disease 2019 (COVID-19) as a unique global disaster has stressed the extreme importance of the four issues for health care systems: multi-system diseases, comorbidity, syndemic and infodemic (see Jakovljevic et al. 2021). A syndemic (a blend of "synergy" and "epidemics") or synergistic epidemic refers to "the aggregation of two or more concurrent or sequential epidemics or disease clusters in a population with biological interactions, which exacerbate the prognosis and burden of disease (https://en.wikipedia.org). Shifting the paradigm from vertical and mono-morbid interventions to

comorbidity, multi-morbidity and multi-system disease approaches increases effectiveness and efficiency of health-care systems (Jakovljevic et al. 2021). Each patient is a unique individual in health and diseases who should get highly specific and personally tailored treatment for her or his multisystem or systematic diseases, multi-morbidity or comorbidity (see Jakovljevic et al. 2010). Integrative multi-system medicine also supports global health care systems meeting global challenges in the context of sustainable development and social responsibility of healthcare entities (Czerska &Skweres-Kuchta 2021).

CONCLUSION

Integrative medicine represents a promising framework for fixing the complex challenges posed by the raising prevalence of multisystem diseases, comorbidities and multi-morbidities. There is a need to promote collaboration between different disciplines offering health care approaches optimally personcentered and created to a given patient's needs, health problems, number of diseases, and lifestyle.

REFERENCES

- 1. Czerska I & Skweres-Kuchta M: Integrative medicine as a new treatment model and the future of health care systems in the world in the context of rare diseases. European Research Studies Journal 2021; 24 (Issue 2B):800-809
- 2. Feinstein AR: The pre-therapeutic classification of comorbidity in chronic disease. Journal of Chronic Disease 1970; 23:455-468
- 3. Jakovljević M., Reiner Ž, Miličić D & Crnčević Ž: Comorbidity, multimorbidity and personalized psychosomatic medicine: Epigenetics rolling on the horizon. Psychiatria Danubina 2010; 22(2), 184-189.
- 4. Jakovljevic M & Crncevic Z: Comorbidity as an epistemological challenge to psychiatry. Dialogues in Philosophy, Mental and Neuro Sciences 2012; 5:1-15.
- 5. Jakovljević M & Ostojić L Comorbidity and multimorbidity in medicine today: Challenges and opportunities for bringing separated branches of medicine closer to each other. Psychiatria Danubina 2013; 25 Suppl 1, 18-28 (Medicina Academica Mostariensia 2013; 1:16-28)
- 6. Jakovljevic M, Samarzija M, Milicic D, Reiner Z, Sartorius N. Comorbidities and syndemics in the COVID-19 agre: Challenges and opportunities for bringing separated branches of medicine closer to each other. Psychiatria Danubina 2021; 33 (suppl 4): 402-13.

- 7. Jakovljevic M & Bevanda M: Integrative medicine: Between wishful thinking and reality. Medicina Academiva Integrativa 2024; 1:4-10.
- 8. Mukhopadhyay S, Holla B, Bhargav H, Ramakrishna KK, Chikkanna U, Varambally S & Gangadhar BN: Integrative medicine as

"medicine": A perspective. Integrative medicine 2022, 1.1 http://online.liebertpub.com/doi/10.1089/imr.2022 .0054

Correspondence: Miro Jakovljević, Professor Emeritus School of Medicine, University of Zagreb Šalata 3, 10000 Zagreb, Croatia jakovljevic.miro@yahoo.com