

Guest Editorial

Applying a biopsychosocial perspective in occupational health: Easier said than done!

Ijmert Kant* and Ludovic G.P.M. van Amelsvoort

Department of Epidemiology, CAPHRI School for Public Health and Primary Care, Faculty of Health, Medicine and Life Sciences, Maastricht University, Maastricht, The Netherlands

Due to improved diagnostics and treatment, the prognosis of many diseases has improved substantially over the last decades. As a result of this, many diseases which were deadly in the past can now be regarded as chronic diseases. Also the demographic changes (greying) and the increased life expectancy contribute to a higher number of chronic ill patients in many countries. Due to these socio-demographic developments in the general as well as the working population the focus of the health system needs to shift from cure-oriented towards care-oriented, in which optimizing social- and labor force participation is the main goal.

Much of what underpins illness attributable (social) participation can be explained by using the biopsychosocial model of health. This was proposed by Engel [1] in 1977 as an attempt to develop a more holistic understanding of the various factors and their complex interplay that affect an individual's response to injury or illness. In the biopsychosocial model participation is determined by many factors including ill-health, personal factors (such as coping) and environmental factors (such as work environment) [2].

Nevertheless, many health professionals and most patients assume that the illness or ill health is due to some pathological abnormality and that this abnormality is the cause of the symptoms experienced and

thus affects functioning and participation. In line with this reasoning, it is assumed that with appropriate treatment the individual will get better. As such health professionals and patient implicitly embrace the medical model of ill health. In occupational medicine however, it is observed that many workers with a discrete disorders, like diabetes mellitus and rheumatoid arthritis, are able to participate in work and function in society. In contrast it is observed that nonspecific conditions, such as “stress”, “common low back pain” and “CANS” (complaints of arm, neck and/or shoulders), for which no definite diagnosis can be reached and no medical cause can be found, are associated with high rates of sickness absence and work disability. If sickness absence is involved, the employee often believes that he or she will be able to return to work once the pain or complaints are relieved or the condition is cured. In contrast to the medical model, the biopsychosocial model recognizes that the level of pain and disability are the result of complex interactions between the persons' physical, psychological, social and environmental factors. Moreover, while there may well be some underlying illness, other factors will determine how the individual will cope with his or her complaints. Thus in the context of occupational medicine, it is often observed that individuals with exactly the same injury or pathology will have widely differing responses to their symptoms and differ in whether they require sickness absence to cope.

Where the (bio)medical model has a profound value regarding prevention, cure and treatment of diseases, the biopsychological approach can make

*Address for correspondence: Ijmert Kant, Department of Epidemiology, School for Public Health and Primary Care. Maastricht University, PO Box 616, 6200 MD, Maastricht, The Netherlands. Tel.: +31 43 3882374; Fax: +31 43 3884128; E-mail: ij.kant@maastrichtuniversity.nl.

a significant contribution to the understanding, prevention and overcoming of participation problems. And therefore, this model should be at the core of occupational medicine, among others, to address sickness absence and work disability [3]. Although the importance of this approach has been widely acknowledged by occupational health professionals, the biomedical model is still often dominating the medical education and day to day medical practice within occupational health [4].

Two important challenges for occupational health can be identified, which could highly benefit from a broad utilization of the biopsychosocial model of health:

The first challenge is to make major advancements in socio-medical counseling. For both reintegration and return to work as well as counseling of employees with a chronic illness increased attention to functioning is of paramount importance given the anticipated rise of workers with a chronic disease and an aging work force. Although occupational health professionals often indicate that socio-medical counseling is based on biopsychological approach, in practice there is much room for improvement. So far, in training and day to day occupational health practice, a continuing focus on the biomedical model can be observed. This is often related with more practical barriers, such as the billing system as well as the disability assessment regulations, which are both strictly based on biomedical classification (ICD) such as the Dutch CAS codes [5]. Furthermore, insufficiencies in training as well as the inability to oppose the strong demands from workers as well as employers, which still have a strong faith in the medical model of ill health only.

A second challenge relates to preventive policies aimed at fostering and promoting health and, even more importantly, increase participation throughout the working population (especially among an aging worker population) [6]. This asks for a shift from post diagnosis tertiary care towards maintenance and promotion of labor force participation across the life span [7].

However, successfully addressing these challenges is easier said than done! This special section concerns information on the potential barriers but also approaches towards successfully tackling these challenges. The special section starts with an introductory paper with a focus on a preventive strategy aimed at long term sickness absence, which is introduced and placed in the bio-psycho-social approach in the article by van Amelsvoort et al. [8]. The special section

continues with a paper on the identification of barriers for implementation of this strategy in practice, by de Brouwer et al. [9]. The third paper, by de Brouwer et al. [10] addresses the need for education in biopsychosocial models and offers a blueprint of a curriculum in which the framework of the International Classification of Functioning, Disability and Health (ICF) [11] was used as its backbone, as a way to cover this model in education and training. The fourth paper, by Heerkens et al. [12] provides an elaboration of the contextual factors of the ICF for Occupational Health Care. This paper is aimed to support the use of the ICF for health and labor participation.

We hope that these contributions stimulate and facilitate the use and implementation of bio-psycho-social models in occupational health. However, we are aware that this special section is only one of many steps in the process of their implementation and use. That means that this special section should be regarded as an invitation, by the authors, for all researchers, occupational health professionals and policy makers to exchange ideas and approaches and discuss, improve and contribute to advance the use of these models in occupational health and beyond. This exchange of ideas may lead to further steps and actions towards the improvement of health and labor force participation.

References

- [1] Engel GL. The need for a new medical model: A challenge for biomedicine. *Science*. 1977;196(4286):129-36.
- [2] Martins AC. Using the International Classification of Functioning, Disability and Health (ICF) to address facilitators and barriers to participation at work. *Work*. 2015;50(4):585-93.
- [3] Escorpizo R, Finger M, Reneman MF. Integration and Application of the International Classification of Functioning, Disability and Health (ICF) in Return to Work. In: Schultz IZ, Gatchel RJ, editors. *Handbook of Return to Work From research to Practice*: Springer US; 2016, pp. 99-118.
- [4] van Amelsvoort LG, Jansen NW, Kant I. Addressing long-term sickness absence: Moving beyond disease, illness and work-related factors for effective prevention. *Scand J Work Environ Health*. 2017;43(1):1-4.
- [5] Kaplan M, Schellart T. De relatie tussen mate van arbeidsongeschiktheid, re-integratie en gezondheid. *TBV-Tijdschrift voor Bedrijfs- en Verzekeringsgeneeskunde*. 2014;22(2):58-64.
- [6] Macdonald EB, Sanati KA. Occupational health services now and in the future: The need for a paradigm shift. *J Occup Environ Med*. 2010;52(12):1273-7.
- [7] Stephenson R, Richardson B. Building an interprofessional curriculum framework for health: A paradigm for

- health function. *Adv Health Sci Educ Theory Pract.* 2008;13(4):547-57.
- [8] van Amelsvoort LG, De Brouwer CP, Heerkens YF, Widdershoven GA, Kant IJ. Fostering functioning of workers: A new challenge for prevention in occupational health. *Work* 2017;57(2):153-6.
- [9] De Brouwer CP, Verdonk P, van Amelsvoort LG, Jansen NW, Kant IJ, Widdershoven GA. Experiences of occupational physicians with the implementation of indicated prevention for long term sickness absence. *Work* 2017;57(2):157-72.
- [10] De Brouwer CP, van Amelsvoort LG, Heerkens YF, Widdershoven GA, Kant IJ. Implementing the ICF in Occupational Health; building a curriculum as an exemplary case. *Work* 2017;57(2):173-86.
- [11] WHO. International Classification of Functioning, Disability and Health (ICF). Geneva, Switzerland: World Health Organization; 2001.
- [12] Heerkens YF, de Brouwer CP, Engels JA, van der Gulden JW, Kant IJ. Elaboration of the contextual factors of the ICF for Occupational Health Care. *Work* 2017;57(2):187-204.