

Medical and psychiatric illness: different but concurrent!

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A recent “Medical News and Perspectives” article began with a very interesting, but challenging, statement: “Syrian hamsters have it easy. The most stress they may ever endure is being moved from cage to cage so that researchers can study what happens in their brains as they tangle for territorial rights [1].” The article went on to describe some features of college life that can lead to depression in students.

The reality, indeed, is that we are not Syrian hamsters, and many factors influence our mental health, whether for good or bad. This commentary explores the interaction between mental and physical illness.

Most intriguing is the association between depression and physical illness and the realization that depression is a frequent concomitant of somatic disorders, especially chronic illnesses. Furthermore, data from observational studies strongly suggest that the relationship between depression and somatic disease may be bidirectional, that is, that depression may be either the cause or the result of a somatic disease. This bidirectionality is quite well illustrated in the case of coronary heart disease (CHD). Indeed, a number of studies have shown that depression—severe or mild, current or past—appears to be a significant risk factor for development of CHD [2–4] and may even be related to higher morbidity and mortality in patients who have CHD [5].

A bidirectional relationship also exists between obesity and depression [6,7]. The complexity of this relationship is illustrated by the observation that treating just the depression itself may actually lead to weight reduction, and vice versa, inducing weight loss by a surgical approach greatly improves the depression that often accompanies morbid obesity [8].

Chronic obstructive pulmonary disease (COPD) provides yet another example of the complex relationship between physical and mental disorders. Although it is well recognized that individual susceptibility and other environmental factors are risk factors for COPD [9], overwhelming

evidence points to long-term cigarette smoking as the cause of most cases of COPD. Research has found an association of COPD with depression and/or anxiety in some cases [10,11]. Although the strength of this relationship varies from study to study, there appears to be consistent agreement that depression, when present, is associated with poorer functioning in COPD patients [12]. Treatment of COPD is complex and only palliative, but smoking cessation is the cornerstone of treatment for most patients. However, smoking cessation per se appears to trigger depression in some people [13]. Thus, in COPD patients, depression may be not only a consequence of the medical illness but also a consequence of the behavioral change that is essential for its treatment.

Several considerations merit emphasis. Data from all over the world clearly show an increase of the incidence and prevalence of chronic diseases—cardiovascular disease, chronic respiratory disease, arthritis, obesity, diabetes, and some neurological disorders, among many others. The impact of these diseases on mortality is considerable at both individual and societal levels. However, physical illness is not the only concern! The World Health Organization predicts that, by 2020, depression itself will be the second most common cause of disability-adjusted life years lost [14]. Undoubtedly, this situation will have an enormous impact on the fabric of all societies, both developed and developing. As has been pointed out, mood disorders per se have a significant social and economic burden [15].

Are we prepared to deal with a situation that can, at best, only worsen if it is not addressed today?

Current knowledge has demonstrated the association between psychiatric and somatic disorders, but our understanding of the genesis of this association and its mechanism is still very rudimentary. Quite certainly, the research effort must be increased. This research must span from fundamental pursuits capitalizing on available approaches of genomics and proteomics to clinical investigations, including clinical trials testing therapeutic options.

However, much more than research is needed to reach a progressive solution to this ever-increasing public health

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problem. Indeed, no matter how successful research outcomes may be, they will not benefit patients unless they are applied in practice. Unfortunately, there is a “divide” of sorts between experts in mental disorders and those in somatic illness. As long as these 2 disciplines neglect to work more closely at the research and practice level, the chronic disease patients having depression will not receive the full benefit of what is known.

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