ABSTRACT

Background: Poor self-rated health (SRH) and morbidity is invariably more frequent among individuals with low socio-economic status (SES), compared to individuals with high SES. In parallel, women report poorer SRH compared to men, but men die earlier. While inequalities in health are well known, the causes are still not fully understood. One possible explanation is the effects of psychosocial factors and biological stress mechanisms.

Aim: To explore psychosocial factors in adult life and their relations to gender, biological markers of stress and SRH.

Material and methods: A total of 4086 randomly selected men and women aged 30–64 participated in a cross-sectional Public Health Survey of the County of Östergötland 1999. A sub-sample of 231 men and 270 women aged 30–64 years participated in “Stress and Health”, with complementary measures of psychosocial factors and analyses of cortisol in saliva. A sub-sample of 34 women and 25 men participated in the “Psychoneuroimmunology” (PNI) study, which analysed the relations between psychosocial factors; and interleukin-6 (IL-6) levels. The psychosocial factors included: demand/control and social support at work, social integration and emotional support, coping, self-esteem, cynicism, hostile affect, depression, vital exhaustion and hopelessness. Partial correlations, linear, and logistic regression models were used to test associations between psychosocial factors, and gender, socio-economic status (SES), cortisol, IL-6 and SRH.

Results: In general, women reported a more unfavourable psychosocial situation, e.g. lower levels of decision latitude at work, coping ability, and self-esteem, as well as higher levels of job strain, depression, and vital exhaustion, while men reported a greater degree of cynicism. Observed gender differences were still significant after control for effect of SES (in terms of education). However women, who also had low SES, reported the lowest levels of social integration, decision latitude at work, coping ability and highest levels of hopelessness.

Men and women with high scale scores on psychosocial resources, i.e. emotional support and coping ability, but also those with high levels of general health and quality of life, had larger diurnal deviations of cortisol levels in saliva, while high levels of psychosocial risk factors, e.g. cynicism, depression and vital exhaustion were related to a flatter diurnal rhythm of cortisol. Women with low decision latitude and low social support at work or low self-esteem had a higher risk for an unfavourable (flat) diurnal rhythm of cortisol compared to men. IL-6 levels in serum and saliva were negatively related to scale scores of psychological resources (coping and self-esteem) and positively related to psychological risk factors (cynicism, hostile affect, hopelessness, depression and vital exhaustion), i.e. the opposite pattern compared to cortisol.

For both men and women, measures of psychosocial resources were associated with good SRH, while psychological risk factors were associated with poor SRH, and these associations also remained after control for present disease. A significant difference was found between women and men concerning the relationship between social integration and SRH, i.e. high scale scores of social integration were more strongly associated with a lower risk for poor SRH for women than for men.

Conclusions: In these studies, women reported more unfavourable psychosocial status and the observed gender differences were not explained by SES. Significant relations were seen between several psychosocial factors and the biological stress markers: measures of psychological resources (e.g. coping) related to a steep diurnal rhythm of cortisol and low
levels of IL-6; the opposite pattern was seen with psychological risk factors (e.g. depression). Furthermore, for both women and men availability of psychosocial resources was associated with good SRH, while psychological risk factors were associated with poor SRH. However, the associations between psychosocial factors, biological stress markers and SRH were not always the same for women and men. The results suggest a psychosocial “profile” that is relevant for resilience to stress, but also point to the importance of a more vigorous examination of the differences between men and women in future research.