Coronary heart disease from a psychosocial perspective
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Research in the field of socioeconomic inequalities in coronary heart disease (CHD) has significantly increased during recent decades. Socioeconomic and ethnic inequalities in coronary heart disease have been shown in the occurrence of CHD risk factors, as well as in the CHD prognosis and mortality. Also the importance of psychosocial factors in the aetiology and prognosis of CHD has already been well established. However, socioeconomic (SES) and ethnic inequalities in quality of life and psychosocial factors among patients with diagnosed CHD has been less often studied. If such inequalities in quality of life exist, it would be highly important to take socioeconomic and ethnic factors into account also when targeting accordingly adapted intervention strategies aimed at enhancing the quality of life of patients.

The most common way of understanding the pathway mechanisms of CHD is that SES and psychological factors influence coronary heart disease as independent factors. However, the focus of this thesis is on an indirect pathway mechanism—i.e., how SES influences CHD via psychosocial mechanism (higher occurrence of psychological risk factors in low SES settings consequently influencing CHD). The relationship between SES, ethnicity, psychosocial factors and CHD is a complex one and includes several pathways and a number of mediating factors: lifestyle, access to health care, social environment, psychosocial factors and stress situations. Recognizing the complexity of the proposed associations, we limited our focus within this thesis to one element of these relationships, thus the aim of the thesis is to explore the association between socioeconomic position/ethnicity and psychosocial factors/quality of life in CHD.

At the end of the Chapter 1 four research questions are formulated. They concerned the available evidence about socioeconomic gradient in the occurrence of psychosocial factors among CHD patients (Chapter 3), SES inequalities in psychosocial factors among CHD patients (Chapter 4 and 5), on ethnic inequalities in psychosocial factors and quality of life among CHD patients (Chapter 6), and psychosocial predictors of change in cardiac health related quality of life (Chapter 7).

In Chapter 2 participants in the study and the measures used within the thesis are described. A personal interview was performed with 399 patients referred for coronary angiography (CAG) between 2004 and 2007. Data collection consisted of three waves: cross sectional (time point T0), and longitudinal (point T1-3 to 6 months after the CAG, and point T2-12 to 24 months after the CAG). The response rate was higher than 90% in the first wave and more than 60% in the longitudinal waves (T1 and T2). One
third of the participants were women, and 9.5% were Roma. The central dependent variables were the indicators of psychological well-being, vital exhaustion and health-related quality of life, while independent variables were socioeconomic status (income, education), ethnicity (Roma vs. non-Roma) and medical characteristics (indicating the severity of disease).

Chapter 3 consists of a review of the studies on socioeconomic differences in CHD risk factors showing that socioeconomic status (education, occupation, income) was adversely associated with psychosocial factors that contribute to CHD. With regard to hostility and depression, the socioeconomic gradient was significant in all the reviewed studies. Available studies also showed a similar SE gradient in other factors: social support, perception of health and lack of optimism. Results related to anger and perceived stress were less consistent.

Socioeconomic status (SES) was found to be negatively associated with psychological outcomes and perceived quality of life among CHD patients in Chapters 4 and 5. Participants with a low income or education were more likely to have a poor psychological well-being, poor perceived mental health status and a low perceived quality of life compared to participants with high income or education. Patients with low SES were also more likely to report higher vital exhaustion, but these SES differences were significantly more salient among men than among women. Associations between SES and psychological factors remained statistically significant after controlling for the effect of medical variables.

Chapter 5 deals with the ethnic inequalities found among Roma and non/Roma CHD patients. In psychological well-being (anxiety, depression), vital exhaustion and health-related quality of life Roma patients scored worse compared to non-Roma. With regard to personality characteristics, ethnicity played a less significant role. We also found that some of these differences could be explained by the socioeconomic status of the Roma participants.

In Chapter 6 it is shown that psychological well-being and vital exhaustion were significant predictors of positive change in health-related quality of life (HRQL) among CHD patients. The change in the physical HRQL was predicted by baseline psychological well-being and baseline HRQL. The change in the mental HRQL was predicted by (baseline) psychological well-being, vital exhaustion and baseline HRQL. However, these factors were significant only among patients who improved in health-related quality of life, and not among those who remained stable or declined in their HRQL. Socioeconomic status and personality traits (Type D, hostility) were not identified as significant predictors of change.

In the last chapter, overall results are discussed and implications for future research and practice are indicated. The results of the present thesis provide support the theoretical model proposed in the introduction—strong socioeconomic and ethnic inequalities were found in psychosocial
factors which are significantly contributing to worse prognosis and lower quality of life among CHD patients. Our findings also provide more insight into the predictors of health-related quality of life: we found that socioeconomic position was associated with quality of life on a cross-sectional level, but longitudinally psychological variables (depression, vital exhaustion) were more significant predictors of the patient’s quality of life than SES.

One of the merits of the present study is its focus on a less explored field of the research: SES inequalities in psychosocial factors and quality of life in CHD. Data on these inequalities are lacking particularly in the countries of Central and Eastern Europe. The rather high response rate in a sample representative for a region and a difficult to reach group such as the Roma is another positive aspect. Longitudinal data analysis (in Chapter 7) and the matching of the Roma and non-Roma participants by socioeconomic status (in Chapter 6) are methodological strengths as well. Some of the limitations include the fact that our sample comes only from a population of CHD patients indicated for coronary angiography, thus results cannot be generalized to the whole population of CHD patients. The relatively low number of participants in the group of the Roma and in high SES women group, as well as the quite broad definition of psychosocial characteristics in the study, are possible limitations as well.

Future research studies should also focus on the association with other important factors in the SES-CHD relationship, which appear to be, for instance, coping mechanisms or health risky behaviour. A more comprehensive clarification of the associations between the key factors like SES, psychosocial factors and CHD would be also useful, based on longitudinal data. Moreover, not only well-known CHD risk factors such as depression should be explored, but also some lesser known (Type D, vital exhaustion) and their role in relationship between CHD and SES.

The present study also has important implications for care: it is needed to take socioeconomic position into account not only when planning the prevention strategies, but also when designing suitably adapted interventions focusing on improving of quality of life among coronary patients. These intervention strategies should especially pay attention to the higher incidence of psychological risk factors (depression, exhaustion) among patients with lower SES. Also, the adverse HRQL, psychological well being and vital exhaustion found among Roma patients may warrant additional care. Such care should target their low SES, but also other factors related to their ethnic background, such as culture and living conditions.

We hope that this thesis will contribute to emphasizing the importance of an integrative approach to coronary heart disease, including both traditional biomedical risk factors, as well as the psychosocial factors which contribute to coronary heart disease.
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