

**A MICRO-LEVEL MODEL OF EMPLOYMENT
RELATIONS AND HEALTH INEQUALITIES**

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Theoretical models are a way of visualizing, in context, the many factors that contribute to inequalities in health. This article presents a model showing the micro-level pathways relating employment and working conditions to health inequalities. A first important (indirect) pathway runs through the unequal distribution of harmful working conditions. Both employment and working conditions tend to be unequally distributed along the same social axes: social class, gender, ethnicity/race, immigration/migration status, territory, and so forth. Underlying mechanisms are exploitation, domination, and discrimination. Material deprivation and economic inequalities constitute a second direct pathway linking (nonstandard) employment conditions to health inequalities. In a third pathway, employment conditions may have an important effect on health inequalities via several psychosocial, behavioral, and physiopathological pathways. Although these several pathways are separated for analytical purposes, they are largely intertwined and, ideally, should be studied in an integrated way. The theoretical model presented in this article serves three main purposes: providing analytical clarity for organizing scientific data, encouraging further observation and causal testing, and identifying policy entry points.

An important tool for understanding the causal links and pathways between employment and working conditions and health inequalities is the development of theoretical models. Put simply, such models are a way of visualizing, in context, the many factors that contribute to inequalities in health. In another article in this

special section of the Journal (Muntaner et al., p. 215), we describe a macro-level theoretical model tracing the effects of political power struggles on health inequalities through the important mediating role of the welfare state and labor market policies. The model described here complements that theoretical model, presenting a micro-structural framework that traces the effects of employment and working conditions on health inequalities.

MICRO-LEVEL THEORETICAL MODEL

Figure 1 presents a conceptual model that allows an assessment of the potential links between employment conditions and health inequalities through a number of behavioral, psychosocial, and physiopathological pathways. An important pathway linking the conditions of employment to health inequalities runs through working conditions. Potential occupational exposures, hazards, and risk factors are classified into five main categories: physical, chemical, biological, ergonomic, and psychosocial. They include factors such as exposure to physical or chemical hazards, repetitive movements, work intensification, hard physical labor, shift work, and lack of control. To these factors we also add work-related injuries (i.e., occupational “accidents”).

While each risk factor may lead to different health outcomes through many specific mechanisms, the production of health inequalities is shaped by fairly general social mechanisms or axes. Thus, social class, gender, and ethnicity/race constitute key axes of inequality that explain why workers, and often their families and communities, are exposed to multiple risks. For example, there is a growing body of scientific evidence showing that workers are more exposed to physical and chemical hazards than are owners or managers. A limited number of key social mechanisms underlie the production of health inequalities, according to social class, gender, ethnicity/race, immigration/migration status, territory, and so forth. These mechanisms are exploitation, domination, and discrimination (1–3). Moreover, the same cross-cutting axes of class, gender, and ethnicity/race are linked to multiple disease outcomes, each occurring through specific risk-factor mechanisms. Therefore, these axes and their underlying mechanisms can be conceived of as “fundamental causes of health inequalities,” because they affect the social distribution of health and disease more or less independently of specific risk profiles and associated health outcomes (4).

Material deprivation and economic inequalities (nutrition, poverty, housing, income, etc.) constitute direct pathways through which employment conditions affect health inequalities. In addition, these potential consequences of employment conditions may have an important effect on chronic diseases and mental health via several psychosocial factors, lifestyle behaviors, and physiopathological changes. For example, the length of time children have been working may have an effect on their growth and academic performance, probably caused by a lack of adequate nutrition (5). In addition to the key role played by these

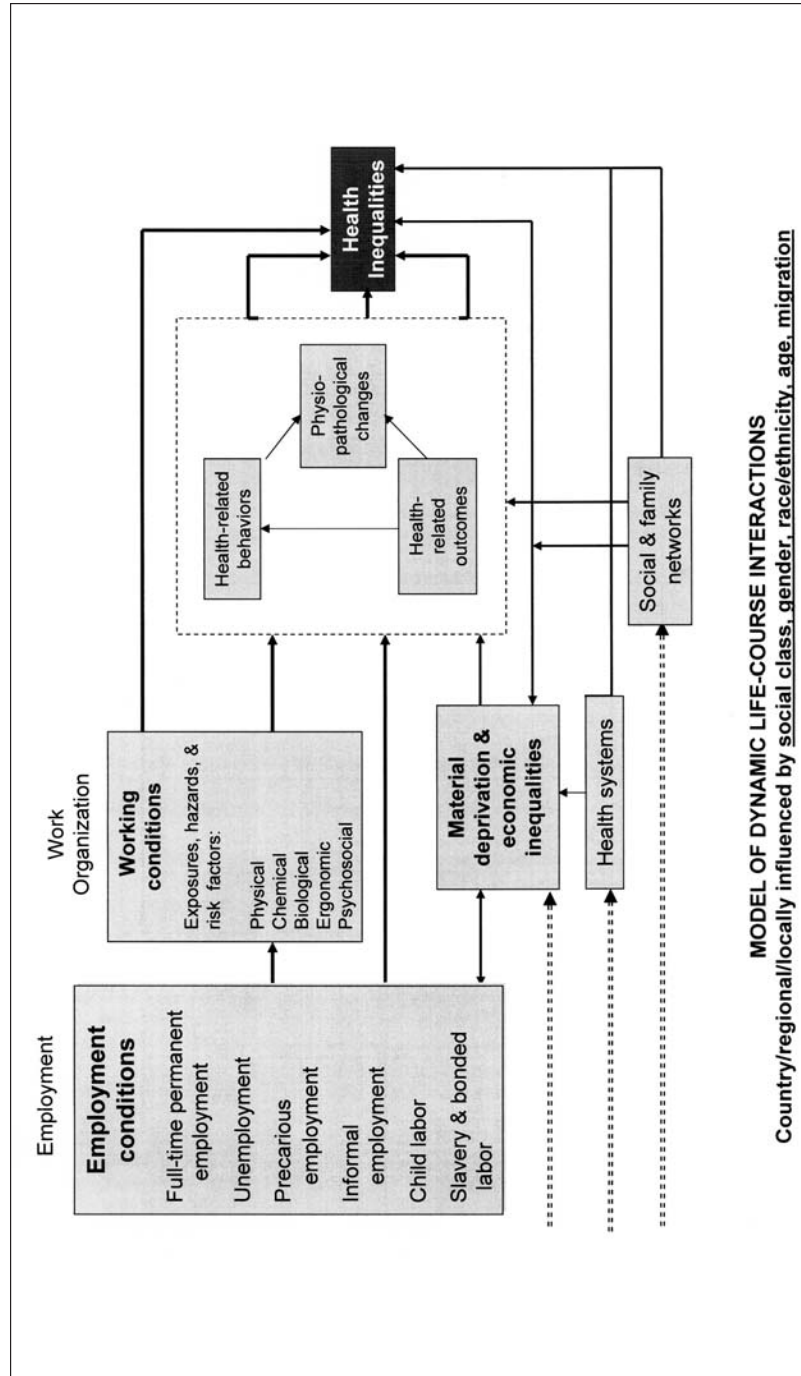


Figure 1. Theoretical framework of employment relations and health inequalities: a micro-level model.

material factors, proponents of psychosocial theories have emphasized the central importance of one's position in a hierarchy—that is, where one stands in relation to others. There are two models that analyze the role of the psychosocial work environment in explaining health inequalities. The first is the popular *demand-control model* (6), based on the balance between quantitative demand and low control (i.e., limited decision latitude and lack of skill discretion). The second is the *effort-reward imbalance model*, which claims that high effort spent at work that is not met by adequate rewards (money, esteem, promotion prospects, job security) elicits recurrent stressful experiences (7).

Nevertheless, although discussion of material versus psychosocial factors may be important for research purposes, as well as for the type of interventions to be considered, some have argued that the dichotomy between the two theories has been overblown (8, 9). The terminology of the debate is confusing, because all exposures are material (they all belong to a material world). Thus, “neomaterial” is used to refer to physical, chemical, and biological exposures, while “psycho-social” refers to socio-psychosocial exposures (8). There is sufficient evidence to show that all these types of exposure affect health. Moreover, most of these processes are intertwined and, ideally, should be integrated into a comprehensive framework. For example, sustained job insecurity due to precarious labor market position affects health through its economic consequences, while at the same time being linked to poor health behaviors by way of declines in specific coping mechanisms.

Finally, we should mention that we have explicitly avoided the issue of genetic susceptibility in this theoretical framework, for three reasons: first, we focus mainly on factors that are currently amenable to policy change and social action; second, although genetic factors are important in the etiology of many diseases, it is clear that such factors play a minor role in explaining the major effects of employment in creating health inequalities; and finally, genetic factors are not social determinants of health and deserve their own, specialized analysis.

CONCLUDING REMARKS

Two final methodological points of caution need to be mentioned here. First, the framework does not pretend to be a fully fledged, confirmed theory but is, rather, just a heuristic device to point out the most important pathways. And second, the framework appears as a “static” model, while in reality it should also be considered from both a historical point of view and a dynamic life-course perspective.

The use of this theoretical model may serve three key purposes at once. First, it helps us organize scientific data and understand the complex links between employment relations, employment, and working conditions and health inequalities. Second, the model encourages further observation and testing of hypothetical causal pathways. Finally, it helps to identify the main “entry points”

(i.e., exogenous factors) through which to implement policies and interventions to reduce health inequalities (see the article by Quinlan et al. in this special section, p. 297).

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