# **Exploration of working conditions in affecting population** health and resulting in health disparities

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Abstract. With the development of the times, the high intensity of work and pressure in the workplace has led to more and more people in the workplace experiencing major and minor health problems. Although work is important, but not at the expense of health. Only with a healthy body and good mental state, people can do better outstanding work. This paper focuses on the impact of different working conditions on the health of the population, focusing on the impact of overwork, lack of daily exercise, high-pressure working environment, irregular work patterns and other working conditions on the population. It finds that all of the above will lead to the emergence of various types of physiological or psychological illnesses, which affect the daily life of the population as well as the expected life expectancy, and at the same time, these undesirable factors will lead to burnout and even affect the social development of the population. At the same time, these adverse factors also lead to burnout and even affect the social development of the population. In response to these problems, this paper has looked for programs and interventions that may be able to address this situation. It is hoped that more people will pay attention to the health problems caused by poor working conditions.

Keywords: work conditions, overwork, high-pressure, work patterns, work-family conflict.

## 1. Introduction

The laborer, as the most active element in the production of daily life, is the human society as the most active element in daily life production, laborers are the basis for the survival and development of human society, and they are the main body that can create material wealth and spiritual wealth. However, in today's society, not a few workers have been exposed to occupational physiological or psychological diseases due to various factors. Lots of workers often say that not only their physical functions are being overdrawn at work, but even their hearts are gradually becoming numb. Nowadays, in some enterprises or organizations, the "996" or "007" work mode has become commonplace, but this mode obviously deprives employees of rest time and affects their quality of life.

Therefore, it is particularly important to explore the problems existing in today's work mode, this paper is aimed at the different working conditions of the masses of physical and mental health problems arising from the study, and for the existence of the problem put forward some corresponding measures to solve it. It is hoped that it can help find a balance between work, life and health, and form a more healthy and scientific working atmosphere.

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## 2. Impact of different factors on health at work

How to prevent and deal with diseases caused by work has always been a problem that the government and society want to solve, as early as the nineteenth century, the United Kingdom has for the ceramic manufacturing industry leading to workers caused by silicosis and lead poisoning and other specific occupational diseases in a timely manner to regulate and intervene, so as to maintain the health of the workers, so that the long-term development of British industry can be [1].

## 2.1. A series of impressions of overwork on health

On May 27, 2019, World Health Organization (WHO) included "overwork" in the latest revision of the International Classification of Diseases (ICD) for the first time, which means that the impact of overwork on health cannot be ignored at this stage. In the study of working hours and workers' health, we found that working hours have a U-shaped effect on self-assessed health, two-week prevalence, and body mass index [2].

Overwork also has a significant impact on the physical activity behavior of the population. It has been found that employed people with lower levels of education and social economic status face a higher risk of morbidity due to a lack of leisure time for physical activity. Sometimes healthy lifestyles are not entirely a matter of personal choice, but are also influenced by the underlying structure and social conditions of an individual's social class. A study of British civil servants found that men of lower socioeconomic status were more physically inactive [3]. The probability of a higher frequency of physical activity was greater for unit heads / senior managers and middle managers, and the lower the job level, the lower the probability of exercising in paid places. It has also been shown that the longer the leisure time, the shorter the working time, the greater probability of engaging in physical activity.

## 2.2. High-pressure working atmosphere

In addition to the effects that overworked work patterns can have on the health of a population, the atmosphere of a chronically stressful and high-pressure environment can also have a significant impact on health. Some studies have shown that industrial and occupational tensions have a significant impact on people's burnout, and as a result, there is a low level of commitment, low efficiency, overwork, indifference, and burnout in the workplace [4]. In a survey of 153 neurologists on occupational fatigue, Jin Jing found that the current situation is not optimistic, with overtime work, frequent night shifts, failure of health checks, high work pressure and poor sleep quality being the main influencing factors [5]. A similar study by Prof. Max Denning also targeted the physical and mental health of healthcare workers during the prevalence of Covid-19, and the results showed that healthcare workers have a heavy burden of burnout, anxiety and depression [6]. Because of the unique nature of the work, both not only emergency situations and labor intensity, but also the need to frequently face the pain of the disease and the mental stimulation of death, etc., in such a complex and tense occupational environment, it is easy to induce occupational fatigue and even severe psychological problems.

This kind of psychological problems caused by occupational stress is not limited to the pharmacotherapy industry, most mental workers have a certain degree of occupational burnout and thus lead to occupational stress, but as the value rises, their coping and social support scores show a downward trend [7]. The risk of cardiovascular disease (CVD) increases with stress (e.g., tension and long working hours) [8], and can even lead to death in some patients who are already suffering from cardiovascular disease under high-pressure conditions [9].

## 2.3. Incorrect work pattern

Then there is the incorrect work pattern can also have a great impact on health, Professor Hongying Shi in the rotating night shift work and nurses' health research follow-up found that due to irregular work lifestyle during the work period (frequent overtime, frequent night shifts) [10], it will directly affect the normal work and rest of the medical staff of the biological clock rhythms, which will lead to the old age of the health of the aging lower, the overall health status will also deteriorate. The overall health status will also deteriorate. In another prospective study of sedentary office workers, 17% and 27% of office

workers reporting new-onset neck or low back pain developed chronic pain, respectively [11]. Predictors of morbidity were high body mass index, frequent neck extension during the workday, high initial pain intensity and high psychological work demands. It is clear that unhealthy work patterns can lead to sub-healthy individuals. Sub-health can lead to loss of vitality, affect work efficiency and work quality, cause individuals to doubt the value of their profession, and manifest physical and mental fatigue. The underlying health factors may even affect the level of health in the future.

## 2.4. Work-family conflict

The The conflict between work and family also brings a lot of interference for health, today's society work-family conflict is common (such as family conflict and work efficiency conflict, work overtime and child education conflict, work fatigue and family communication conflict, work demand and family responsibility conflict, etc.), in this case, people often have no choice but to sacrifice the rest of the time to take out extra time and energy to balance the relationship between the two. Relationship. Studies have shown that work-family conflict is closely related to poor sleep [12]. This conflict also reduces people's sense of well-being and can lead to mental health problems when people are negatively affected by the conflict and experience stress [13]. Even for some people, when they are experiencing such conflict, if the effort they spend at work does not match the rewards they receive, it is very likely that their negative emotions and stress will multiply, leading to indifference to work and life, resulting in high-frequency resignation, or even suicide.

#### 2.5. Countermeasures

From the above studies, it can be easily seen that there are many factors that affect our health at work, so can we take measures to change this situation. This paper thinks that the problem can be solved in many ways according to different jobs, different groups of people and different classes.

First of all, regarding the lack of physical exercise, is it possible for the state to introduce relevant legal systems and policy measures to moderately reduce working hours, increase leisure time, and encourage people to form the habit of physical exercise and a sense of healthy lifestyle. Regarding the lack of active exercise, can we add some invisible exercise measures, such as adding steps in certain areas or building landscape walkways near residential and office buildings to improve people's exercise frequencies. Or for the current people are interested in sports programs in residential areas or office buildings around the construction of more free related venues to encourage the public to come to exercise during breaks. So through exercise, people can reduce certain occupational diseases, enhance personal physical quality.

For people with occupational stress, do we need to pay close attention to them and test them in time, communicate with them more often on weekdays, reduce as far as possible the cumbersome processes at work, and strive to do health promotion in daily life to form a good organizational atmosphere. Some studies have also proved that health promotion in the workplace can help reduce work stress [14].

With the development of the times, it is equally worthwhile to consider whether we can advocate the development of a flexible work system and home office measures. Flexible working can, to a certain extent, balance people's work and life, so that people can more flexibly control their own time to improve the quality of life. Or, in the case of ensuring that employees can have comprehensive facilities at home, a highly autonomous hybrid work mode (home office or a flexible combination of on-site work) [15]. That can allow people to organize their work and lifetime in a subjective way. When employees are able to organize their own work patterns, it is believed that, to a certain extent, the well-organized work pattern can reduce the work-family conflicts that they may have.

For work-life conflicts that may not be perfectly resolved on their own (e.g. children left unattended at home, elderly people lonely and in need of companionship, women unable to go to work during pregnancy, etc.), it may be necessary for the government to intervene by introducing policies and setting up institutions, such as mandatory approval of reasonable maternity leave for expectant mothers by the company, and the establishment of family-friendly policies such as early childhood

care and assistance and care for the elderly in their old age, in order to assist employees in balancing the tensions between the role of the workforce and that of the family.

## 3. Conclusion

According to the above survey, it is found that different working conditions (including social status, education, working hours, occupational stress, working patterns, and Work-family conflict) can lead to health problems. Burnout occurs when people suffer from poor physical health or mental instability due to a variety of factors, either of which leads to a higher probability of leaving the workforce and, to a certain extent, also affects the development of society.

In today's society, the public has begun to pay attention to the importance of occupational health, so it can be seen that the public actually wants to change this status quo, but are worried about the conflict between their own health and their work. How to change this status quo has become the primary problem, according to the current survey involved in several types of problems, this paper also corresponding to the survey put forward some corresponding recommendations. These include the implementation of policies to increase the frequency of exercise, pay close attention to high-stress groups, try to promote some new work models, or some ways to publicize the general knowledge of health.

This study believes the most important thing is that the company should be aware of the importance of the health of all employees, and give them certain health benefits and support (such as arranging regular medical checkups and distributing health products), setting up appropriate breaks during the workday, or arranging some healthy exercise activities. These behaviors not only protect the health of the employees, but also make them feel respected and enhance the public's satisfaction with their work, thus promoting mental health. It is hoped that the experimentation of the above policies or innovations in work styles will help people find more suitable and healthy ways of working. To ensure the quality of life of the population. To prevent occupational burnout, occupational diseases, and the effects of healthy aging.

## 4. References

- [1] Jiaxing Xu. Perceptions and Prevention of Occupational Disease among Potters in Nineteenth-Century England. Teaching History (2nd half). 05:29-37 (2023).
- [2] Meihong Ma, Tingting Dai. The Impact of Length of Working Hours on Workers' Health An Empirical Study Based on CFPS (2020) Data. Northwest Population, 43.06:99-112 (2022). doi:10.15884/j.cnki.issn.1007-0672.2022.06.009.
- [3] Marmot, M. G., et al. Employment grade and coronary heart disease in British civil servants. Journal of epidemiology and community health, vol. 32, 4: 244-9 (1978). doi:10.1136/jech.32.4.244.
- [4] Yue Yu, et al. Distribution of five states of the "burnout-engagement continuum" and their influencing factors in China's professional population." Environmental and Occupational Medicine, 40.04:389-395+412 (2023).
- [5] Jin Jin, Lan Zhang, and Xiaofang Shen. Analysis of the current status of occupational fatigue and its relationship with work stressors and sleep quality among 153 neurology medical staff in tertiary hospitals in Suzhou City, China. Occupational and Health. 39.03:293-296 (2023). doi:10.13329/j.cnki.zyyjk.2023.0058.
- [6] Denning, Max, et al. Determinants of burnout and other aspects of psychological well-being in healthcare workers during the Covid-19 pandemic: A multinational cross-sectional study. PloS one vol. 16,4 e0238666. 16 Apr. (2021). doi:10.1371/journal.pone.0238666.
- [7] Jinhua Tang. A study on the impact of occupational stress on health and its work capacity among brain labor population, Xinjiang Medical University, PhD dissertation, (2017).
- [8] Framke, Elisabeth et al. Contribution of income and job strain to the association between education and cardiovascular disease in 1.6 million Danish employees. European heart journal vol. 41,11: 1164-1178 (2020). doi:10.1093/eurheartj/ehz870.

- [9] Kivimäki, Mika, et al. Work stress and risk of death in men and women with and without cardiometabolic disease: a multicohort study. The lancet. Diabetes & endocrinology, vol. 6, 9: 705-713 (2018). doi:10.1016/S2213-8587(18)30140-2.
- [10] Shi H., Huang T., Schernhammer E.S., Sun Q., Wang M. Rotating Night Shift Work and Healthy Aging After 24 Years of Follow-up in the Nurses' Health Study. JAMA Netw Open. 2022 May 2;5(5):e2210450. doi: 10.1001/jamanetworkopen. 2022.10450. Erratum in: JAMA Netw Open. 2022 Jun 1;5(6):e2218151. PMID: 35507343; PMCID: PMC9069254.
- [11] Sihawong, Rattaporn, et al. Predictors for chronic neck and low back pain in office workers: a 1-year prospective cohort study. Journal of occupational health, vol. 58,1: 16-24 (2016). doi:10.1539/joh.15-0168-OA.
- [12] Buxton, Orfeu M., et al. "Work-Family Conflict and Employee Sleep: Evidence from IT Workers in the Work, Family and Health Study." Sleep vol. 39,10 1871-1882, 1 Oct. (2016). doi:10.5665/sleep.6172.
- [13] Zhou, Shiyi, et al. "Work-Family Conflict and Mental Health Among Female Employees: A Sequential Mediation Model via Negative Affect and Perceived Stress." Frontiers in psychology vol. 9 544, 17 Apr. (2018). doi:10.3389/fpsyg.2018.00544
- [14] Jarman, Lisa, et al. Does workplace health promotion contribute to job stress reduction? Three-year findings from Partnering Healthy@Work. BMC public health, vol. 15 (1293). 24 Dec. (2015). doi:10.1186/s12889-015-2625-1.
- [15] Niebuhr, Fiona et al. Healthy and Happy Working from Home? Effects of Working from Home on Employee Health and Job Satisfaction. International journal of environmental research and public health vol. 19,3 1122. 20 Jan. (2022). doi:10.3390/ijerph19031122.