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OCCUPATIONAL ACTIVITY AND HEALTH OF WARSAW INHABITANTS. PART I. UNEMPLOYMENT: A PRELIMINARY ANALYSIS*

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ABSTRACT

BACKGROUND. The health deterioration of the unemployed is the serious challenge for the public health, especially of that health promotion programs for this group were not always effective.
OBJECTIVES. The aim of the papers is to recognise initially the health effects of unemployment among Warsaw inhabitants in order to formulate recommendations for future more comprehensive research.
MATERIAL AND METHODS. Out of the respondents who joint the program of social participation in health reforms, 23 the unemployed and 172 employed persons were included to the study. The eight indicators of health status and eight components of health security were assumed.
RESULTS. As regards health status, compared to employed persons, relatively more of the unemployed perceived their health, physical and mental well-being as worse, they more frequently remained at home due to illness and were admitted to hospital, but relatively fewer of them visited physicians. As regards health security, relatively more the unemployed assessed their medical expenses as very high, used only public health care and well understood the information received from family doctor, but relatively fewer of them experiences difficulties in getting to physicians. The future retirement system they perceived dramatically poorly. However, not all visible differences reached the level of statistical significance.
CONCLUSIONS. Despite the limitation of our findings due to a preliminary nature of the study, they confirmed unquestionable relationship between unemployment and health deterioration. The recommendations for future more extensive research were presented in detail.

Key words: *health, work, unemployment*

INTRODUCTION

Unemployment is a serious public concern in the situation when the European Union (EU) countries make efforts to reduce social inequalities, and on the other hand, the unemployment rate has risen successively since 2008 as a result of economic crisis (1). The position of the unemployed in Poland is particularly difficult, because, compared to the Nordic and Western European countries, they are deprived to a greater extent of adequate social assistance (2). In 2013, 15% of Poles considered themselves as unemployed, 31% of them were unemployed in the past, at least one unemployed person was in 29% of the Polish family, 59% of the unemployed remained without a paid job for more then one year and only 11% of them received unemployment benefits (3). Moreover, 58% of adult employed Poles were afraid that they lose their job (4), 25% of them were engaged on temporary contracts (the highest rate in the EU), and the next 10% were employed part-time (5).

The harmful effects of unemployment, especially long-term unemployment, on health are well documented. It should be noted that the relationship between health and unemployment is be-directional; unemployment may lead to deterioration of health, and on the other hand, poor health may increase the probability of being unemployed (6). The methodologically reliable studies confirmed that unemployment increases directly the risk of premature death (7), health deterioration (8, 9), occurrence of chronic diseases (10, 11) and disability

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(12). It was shown that the increase of unemployment rate in EU countries by 1% results in significant rising in suicides, particularly among young people (13). As regards selection of employees based on their health status, the European Community Household Panel (ECHP) showed that those of worse self-rated health, and mental and somatic problems at baseline were later at higher risk of becoming and remaining unemployed by a long period (14). This phenomenon of selection due to health occurs more often in the countries with a lower unemployment rate. The loss of a job affects not only the health of individual, but also his/her family (15).

The aim of presented paper is to recognise initially the health effects of unemployment among Warsaw inhabitants, perceived as by the unemployed themselves, in order to formulate recommendations for future more comprehensive research.

MATERIAL AND METHODS

The presented analysis is a part of the wider scientific project concerning social participation in health reforms in Poland, the main object of which was to examine the usefulness of information gathered by survey method as a tool of citizens' involvement for creating and implementing the healthcare policy (16). The preliminary study was expected to recognise initially a number of important public health problems, perceived by citizens themselves, and to formulate recommendations for future research. Data were collected from April to June 2011 in Warsaw. The streets and buildings were selected in all districts of the town in such a way that the obtained sample would reflect the demographic diversity of the inhabitants of Warsaw. Four hundred six respondents correctly completed questionnaires and 195 of them (23 unemployed and 172 employed) were included in the analysis. Demographic characteristics of the sample and the content of questionnaire were presented in detail in our previous publication (16).

The original questionnaire for the research was constructed in Health Promotion and Postgraduate Education Department of the NIPH – NIH. In order to examine health determinants and health consequences of being unemployed, the eight indicators of health status and eight components of health security were adopted. Health status was measured by: 1) self-reported health, 2) physical well-being, 3) mental well-being, 4) social support, 5) staying at home due to illness in the last year, 6) being in contact with physicians in the last year, 7) occurrence of chronic diseases, and 8) hospitalisation in the last year. Health security was measure by assessment of: 1) healthcare system, 2) medical expenses, 3) type of healthcare utilisation, 4) quality of care from the public family doctor, 5) difficulties in getting to physicians, 6) understanding the information about health received from family doctor, 7) quality of the care from the private physicians, and 8) assessment of existing retirement system. Each item was dichotomised.

In addition, the life and behavioural factors were included in the analysis as potential mediators between unemployment and health. Life's problems covered the following negative events that would occurred in the past year: 1) family problems, 2) lack of money, 3) lack of opportunity for relaxation, 4) difficult housing conditions, 5) encountering with violence, 5) reduction of social life. Risk behaviours were measured by: 1) regular alcohol drinking (at least one a week), 2) drunkenness (at least one during the last year), 3) current cigarette smoking (with varying frequency), 4) illicit drug use (at least one time over the lifetime)

The Epi Info statistical software package for PCs was applied for establishing database. The chi-square test was used for analysis of the differences between unemployed and employed respondents in status of health and health security. The significance was accepted at the level of $p<0.05$, however, due to preliminary nature of our study and a limited number of the unemployed in the sample, the noticeable differences (more than 5%) were considered, even thought they did not show the statistical significance.

Table I. Demographic characteristics of the sample (%).

Demographic characteristics	Unemployed (n=23)	Employed (n=172)	*p* value[1]
Gender			
Male	9.0	91.0	0.328
Female	13.6	86.4	
Education			
Secondary or lower	17.9	82.9	0.048
Higher	7.9	86.4	
Marital status			
Married	9.2	90.8	0.035
Other (single, divorced, widowed)	20.9	79.1	

[1] chi-squared test

RESULTS

The demographic characteristics largely differentiated the respondents varied by occupational activity (tab. I). Significantly more of the lower educated persons and those of unmarried status were unemployed at the time of data collection. Women were at slightly greater risk of being out of work.

The differences in health status between the both groups, even visible, were insignificant due to a limited number of the sample (tab. II). Nevertheless, it is worth noting that unemployed respondents were considerably more likely to assess worse their health (11% more), physical (7% more) and mental (11% more) well-being, and they more frequently remained at home due to illness (14% more) and were admitted to hospital (8% more). In contrary, relatively fewer of them visited physicians in the last year (7% less).

As regards the health security, significantly more unemployed respondents (17% more) perceived their medical expenses as very high (tab. III). Some of the remaining differences, although statistically insignificant, were noticeable. Relatively more unemployed used only public healthcare (12% more) and well understood the information about their health received from family doctor (14% more). On the other hand, relatively fewer unemployed respondents experienced frequent difficulties in getting to physicians (9% less). It is interesting that none of them assessed the retirement system positively. Assessments of care obtained from public family doctor, as well as from private physicians were the same in the both groups.

Visible differences were observed in some mediators between unemployment and health (tab. IV). The lack of money, as expected, was significantly more prevalent among the unemployed (twice more). They also were significantly more likely to encounter violence (as much as 4 time more). The remaining differences of negative life events were insignificant, but it is worth noting that, compared to the employed, considerably

Table II. Differences in health status in relation to occupational activity (%).

Health indicators	Unemployed (n=23)	Employed (n=172)	*p* value[1]
Self-rated health (not good)	52.2	40.7	0.295
Physical well-being (not good)	44.4	37.5	0.565
Mental well-being (not good)	68.2	56.7	0.305
Social support (not good)	52.4	53.2	0.944
Staying at home due to illness (2 times or more)	60.9	46.2	0.187
Being in contact with physicians (2 times or more)	47.8	55.5	0.487
Chronic disease (at least 1 disease)	69.6	66.9	0.795
Hospitalisation (at list 1 admission)	26.1	17.9	0.346

[1] chi-square test

Table III. Differences in health security assessment in relation to occupational activity (%).

Components of health security	Unemployed (n=23)	Employed (n=172)	*p* value[1]
Healthcare assessment (positive)	4.8	7.0	0.702
Medical expenses (very high)	27.3	11.0	0.032
Healthcare utilisation (only public)	26.1	14.0	0.133
Difficulties in getting to physicians (often)	21.7	30.2	0.400
Public family doctor assessment (positive)	84.2	85.6	0.870
Understanding of health information (yes)	57.9	43.1	0.221
Private physician assessment (positive)	94.1	93.2	0.885
Retirement system assessment (positive)	0.0	3.5	0.373

[1] chi-square test

Table IV. Differences in life and behavioural factors in relation to occupational activity (%).

Life and behavioural factors	Unemployed (n=23)	Employed (n=172)	*p* value[1]
Negative life events in the last year:			
family problems (yes)	39.1	55.5	0.139
lack of money (yes)	69.6	32.4	>0.001
lack of opportunities for relaxation (yes)	39.1	50.1	0.290
difficult housing conditions (yes)	26.1	12.1	0.068
encountering with violence (yes)	21.7	5.8	0.006
reduction in social life (yes)	30.4	31.8	0.895
Risk behaviours:			
regular alcohol drinking (at least once a week)	8.7	25.7	0.071
drunkenness (at least once in the previous year)	30.4	34.9	0.674
current cigarette smoking (in varying frequency)	95.5	68.5	0.008
illicit drug use (at least once over a lifetime)	4.3	14.3	0.185

[1] chi-square test

more of the unemployed declared the difficult housing conditions (14% more), while they were less likely to report the family problems (16% less) and the lack of opportunity for relaxation (11% less). Regarding the risk behaviours, the unemployed presented more favourable behaviour in alcohol drinking and use of illicit drugs, while the significantly higher proportion of them smoked cigarettes currently.

DISCUSSION

It should be taken into account that presented study was of a preliminary one, and therefore, differences between unemployed and employed respondents of our sample, even considerable, may not show statistical significance. Nevertheless, the results of our research indicate an association between unemployment and worse health (in self-rated health, physical and mental well-being, staying at home due to illness and hospitalisation). Most of the prospective studies, in which unemployment was assumed as cause of health disorders, confirmed that loss of a job and remaining out of paid work, especially for a long period of time, may results in deterioration of mood and self-rated health (8), mental (17) and somatic disorders (10, 11) in initially healthy people. The health deterioration due to job loss is mostly influenced by the level of social security benefits for the unemployed in particular countries (18). The association between unemployment and healthcare utilisation is more complicated. Of the two studies conducted in Sweden by *Ahs* et al., in one significantly higher rate of unemployed visiting physicians were observed (19), while in the other there were no significant differences in both the physician visits and hospitalisation, although the rates of unemployed were even slightly lower (20). In another study on Swedish sample, the rate of hospital admissions among the unemployed was significantly greater, and their hospitalisation was higher due to alcohol-related conditions, traffic accidents and self-harm, while there were no evidence that job loss increased hospital admissions due to cardiovascular diseases (21). In contrary, the study conducted in Germany showed that the unemployed were admitted to hospital less often than those of employed status, but admissions due to myocardial infarction and stroke were frequent just among them (22). *Vartinen* at al. found that Finnish unemployed visited physicians rarely compared to the permanent employed, but relatively more of them were hospitalised (23). Thus, there is need of the international comparison of the relationship between job loss and healthcare utilisation, taking into account the differences in rate of unemployment, changes over the time, quality of healthcare, unemployment insurance and benefits, national health programmes for the unemployed, social support and many other country-specific factors.

It is understandable that financial difficulties are the most important sources of problems on the social sphere, on which the unemployed point out, also in our sample. The financial difficulties results in the excessive medical expenses and fewer opportunities to use the services of private physicians, and this inequalities was observed in the other European countries (23). As regards the social and health support, in the European countries, where the studies of social security of the unemployed were conducted, those who were without of a job, generally, perceived lower social support in comparison with the employed (24, 25), and they were more likely to assess the healthcare as unmet their need (20). The assessment of social and health security of the unemployed of our sample seems to be more optimistic. They did not differ from employed in perceived social support or intensity of social life, and even they had a better relationships with their family. In contrary to the quite well present social conditions, the future retirement benefits, assessed very low by all working age respondents, were perceived dramatically low by the unemployed. As regards health security, the

unemployed respondents assessed both the public and private healthcare physicians as well positively as those employed. The better understanding of health information may indicate that the unemployed received greater care from the public family doctors.

The previous studies, in general, confirmed that unemployment increased the risk of excessive alcohol drinking, cigarette smoking and the use of illicit drugs, however, the relationship seems to be more complicated and country-specific (26). Our study found the unemployed at higher risk of regular cigarette smoking, but positive effect of unemployment on alcohol drinking and drug use was also observed. In Poland the unemployment rate is high, thus, this second finding could be resulted by the nature of the high unemployment (in a higher unemployment rate the differences present at a lower rate are blurring).

There are the evidence that re-employment reduces health problems (8), although job quality and a type of employment contract modify the benefits to a great extent. The longitudinal study of *Leach* et al. conducted on the large sample showed that positive health effects occurred in those re-employed, who perceived high quality of their new job, while in those, for whom the work was insecure and unsatisfactory, the health remained poor (27). As regards employment contract, the studies in Finland and USA indicates the relationship between temporary or flexible working employment and the increase of health problems, especially mental disorders (28, 29).

Regardless of the common actions concerning the help to acquire new skills and find a job, in many European countries the special health promotion programmes for the unemployed are developed. However, their efficacy, even in such country of high social security as the Netherlands, seems to bee limited or none (30). Therefore, the more detailed recognition of the determinants of relationship between unemployment and health is necessary.

CONCLUSIONS

Taking into account a number of limitations of our findings, they showed undoubted relation between unemployment and health on Warsaw inhabitants' example. Simultaneously, it should be remembered that compared to many other European countries, the situation of the unemployed in Poland is particularly difficult. It obligates us to postulate the need for taking up extensive research that would enable the public, especially the unemployed, the active involvement with policy-making, accepted by them, to overcome unemployment. Thus, future investigations planned in NIPH-NIH should include the following questions:

1. To what extent health status at baseline determines employment? What specific health disorders pose a particular risk to remain without work for a long time?
2. To what extent unemployment, especially long-term, results in health deterioration? What disorders occur most frequently?
3. Does the type of employment contract affect the state of health?
4. How the physical working environment and interpersonal relationships in the earlier period of employment influenced the health of the unemployed?
5. How the unemployed perceive their health in the physical, mental and social dimensions? How self-rated health changes over time?
6. Is the unemployed status taken into consideration by physicians visited by them because of health disorders? Is their dignity, autonomy and confidentiality respected?
7. How often the unemployed use health care (family doctor, specialist health care, hospitalisation, private physicians)?
8. How the unemployed assess the availability of health care?
9. Have the unemployed the possibility of bearing the cost of treatment?
10. Do they received comprehensive and understandable information about their health? Are they provided with psychological support?
11. To what extent taking behaviours harmful to health (excessive alcohol drinking, smoking, drug use) is a reaction to difficult situation due to lack of work? To what extent the unhealthy behaviours increase the risk of health disorders?
12. How social support (or lack of support) from family, friends and institutions providing social care affects the health of the unemployed? How unemployment affects family health?

It is unquestionable that such research should be conducted on a sample of sufficiently large numbers of respondents to allow a detailed analysis of the impact of all the determinants presented above on the health of the unemployed, and also meet the criteria of representativeness for the nationwide population. A prospective study on the same cohort would be most beneficial to observe changes in the health of the unemployed over the time.

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