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ORIGINAL ARTICLE

THE WORKING POOR AND STRESS

Zuzana Řimnáčová *, Alena Kajanová, Stanislav Ondrášek

University of South Bohemia in České Budějovice, Faculty of Health and Social Sciences, Institute of Social and Special-paedagogical Sciences, České Budějovice, Czech Republic

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Abstract

Introduction: The working poor is a relatively new term which has been discussed recently. These people work, but their income is below the poverty line. Many times, it is close to the minimum wage. Working for a low income brings people much stress, which leads to physical and psychological problems.

Materials and methods: This research was carried out using quantitative research strategies. The Holmes-Rahe Stress Inventory standardized questionnaire was used for data collection. Their statistical analysis was carried out using the IBM SPSS Statistics 24 programme. The sample group included 358 working poor inhabitants of the South Bohemian Region.

Results: The research showed that the respondents' average score was between 150 and 300 points. There were 138, which means that, in the next two years, there is a 50% chance that they will have various health problems. The score of 90 respondents was higher than 300 points, which means that they have an 80% chance of having health problems in two years time. The fourth most frequent cause of stress was the possibility of "employment change".

Conclusion: It is very important to study stress and its effect on people. Many studies show how stress can negatively affect us and our health and how great a burden in life it can be. Our research showed that, last year, one-third of the respondents believed that one of the most stressful situations was the change or loss of employment.

Keywords: *Physical problems; Psychological problems; Stress; Poor; Working poor*

INTRODUCTION

The working poor are a new group of people who can be considered endangered by poverty. In the Czech Republic, the number of these people is among the lowest in Europe (Sirovátka and Mareš, 2006). Nevertheless, these people encounter many problems, which are initiated by the stress due to their low income. The goal of this article is to find out what stress factors most frequently occur regarding the working poor, whose income is close to the minimum wage.

Theory

Poverty is a global phenomenon which is dealt with by scientific and political experts. It is difficult to define poverty, especially because it is so complex. According to the European Commission, a person is considered poor if their income and other sources are below an established amount. According to the Eurostat (2017), the established amount is 60% of the EU income median. This line is the minimum acceptable living standard.

According to the professional literature, poverty can be subjective and ob-

jective. Subjective poverty is the subjective perception of one's own deprivation (Michalos, 2014). Objective poverty can be absolute and relative (Kukla, 2016). In 1990, the World Bank established extreme poverty as 1$/day and, in 2008, it was increased to 1.25$/day (Ravallion et al., 2009). Relative poverty is when a person or a family are able to satisfy their basic social needs on a lower level than the average in the society (Michalos, 2014). The first international method for measuring poverty was the Human Poverty Index (HPI). Recently, this method was replaced by the Multidimensional Poverty Index (MPI), which is focused on the level of individual deprivation using three domains, which are health, education and the living standard (Alkire et al., 2014).

Some groups are endangered by poverty more than others, e.g. single mothers, minorities, children, immigrants, people with health problems, people with low incomes or people who have part-time jobs (O'Doherty, 2017). These groups live in disadvantaged conditions, have minimum wages and reach the level of poverty (Rynell, 2008). In recent years, these groups of people have been more discussed and become considered as the working poor. They are people who work, but their income is below poverty level (Andress and Lohmann, 2008). The group of the working poor was established in the USA in the 1970s. The USA is the only country with an official definition of this group. Here, a working poor person has worked for 27 or more weeks in the last year but their income is still below the poverty level, which was established as less than 348.85$ per week in 2013 (A profile of the working poor 2015, 2017).

Problems associated with the working poor came to Europe 20 years later and, at the end of the 20th century, the phenomenon was named. According to Strengmann-Kuhn (2002), the working poor are those whose individual wage is below a certain level. We can say that it is a poverty level, minimum wage or a certain percentage of the minimum wage. Very frequently, these people have part-time or occasional jobs. Part of the employees wage is often transferred to their bank account and the other part is paid to them unofficially. This situation can be called a precariat. It does not bring security or stability to people (Standing, 2011). Such work is uncertain, and brings stress, deprivation and frustration mainly due to uncertainty. The low income causes food insecurity, and fear of incapability of paying the rent and other duties (Vosko, 2011). A part-time job might seem to allow space for leisure time, but it is actually quite the opposite (Rous, 2013). Sirovátka and Mareš (2006) state that the Czech Republic does not have a high number of working poor but, in comparison to the unemployed, they claim that a third of people with part-time jobs have lower incomes. These people keep their unstable jobs because they realize that they have at least of a low income and such income is a small protection from social exclusion.

The term "the working poor" is still rarely used in the Czech Republic, and instead studies are often focused on poor income. In the Czech Republic, according to Brázdilová (2016), 9.7% of people were living below the poverty level in 2015. The line was the net income of 10,220 CZK/month. She also states that 4.1% of working people are endangered by poverty. Last year, people whose monthly net income was below 10 691 CZK were below the poverty level (Czech Statistical Office, 2017). Despite that fact, there were approximately 50,000 fewer people below the poverty level than in 2016. According to the Czech Statistical Office, the percentage of people endangered by poor income dropped to 9.2%. Two years ago, approximately 1.02 million people in the Czech Republic were threatened by poor income and, last year, the number dropped to 970,000 (Czech Statistical Office, 2018).

Eurostat (2018) regularly creates a table, where there is a list of 36 European countries and their level of working people threatened by poverty. According to this table, the Czech Republic is in second place (with regards to 2016) with only 3.9 points. Only Finland is better with 3.0 points. Romania (18.3), Italy (11.8) and Serbia (11.7) are the worst with regards to this issue.

Stress and the working poor

If we ignore the traditional division of stress to eustress and distress, we will view stress as a negative factor which interferes in our organism and affects it negatively. Stress is traditionally defined as a reaction to an external stimulus (stressor). A person with physiological excitement reacts to it. It causes and negatively affects anxiety (Folkman, 2013). Selye

(1973) claims that stress is a single reaction of the organism regardless of the specific stressor that could cause long-term pathological changes.

Many studies have proved that stress causes various physical and mental problems (Řimnáčová and Kajanová, 2016). Dilmaghani (2017) mentions that financial dissatisfaction is a strong and statistically significant predictor of a worsened physical and mental condition. Physical problems caused by stress are mentioned by, e.g. Grandner (2017), Laraia et al. (2017), McIntyre et al. (2014) and Radstaaket et al. (2014). They agree that stress can cause sleeping problems, such as insufficient sleep, insomnia, sleep apnoea etc. Further associated problems are cardiovascular and metabolic. Circulatory illnesses are not only associated with the consequences of sudden poverty (change in the level of living, social isolation…) but also with the causes of stress (employment change for the worse, or loss of employment altogether) (Michálek and Veselovská, 2012).

Another big problem that is mentioned is food insecurity, which causes further problems. If low-income stress is increased, it causes insufficient food security. Economic restrictions due to a low income cause wrong eating habits, which later cause problems of the gastrointestinal system (Laraia et al., 2017).

However, as we have already mentioned, it is not only physical problems which are caused by low-income stress – there are mental problems too. For example, Devylder et al. (2016) learned that stress caused by low income is crucial with regards to most theories on the etiology of psychosis. Reeves et al. (2016) also learned that stress associated with the fear of ensuring a household affects the mental condition – and very frequently causes depressions.

In the USA, the impacts of economic changes on families have been studied for a few years. The research of Ross and Mirowski (1979) showed that a low income causes the poor to be unable to deal with stress and makes them more sensitive to it. According to Wilkinson and Marmot (2003), living in poverty increases the risk of divorce rate, separation and social isolation. These social and psychological circumstances may cause long-term stress, and stress caused by poverty causes further problems.

Women deal with stress better because they manage to ask for help. Men tend to react to unexpected socio-economical stress (e.g. loss or change of employment or financial insecurity) with the overuse of alcohol or smoking. If they were the breadwinner and their income suddenly decreases, they feel their male role has been threatened (Möller-Leimkühler, 2007).

MATERIALS AND METHODS

We used the quantitative research strategy. The data collection was carried out using the standardized questionnaire of Holmes-Rahe Stress Inventory. The questionnaire contains a list of 43 stressful life events and the respondents mark those events that happened in the previous year. The final score is established after calculating all of the marked events, which already have a number of points (death of a partner = 100, or small offences = 11). The score shows the risk level of weakened health within two years.

The American Institute of Stress (2018) claims that:

- 150 points or less = a relatively low number of life changes, i.e. a low tendency of stress-induced poor health condition;
- 150 to 300 points = a 50% chance of health condition failure within the next 2 years;
- 300 and more= an 80% probability of health condition failure within the next 2 years (according to the Holmes-Rahe prediction statistical model).

The respondents in the sample group were the working poor in South Bohemia. Their selection was based on the selected criteria. The criteria were their residence and income, which was approximately at the minimum wage level. During the collection of data, their income was approximately 10,220 CZK. The data collection was carried out in 2017, when the respondents were addressed at the unemployment office whilst applying for the social financial support, and at the beginning of 2018, when we used online questionnaires. There were 359 respondents and one was

excluded for filling in the questionnaire incorrectly, so the research included 358 questionnaires. All respondents were informed that their answers and the used data would be used only for the GAJU 037/2017/S research. No identification data that could disclose their identity were required.

The statistical data analysis was carried out using the IBM SPSS Statistics 24 programme, where the reliability level was set at $\alpha = 95\%$.

RESULTS

Table 1 shows the basic information regarding the sample group and its division by socio-demographic indicators. The research included 225 (62.8%) women and 133 (37.2%) men.

66 (18.4%) respondents were 35 years old and younger, 121 (33.8%) were between 36 and 45 years old, 107 (29.9%) were between 46 and 55 years old, and 64 (17.9%) were 56 and older.

The division by education was as follows: 52 (14.5%) respondents had basic education, 146 (40.8%) had an apprenticeship certificate, 124 (34.6%) graduated from high school, and 36 (10.1%) had a university education (Table 1).

The highest score was 551 points, which, according to the Holmes-Rahe prediction, shows an 80% probability of health condition failure within the next 2 years. The average score of the respondents was 212.09, which means that there is a 50% probability of health condition failure within the next two years. The lowest score was 12 points, which equates to the lowest risk level of stress-induced health condition failure.

Table 1 – Descriptional statistics – division by the socio-demographic indicators

Gender			Age			Education		
Woman	225	62.8%	35 and younger	66	18.4%	basic	52	14.5%
Man	133	37.2%	between 36 and 45	121	33.8%	certificate of apprenticeship	146	40.8%
			between 46 and 55	107	29.9%	high-school graduation	124	34.6%
			56 and older	64	17.9%	university education	36	10.1%

Source: GAJU 037/2017/S

Table 2 shows the division of the respondents by the score, as follows:

- 130 (36.2%) respondents had less than 150 points, which indicates a very low probability of health condition failure;
- 138 (38.4%) respondents had between 150 and 300 points, which indicates a 50% probability of health condition changes within 2 years;
- 90 (25.1%) respondents achieved more than 300 points, which indicates an 80% probability of health condition failure within 2 years.

Table 2 – Group division of the respondents by the achieved score

		Number	Percentage
	under 150	130	36.2
	between 150 and 300	138	38.4
	over 300	90	25.1
	Total	358	99.7
Missing		1	0.3
Total		359	100.0

Source: GAJU 037/2017/S

The respondents had 43 different events from the previous year to choose from. The scale began with life events, such as small offences, Christmas or holidays. The events with the highest number of points, i.e. the most stressful ones, were, e.g. separation, divorce and the death of a partner.

The most frequent life event was Christmas. 228 respondents marked it as a stressful event. Christmas is one of the most important and financially demanding holidays of the year. The rush, shopping for presents etc., is becoming a constantly greater stress. For this reason, we understand the respondents choosing this event. The cost, mainly if there are children in families, can be one of the greatest.

The second most frequent event was an injury or severe illness (132×) and a change in the health condition of a family member (105×). Another of the most frequently marked events in this group (102×) was "employment change"; 88 respondents of those who chose it were men (Table 3).

Table 3 – Most frequently repeated life events

Christmas	228
Injury/severe illness	132
Change in the health condition of a family member	105
Employment change	102
Death in the family	75
Marriage breakup	66

Source: GAJU 037/2017/S

On the contrary, the least frequent event was change of religion. Nobody chose this option. The second least frequent event was incarceration (3×). "Change of recreational activities" was selected only 6 times (Table 4).

It was interesting to study whether the respondents had not experienced the events that they did not mark, or whether they had but did not find them stressful.

We were also interested in whether there was a statistically significant difference between the level of stress and gender, or whether it is influenced by any socio-demographic indicators, such as education and age. To test the difference between the gender and stress

Table 4 – The least repeated life events

Change of religion	0
Incarceration	3
Change of recreational activities	6
Death of a partner	9
Retirement	12
Divorce	12

Source: GAJU 037/2017/S

of the respondents, we used the t-test for two independent sample groups. The first group (men) achieved an average of 220.95 (116.697) and the second group (women) achieved the average of 206.84 (123.465). The level of significance was $p = 0.287$ (0.280) and the result of the t-test was $t = -1.066$ (−1.082). Therefore, there was no statistically significant difference between the respondents' gender and stress level.

Another tested socio-demographic indicator was education. Here, we also used the t-test for two independent sample groups. The first group included the respondents with the certificate of apprenticeship and the second group included high school graduates. There were a low number of respondents with "basic" and "university education", so they were not included in the statistical testing. The first group achieved an average of 202.99 (std. 111.950) and the second 210.56 (std. 127.696). The level of significance was p = 0.604 (0.608) and the result was $t = -0.520$ (−0.514). There was no statistically significant difference between the respondents' education and stress level.

The third tested indicator was age and its influence on the stress level. We used the Pearson correlation for testing, where the level of significance was $p = 0.203$ and the result was $r = 0.067$. We concluded that the respondents' age has no statistically significant influence on their stress level.

DISCUSSION

Many studies show the negative effect of stress on the human organism (e.g. Dilmaghani, 2017; Folkman, 2013). Our research focuses on the assessment of stressful events

using the Holmes-Rahe Stress Inventory standardized questionnaire. It helped us to learn how many respondents were endangered by health condition failure due to stress and that there is a very strong prediction of worsened health condition due to stress. We learned that 38.4% of respondents achieved such a score that indicated the possibility of severe changes in health condition within two years (in 50% of cases). 25.1% of respondents achieved such a high score that there was an 80% chance of health condition failure within two years. In total, 63.5% of respondents had a high chance of their organism being affected by negative stress. Stress from a low financial income causes many health problems. Studies often mention the problems in the cardiovascular system (Dimsdale, 2008; Kivimäki et al., 2002; Steptoe and Kivimäki, 2012), gastrointestinal system, digestion (Bhatia and Tandon, 2005; Nixon et al., 2011) or sleep (Han et al., 2012; Partinen, 1994; Van Reeth et al., 2000). One of the most mentioned stressful events that were marked by the respondents in our research was a severe illness or injury. It was the second most frequently repeated stressful event selected by 132 respondents.

Stress from financial insecurity is one of the greatest stressors. The study by Dimaghani (2017) confirms that financial dissatisfaction, regarding statistical significance, negatively affects the mental and physical condition. The working poor experience many stressful changes, and employment changes are one of the most frequent (Standing, 2008).

The respondents could choose from 43 different events that they had experienced in the previous year: 102× chose "employment change" or its loss. This option was chosen by almost 1/3 of respondents. Employment change was the fourth most frequently selected stressful event.

88 respondents who chose this option were men. More than women, men feel that their male role in the family is endangered due to the changes in the socio-economic condition and their employment (Möller-Leimkühler, 2007). It is more than clear that regarding the working poor, employment is very unstable. Very often, they have part-time jobs, change them or they are a one offs etc. In the literature, this is referred to as precariat (Vosko, 2011); an insecure job which changes and provides a low income.

CONCLUSION

It is very important to deal with the issue of stress and its effect on people. Many studies show the negative effect of stress, how many health issues it can cause and how big a burden in life it is (one of the stressful situations is a lower income). Our research showed that one-third of the working poor see the change or loss of employment as one of the most stressful events in the previous year. We also learned that the second most frequent stressful event was a severe illness or injury (132×) and the change in the health condition of a family member. We assume that these events are connected and the stress from financial insecurity can be their cause.

Unfortunately, our research showed that this issue is not sufficiently dealt with and so there are not many sources and good quality literature. We hope that, as the problems are growing, more experts will deal with this issue.

Conflict of interests

The authors have no conflict of interest to disclose.

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Contact:

Zuzana Řimnáčová, University of South Bohemia in České Budějovice, Faculty of Health and Social Sciences, Institute of Social and Special-paedagogical Sciences, J. Boreckého 1167/27, 370 11 České Budějovice, Czech Republic
Email: z.rimnacova@seznam.cz