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Unemployment and the health of Slovak adolescents

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The impact of unemployment on school leavers' perception of health

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Submitted

Abstract

Objectives. To explore the financial situation and social contacts of employed, unemployed and studying respondents; the relationship between their employment status and perceived health and possible mediating effect of financial strain and social contacts.

Methods. Data were obtained from 844 secondary school leavers (mean age 19.6) from Slovakia. The effect of unemployment on several health indicators (self-rated health, long-term well-being, vitality and mental health) was measured and subsequently controlled for perceived financial strain of respondents and their social contacts.

Results. The results showed highest financial strain among unemployed, whereas no differences in social contacts were found between three groups. Negative influence of unemployment on perceived health of respondents was confirmed. Nevertheless, strong influence was found only on long-term well-being and mental health of males. The influence on other health indicators was rather weak and a mediating effect of financial situation and social contacts was found.

Conclusions. Although unemployment was found to have a negative impact on health of adolescents, sufficiency of social contacts and living with parents in one household seem to decrease this effect and protect the health of unemployed people.

Introduction

The problem of youth unemployment (persons aged 15 to 24) is present in most countries worldwide. The number of unemployed youth increased considerably between 1993 and 2003 all over the world. The youth share of the total world unemployed now reaches 47 per cent (International Labour Office, 2004). Youth unemployment is a problem not only because of its high prevalence, but also because it can have serious long-term negative consequences.

There is evidence that younger and older adults experience unemployment in different ways. Young people usually do not perceive such financial and role pressure as married middle-aged unemployed people, and unemployment can be therefore less stressful for younger than for older adults. On the other hand, finding a full-time job is important for the transition to adulthood, and unemployment can deteriorate the process of identity formation of young people (Hannan et al., 1997; Reine et al., 2004). Results of recent studies are contradictory. Reine et al. (2004) found that unemployment is more related to ill health and smoking behaviour in young people than in adults. On the other hand, Breslin and Mustard (2003) reported worsening of mental health among older (31 to 55 years old) unemployed, while these associations were not found among younger people (18 to 30 years). The present study focuses especially on young people and concerns the impact of school leavers' unemployment on their subjective perception of some aspects of their health.

Unemployment among young people has been found to be associated with a number of negative health and personality consequences in many different countries. Unemployed youth in Ireland had higher levels of psychological distress than the employed and than full-time students (Hannan et al., 1997). Joblessness damaged self-esteem among young females in the United States (Goldsmith et al., 1997) and increased the occurrence of ill health symptoms, illness and the probability of worse general health in Canadian young adults (Sadava et al., 2000). In New Zealand, increasing exposure to unemployment was associated with increasing risks of psychiatric disorder in adolescence (Fergusson et al., 1997). Swedish unemployed youth reported more mental health problems than the employed (Axelsson & Ejlertsson, 2002). According to de Goede and Spruijt's (1996) findings from the Netherlands, unemployment is related to poorer mental health, more thoughts of suicide and more psychological stress, but is not connected with physical health among young adults. As the historical and societal settings in which unemployment occurs are very important in interpreting findings (Winefield & Fryer, 1996) there is a need for unemployment research in many different countries. None of the mentioned studies was performed in Central Europe, which has to some extent different societal settings compared with the countries in these studies.

The often reported consequences of unemployment include lack of financial sources (Jackson, 1999) and poorer quality of social support (Roberts et al., 1997). Bjarnason and Sigurdardottir (2004) found that perceived material deprivation increases with the length of unemployment

among young people. Financial pressure was found to aggravate the negative effect of unemployment on health (Ullah, 1990; Bjarnason & Sigurdardottir, 2004). On the other hand, sufficiency of social contacts and social support reduce the negative consequences of job loss (Axelsson & Ejlertsson, 2002). However we are not aware of any study investigating both these important negative consequences of unemployment.

In this study we aim to improve on limitations of previous studies and contribute to the knowledge about youth unemployment. We present data from a Central European country. Furthermore, we focus both on financial strain and social contacts of respondents as possible mediators in the unemployment – health relationship.

The main purpose of this paper is to explore whether unemployment influences adolescent's subjective perception of their health. Furthermore, we are interested whether perceived financial stress and social contacts can mediate the effect of employment status on health. Given the possibility that relationships are gender specific, our findings are presented for males and females separately.

Methods

Sample and Procedure

Participants for the study were the respondents from the second wave of the longitudinal study 'Socio-economic inequalities in health' (Madarasova Geckova et al., 2004). The first wave of the study was carried out in 1998 at 31 secondary schools in Kosice region in Slovakia. In the second way questionnaire was mailed to 1850 respondents during winter 2002 together with a stamped return envelope. One reminder was sent to those who did not reply. We received 844 usable questionnaires (42.7% male, 57.3% female). This represents a response rate of 45.5%. Males from apprentice schools were slightly underrepresented. However, a comparison of participants with non-participants showed no significant differences in health status at the time of the 1st wave. Their mean age was 19.6 years.

Measures

Health indicators

According to Hammarstrom and Janlert (1997), the most common way to recognise health problems among young people is through self-reported symptoms. Consequently, four subjective health indicators assessing several aspects of respondents' perceived health status were used in this study: self-rated health, long-term well-being, vitality and mental health.

Self-rated health is a one-item scale widely used in health studies as an indicator of general health status, because it is generally accepted as a good predictor of mortality and morbidity (Mathews et al., 1999; Sadava et al., 2000). Respondents assessed their health using a five-point scale from 1 - 'excellent' to 5 - 'bad'.

Long-term well-being was measured on a seven-point scale consisting of stylised faces. Respondents rated their feelings about their life in the previous year. The faces were coded into numbers with number 1 meaning the best well-being and number 7 the worst. This simple scale may provide a better representation of respondent's feelings than would similar verbal scales (Andrews, 1996). In previous researches the test-retest reliability of this scale was 0.70 and median validity coefficient was 0.82 (Andrews, 1996).

Vitality and *Mental health* are two scales of the 36-item RAND questionnaire (Hays et al., 1993). The vitality scale consists of four items focusing on energy and fatigue. Mental health is a five-item scale focusing on psychological distress. In both indicators, respondents were asked to evaluate their feelings during the previous four weeks using five-point Likert scales. Sum scores were then transformed into scales with a possible range from 0 (the worst health) to 100 (the best health). In this study, the score was reversed in line with other two health indicators. It means, the higher scores of vitality and mental health the worse health of respondents.

Employment status

Respondents were asked about their employment status. According to Jackson (1999) being a full time student is a potential alternative to employment in the time of young adulthood. Respondents were therefore divided into three categories: full-time students (66.3%), employed (11.5%) and unemployed (21.5%). Of the full-time students 71.5% were university students and 28.5% were students in the highest grades of secondary school. Eight respondents on maternity leave and two on military service were excluded from our analyses.

Financial situation

Financial situation can be measured using various indicators. Among the most objective indicators are income and occupation. However, there is evidence that subjective perception of financial situation is more meaningful for adolescents than objective income loss (Lempers et al., 1989; Hagquist, 1998). For this reason three subjective indicators of respondents' economic situation were used in the present study.

Perceived financial stress. The measurement of respondents' perceived financial stress was derived from Hagquist's questionnaire (Hagquist, 1998). The questions were adapted to the needs of Slovak adolescents. Respondents were asked if they had wanted to do certain activities in the recent past but had been unable to do them because of lack of money. Four items concerned with inability to go to the disco, to do sports, to buy special clothes and to go out with friends, were used with possible answers yes/no. The scores for this measurement range from 0 (no stress) to 4 (high stress).

Family affluence. This measurement was used as an indicator of consumption and material deprivation by Currie et al. (2000) and Wardle et al. (2002). The scale used in this study is composed of four questions concerning possession of a car, a telephone or a computer in the family, and the respondents having their own room. Possible answers were: no, yes one, yes several for the first three questions and no/ yes for the last question. Factor analysis showed low correlation of the last question (Do you have

your own room?) with the other items. The last item was therefore left out of the analyses. The scores for family affluence range from 0 (enough affluence) to 6 (lack of affluence).

Worries about lack of finances were measured using the simple question 'Do you ever have worries about your finances in the future?' with possible answers 1 - very often, 2 - often, 3 - sometimes, 4 - seldom, 5 - never.

Social contacts

Three simple questions were used to assess the number and to some extent quality of respondents' social contacts. Questions about feelings of loneliness and number of evenings spent with friends were included in the survey following the HBSC study by Currie et al. (2000). The last question about number of good friends of adolescents was added to extend the information about respondents' social contacts.

Loneliness. The feeling of loneliness, as a part of perceived social support, was measured using one question: 'How often do you feel lonely and feel that nobody understands you?' Possible answers were 0 - very often; 1 - often; 2 - sometimes; 3 - seldom; and 4 - never.

Number of good friends. The number of good friends was measured with four possible answers 1 - nobody, 2 - one or two, 3 - three to five, 4 - more than five.

Number of evenings spent with friends varied from 0 to 7.

Statistical Analysis

The analyses were all done using the statistical software package SPSS version 10.1. For analysis, firstly ANOVA and post hoc Scheffe tests were used to compare groups of unemployed, employed and studying respondents with regard to their financial situation and social contacts. Regression models were subsequently used to find the differences in health with regard to employment status of respondents. In the second step of regression analysis, the mediating effects of financial stress and social contacts on employment status and respondents' subjective health relationship were assessed.

Results

Table 1 presents several descriptive characteristics of the sample. The most frequent type of education was 4-year technical school (45%). Ten respondents were married and had one or more children. More than 96% of respondents lived with their parents in one household.

Table 1 Descriptive characteristics of the sample

		N	%
gender	males	361	42.8
	females	483	57.2
education	grammar school	243	28.8
	technical school	380	45.1
	4-year apprentice school	119	14.1
	3-year apprentice school	92	10.8
	2-year apprentice school or elementary education	10	1.2
employment status	student	559	66.3
	employed	96	11.4
	unemployed	179	21.2
	maternity leave	8	0.9
	military service	2	0.2
marital status	single	820	97.2
	married	10	1.2
	partnership	14	1.6
children	no	834	98.8
	yes one	7	0.8
	yes more	3	0.4
living	with parents	812	96.2
	with partner/husband, wife	14	1.6
	alone	18	2.2

Financial situation and social contacts. Firstly differences in financial situation and social contacts between students, employed and unemployed respondents were explored using ANOVA. Mean scores for each scale and differences between the three groups (including the Scheffé post hoc tests) are shown in Table 2. Unemployed males reported significantly higher financial stress ($p \leq .01$) and significantly less family affluence ($p \leq .001$) than studying males. Significant differences between these three groups of males were found also in respect of the number of evenings spent with friends. Unemployed males spent an average of nearly four evenings per week with friends, which is significantly more than students reported ($p \leq .001$). Among females, financial stress was significantly higher ($p \leq .001$) and family affluence significantly worse ($p \leq .001$) for unemployed respondents. Significant differences among females were found also in respect of worries about future finances. Unemployed and employed women worried about finances more often than students ($p \leq .05$). Unemployed females spent significantly more evenings with friends than students ($p \leq .01$).

Table 2 Financial situation and social contacts of respondents (mean scores and standard deviations; ANOVA used for comparison)

	Unemployed	Employed	Student	P value	Post hoc (Scheffe)
Males					
Financial stress (0 low - 4 high)	2.15 (1.48)	1.50 (1.61)	1.46 (1.37)	.002	U>S
Family affluence (0 enough - 6 lack of affluence)	3.17 (1.36)	2.70 (1.18)	2.40 (1.09)	.000	U>S
Worries about future finances (1 never - 5 very often)	1.72 (1.18)	1.45 (1.30)	1.43 (1.09)	.175	
Number of friends (1 nobody - 4 more than five)	3.19 (0.83)	3.31 (0.81)	3.31 (0.72)	.460	
Evenings with friends (0 - 7)	3.90 (2.43)	3.40 (2.10)	2.6 (1.78)	.000	U>S
Feelings of loneliness (0 very often - 4 never)	3.44 (1.19)	3.40 (1.07)	3.66 (1.03)	.183	
Females					
Financial stress (0 low - 4 high)	2.20 (1.58)	1.52 (1.57)	1.53 (1.34)	.000	U>S U>E
Family affluence (0 enough - 6 lack of affluence)	3.44 (1.20)	3.26 (1.22)	2.64 (1.23)	.000	U>S E>S
Worries about future finances (1 never - 5 very often)	2.03 (1.36)	2.02 (1.13)	1.74 (1.07)	.040	
Number of friends (1 nobody - 4 more than five)	2.96 (0.84)	2.81 (0.84)	3.00 (0.76)	.297	
Evenings with friends (0 - 7)	3.05 (2.09)	3.03 (2.29)	2.44 (1.80)	.005	U>S
Feelings of loneliness (0 very often - 4 never)	3.22 (1.16)	3.15 (1.13)	3.39 (1.02)	.141	

U – unemployed, E – employed, S – student

Table 3 presents the results of regression analyses with self-rated health, long-term well-being, vitality and mental health as dependent variables. The group of students was taken as a reference group. In step 1 only employment status was considered as an independent variable. In step 2 several explanatory variables in which significant differences between three study groups were found (financial stress, family affluence, financial worries – females only, evenings spent with friends) were included in the model.

Self-rated health. The results indicate that among both males and females employment status was a significant predictor of self-rated health (Table 3). However, among males the self-rated health of employed respondents was worse in comparison with students ($p \leq .05$), and among females unemployed respondents rated their health worse in comparison with students ($p \leq .05$). Employment status explains 1.3% and 0.9% of variances in self-rated health for males and females respectively.

In step 2, none of the four explanatory variables had significant effect on self-rated health of males and none of them mediated the effect of employment status on self-rated health of males. Among females, higher financial stress and more financial worries were significant predictors of worse self-rated health, and slightly mediated the effect of employment status on females' self-rated health. The significant effect of unemployment on

self-rated health disappeared after adjusting for other variables. All variables accounted for 1.7% and 4.8% of the variability in self-rated health for males and females respectively.

Long-term well-being. Employment status was associated with long-term well-being among both males and females ($p \leq .001$) (Table 3). Unemployed males and females reported worse long-term well-being in comparison with students. However, employment status explained only 3% of variance for both genders. In step 2 other explanatory variables were included in the model. It was found that among these variables the strongest predictors of worse long-term well-being were higher financial stress among males, and more worries about finances among females. After adjusting for other variables the effect of unemployment on long-term well-being slightly decreased but remained significant. Adjusted R^2 increased considerably – variables explained 8.2% of the variances for males and 10.9% for females.

Vitality. The results of regression analyses with vitality as dependent variable are presented in table 3. It was found that employment status (in step 1) was not a significant predictor of vitality either among males or females, and adjusted R^2 was near to zero. Among the other explanatory variables (included in step 2), higher financial stress and fewer evenings spent with friends were significant predictors of lower vitality among males. However, while high financial stress and often financial worries negatively influenced vitality among females, family affluence had an opposite effect. Females from families with lower family affluence reported significantly better vitality. Variables in step 2 explained 7.5% and 11.2% of the variances in vitality for males and females respectively.

Mental health. Unemployment was a significant predictor of worse mental health of respondents; however, it explained only 1.4% and 1.0% variance for males and females respectively. After adjusting for explanatory variables, among males higher financial stress ($p \leq .001$) and more evenings spent with friends ($p \leq .05$) were predictors of worse mental health and the effect of employment status on mental health remained significant. Among females, financial stress ($p \leq .001$) and financial worries ($p \leq .001$) negatively affected mental health. Lack of family affluence had, similarly to vitality, positive effect on mental health of females. The effect of employment status disappeared. Adjusted R^2 increased - variables explained 7.1% of variance for males and 12.9% for females.

Table 3 Regression models of the effect of employment status on health (the higher scores the worse health). In step 2 the effect of employment status adjusted for financial strain and social contacts indicators is assessed.

		Self-rated health		Long-term well-being		Vitality		Mental Health	
		males	females	males	females	males	females	males	females
		B	B	B	B	B	B	B	B
Step 1									
Employment status	Student	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
	Employed	0.38*	0.21	0.21	0.15	4.19	1.54	1.51	4.02
	Unemployed	0.16	0.19*	0.63***	0.58***	2.34	1.28	5.87**	4.64*
Adj. R ²		.013	.009	.030	.030	.001	.002	.014	.010
Step 2									
Employment status	Student	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
	Employed	0.39*	0.16	0.24	0.20	5.62	-1.94	2.36	4.16
	Unemployed	0.13	0.09	0.52**	0.53**	3.08	2.05	5.85**	3.35
Financial stress		0.06	0.06*	0.21***	0.06	2.93***	2.15***	2.65***	2.54***
Family affluence		0.00	0.02	0.01	-0.02	-1.19	-1.85**	-0.78	-1.60*
Financial worries		---	0.11**	---	0.30***	---	3.64***	---	3.60***
Evenings with friends		0.01	-0.01	0.03	0.02	-1.44**	-0.51	-0.87*	-0.31
Adj. R ²		.017	.048	.082	.109	.075	.112	.071	.129

* $p \leq 0.05$; ** $p \leq 0.01$; *** $p \leq 0.001$

Discussion

The present study explores the relationships between employment status, financial situation and social contacts of secondary school leavers and their subjective health status perception.

Firstly, groups of unemployed, employed and studying respondents were compared with regard to their perceived financial situation. Although there is evidence that young people have less financial responsibilities than adults and the loss of finances among young unemployed people is not significant (Mean Patterson, 1997; Hannan et al., 1997), our results show significantly higher financial strain reported by unemployed males and females in comparison with the employed and students. However, the cross-sectional design of the present study precludes answering the question whether financial strain is a consequence of unemployment or, through lower socio-economic status, a potential reason for being unemployed. Bad financial situation is usually associated with lower socio-economic status (SES), which is connected with lower education (Tuinstra et al., 1998; West & Sweeting, 2004); lower-educated people are at greater risk of being unemployed. Fergusson et al. (1997) found that youngsters from lower SES families were exposed to unemployment more often than those from better socio-economic backgrounds. Further research should be directed towards exploring whether selection (bad financial situation associated with lower SES leads to unemployment) or exposure (unemployment causes financial strain) is present among young unemployed people in Slovakia.

However, there is a limitation in assessing the financial situation of young people. With regard to financial situation of the respondents in our study, parental socio-economic status is important. Most of our respondents (98% of unemployed, 87% of employed and 98% of students), aged 19 to 22 years, lived with their parents in one household. Their answers about their financial situation are more about the situation in their family than about their own finances. If parents have enough financial resources to support their children, they probably do so regardless of whether the children are unemployed, employed or studying.

Secondly the three studied groups were compared on the basis of number of friends, evenings spent with friends and feelings of loneliness. Kieselbach (2003) argues that unemployment increases the risk of social exclusion of young people and embarrasses their overall integration into society. Our results seem to oppose this suggestion. In our sample, unemployed, employed and students did not differ in number of friends and feelings of loneliness. It appears that among school leavers to be unemployed does not mean to be alone, without friends. Furthermore, both unemployed males and females reported spending even more evenings with friends than their employed and studying counterparts. Unemployment among young people in Slovakia is associated with having plenty of free time; this was the most often mentioned positive consequence of unemployment in our research. Moreover, school leavers have a number of friends from their secondary school. If they became unemployed they do not lose them immediately. This can be related to our findings that unemployed school leavers do not suffer from loneliness or lack

of social contacts.

The main aim of the present study was to investigate the impact of unemployment on several aspects of school leaver's subjective perception of their health. We found that unemployment had a negative impact on three out of the four health indicators used (self-rated health – females only, long-term well-being and mental health), which accords with previous studies (De Goede & Spruijt, 1996; Schaufeli, 1997; Hannan et al., 1997; Hammarstrom & Janlert, 2002). Long-term well-being was strongly affected by unemployment both among males and females, and this effect remained even after controlling for possible confounders. However, only a weak effect of unemployment on self-rated health and mental health was found and after including financial situation and social contacts into the model, this negative effect decreased or disappeared. This differs from Sadava et al.'s (2000) finding. They reported no modification effect of income level on the linkage between employment and health. However, they used different health indicators from ours, their research participants were older than ours (mean age 29.4 years), and their research was conducted in Canada, within a cultural context that differs considerably from that of our study.

Among females, all the variables used explained 10.9%, 11.2% and 12.9% of variances for long-term well-being, mental health and vitality respectively. These figures are higher than among males or when only employment status was implemented in the analyses. These results suggest that among females financial situation and time spent with friends are much more important for their psychological health (but not general health) than unemployment itself.

Moderate health consequences of unemployment in our research could be related to social support and financial situation which respondents perceive. As mentioned earlier, one of the most important protective factors from the negative consequences of unemployment is social support (Roberts et al., 1997; Waters & Moore, 2002; Axelsson & Ejlertsson, 2002; Bjarnason & Sigurdardottir, 2004). As unemployed individuals in our research did not differ in number of friends or feelings of loneliness from the employed and students, it can be assumed that their social support is good enough to protect their health. Moreover, even though unemployed school leavers reported lack of finances, there is evidence that unemployed young people are not so financially stressed as unemployed adults, who are usually responsible for their families (Reine et al., 2004). Both factors, enough social support and lack of financial responsibilities, may lead to better coping with unemployment among young adults.

One interesting finding is that employed males reported worse self-rated health than students, whereas this association was not found among females. This result suggests that for young men having a job is also a stressful situation. A possible explanation of this finding is the problem of underemployment, which was investigated in some recent studies (Dooley & Prause, 1998; Jensen & Slack, 2003; Friedland & Price, 2003). Underemployed individuals have a job that is not appropriate to their training or education, are involuntary part-time unemployed or are dissatisfied with their job. Underemployment was related to poorer self-esteem (Prause

& Dooley, 1997), worse health (Fiedland & Price, 2003), and increased risk of alcohol misuse (Dooley & Prause, 1997). The problem of underemployment is also present in our sample; 27.3% of employed respondents reported they were not satisfied with their occupation and would like to change it. Another possibility for the finding of worse health among employed males is the previously-mentioned risk of selection. Of the employed males only one had finished grammar school and 67% had lower education. Lower education is associated with lower socio-economic status, which negatively influences health (Madarasova Geckova et al., 2004).

One limitation of the study should be mentioned. Respondents were asked whether they were unemployed or not. Nothing is known about the length of their unemployment. Young people unemployed for a longer time could be aggregated with those just recently unemployed. This may account for some of the modest associations observed in our study.

This study supports to some extent the previous evidence of the negative influence of unemployment on health among young people. Nevertheless, strong influence was found only on long-term well-being and partly mental health. The influence on other health indicators was rather weak and some mediating effects of financial situation and social contacts were found. Possible explanations for this finding are sufficiency of social contacts and living with parents in one household. However, these issues require additional attention.

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