



Socio-economic status as a predictor of life style in industrial city



Slachtova H, Tomaskova H, Splichalova A,

Department of Health Impact Assessment, Regional Institute of Hygiene, Ostrava, Czech Republic



Introduction

In epidemiological studies the outcomes are often confounded by the socio-economic status (SES) and demographic characteristics, especially in the specific population of the industrial city which inhabitants' life-style is impacted by heavy and coal-mining industry.

Objectives

The aim of the presented study was to identify the relationship between SES and demographic characteristics and the life-style.

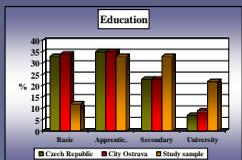
Methods

A structured questionnaire was elaborated, distributed to a random sample of some 3,000 of the population in Ostrava and collected by using the postal delivery. The data were double-entered, cleaned and analysed using the statistical software STATA. The SES and demographic factors were analysed by sex, age, education, marital status and economic situation of the family in the relationship with a wide range of information on life style. The methods used were chi-square test, the analysis of variance ANOVA and the logistic regression.

Results

The total number of returned and completed questionnaires was 634 (21.1% of the response rate). The lowest response-rate was in the group with the basic education.

Characteristic of the study sample



The compound of study sample by sex and age was homogeneous. By education the relatively lowest response-rate was in the group with the basic education, the highest in the university education comparing with the population of the city.

Significant differences were found by sex in education (higher number of men in the category with apprenticeship and university education), in marital status (more women living alone in age over 51). More than 47% of the respondents were employed, mostly in the heavy industry (26.6%). The total unemployed respondents were 6.6% (the official unemployment rate in the CR – 8.8%). About 70% of the respondents live with a partner and the same number is without a confession.

The respondents evaluated their life standard as an average (71.6%), they were not satisfied with the standard (56.5%) and they perceived the worsening trend. Significant differences were found by sex in household income (more women in the lowest income category, men in the highest one).

Life-style

The most of the respondents do not practise any regular physical activity (61.0%) – they declare lack of free time and conditions. They spend time by taking care about children, housekeeping. About a quarter of the respondents do not leave the city for weekends, but a half of the people spend holidays out of the city, usually by travelling.



Leisure time (23 hours/week in average), weekend and holiday activities were significantly correlated with education – the higher education, the more active (sport, physical training, hiking, trips) people were, unlike people with the lower education who prefer to stay at home. Very busy were age groups between 41-60 that reported significantly less free time, less frequency of contacts with friends, less time for physical training.

The active way of spending holiday significantly declined with the increasing age. People living in more comfortable housing conditions (concerning density of housing) were more than a half as likely to spend their holidays in an active way, the same as people living alone. Family status differences in a way of spending holiday disappeared after adjustment in the model.

The holiday activity was also significantly correlated with education, there existed a trend – but after adjustment the significant difference remained only between the group with a basic education and the other educational groups (p<0.01).

The positive correlation was also found between holiday activity and economic situation – people with the average economic situation of the family are more than twice as likely and people with the above standard economic situation more than three as likely to spend an active holiday (p<0.01 – in not adjusted data).

Categories of variables	CRUDE OR			MODEL 1				
	OR	95%CI	P	OR	95%CI	P		
Sex								
men	243	1*		1*				
women	352	1.1	0.92-1.36	0.137	1.1	0.74-1.63	0.645	
Age								
25-30	72	1.1		1.1				
31-40	114	0.49	0.26-0.93	0.028	0.57	0.29-1.12	0.102	
41-50	122	0.54	0.30-0.98	0.024	0.64	0.32-1.27	0.137	
51-60	153	0.44	0.24-0.80	0.007	0.34	0.18-0.67	0.002	
>60	132	1.26	0.67-2.38	0.139	1.27	0.64-2.51	0.141	
Education								
University	140	1*	0.29-2.94	0.004	1.2	0.10-15.1	0.009	
Basic	76	0.52	0.15-1.87	0.002	0.54	0.15-2.06	0.001	
Apprenticeship	211	0.50	0.25-1.00	0.004	0.63	0.38-1.05	0.078	
Secondary	207	0.76	0.46-1.21	0.248	0.86	0.52-1.40	0.533	
Occupation								
Non-active	246	0.91	0.66-1.21	0.759	1.16	0.93-1.46	0.193	
With partner living alone	130	1.00	1.02-1.18	0.040	1.05	0.66-1.17	0.038	
Family								
With partner	443	1*		1*				
Living alone	190	1.00		1.00				
Economic situation								
Average	444	1.00	1.17-1.37	0.009	1.04	1.14-1.33	0.016	
Above average	38	2.38	1.52-3.76	0.003	2.41	1.09-5.36	0.032	
Over average	48	1.48	1.17-1.89	0.001	1.54	1.11-2.12	0.008	
Density of housing	room/corner	625	0.87	0.64-1.17	0.347	0.94	0.63-1.41	0.766

1: - referent category
P: P<0.05
Model 1 - controlled for all variables in model

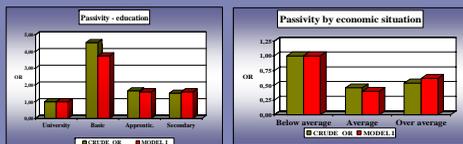
A half of the respondents regularly drink black coffee (1-2 cups a day), 56.5% are smokers or ex-smokers. As for a diet most of the people have regular intake of food – at least one of the food a day is warm one. More than a half of respondents reported their diet as healthy, significantly more in women (p<0.01) and older people (p<0.001). The largest group of respondents spent for food about 30-40% of their incomes (40.4% of the respondents).

The older people were, the significantly more they looked for information about healthy life-style, undertaking the preventive medical care. Women spent nearly twice more time by taking care of children and keeping the house and had a half of free time. Women also significantly more searched for information about healthy life-style, applied the recommendations, unlike men who rather visit the preventive medical examination.

Most of the respondents suffer by serious problems (54.2%), mostly family and financial ones. They also declared the frequent contacts with friends and the general contentment. As for the values – health was given as a priority in 98% of respondents, followed by relationships with children and partners.

Passivity

- was significantly correlated with education – significantly more passive were people in the group with a basic education – these people were 4.5 more



as likely to be passive (p<0.001) comparing with people with the university degree. The passivity showed the inverse correlation with the level of education.

Passivity was also significantly correlated with the occupational status (p<0.05). People with the average economical situation were about half less passive than people with the economical situation below average.

Categories of variables	CRUDE OR			MODEL 1				
	OR	95%CI	P	OR	95%CI	P		
Sex								
men	243	1*		1*				
women	352	1.1	0.72-1.72	0.639	0.99	0.40-1.64	0.982	
Age								
25-30	72	1.1		1.1				
31-40	114	0.79	0.23-1.90	0.607	0.91	0.26-3.20	0.848	
41-50	122	1.25	0.69-2.31	0.297	1.06	0.75-1.50	0.229	
51-60	153	1.36	0.29-2.87	0.258	1.31	0.25-3.13	0.245	
>60	132	1.26	0.67-2.38	0.139	1.27	0.67-2.41	0.012	
Education								
University	140	1*	2.13-9.67	0.000	1*	1.49-8.80	0.000	
Basic	76	0.65	0.17-2.51	0.004	0.66	0.17-2.51	0.004	
Apprenticeship	211	1.66	0.87-3.17	0.121	1.60	0.81-3.20	0.178	
Secondary	207	1.41	0.78-2.57	0.219	1.29	0.67-2.51	0.176	
Occupation								
Active	246	1*	1.04-2.50	0.003	1.20	0.62-2.32	0.181	
Non-active	190	0.99	0.99-1.55	0.846	0.96	0.53-1.75	0.899	
Family								
With partner living alone	443	1*		1*				
Living alone	190	0.99		0.99				
Economic situation								
Below average	138	1*		1*				
Average	444	0.68	0.28-1.76	0.002	0.54	0.13-0.80	0.002	
Over average	38	0.48	0.12-1.26	0.116	0.62	0.17-2.19	0.456	
Density of housing	room/corner	625	0.87	0.64-1.17	0.347	0.94	0.63-1.41	0.766

1: - referent category
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Model 1 - controlled for all variables in model

Lack of psychological well being

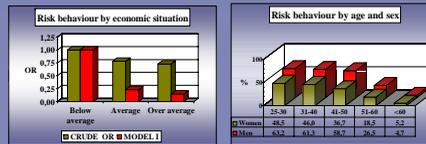
- was in the significant relationship with the economic situation (p<0.001) also after adjustment for all factors in the model. Lack of psychological well-being was more than 1.5 higher in people living alone (p<0.05). Other significant correlations of lack of psychological well-being and education or density of housing (p<0.05) disappeared after adjustment for all SES factors.

Categories of variables	CRUDE OR			MODEL 1				
	OR	95%CI	P	OR	95%CI	P		
Sex								
men	243	1*		1*				
women	352	1.1	0.66-1.82	0.091	1.08	0.71-1.69	0.238	
Age								
25-30	72	1.1		1.1				
31-40	114	1.56	0.79-3.09	0.271	1.42	0.72-2.63	0.238	
41-50	122	1.01	0.64-1.60	0.971	1.27	0.68-2.49	0.009	
51-60	153	0.92	0.25-3.90	0.852	1.08	0.64-1.81	0.331	
>60	132	1.08	0.76-1.57	0.225	1.09	0.51-2.35	0.822	
Education								
University	140	1*		1*				
Basic	76	2.09	1.00-4.36	0.048	0.77	0.28-2.05	0.052	
Apprenticeship	211	1.99	1.09-3.64	0.024	0.99	0.60-1.69	0.989	
Secondary	207	1.68	0.96-2.94	0.133	0.96	0.48-1.91	0.912	
Occupation								
Active	246	1*		1*				
Non-active	190	0.92	0.61-1.39	0.697	0.86	0.44-1.79	0.678	
Family								
With partner living alone	443	1*		1*				
Living alone	190	1.62	1.03-2.52	0.004	2.09	1.18-3.78	0.014	
Economic situation								
Below average	138	1*		1*				
Average	444	0.16	0.09-0.27	0.000	0.16	0.09-0.30	0.000	
Over average	38	0.68	0.01-6.84	0.098	0.84	0.07-10.18	0.000	
Density of housing	room/corner	625	0.68	0.28-0.93	0.007	0.71	0.49-1.09	0.012

1: - referent category
P: P<0.05
Model 1 - controlled for all variables in model

Risk behaviour

- was significantly adversely correlated with age (especially in the age groups over 51) – this relationship declined after adjustment in the model. In people living alone risk behaviour appeared nearly twice more than in people with a partner (p<0.01), after adjustment for all the SES factors even more than three as likely often than in the other people. Risk behaviour was significantly higher also in people living in overcrowded housing conditions (p<0.01 after adjustment) and in people with an active occupational status (p<0.001 after adjustment). The significant differences in risk behaviour between men and women in favour of women (p<0.01) lost its significance after adjustment.



Risk behaviour in relationship with SES factors

no physical activity - after consulting people with health reasons, drink more than 3 cups of coffee a day, smoker, without regular food, self-evaluation of own diet as unhealthy, do not visit a physician when health disorders appear, work during a temperature caused by a cold, refuse to take benefits, no preventive medical examinations, do not limit intake of unhealthy foods.

Categories of variables	CRUDE OR			MODEL 1			
	OR	95%CI	P	OR	95%CI	P	
Sex							
men	243	1*		1*			
women	352	1.25	0.79-2.00	0.002	1.2	0.70-2.11	0.011
Age							
25-30	72	1.1		1.1			
31-40	114	0.79	0.47-1.39	0.451	0.81	0.38-1.69	0.781
41-50	122	0.77	0.39-1.52	0.493	0.51	0.21-1.11	0.091
51-60	153	0.29	0.12-0.68	0.000	0.39	0.17-0.84	0.027
>60	132	0.41	0.01-6.13	0.016	0.36	0.08-2.51	0.001
Education							
University	140	1*		1*			
Basic	76	0.45	0.10-1.98	0.272	0.66	0.26-1.63	0.012
Apprenticeship	211	1.92	0.65-5.82	0.002	1.01	0.28-3.61	0.092