



Socio-Economic Inequalities in Health Related Quality of Life between Manual and Non-manual Workers in Greece.

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INTRODUCTION

Several research studies have highlighted a significant relationship between socioeconomic inequalities and health status. Individuals with lower income, education and occupational class, tend to report more problems with their subjective assessment of health status. However it is interesting to note that this relationship is not consistent across: a) the life cycle and b) the European Member States. As far as life cycle is concerned health inequalities are more apparent among the infants, young and the elderly. Using longitudinal data by occupational class a North-South divide was found in Europe. In England, Ireland and the Nordic Countries manual classes present a lower level of health in comparison to non-manual classes. In France, Switzerland, and the Mediterranean area, there were no significant differences in health between manual and non-manual workers.

OBJECTIVE

The purpose of this study is to investigate the extent of inequalities in Health Related Quality of Life between manual and non-manual occupational classes in Greece, using the EQ-5D instrument.

MATERIAL AND METHODS

Data Sources

In the year 2000, a face to face survey was conducted in three heavy industries (military, shipyard, and metal) in Greece. The response rate was very high (98%) because of the close collaboration with the labour unions and the employers. In total 472 workers (men 86% and women 14%) participated in the study, of which 352 were manual and the rest 120, were non-manual. The mean age of the sample was 44.5 years (s.d.=9.1). Table 1 provides an overview of the socio-economic characteristics of the sample.

Table 1 Socio-Economic Characteristics

VARIABLES	MANUAL		NON MANUAL	
	Abs.	Freq.	Abs.	Freq.
DEMOGRAPHIC				
Male	320	96.1	79	61.2
Female	13	3.9	50	38.8
EDUCATION				
Primary	157	47.1	8	6.2
Secondary	97	29.1	7	5.4
Lyceum	60	17.9	70	53.8
Technical	14	4.2	18	13.8
University	5	1.5	27	20.8
SMOKING				
Smokers	198	59.1	69	52.7
Non-Smokers	137	40.9	62	47.3
AGE				
Mean	45.1		43.5	
Standard Dev.	9.0		9.3	
VAS				
Mean	76.2		78.8	
Standard Dev.	16.4		16.3	

STATISTICAL ANALYSIS

Data were analysed with logistic regression analysis. The dependent variable was coded with 0 for manual and 1, for non manual workers. The independent variables included the EQ-5D dimensions, the VAS and other socio-demographic variables. The following model was developed:

$$\ln\left(\frac{p}{1-p}\right) = \alpha + BX + \varepsilon \quad \text{or} \quad \frac{p}{1-p} = e^{\alpha + BX} e^{\varepsilon}$$

Where P/1-P shows the odds ratio and presents the probability of emergence of an event to the probability of non-emergence. X are independent variables, B are coefficients and e^{BX} describes the effect of independent variables on the odds ratio.

The results of the logistic regression analysis are shown in table 2.

RESULTS

The mean values in the VAS scale for non-manual workers were 78.8 (s.d. 16.3) and for manual 76.2 (s.d. 16.4). (Diagramme 1). Statistically significant differences in EQ-5D were found in Pain/Discomfort and Anxiety/Depression.

Diagramme 1. Mean VAS values for manual and non manual workers in Greece by age profile.

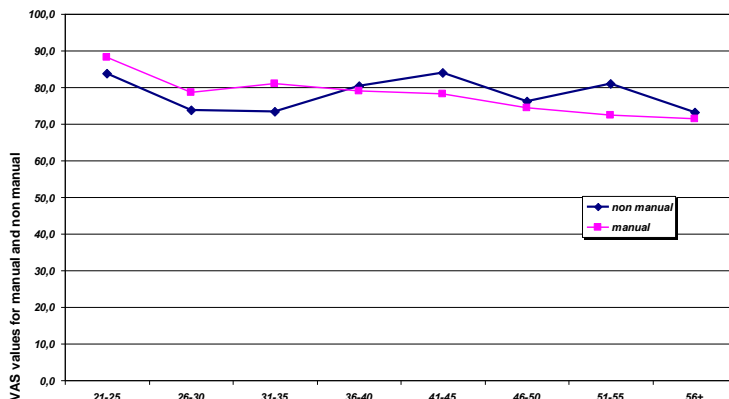
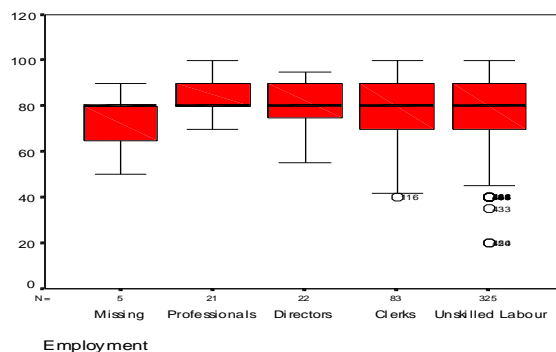


Table 2. Logistic Regression relating Occupational Status with EQ-5D dimensions and other Socio-demographic variables.

Variable	B value	S. E	Wald	Exp(B)
Age	0.026	0.015	2.95	1.02
Education	1.471	0.159	85.21	4.35
Mobility	0.637	0.437	0.02	1.06
Self-Care	0.277	0.388	0.51	1.32
Usual Activities	0.798	0.532	1.78	2.03
Pain/Discomfort	-0.63	0.297	4.49	0.53
Anxiety/Depression	-0.44	0.244	3.24	0.64
VAS	-0.01	0.012	0.33	0.99
Constant	-4.881	1.682	8.41	

Cox and Snel $R^2 = 0.33$, Nagelkerke $R^2 = 0.48$.
B = estimated coefficients, S.E.= standard Errors, Wald Statistics, Exp(B) = odds ratio 1/1-p.

Table 3 VAS values by Employment Status.



CONCLUSIONS

- The educational status of the non manual workers is 4.3 times higher than that of the manual workers. This difference is statistically significant at $\alpha=0.01$.
- The VAS values of the Non-manual workers are marginally higher than that of the manual workers.
- There are no statistically significant differences in mobility, self care, and usual activities between manual and non-manual workers.
- The odds ratios of Pain/Discomfort in Non-manual workers are lower by 47% in comparison with the manual.
- The odds ratios in Anxiety/Depression in Non-manual workers are lower by 36% in comparison with the manual.
- The findings suggest that possible improvements in the psycho-social aspects of the working environment, would reduce the socio-economic inequalities in health in the working population.