

Bergen University College

The influence of life-style factors on health-related quality of life



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BACKGROUND

Smoking, excessive alcohol consumption and overweight are related to a number of adverse health effects, including cardiovascular diseases. Health-related quality of life questionnaires give an overall measure of the consequences of varying health on the daily living.

OBJECTIVE

To estimate the relation between life style factors and health related quality of life in a general population.

RESULTS

	Number of subjects	Physical summary (PCS)	Mental summary (MCS)
Never smoked	7 224	50.7	50.6
Smoked earlier	5 461	50.4	50.5
Current smokers (all)	6 977	49.0	49.0
<i>No. of cigarettes per day</i>			
1 to 5 sig.	904	50.5	49.7
6 to 10 sig.	2 561	49.3	49.7
11 to 15 sig.	2 070	48.8	49.0
16 to 20 sig.	1 149	47.8	47.4
21 to 30 sig.	220	46.7	45.7
31 to 84 sig.	33	42.7	42.0

Table 1. Smoking was related to reduced physical and mental health with clear dose-response relations. Ex-smokers had almost the same mean levels as non-smokers.

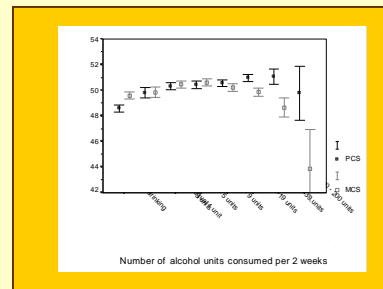


Figure 1. Inverse U-shape relationships were found for **alcohol consumption** reaching a maximum mean physical score for the category of 10-20 units per week and 3-4 units for mental health.

METHOD

The Hordaland Health Study '97-'99 (HUSK) was conducted during 1997-99. The study population included all individuals in Hordaland County born 1950-51 and 1953-57. A total of 22,312 individuals participated; the response rate was 60% for men and 72% for women.

Effects of smoking, alcohol consumption, body mass index (BMI) and physical activity on the physical and mental component scales of the SF-12 Health Survey were estimated using a 3-way analyses of covariance.

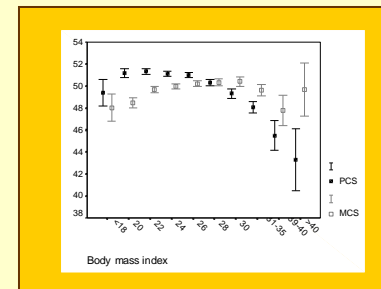


Figure 2. Inverse U-shape relationships were found also for the **BMI**. Maximum mean score for the physical component was found at 22 kg per m², while the maximum for the mental health component was at 30 kg per m², outside the recommended range (18.5 – 24.9).

	Number of subjects	Physical summary (PCS)	Mental summary (MCS)
<i>Light activity (without sweating or being out of breath)</i>			
No such activity	810	47.3	48.6
Less than one hour per week	2 747	48.7	48.8
1 - 2 hours per week	7 253	50.1	49.9
3 hours or more per week	8 465	50.6	50.5
<i>Heavy training (with sweating and being out of breath)</i>			
No such activity	5 426	47.9	49.0
Less than one hour per week	5 440	50.2	49.8
1 - 2 hours per week	5 607	51.1	50.5
3 hours or more per week	2 667	51.8	51.2

Table 2. Physical training was strongly related to increased physical and mental health.

All effects were statistically significant, also in the multivariate model.

CONCLUSIONS

- **Smoking** was related to reduced health-related quality of life.
- The results support the hypothesis of the positive relation between moderate **alcohol consumption** and health, although the maximum mental health was reached at a relatively low level of intake.
- The results suggests marked differences in the mechanisms between **overweight** and physical and mental health.
- **Physical training** was strongly related to increased physical and mental health.