

The Fagerström test for nicotine dependence (FTND) in a twin-family study



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Introduction

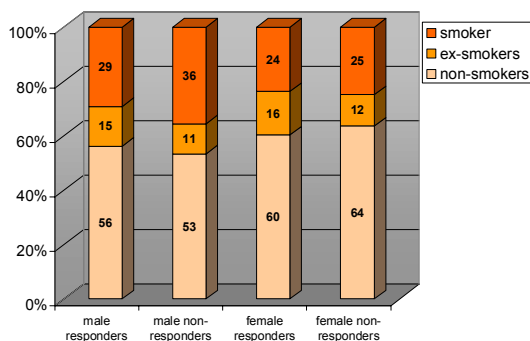
The study is part of a longitudinal questionnaire study that assesses families with adolescent and young adult twins every two year since 1991. In 2000 a questionnaire on health, personality, alcohol use and smoking was mailed to twins, siblings and spouses of twins.

	1991	1993	1995	1997	2000*
Fathers	1497	1785	1577	-	-
Mothers	1638	1923	1690	-	-
Twins	3394	3884	3408	3141	4356
Siblings	-	-	1500	1444	1351
Partners	-	-	-	-	681
Total	6529	7592	8175	4584	6388

Data collection is not finished yet.

Selection bias?

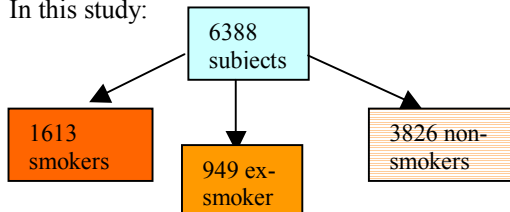
Percentage smokers in the responders group (n=6359) and non-responders group (n=1908).



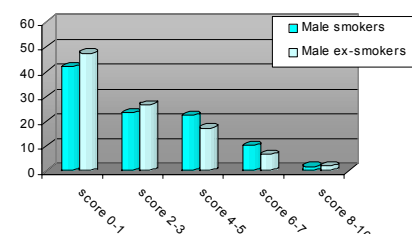
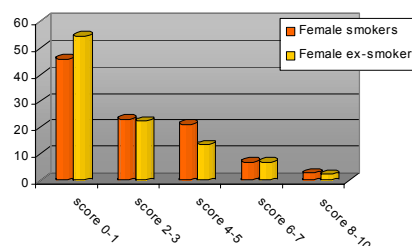
Nicotine dependence

Nicotine dependence is measured with the Fagerström Test for Nicotine Dependence

In this study:



FTND-score



The number of subjects in a family with FTND score:

subjects in a family (n)	FTND score:			
	>=0	>=2	>=5	>=6
1	985	550	298	185
2	517	153	47	18
3	115	16	6	3
4	31	2	1	
5	11	2		
6	3	1		
7	3			

Correlations

	Smoking status (tetrach cor.)		FTND-score (pearson cor.)	
	r	n	r	n
MZM	.82	241	.55	73
DZM	.64	137	.26	35
MZF	.82	835	.66	159
DZF	.43	312	.33	69
DOS	.38	306	.16	71
Br-br	.36	94	.31	29
Sis-sis	.65	179	.23	58
Br-sis	.40	222	.24	50
Spouse	.44	661	.48	154

Conclusions:

- Selection bias for men but not for women.
- FTND of 1613 smokers and 949 ex-smokers: 10,8 % of the smokers is highly dependent (FTND score >=6) on nicotine and 9,4% of the ex-smokers was highly dependent.
- Nicotine dependence: influenced by genetic factors
- Future research: to collect dna from nicotine dependent sib-pairs for linkage analysis.