Factors perceived by Portuguese adults as influent in food consumption

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Introduction and Aims

The knowledge about the factors perceived by consumers to have major influence in their food consumption is of the utmost importance when planning any public health intervention. The **aims** of this work were to evaluate the factors perceived by Portuguese adults as having the greatest importance in their food consumption and to relate their selection with socio-demographic and health characteristics.

Participants and Methods

Data from the study "Portuguese Population's Food Habits and Lifestyles" were used. A national representative sample of 3529 subjects was interviewed at home between February and April 2009. The present analysis is carried out in 2855 subjects due to incompleteness of 674 records. Subjects were asked to select from a list of fourteen, the three factors which had the greater importance in their food consumption (Lennernäs et al. 1997). Physical activity was evaluated by the short version International Physical Activity Questionnaire (IPAQ; Craig et al. 2003). Binary logistic regression models were computed to estimate the odds of selecting each of the factors according to sex, age, education level, civil status, professional occupation, region of residence, BMI category (WHO 1998), physical activity level and smoking habits (OR adjusted for all other variables).

Results and Discussion

"Taste" was the most selected factor, followed by "price" and "trying to eat healthy" (Table 1). The reasons underlying the selection of these factors as major determinants of food consumption should be explored in future research. Due to their utility for the design of health promotion interventions, we highlight the relationships between sex, age and BMI category and factors perceived as influent in food consumption (Table 2). Men selected more "other person decides most of the foods I eat", while women selected more "vegetarian eating or other special practices", "price", "content of additives, colorings and preservatives", "controling weight", "trying to eat healthy" and "quality or freshness of foods". Overweight and/or obese people selected more than normal weight ones "other person decides most of the foods I eat", "diet recommended by the physician" and less than normal weight subjects "vegetarian eating or other special practices".

Table 1. Factors perceived as influent in food consumption.

1	Taste	53,3%	**8**	Easiness or convenience of preparation	20,1%
2	Price	32,9%	**9**	Controling weight	18,2%
3	Trying to eat healthy	32,6%	**10**	Diet recommended by the physician	8,3%
4	Habit or routine	29,6%	**11**	Presentation or packaging	6,8%
5	Food availability	25,6%	**12**	Vegetarian eating or other special practices	3,4%
6	Quality or freshness of foods	24,0%	**13**	My cultural, religious or ethnic roots	3,4%
7	Other person decides most of the foods I eat	21,2%	**14**	Content of additives, colorings and preservatives	3,3%

Table 2. Determinants of factors perceived as influent in food consumption.

	1		2		3		4		5		6		7		8		9		10		11		12		13		14	
	OR adj.	p	OR adj.	p	OR adj.	p	OR adj.	p	OR adj.	p	OR adj.	p	OR adj.	p	OR adj.	p	OR adj.	p	OR adj.	p	OR adj.	p	OR adj.	p	OR adj.	p	OR adj.	p
SEX (vs. Female)		**0.830**		**<0.001**		**<0.001**		**0.300**		**0.130**		**0.001**		**<0.001**		**0.815**		**<0.001**		**0.289**		**0.302**		**0.003**		**0.936**		**0.003**
Male	1.018	0.830	0.669	<0.001	0.596	<0.001	1.100	0.300	1.158	0.130	0.706	0.001	4.138	<0.001	1.025	0.815	0.558	<0.001	0.839	0.289	1.191	0.302	0.485	0.003	1.019	0.936	0.488	0.003
AGE (vs. 18-29 years)		**0.407**		**0.195**		**0.971**		**0.176**		**0.001**		**0.349**		**<0.001**		**0.001**		**0.117**		**<0.001**		**0.024**		**0.708**		**0.001**		**0.084**
30-44 years	0.990	0.945	1.097	0.565	0.994	0.970	1.422	0.030	1.564	0.007	0.870	0.389	0.496	<0.001	0.833	0.275	1.015	0.936	1.267	0.483	0.625	0.070	0.737	0.414	0.875	0.744	2.158	0.073
45-64 years	1.185	0.273	0.948	0.757	0.971	0.855	1.370	0.067	1.214	0.280	0.745	0.088	0.464	<0.001	0.522	<0.001	1.067	0.739	1.794	0.086	0.889	0.664	0.720	0.419	1.651	0.220	2.842	0.017
≥ 65 years	1.115	0.611	0.719	0.155	1.049	0.836	1.282	0.294	0.768	0.293	0.799	0.371	0.648	0.132	0.468	0.008	0.629	0.107	5.128	<0.001	0.394	0.037	0.501	0.267	6.559	0.001	1.764	0.360
EDUC. (vs. Bach./univ.)		**0.069**		**<0.001**		**<0.001**		**0.020**		**<0.001**		**0.005**		**0.001**		**0.038**		**<0.001**		**0.035**		**<0.001**		**0.037**		**0.070**		**0.172**
< 4th grade	0.547	0.004	6.310	<0.001	0.558	0.009	0.763	0.252	1.966	0.007	0.968	0.895	0.964	0.906	0.385	0.002	0.199	<0.001	0.472	0.015	0.055	0.002	0.366	0.247	1.213	0.684	0.697	0.544
4th grade	0.827	0.198	3.382	<0.001	0.527	<0.001	1.399	0.037	2.090	<0.001	0.838	0.298	1.584	0.023	0.607	0.011	0.544	0.001	0.500	0.004	0.265	<0.001	1.732	0.165	0.311	0.012	0.484	0.079
6th grade	0.822	0.224	2.601	<0.001	0.671	0.019	1.154	0.415	1.906	<0.001	0.779	0.178	2.130	<0.001	0.735	0.129	0.430	<0.001	0.532	0.029	0.602	0.096	0.284	0.101	1.002	0.995	0.845	0.691
9th grade	0.964	0.759	1.765	<0.001	0.518	<0.001	1.255	0.079	1.949	<0.001	0.714	0.012	1.723	0.001	0.845	0.224	0.560	<0.001	0.546	0.012	0.637	0.033	0.896	0.734	0.749	0.352	0.927	0.794
12th grade	0.852	0.169	1.733	<0.001	0.553	<0.001	1.305	0.037	1.512	0.002	0.596	<0.001	1.455	0.019	0.867	0.288	0.959	0.761	0.852	0.488	0.738	0.135	0.653	0.157	0.797	0.468	0.488	0.026
CIVIL STATUS (vs. Married)		**<0.001**		**0.005**		**<0.001**		**<0.001**		**<0.001**		**<0.001**		**<0.001**		**<0.001**		**0.036**		**0.297**		**0.375**		**0.825**		**0.919**		**0.007**
Single	1.440	0.005	0.798	0.112	0.779	0.063	1.311	0.053	1.738	<0.001	0.618	0.001	0.819	0.246	1.162	0.330	0.714	0.045	0.679	0.142	1.210	0.419	1.272	0.477	1.170	0.644	0.679	0.256
Separated/divorced	0.636	0.001	1.519	0.003	0.384	<0.001	1.789	<0.001	1.946	<0.001	0.496	<0.001	0.313	<0.001	2.340	<0.001	1.126	0.480	0.746	0.276	1.233	0.411	1.021	0.957	0.845	0.652	0.463	0.058
Widowed	1.058	0.695	1.116	0.466	0.585	0.001	1.603	0.003	1.192	0.311	0.635	0.012	0.788	0.247	1.798	0.003	1.421	0.071	1.102	0.627	1.638	0.120	0.788	0.587	0.944	0.882	0.179	0.003
PROF. OCCUP. (vs. Active)		**0.825**		**0.023**		**0.145**		**0.062**		**0.028**		**<0.001**		**<0.001**		**0.833**		**0.977**		**<0.001**		**0.029**		**0.456**		**0.015**		**0.193**
Student	0.913	0.561	1.060	0.740	0.740	0.075	1.112	0.536	0.801	0.207	0.486	<0.001	2.637	<0.001	0.841	0.339	1.041	0.842	0.421	0.089	0.631	0.107	0.485	0.067	0.889	0.786	1.699	0.298
Unemployed	0.931	0.644	1.558	0.006	0.800	0.186	0.734	0.079	0.554	0.002	0.632	0.015	2.424	<0.001	0.925	0.679	1.097	0.627	2.134	0.006	1.389	0.205	0.736	0.479	0.665	0.405	1.688	0.150
Housewife/househusband	1.197	0.334	0.804	0.251	1.284	0.199	0.669	0.054	0.779	0.255	1.216	0.331	0.216	0.009	0.815	0.446	0.945	0.811	2.237	0.004	2.179	0.031	1.007	0.989	0.263	0.038	0.446	0.195
Retired	1.073	0.656	0.783	0.141	0.940	0.719	0.708	0.046	0.912	0.612	0.613	0.010	1.139	0.553	0.944	0.796	1.064	0.768	1.259	0.363	1.602	0.134	1.185	0.733	0.208	0.001	1.571	0.271
REGION (vs. Norte)		**<0.001**		**<0.001**		**<0.001**		**<0.001**		**0.014**		**0.002**		**0.173**		**0.009**		**0.080**		**0.043**		**0.446**		**<0.001**		**0.482**		**0.181**
Centro	0.815	0.061	0.508	<0.001	1.813	<0.001	1.520	<0.001	1.088	0.493	1.195	0.167	0.812	0.147	1.494	0.003	0.689	0.014	0.597	0.015	0.778	0.247	1.767	0.249	1.509	0.134	1.035	0.915
LVT	0.458	<0.001	0.813	0.040	2.158	<0.001	1.130	0.239	1.064	0.563	1.279	0.029	0.815	0.093	1.531	<0.001	0.976	0.841	0.679	0.025	0.719	0.069	8.935	<0.001	0.871	0.616	2.018	0.007
Alentejo	0.468	<0.001	0.613	0.014	2.190	<0.001	1.431	0.066	0.496	0.004	1.714	0.008	0.492	0.009	1.183	0.492	0.645	0.109	0.484	0.051	0.544	0.175	4.437	0.010	1.664	0.244	1.517	0.414
Algarve	0.368	<0.001	0.799	0.367	2.108	0.002	2.186	0.001	0.925	0.770	0.775	0.399	0.797	0.468	1.144	0.655	1.080	0.794	0.474	0.140	0.652	0.399	6.396	0.002	0.897	0.879	1.338	0.669
Madeira	0.349	<0.001	0.855	0.571	1.689	0.057	1.381	0.235	0.954	0.873	1.046	0.886	1.062	0.855	1.127	0.714	1.483	0.196	1.403	0.414	0.872	0.780	7.277	0.005	0.936	0.926	1.658	0.462
Açores	0.963	0.890	0.808	0.460	2.163	0.007	0.680	0.249	0.417	0.024	2.717	<0.001	0.833	0.606	1.741	0.083	0.866	0.699	0.624	0.384	0.429	0.239	2.947	0.291	1.569	0.481	0.959	0.964
BMI CAT. (vs. Normal)		**0.445**		**0.260**		**0.112**		**0.145**		**0.314**		**0.051**		**0.023**		**0.302**		**0.135**		**0.001**		**0.991**		**0.002**		**0.389**		**0.485**
Underweight (< 18.50)	0.631	0.135	0.459	0.056	1.221	0.525	0.392	0.028	0.656	0.276	1.751	0.090	1.920	0.076	0.462	0.060	1.254	0.524	1.478	0.610	1.030	0.957	2.115	0.146	0.782	0.791	1.561	0.530
Pre-obesity (25.00-29.99)	1.054	0.559	1.020	0.835	0.903	0.291	1.066	0.508	0.856	0.129	0.874	0.198	1.371	0.009	0.961	0.718	1.307	0.021	1.509	0.015	1.058	0.746	0.518	0.013	1.325	0.242	0.762	0.280
Obesity (≥ 30.00)	1.018	0.897	0.939	0.670	0.697	0.020	1.040	0.794	0.970	0.849	0.703	0.040	1.303	0.159	0.937	0.722	1.214	0.310	2.530	<0.001	1.051	0.869	0.149	0.005	0.743	0.483	0.601	0.241
PHYS. ACT. LEVEL (vs. High)		**0.313**		**0.293**		**0.012**		**<0.001**		**0.049**		**0.003**		**0.286**		**0.001**		**0.022**		**0.008**		**0.593**		**0.038**		**0.174**		**0.009**
Low	0.862	0.184	1.133	0.299	0.871	0.256	1.294	0.029	1.077	0.550	0.675	0.003	1.058	0.700	1.652	<0.001	0.691	0.011	0.564	0.008	1.061	0.783	0.359	0.012	1.082	0.779	0.914	0.800
Moderate	0.881	0.173	1.169	0.120	1.181	0.093	0.791	0.020	0.838	0.092	0.981	0.854	0.876	0.259	1.356	0.009	0.766	0.024	0.942	0.740	0.884	0.497	0.898	0.644	0.699	0.159	1.877	0.018
SMOK. HAB. (vs. Never sm.)		**0.022**		**0.329**		**0.936**		**0.474**		**0.053**		**0.057**		**0.001**		**0.001**		**0.005**		**0.002**		**0.846**		**0.002**		**0.335**		**0.005**
Ex-smoker	0.951	0.665	1.150	0.257	0.957	0.726	1.078	0.543	1.162	0.252	0.713	0.017	1.630	0.001	1.429	0.012	.958	0.772	0.904	0.609	0.975	0.914	1.208	0.493	1.491	0.164	0.317	0.006
Smoker	1.269	0.012	0.938	0.535	0.999	0.995	0.916	0.397	1.282	0.018	0.939	0.568	0.991	0.938	1.438	0.001	.667	0.001	0.435	<0.001	1.094	0.607	0.336	0.001	0.997	0.992	0.553	0.034

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