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*Research article*

## **Fish oil users of Greece: Predictors, knowledge and habits regarding dietary supplement use**

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## Supplementary

**Table S1.** Absolute and relative frequencies in parenthesis (%) of dietary supplement (DS) label comprehension and views about DS based on total respondents (Total), those who had used a DS at least once in their lifetime (DS users), and those who had never used DS (DS non-users). The *p*-values of chi-square tests of independence between given answers and DS use categories (i.e., DS users and DS non-users) after adjustment with the Bonferroni correction test are presented. Within a row, column proportions that do not share any common superscript letters are significantly different at the  $\alpha = 0.05$  level (column proportions compared with the z test; *p* value adjusted with the Bonferroni method).

DS label comprehension and views about DS	Total (28102)	DS users (15608)	DS non-users (12494)	<i>p</i> -value
Are nutrients from foods enough to ensure good health?				0.000
Yes	9891 (35.2)	4337 (27.8) <sup>a</sup>	5554 (44.5) <sup>b</sup>	
Maybe yes	9835 (35.0)	5239 (33.6) <sup>a</sup>	4596 (36.8) <sup>b</sup>	
No	6042 (21.5)	4854 (31.1) <sup>a</sup>	1188 (9.5) <sup>b</sup>	
I don't know	2334 (8.3)	1178 (7.5) <sup>a</sup>	1156 (9.3) <sup>b</sup>	
Can you understand whether DS are important for you by reading their labels?				0.000
Yes	10878 (38.7)	7246 (46.4) <sup>a</sup>	3632 (29.1) <sup>b</sup>	
Maybe yes	10857 (38.6)	5920 (37.9) <sup>a</sup>	4937 (39.5) <sup>b</sup>	
No	6367 (22.7)	2442 (15.6) <sup>a</sup>	3925 (31.4) <sup>b</sup>	
Can you recognize which ingredients or DS are approved if you read the DS's label?				0.000
Yes	6614 (23.5)	4366 (28.0) <sup>a</sup>	2248 (18.0) <sup>b</sup>	
Maybe yes	9142 (32.5)	5486 (35.1) <sup>a</sup>	3656 (29.3) <sup>b</sup>	
No	12346 (43.9)	5756 (36.9) <sup>a</sup>	6590 (52.7) <sup>b</sup>	
Agreement with the statement				
DS are necessary for all ages	4061 (14.5)	3012 (19.3) <sup>a</sup>	1049 (8.4) <sup>b</sup>	0.000
DS are generally harmless	7012 (25.0)	4600 (29.5) <sup>a</sup>	2412 (19.3) <sup>b</sup>	0.000
Regular DS use can prevent many ailments	6083 (21.6)	4005 (25.7) <sup>a</sup>	2078 (16.6) <sup>b</sup>	0.000
DS can prevent cancer	1276 (4.5)	792 (5.1) <sup>a</sup>	484 (3.9) <sup>b</sup>	0.000
DS must be recommended by doctors just like medicines are	17007 (60.5)	8121 (52.0) <sup>a</sup>	8886 (71.1) <sup>b</sup>	0.000
None of the above	275 (1.0)	88 (0.6) <sup>a</sup>	187 (1.5) <sup>b</sup>	0.000

**Table S2.** Absolute frequency (AF), relative frequency (RF, %) and cumulative relative frequency (CRF, %) of number of approval sources selected by total dietary supplement (DS) users (Total), DS users who had used fish oils (FO) among other DS (DS+FO) and DS users who had used DS but not FO (DS-FO).

Nb of selected approval sources	Total ( <i>n</i> = 15.608)			DS+FO ( <i>n</i> = 1.001)			DS-FO ( <i>n</i> = 14.607)		
	AF	RF (%)	CRF (%)	AF	RF (%)	CRF (%)	AF	RF (%)	CRF (%)
3	15	0.1	0.1	3	0.3	0.3	12	0.1	0.1
2	173	1.1	1.2	11	1.1	1.4	162	1.1	1.2
1	13869	88.9	90.1	884	88.3	89.7	12985	88.9	90.1
0	1551	9.9	100.0	103	10.3	100.0	1448	9.9	100.0
Total	15608	100.0		1001	100.0		14607	100.0	

**Table S3.** Absolute frequency (AF), relative frequency (RF, %) and cumulative relative frequency (CRF, %) of number (nb) of information sources selected by total dietary supplement (DS) users (Total), DS users who had used fish oils (FO) among other DS (DS+FO) and DS users who had used DS but not FO (DS-FO).

Nb of selected information sources	Total (n = 15.608)			DS+FO (n = 1.001)			DS-FO (n = 14.607)		
	AF	RF (%)	CRF (%)	AF	RF (%)	CRF (%)	AF	RF (%)	CRF (%)
8	14	0.1	0.1	1	0.1	0.1	13	0.1	0.1
7	22	0.1	0.2	4	0.4	0.5	18	0.1	0.2
6	71	0.5	0.7	12	1.2	1.7	59	0.4	0.6
5	267	1.7	2.4	32	3.2	4.9	235	1.6	2.2
4	857	5.5	7.9	91	9.1	14.0	766	5.2	7.5
3	2568	16.5	24.3	187	18.7	32.7	2381	16.3	23.8
2	4842	31.0	55.4	329	32.9	65.5	4513	30.9	54.7
1	6967	44.6	100.0	345	34.5	100.0	6622	45.3	100.0
Total	15608	100.0		1001	100.0		14607	100.0	

**Table S4.** Absolute frequency (AF), relative frequency (RF, %) and cumulative relative frequency (CRF, %) of number (nb) of recommendation sources selected by total dietary supplement (DS) users (Total), DS users who had used fish oils (FO) among other DS (DS+FO) and DS users who had used DS but not FO (DS-FO).

Nb of selected recommendation sources	Total (n = 15.608)			DS+FO (n = 1.001)			DS-FO (n = 14.607)		
	AF	RF (%)	CRF (%)	AF	RF (%)	CRF (%)	AF	RF (%)	CRF (%)
8	1	0.0	0.0	0	0.0	0.0	1	0.0	0.0
7	1	0.0	0.0	0	0.0	0.0	1	0.0	0.0
6	13	0.1	0.1	4	0.4	0.4	9	0.1	0.1
5	34	0.2	0.3	6	0.6	1.0	28	0.2	0.3
4	219	1.4	1.7	32	3.2	4.2	187	1.3	1.5
3	1068	6.8	8.6	124	12.4	16.6	944	6.5	8.0
2	3955	25.3	33.9	312	31.2	47.8	3643	24.9	32.9
1	10282	65.9	99.8	523	52.2	100.0	9759	66.8	99.8
0	35	0.2	100.0	0	0.0	100.0	35	0.2	100.0
Total	15608	100.0		1001	100.0		14607	100.0	

**Table S5.** Absolute frequency (AF), relative frequency (RF, %) and cumulative relative frequency (CRF, %) of number of dietary supplements (DS) selected by total DS users (Total), DS users who had used fish oils (FO) among other DS (DS+FO) and DS users who had used DS but not FO (DS-FO).

Number of selected DS	Total (n = 15.608)			DS+FO (n = 1.001)			DS-FO (n = 14.607)		
	AF	RF (%)	CRF (%)	AF	RF (%)	CRF (%)	AF	RF (%)	CRF (%)
50	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0
49	2	0.0	0.0	2	0.2	0.2	0	0.0	0.0
48	0	0.0	0.0	0	0.0	0.2	0	0.0	0.0
47	0	0.0	0.0	0	0.0	0.2	0	0.0	0.0
46	1	0.0	0.0	1	0.1	0.3	0	0.0	0.0

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Number of selected DS	Total ( <i>n</i> = 15.608)			DS+FO ( <i>n</i> = 1.001)			DS-FO ( <i>n</i> = 14.607)		
	AF	RF (%)	CRF (%)	AF	RF (%)	CRF (%)	AF	RF (%)	CRF (%)
45	0	0.0	0.0	0	0.0	0.3	0	0.0	0.0
44	0	0.0	0.0	0	0.0	0.3	0	0.0	0.0
43	0	0.0	0.0	0	0.0	0.3	0	0.0	0.0
42	0	0.0	0.0	0	0.0	0.3	0	0.0	0.0
41	0	0.0	0.0	0	0.0	0.3	0	0.0	0.0
40	0	0.0	0.0	0	0.0	0.3	0	0.0	0.0
39	0	0.0	0.0	0	0.0	0.3	0	0.0	0.0
38	2	0.0	0.0	2	0.2	0.5	0	0.0	0.0
37	0	0.0	0.0	0	0.0	0.5	0	0.0	0.0
36	1	0.0	0.0	1	0.1	0.6	0	0.0	0.0
35	4	0.0	0.1	3	0.3	0.9	1	0.0	0.0
34	1	0.0	0.1	0	0.0	0.9	1	0.0	0.0
33	5	0.0	0.1	4	0.4	1.3	1	0.0	0.0
32	2	0.0	0.1	0	0.0	1.3	2	0.0	0.0
31	2	0.0	0.1	2	0.2	1.5	0	0.0	0.0
30	2	0.0	0.1	1	0.1	1.6	1	0.0	0.0
29	3	0.0	0.2	2	0.2	1.8	1	0.0	0.0
28	7	0.0	0.2	4	0.4	2.2	3	0.0	0.1
27	3	0.0	0.2	1	0.1	2.3	2	0.0	0.1
26	6	0.0	0.3	3	0.3	2.6	3	0.0	0.1
25	12	0.1	0.3	6	0.6	3.2	6	0.0	0.1
24	12	0.1	0.4	4	0.4	3.6	8	0.1	0.2
23	11	0.1	0.5	4	0.4	4.0	7	0.0	0.2
22	18	0.1	0.6	8	0.8	4.8	10	0.1	0.3
21	28	0.2	0.8	12	1.2	6.0	16	0.1	0.4
20	23	0.1	0.9	10	1.0	7.0	13	0.1	0.5
19	31	0.2	1.1	9	0.9	7.9	22	0.2	0.7
18	29	0.2	1.3	9	0.9	8.8	20	0.1	0.8
17	45	0.3	1.6	15	1.5	10.3	30	0.2	1.0
16	49	0.3	1.9	12	1.2	11.5	37	0.3	1.3
15	76	0.5	2.4	18	1.8	13.3	58	0.4	1.7
14	84	0.5	2.9	26	2.6	15.9	58	0.4	2.1
13	138	0.9	3.8	28	2.8	18.7	110	0.8	2.8
12	171	1.1	4.9	35	3.5	22.2	136	0.9	3.7
11	230	1.5	6.4	48	4.8	27.0	182	1.2	5.0
10	287	1.8	8.2	48	4.8	31.8	239	1.6	6.6
9	370	2.4	10.6	59	5.9	37.7	311	2.1	8.7
8	496	3.2	13.8	50	5.0	42.7	446	3.1	11.8
7	773	5.0	18.7	84	8.4	51.0	689	4.7	16.5
6	963	6.2	24.9	94	9.4	60.4	869	5.9	22.5
5	1412	9.0	34.0	101	10.1	70.5	1311	9.0	31.4
4	2029	13.0	47.0	119	11.9	82.4	1910	13.1	44.5
3	2753	17.6	64.6	95	9.5	91.9	2658	18.2	62.7
2	3048	19.5	84.1	57	5.7	97.6	2991	20.5	83.2
1	2479	15.9	100.0	24	2.4	100.0	2455	16.8	100.0
Total	15608	100.0		1001	100.0		14607	100.0	

Note: \*A very small percentage of DS users (1.1%) used DS that were not included in the provided list (“Other DS”). The filling of the provided space of “other DS” with at least one DS, was counted as one selection.

**Table S6.** Absolute frequency (AF), relative frequency (RF, %) and cumulative relative frequency (CRF, %) of number of selected dietary supplement (DS) purchasing parameters selected by total DS users (Total), DS users who had used fish oils (FO) among other DS (DS+FO) and DS users who had used DS but not FO (DS-FO).

Nb of selected DS purchasing parameters	Total ( <i>n</i> = 15.608)			DS+FO ( <i>n</i> = 1.001)			DS-FO ( <i>n</i> = 14.607)		
	AF	RF (%)	CRF (%)	AF	RF (%)	CRF (%)	AF	RF (%)	CRF (%)
6	59	0.4	0.4	11	1.1	1.1	48	0.3	0.3
5	130	0.8	1.2	13	1.3	2.4	117	0.8	1.1
4	599	3.8	5.0	109	10.9	13.3	490	3.4	4.5
3	2080	13.3	18.4	201	20.1	33.4	1879	12.9	17.3
2	4585	29.4	47.8	314	31.4	64.7	4271	29.2	46.6
1	8097	51.9	99.6	351	35.1	99.8	7746	53.0	99.6
0	58	0.4	100.0	2	0.2	100.0	56	0.4	100.0
Total	15608	100.0		1001	100.0		14607	100.0	

**Table S7.** Initial results of the MLR with Wald's test *p*-values, the adjusted odds ratios (OR) and the corresponding confidence intervals (CI) for the relationship of DS+FO vs DS non-users and DS+FO vs DS-FO with the independent variables (reference category: DS+FO). DS+FO: dietary supplement (DS) users who had used fish oils (FO) among other DS, DS-FO: DS users who had used DS but not FO, DS non-users: respondents who had never used DS. ns: non significant at  $\alpha=0.05$ .

Variable	DS non-user/DS+FO		DS-FO/DS+FO	
	OR (95.0% CI)	<i>p</i> -value	OR (95.0% CI)	<i>p</i> -value
<b>Gender</b>				
Male	1.041 (0.904–1.197)	ns	0.738 (0.642–0.848)	0.000
Female	-		-	
<b>Age (years old)</b>				
15–20	2.878 (1.858–4.459)	0.000	2.481 (1.600–3.847)	0.000
21–30	1.579 (1.090–2.287)	0.016	2.015 (1.390–2.920)	0.000
31–40	1.112 (0.777–1.593)	ns	1.555 (1.085–2.228)	0.016
41–50	1.148 (0.799–1.650)	ns	1.389 (0.966–1.998)	ns
51–60	0.930 (0.643–1.346)	ns	0.981 (0.677–1.421)	ns
>60	-		-	
<b>BMI</b>				
Underweight	0.448 (0.320–0.627)	0.000	0.529 (0.381–0.734)	0.000
Overweight	0.941 (0.807–1.096)	ns	0.981 (0.843–1.141)	ns
Obese	0.957 (0.752–1.218)	ns	1.097 (0.864–1.394)	ns
Normal weight	-		-	
<b>Monthly income</b>				
<500 €	1.484 (0.988–2.230)	ns	1.253 (0.841–1.867)	ns
500–1000 €	1.601 (1.093–2.346)	0.016	1.515 (1.044–2.200)	0.029
1001–1500 €	1.446 (0.977–2.142)	ns	1.347 (0.918–1.978)	ns
1501–2000 €	1.188 (0.741–1.906)	ns	1.068 (0.673–1.696)	ns
>2000 €	-		-	

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Variable	<b>DS non-user/DS+FO</b>		<b>DS-FO/DS+FO</b>	
	<i>OR (95.0% CI)</i>	<i>p-value</i>	<i>OR (95.0% CI)</i>	<i>p-value</i>
<b>Education level</b>				
Primary education	2.282 (1.473–3.537)	0.000	1.170 (0.754–1.816)	ns
Secondary education	1.545 (1.230–1.940)	0.000	1.295 (1.036–1.619)	0.023
Tertiary education	1.184 (0.953–1.470)	ns	1.063 (0.861–1.314)	ns
Postgraduate education	-		-	
<b>Employment status</b>				
Student	0.940 (0.723–1.224)	ns	1.197 (0.920–1.557)	ns
Private employee	0.726 (0.561–0.939)	0.015	1.032 (0.799–1.334)	ns
Public employee	0.776 (0.579–1.039)	ns	0.966 (0.723–1.292)	ns
Freelancer	0.785 (0.597–1.033)	ns	1.113 (0.847–1.461)	ns
Farmer	1.393 (0.899–2.160)	ns	1.484 (0.955–2.304)	ns
Unemployed	-		-	
<b>Exercise</b>				
Non-exercisers	2.074 (1.791–2.402)	0.000	1.392 (1.203–1.611)	0.000
Exercisers	-		-	
<b>Type of diet</b>				
Fat restricted	0.736 (0.615–0.882)	0.001	1.013 (0.848–1.209)	ns
Starch/carbohydrate restricted	0.421 (0.320–0.555)	0.000	0.660 (0.506–0.861)	0.002
Calorie restricted	0.901 (0.718–1.131)	ns	1.008 (0.805–1.262)	ns
Vegan/vegetarian	0.402 (0.263–0.614)	0.000	0.679 (0.451–1.020)	ns
Lacto-vegetarianism	0.870 (0.375–2.017)	ns	1.322 (0.578–3.025)	ns
Lacto-ovo-vegetarianism	0.579 (0.374–0.896)	0.014	0.839 (0.548–1.287)	ns
Other diet	0.231 (0.073–0.730)	0.013	0.447 (0.154–1.300)	ns
Mixed unrestricted	-		-	



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