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Who performs better? An objective assessment of consumers ability to perform food label-based, nutrition information assessments

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In order to use nutrition label information to guide healthy food choices, consumers require a basic understanding of nutrition communications. Reviews of the literature highlight gaps in understanding (e.g. desirable and less desirable levels of intake) and competence (ability to identify differences in nutrient content)[1,2]. The current study objectively examines the consumers' ability to assess nutrition label information.

A short postal survey (which underwent reliability, validity, item discrimination and item difficulty assessment)[3] was distributed to a nation-wide sample representative of gender, age and socio-economic (SES) position[4] of the UK population. The survey included a 10-item measurement tool on ability to perform food label-based, nutrition information assessments. The questions comprised numerical (*n* 3) and comprehension tasks (*n* 7) with a possible performance score of 0 to 10. Kruskal Wallis and Mann–Whitney *U* tests were used to test for differences between overall performance score and demographic variables (gender, age, educational attainment and SES). Completed responses for 786 UK adults (35.5% male and 64.5% female) aged 18 upwards and representative of SES for the UK population were obtained.

Overall, the mean performance score was 6.7 (SD ± 2.3) and 77% obtained >5. No significant difference was detected by gender. Respondents <50 years were significantly more likely to obtain a high score than those aged ≥50 years ($P<0.05$). Kruskal Wallis tests indicated that score increased with higher levels of educational attainment ($P<0.001$) and SES (e.g. more affluent) ($P<0.001$).

		% of respondents answering each question correctly						
			SES			Educational attainment		
Question focus	Question type	Overall sample (*n* 786)	Affluent (*n* 294)	Comfortable (*n* 193)	Non-affluent (*n* 288)	Post school (*n* 448)	School (*n* 152)	None (*n* 179)
Sugar in 2 servings	N*	60.9	76.2	66.3	41.0	73.2	59.2	31.8
Fat in half the pack	N*	70.1	80.3	74.1	55.9	80.8	68.4	45.3
Servings in the product	N*	78.3	86.7	81.9	66.3	85.9	78.3	59.2
Fat content in product 1	C†	63.0	66.3	61.7	58.7	65.2	66.4	53.1
Fat content in product 2	C†	41.8	45.9	44.0	36.5	46.0	36.2	37.4
Sugar content product 3	C†	68.8	75.5	66.8	62.5	75.7	69.7	52.5
Comparison of sat fat	C†	87.0	91.2	92.7	78.1	90.8	90.8	75.4
Lowest sat fat content	C†	25.8	29.9	26.4	21.2	30.1	24.3	16.2
Energy content	C†	85.6	89.5	90.2	78.1	89.3	90.8	72.1
Reducing salt intake	C†	87.5	91.2	91.7	80.2	92.6	86.8	76.0

*N = numerical question; †C = comprehension question.

In conclusion, current nutrition information presentation is unlikely to provide optimal assistance for consumers from more disadvantaged backgrounds and further work is needed to enhance existing nutrition communication for vulnerable groups.

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