

Knowledge and perceptions of low-calorie sweeteners in an adult population

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Low-calorie sweeteners (LCSs) are commonly used to provide a sweet taste that is comparable to sugars but with reduced energy and minimal effects on glycaemia^(1,2). As such, they have become increasingly prevalent in today's consumer market⁽³⁾ and are often used as a weight management tool⁽⁴⁾ or by individuals with diabetes mellitus⁽²⁾. Following a stringent safety assessment, an acceptable daily intake (ADI) is usually assigned for each LCS prior to approval for use⁽⁵⁾; however debate persists around the benefits and risks of LCS consumption. Dietitians' perceptions of LCSs were recently investigated revealing a diversity of attitudes⁽⁶⁾. However, limited scientific data are available on consumer attitudes towards LCSs and therefore the present study aimed to assess knowledge and perceptions of LCSs within an adult population.

A cross sectional study was conducted via the administration of an online survey comprising thirty-five questions designed to collect information on demographics, knowledge and perceptions of LCSs. The survey was disseminated among staff and students at the Ulster University by email and to a wider audience via social media sites. Statistical analysis, including Chi Square test, was conducted using SPSS to explore relationships between knowledge and perceptions of LCSs and $P < 0.05$ was considered statistically significant.

A total of 741 individuals (282 M; 459 F) completed the survey between March-July 2016. Of these, 73.5% ($n = 545$) reported being aware of LCSs; however, participants could identify average of 2.0 (SD; 1.9) LCSs from the list LCSs approved for use in Europe. Furthermore, the majority of participants (89.2%; $n = 661$) reported being unaware of an ADI for LCSs. With regards to perceptions of LCSs, 34.3% ($n = 254$) were of the opinion that LCS should not be used and 20.9% ($n = 155$) were of the opinion that they should be used; the remainder (44.8%; $n = 332$) declared no opinion on LCS use. Those who were 'aware of ADI' were more likely to have a positive perception of LCSs than those who were unaware or unsure of ADI (Fig. 1; $P < 0.001$).

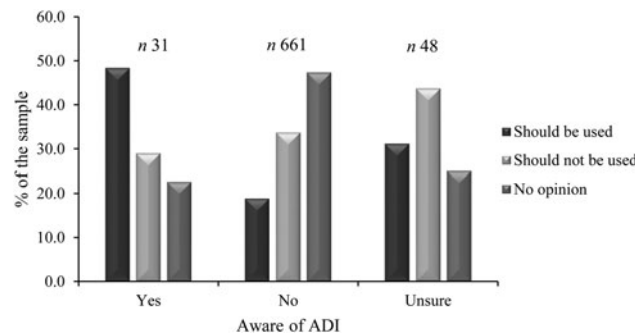


Fig. 1. Perceptions of LCS use by awareness of ADI.

A high level of awareness of LCSs was observed within this population; however there appeared to be a relative lack of awareness of specific LCSs, as well as an important regulatory aspect of LCSs i.e. ADI. This was associated with a more negative perception of LCSs suggesting that improved education around LCSs might improve acceptability within the general population.

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