



Folic acid dietary supplementation amongst female third level students in the northwest of Ireland

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Folic acid (FA) dietary supplementation is deemed crucial amongst women of childbearing age to aid the prevention of neural tube defects (NTDs) in unborn children⁽¹⁾. In respect of the Irish population, monitoring FA dietary supplementation should take precedence as rates here are deemed very high relative to other countries⁽²⁾. Thus, it is increasingly important that females within this population meet the recommended daily intake (RDI) of 400µg, with a dietary supplement providing exclusively FA recommended although an adequate intake can be achieved via the consumption of foods providing folate in conjunction with a multivitamin (MV) dietary supplement⁽¹⁾. To date, no study has investigated FA and MV dietary supplementation amongst third level female students in the northwest of Ireland, therefore this study aimed to fulfil this research gap. From November 2020 to March 2021 an online questionnaire was distributed to third level students attending college in the northwest region to assess trends related to their health behaviours, in which data on dietary supplements was gathered. Students were asked if they took dietary supplements, indicating yes or no with the type or different types specified if they answered yes. Details regarding brand, dosage and frequency of use were also requested although this information was not obtained. The acquired information was used to offer an insight into how many female participants are adhering to FA recommendations by availing of FA and MV dietary supplements. The information was analysed using statistical package for the social sciences (SPSS) version 26. Amongst the females who completed the survey ($n = 460$), with an average age of 24.7 ± 8.6 years, 20.0% ($n = 92$) reported taking a MV dietary supplement while just 1.1% ($n = 5$) of participants took a FA only dietary supplement. Given this low and very low proportion in terms of MV and FA dietary supplementation, most female third level students in the northwest of Ireland may not be adhering to FA recommendations, and therefore this cohort may be at an increased risk of birthing children with NTDs. In addition, given that unplanned pregnancies are prevalent amongst this cohort, an intervention may be warranted (3). As mentioned, only the type of dietary supplements were disclosed and therefore these results are a mere indication of FA recommendation adherence levels amongst this cohort, they are not definitive as the brand, dosage and frequency of use are unknown. Therefore, further research is required, and it is recommended that subsequent research should assess FA dietary supplementation practices, and food intake in conjunction with MV dietary supplementation practices amongst a larger cohort to strengthen the validity of results.

References

1. Kehoe L, Walton J, Flynn A, *et al.* (2016) *FSAI*.
2. Bourouba R, Houcher B & Akar N (2018) *Egypt J Med Hum Genet* **19**(3), 225–229.
3. Vamos C, Thompson E, Logan R *et al.* (2018) *J Am Coll Health* **68**(1), 79–88.