

## Nutrition and Health Education

### Knowledge, Attitude and Practice of Physicians Regarding Periconceptional Folic Acid

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**Introduction:** Canadian expert guidelines recommend low-risk women to consume a daily multivitamin supplement containing 400- $\mu$ g of folic acid (FA) to prevent neural tube defects. Physicians promote appropriate FA intake; however, mandatory food fortification coupled with intake of prenatal vitamin/mineral supplements (PVS), mostly containing  $\leq 1000$ - $\mu$ g-FA, has resulted in an unprecedented shift in pregnant Canadian women's folate status.

**Objectives:** This study assessed the knowledge, attitude and practice (KAP) of physicians regarding periconceptional FA recommendations, intake and health related outcomes.

**Methods:** A cross-sectional study was conducted in Ottawa from August 2018 to May 2019. A survey was developed to capture the KAP of 77 physicians toward the expert guideline to address the discrepancies between practice and current recommendations. General linear models and Pearson correlations were used to assess the associations between KAP-scores and differences between participants' characteristics.

**Results:** Only half of physicians knew the correct dose and duration of FA for low-risk women. Approximately 70% were unsure of, or unfamiliar, with the most recent guidelines and 60% of physicians most often recommend a  $\leq 1000$ - $\mu$ g-FA supplement. Knowledge score 1 (KS1), which related to low-risk women was associated with physicians' attitude toward believing that most PVS contain the recommended amount of FA ( $p=0.004$ ). Significant correlations were also found between KS1 and the total practice score (TPS) ( $r=0.45$ ,  $p<0.0001$ ) as well as between the total knowledge score and TPS ( $r=0.38$ ,  $p = 0.0007$ ).

**Conclusions:** Our findings show that physicians lack knowledge regarding periconceptional FA. Despite most physicians being unsure or uncomfortable recommending PVS that are not in line with recommendations, lacking knowledge and an accessible 400  $\mu$ g-FA PVS, enables a contradictory practice.

**Significance:** Registered Dietitians should take a leading role in educating their clients and colleagues, particularly physicians consulting with pregnant women and those of childbearing age, on the appropriate dose and duration of FA-supplement intake during the periconceptional period.