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Letter to Editor

Unlocking the power of folic acid: Nurses to shield B9 pre-conception mysteryRohon Saha¹, Aswathy Madhu^{1*}¹Dept. of Community Medicine, Dr. D.Y. Patil Medical College, Hospital and Research Centre, Dr. D.Y. Patil Vidyapeeth, Pimpri, Pune, Maharashtra, India

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Respected Sir,

A “small” Folic acid tablet can bring a “huge” difference to the society. Vitamin B9 just after getting converted into Folate by our body, starts playing its epic role, that most of the people are not even aware of. Not only it will maintain the health of upcoming generation but will also protect the wealth and peace for future, thereby shaping the society for a better tomorrow, promising a brighter economy for the country through the well-being of its youth. Deficiency of folic acid during pre-conception period i.e. 3 months before pregnancy¹ is the main risk factor for developing neural tube defects (NTD's) like anencephaly, encephalopathy, spina bifida and many more.

Negative consequences arising from these defects include

1. Physical challenges like peripheral neuropathy, paralysis of legs, followed by bowel and bladder management issues.
2. Mental challenges like mental retardation, educational backlogs, low self-esteem, emotional stress, depression.
3. Social challenges that will be faced for lifetime while coping with above problems.
4. Economic problems that are going to affect both, the parents and the victim himself, in the future.

After congenital cardiac malformations, NTDs hold 2nd place among the birth defects. More than 300,000² cases are occurring each year worldwide, with INDIA suffering 4.1 cases per 1000 live births.³ While addressing this problem to the general population, to increase their inner awareness-female nurses play a vital role in hospitals, clinics and dispensaries. Since the relatives of any patient visiting hospital or any healthcare facility always feel free in communicating with nurses, they are in a very good position in society to help them, to convince them with the knowledge, with the art of practicing folic acid use, briefing all the consequences from their deficiency. Food Fortification of Folic Acid, this public health strategy significantly reduces neural tube defects by ensuring adequate folic acid intake in the general population, particularly among women of childbearing age. Folic acid is essential for DNA synthesis and repair. While its role in oncology is complex, it can be a supportive agent for some cancer patients, potentially mitigating certain chemotherapy-induced side effects, requiring medical consultation. Usage in IBS Patients (Gut Bacteria Health), folic acid contributes to gut health, with adequate levels potentially supporting a balanced gut microbiome. This may alleviate symptoms in Irritable Bowel Syndrome patients by fostering improved digestive well-being. For this to happen, awareness and enthusiasm among the nurses should be made sky high otherwise the momentum

*Corresponding author: Aswathy Madhu
Email: rohonrsaha93@gmail.com

will be lost and the purpose will remain unserved. More research and evaluations are needed on whether nurses themselves or their close relatives are practicing folic acid use in their life. More training sessions should be conducted frequently for nurses so that we can decrease the bridge between the knowledge and implementation.

Anjali Pal's 2023 study on "Awareness about Folic Acid Supplementation in First-Trimester Pregnant Women of Rural Raipur District, Chhattisgarh" revealed that 77.9% of women had poor knowledge, with only 45.6% understanding its importance. Most participants (41.6%) were unsure when to start supplementation, and just 1.3% knew it should begin before conception.⁴ Hethyshi R.'s 2022 study found that 77.6% of women were aware of folic acid, with 93.8% learning about it from medical professionals, but only 9.27% took it before conception. Despite 79 women knowing it prevents neural tube defects, most (77.83%) learned about it only after pregnancy confirmation, indicating a low level of periconceptional knowledge.⁵

1. Conflict of Interest

None.

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