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## VITAMIN A INTERVENTION: IMPACT ON MATERNAL AND INFANTILE NUTRITURE

**Sylvia Subapriya M and Chandrasekhar U**

Avinashilingam Institute for Home Science and Higher Education for Women, India

**T**he magnitude of vitamin A deficiency (VAD) and iron deficiency anemia (IDA) among pregnant women in India needs systematic, region wise planned studies in order to implement region specific solutions. Such studies will help to understand the problem better and plan programmers for the eradication of VAD in accordance with the global agreement on combating VAD. This study aims to develop such data base with the objectives, of assessing the prevalence of VAD and IDA among pregnant women in selected areas of Tamil Nadu, the outcomes of vitamin A supplementation on maternal and infantile nutrition during pregnancy, lactation, birth and infancy and the feasibility of nutrition education cum supplementation as strategies to alleviate VAD. 10,000 pregnant women were screened for symptoms of VAT from four representative regions of Tamil Nadu. Of 600 women with clinical and subclinical deficiency, 200 each were supplemented with dietary (E1) and synthetic (E2) supplements of vitamin A and the rest were placebo (P) and followed up for one year. The impact of nutrition education was assessed on the knowledge, attitude and practice (KAP) of 100 pregnant women. VAD was found to be a problem of public health significance in all the four regions. Parity was directly related to maternal body weight and inversely with serum retinol and blood hemoglobin. Micronutrient intakes increased significantly ( $p < 0.01$ ,  $0.05$ ) with supplementation. Maternal and breast milk volume was higher in E1 while retinol levels were higher in E2. Body weight and crown heel length of infants in E1 and E2 were significantly ( $p < 0.01$ ,  $0.05$ ) higher than in P group. Serum retinol and blood hemoglobin levels were higher ( $p < 0.01$ ,  $0.05$ ) among infants in E1 and E2 while serum total proteins were higher ( $p < 0.01$ ,  $0.05$ ) in the infants of mothers on dietary supplement (E1). KAP of mothers increased significantly after intervention.

### Biography

M. Sylvia Subapriya is Professor in the Department of Food Science and Nutrition and Programme Coordinator, National Service Scheme, Youth Red Cross and Red Ribbon Club, Avinashilingam University for Women, Coimbatore. She has more than 59 publications at national and international level which includes chapters in International and books at national and international level, is on the editorial committee of two national and one international journal. Research areas- Vitamin A Nutrition, Oral Leukoplakia, Sports Nutrition, Tribal Nutrition and Nanotechnology in Food Packaging; Co-Principal Investigator for the UGC Sponsored Nation-wide online course for post graduates in Food Science and Nutrition, e-PG Pathshala and earlier, Principal Investigator of UNICEF SMART Survey under CMAM Initiative among < fives; undertaken collaborative research with Nilgiri Tribal Welfare Association, Christian Children's Fund, Centre for Gandhian Studies, Agricultural Universities, UTAR, Malaysia and NFI, India; was the Mentor, for two scholars under the Pelatonia Student Exchange Programme, OSU. Invited Speaker/ Chair- International Conference in Sports Nutrition, Manav Rachna University, India; International Conference in Nutrition, Kuliyah of Nursing, Kuantan, Malaysia; International Conference on Bioprocess and Food Technology, Dubai, UAE. Received ICAR Junior Fellowship for PG Programme, CSIR Award, Care and Cover Organisation Award and Lawyer Kasinathan Award for research. As NSS Programme Coordinator of the University mobilised the upliftment of 26 adopted villages around Coimbatore through 26 programme officers and 2659 NSS volunteers. Received the Blood Donation Award from Ms. Archana Patnaik, District Collector, Coimbatore for record blood donation by NSS volunteers of the university; Prestigious Lead India 2020 recognition from Dr. APJ. Abdul Kalam, Former President of India for the NSS activity.

sylviaadevaprased@yahoo.co.in