

Nutritional Status of Rural Adolescent School Children in Paschim Medinipur, West Bengal

There is little information on the nutritional status of adolescent school children from rural West Bengal. The present study was undertaken to ascertain the level of undernutrition among 11-18 year old rural school children in Paschim Medinipur district, West Bengal.

This cross-sectional study was conducted in a higher secondary school, situated in a rural area within the Paschim Medinipur Sadar north subdivision about 29 Km from Midnapore town. Verification of age was done from the school records, as well from the answers to specific questions in the pre-tested questionnaire which was completed by every subject. A total of 1094 students, out of 665 (60.8%) boys and 429 (39.2%) girls aged 11-18 years were randomly selected.

Height and weight measurements were made following the standard techniques(1) and body mass index (BMI) was computed following internationally accepted standard equation. Nutritional status was evaluated using the World Health Organization(2) recommended age and sex specific

cut-off points of BMI based on the National Health and Nutrition Examination Survey (NHANES) percentile values(3). Undernutrition (thinness) was defined as BMI <5th percentile as recommended by WHO(2).

The distribution of sample, mean (SD) of BMI and prevalence of undernutrition are presented in **Table I**. There was a consistent increasing trend in mean BMI with age among both sexes. The overall prevalence of undernutrition was 35.3%. It was observed that undernutrition was more common among early adolescents (11-14 years) than late adolescents (15-18 years). There was a consistent decreasing trend in the rate of undernutrition from 11 years (48.9%) to 18 years (20.7%) among boys and from 11 years (42.4%) to 18 years (6.5 %) among girls. The prevalence of undernutrition was higher in boys (41.8%) as compared to girls (25.2%). This study provides evidence of high prevalence of adolescent undernutrition in this area. However, these rates were lower than those reported from other parts of India(4, 5).

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TABLE I NUTRITIONAL STATUS OF RURAL ADOLESCENTS IN WEST BENGAL

Age (year)	Sample size		BMI (kg/m ²)		Undernutrition (%)	
	Boys	Girls	Boys	Girls	Boys	Girls
11	96	66	15.2 (2.6)	15.1 (1.9)	48.9	42.4
12	117	59	15.6 (1.9)	16.2 (2.3)	52.1	40.7
13	121	82	16.0 (2.0)	16.8 (2.9)*	47.1	28.1*
14	100	84	16.7 (2.2)	17.3 (2.3)	45.0	20.2*
15	70	40	17.6 (2.1)	18.2 (2.2)	35.7	15.0*
16	56	43	17.8 (1.8)	18.5 (2.4)	35.7	13.9*
17	47	24	18.7 (2.1)	18.9 (2.2)	23.4	8.3
18	58	31	19.0 (1.8)	19.5 (2.5)	20.7	6.5
Total	665	429	16.7 (2.4)	17.3 (2.7)*	41.8	25.2*

*Standard deviations are presented in parentheses. *Sex difference ($p < 0.05$).*

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Involving Private Pediatricians for Research: Great Caution Required

The article by IAP President Naveen Thacker has focused on an important issue of Pediatric Research in Office Setting(1). We completely agree that, in general, there is a great need in our country to generate accurate pediatric epidemiological data and for carrying out research for finding indigenous solutions to the health issues affecting Indian children(1). Many dissertations submitted to the University are based on retrospective analysis or have a sample size or methodology too inadequate to draw meaningful inferences. It is not surprising that most of the dissertations remain unpublished and do not make any impact on scientific community or policy decisions. Private pediatricians cater to majority of children and therefore, they can help in making an enormous contribution to research activities. Their active participation once initiated can help generate data regarding various health parameters, evolve evidence-based practice guidelines and probe for answers to our populations' problems. However, we should also be aware of the ground realities as they exist.

Today's pediatricians who are in the private practice, by and large, have not received adequate training in research methodology, research ethics, and biostatistics. This is a direct consequence of inadequate inclusion of these aspects in graduate and post-graduate curriculums. Even undertaking simplest form of research studies such as obser-

vational studies, would require the investigators to be aware of issues such as participants' rights (especially those related to autonomy and confidentiality), documentation and basic biostatistics.

Ethics committees play an important role in safeguarding the interests of research participants. As the expertise available in the country in the field of research ethics is limited, even large private hospitals may not find it easy to constitute institutional ethics committees and establishing them would be beyond the capacity of smaller nursing homes. Once research activities are undertaken by several private clinics and institutions across the country, ethics committees might find it difficult to monitor these activities and ensure that the research is being carried out adhering to the mandatory ethical standards.

Most private pediatricians have an extremely busy practice and barely have enough time to communicate with their patients and parents. Finding time for research-related activities such as getting trained, interacting with research participants, documentation and training and supervising over the research team could be difficult. They will have to be committed to ensure that the quality of their research activities is adequate.

This does not mean that pediatric research in office setting cannot be implemented in our country. Private pediatricians desirous of undertaking research will have to spare time for getting trained and thereafter for conducting research activities