

Garewal, *et al.* [8] showed unambiguous evidence of vitamin B<sub>12</sub> deficiency in ITS in the form of megaloblastic bone marrow, and low serum vitamin B<sub>12</sub>, including cellular evidence of vitamin B<sub>12</sub> deficiency was revealed by the dU suppression test. On the other hand, in the studies showing lack of evidence of vitamin B<sub>12</sub> deficiency in ITS, serum vitamin B<sub>12</sub>, the current gold standard of diagnosis of vitamin B<sub>12</sub> deficiency, was not measured and results were inferred from the mere absence of peripheral blood macrocytosis and megaloblastic bone marrow [9,10]. Occurrence of neurological symptoms of vitamin B<sub>12</sub> deficiency in the absence of concomitant hematological changes is well known [8,11]. Interestingly, publication bias also seems to have played a major role in this debate on etiology of ITS. Majority of the studies [2,3,8] reporting vitamin B<sub>12</sub> deficiency in ITS were published in foreign journals and likely to have escaped scrutiny of researchers of the country.

In summary, ITS continues to exist in India in modern times and is causally associated with vitamin B<sub>12</sub> deficiency. Since long-term neuro-developmental deficits can occur if treatment is delayed, infants with ITS should be treated early with vitamin B<sub>12</sub> for rapid reversal of neurological signs.

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## Impact of House-hold Food Insecurity on Nutritional Status of HIV-infected Children Attending an ART Centre in Tamil Nadu

We studied the level of food insecurity among households with HIV-infected children and its relationship with childhood nutritional indicators. Among the 147 children assessed, food insecurity was present in 59% of households. Majority of children with stunting belonged to-food insecure families. Stunting and Underweight were more prevalent among children >5 years of age.

**Keywords:** *AIDS, Children living with HIV, Stunting, Underweight.*

Human Immunodeficiency Virus (HIV) infection has been shown to lead to food insecurity and severe malnutrition, as it hits the productive age groups the most, thereby causing a fall in the family income, and reduced food availability for the entire household. [1]. This malnutrition in early childhood affects the cognitive, psychosocial and physical development, and also affects academic performance of the child [2]. A cross-sectional study was conducted in the Anti-retroviral Treatment (ART) Center of a government tertiary-care hospital in Chennai between August and December 2012, to evaluate the status of food security among households with HIV-infected children, and to correlate it with the nutritional status and growth of the child. Households were eligible to participate if they had at least one child aged between 1

year to 15 years infected with HIV, living with them for longer than 6 months and getting treatment at the study center. To assess food insecurity, we used the 9-item Household Food Insecurity Access Scale (HFAIS) questionnaire adapted from the Food and Nutrition Technical Assistance project for use in low resource settings [3]. The questionnaire was administered to the primary caregivers - parent (mother or father) or a guardian (grandmother or grandfather) by face-to-face interviews by staff who were familiar with the caregiver. Nutritional indices, height-for-age (HAZ), weight-for-age (WAZ) and weight-for-height (WHZ) z-scores were calculated using WHO reference medians [4]. For this study, Wasting was defined as WHZ of  $<-2$  standard deviation (SD), Stunting was defined as HAZ of  $<-2SD$ , and Underweight defined as WAZ of  $<-2$  SD below normal. Institutional Ethics Committee approval and signed informed written consent from participants were obtained.

We interviewed caregivers from 150 households during the study period. Three parents dropped out as they did not feel comfortable with the questions, leaving a final sample of 147 households with 147 children. Mean (SD) age and weight of the children was 7.8 (3.6) years and 19.5 (8) kgs, respectively. 66% of the children had mothers who were infected with HIV. Of the 147 households studied, food insecurity with hunger was present in 46.3% (95%CI 38.4-54.3), food insecurity without hunger in 10.9% (95%CI.6.8-16.95) and food security in 41.5% (95%CI 33.8 - 49.56) (**Web Table I**). Prevalence of some degree of food insecurity without consideration of hunger status was present in more than half of the households surveyed (58.5%, 95%CI.50.4 to 66.1). 41% (58/142) of children were stunted; 50% (72/145) underweight and 15% (17/113) wasted. Stunting (31% vs 69%); underweight (28% vs 72%) and wasting (23.5% vs 76.5%) were more common among children in  $>5$  year than those below 5 year.

Our study reveals that 58.5% of households with HIV-infected children are food insecure, which is similar to the prevalence of food insecurity in general population in India [5,6]. Data from the NFHS-3 has shown the National average of underweight and stunting to vary between 40% to 50% and 48% to 60%, respectively for under-five children [10]. We found a higher proportion of above-five year old children underweight (72%) and stunted (69%), similar to other studies [7,8]. However, household food insecurity was not significantly associated with underweight and stunting, which was unexpected, given the evidence that a household's access to food is one of the key determinants of a child's nutritional status. However, in countries with high

stunting rates, under-five underweight rates may not be a good indicator of food insecurity [9].

This study highlights the fact that over half of the children living with HIV also suffer from household food insecurity, which could affect their growth and development leading to stunting and wasting. Interventions like targeted food assistance to such families, in addition to ART, is the need of the hour.

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## Knowledge and Attitude of Health Researchers from India towards ‘Paying to Publish’ and Open Access Journals

Knowledge and attitude of 2509 Indian health researchers towards open access publishing and authors paying to publish model was evaluated. 55.6% researchers had knowledge about open access and 76% about Author pay model. 72% of Researchers were not interested to pay publication charges. Lack of research grants were the primary reason for inability to pay publication charges.

**Keywords:** *Author fees, Closed journals, Open access journal, Publication fees.*

One reason for Restricted access to dissemination of knowledge by scientific journals is that they are largely based on subscription charges to readers. To resolve this crisis in scientific communication, Open access publication (OAP) was developed, which provides lawful, free access to journal content and is funded by means other than readers’ subscription [1]. OAP articles have been produced by “Paying to publish” model, which means authors has to pay a so-called publication fees [2]. Since there is lack of pertinent studies in India, we conducted a cross-sectional study over a period of three months from March to May, 2014 to explore knowledge and attitude of health researchers from India towards OAP and paying to publish model.

A questionnaire (*Table I*) consisting of 5 questions regarding knowledge and 12 in relation to attitude was developed. A pilot study on 50 people selected randomly from a single academic institution was conducted to determine reliability of the questionnaire. The questionnaire was re-evaluated and improvements made. Another pilot study on 30 different randomly selected people from another academic institution was done to estimate the reliability of questionnaire (Cronbach’s alpha = 0.72). 4036 Health researchers were selected in this study using convenience sampling. A 76% positive response rate (3067) was obtained from the sample. 558 (18.2%)

individuals, who did not have any publication in open or closed journals were excluded from the study. Finally, 2509 respondent questionnaires were evaluated.

Results showed that only 1395 (55.6%) researchers have knowledge about open access and 1907 (76%) about Author pay model, which is in agreement to a previous study [3], though a lower percentage has been observed in Cuban [1].

In the present study, large numbers of researchers (72.28%) are not interested to submit their work to journals that charge to author, and majority (72.28%) have not ever paid for their publication. Author charges is the most threatening factor, as this policy may ultimately end up discouraging publication in these journals. One way to avoid further charges to unsupported authors is the proposal to waive publication charges to those residing in less-developed countries [8]. Present study revealed that in India only 3% of Indian researchers are willing to pay more than \$500; whereas, in English-speaking countries, 20% are ready to pay [9]. Present study demonstrated that the relevant terms: eprint (digital version of a research document that is accessible online), Self-archiving (depositing a digital document in a publicly accessible website), and Institutional repositories (online archive for collecting, preserving, and disseminating digital copies of the intellectual output of an institution) were familiar to only smaller number of the Indian researchers (28%, 22% and 14%, respectively). Nonetheless, little understanding of these terms has been observed in other countries as well [2,3]. German Research Society found that only 26% of biomedical researchers have knowledge of repositories or preprint archives [4].

A possible reason may be that the Open Access Movement emerged in developed economics, such as the USA and United Kingdom, as a result, it is primarily authors in these countries who are familiar with these terms [1]. Nevertheless, biomedical journals in India have not been promoted as open access journals till now as Journal sections do not show explicit indication that guide authors that they are open access publications.

Only 37.6% researchers had published their work in OAJ, which is high as compared to studies conducted by Germany Research society [4] (10%), Rowlands, *et al.* [3]