

Nutritional status of tuberculosis patients: a comparative cross-sectional study

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Abstract

Background Each year, more than 13.7 million people became an active case of contract tuberculosis, and more than 1.5 million cases of tuberculosis patients will die of it. The association between tuberculosis and malnutrition is bi-directional, in that tuberculosis leads the patient to patient malnutrition, and while, at the same time, malnutrition increases the risk of developing active tuberculosis by a factor of 6 to 10 times higher. Improving the nutrition of individuals greatly reduces their risk of developing tuberculosis. The objectives of this study were to assess the nutritional status and determinants of tuberculosis patients.

Methods A comparative cross-sectional study design was implemented. The sample size was calculated using the software Epi-Info software. The data were collected in the from July 2015--May 2018 period. The data were collected by included patient interviewing interviews method, measuring anthropometrics indicators, and collecting the stool and blood samples. The data values were entered into the computer using Epi-Info software and analyzed using the SPSS software package software. Descriptive statistics were used to identify the proportion of patients experiencing malnutrition. Binary logistic regression was used to identify the determinants of malnutrition.

Results A total of 5045 study participants were included, and the giving the response rate of was 93.1%. The prevalence proportion of of underweight patients among those with tuberculosis patients was 57.17% (95% CI: 54.80%-59.54%). In addition, and 88.52% of the tuberculosis patients were anemic. The prevalence of malnutrition (underweight) among the tuberculosis free residents was 23.37% (95% CI: 21.93%-24.80%). The nutritional status of the tuberculosis patients were was determined by site of infection, AOR: 0.68 ([0.49-0.94]); sex of the patient, AOR: 0.39 ([0.25-0.56]); residence, AOR: 3.84 ([2.74-5.54]); intestinal parasite infection, AOR: 7 ([5.2-9.95]); and alcohol use disorder, AOR: 1.52 ([1.17-2.13]).

Conclusion A high proportion of the tuberculosis patients was were malnourished. Thus, Tuberculosis tuberculosis patients were are highly susceptible to malnutrition and even a very distal factor for malnutrition in the community became can become a proximal factor for tuberculosis patients.

Background

Underweight is a malnutrition stage in which the body mass index (BMI) of an adult is less than scores less than 18.5 cut points.

The abstract gives 13.7 million new cases and 1.5 million deaths per year; the background gives 10 million and 1.3 million. Please reconcile the incidence figures (13.7 vs. 10 million) and the mortality figures (1.5 vs. 1.3 million) so the two sections agree.

Sachin Karol

08/04/2026 17:36

Please make a note of the correct name of the software. Please also include the version of the software that you used.

Sachin Karol

08/04/2026 11:36

Please include the software version used.

Sachin Karol

08/04/2026 12:38

Does this mean "adjusted odds ratio"? Please define all abbreviations at the first instance of their use.

Sachin Karol

08/04/2026 15:47

Please confirm whether this value is correct or whether a numeral is missing; all the other values include a decimal point.

Sachin Karol

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Tuberculosis (TB) is an infectious chronic inflammatory disease caused by mycobacterium species. The World Health Organization estimates that, each year, 10 million incident cases of people develop tuberculosis. TB were affected and 1.3 million people have died as a result of tuberculosis of it. The association between TB and malnutrition is bi-directional. That is, TB leads causes the patient to become malnutrition malnourished, and while malnutrition increases the risk of developing active TB by a factor of 6 to 10 times higher. One-A quarter of the TB cases in the world wide are the was as a result of malnutrition. Hence, improving the nutritional status of individuals of clients decreases their risk of TB. Malnutrition not only increases the risk of morbidity associated with tuberculosis TB, it but also increases the mortality associated with tuberculosis TB. The Nutritional nutritional status of TB patients predicts the mortality associated with TB.

Please define abbreviations at their first use within the text.

Sachin Karol
08/04/2026 12:36

Please see my comment in the Abstract.

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Please note that, once defined, abbreviations must be used throughout the text.

Sachin Karol
08/04/2026 16:51

The treatment outcome of TB patients can be improved by studying their nutritional status.

Good nutritional status during directly observed treatment, short course (DOTS) leads to successful treatment outcomes. Nutritional supplementation during DOTS increases the probability of good treatment outcome in TB in TB patients and improves their survival of the patients rate. On the other hand, Malnutrition malnutrition increases the risk of relapse and death.

The prevalence of malnutrition in TB patients in South America a content ranges from is 20% to 50%, while in the Asia, it is a continent malnutrition among TB patients ranges from 68.6% to 87%. In the and in the United Kingdom, the body mass index BMI of TB patients is 13% lower than the that of the general community. Finally, in the in African a continent, malnutrition among TB patients ranges from is 29% to 61%.

The nutritional intervention part of TB treatment was has generally been neglected. Decision makers were have not giving given priority for the to nutritional intervention because of the absence of information regarding their nutritional status of TB patients. This study will give aims to provide baseline information to to give focus attention to on the nutritional intervention part of TB treatment.

The objectives of this research were to estimate and compare the proportion of underweight patients and their determinants among among the overall TB patient population s in a resource-limited setting and to evaluate the determining factors.

Editing brief: perform a substantive edit of the Abstract and Background with tracked changes (Review > Track Changes). Fix grammar, agreement, and awkward phrasing; tighten wordiness; standardize terminology (TB vs tuberculosis); check that the abstract and background agree on figures. Add Word comments where author judgment is needed (about 4-6). Do not change the scientific meaning or the numbers; query, do not silently alter, any factual discrepancy.