

Health status of the women of the coastal region of South 24 Parganas: A narration based on field survey

Abstract

The author of the article as a researcher reports on the health status of the women students of Diamond Harbour Women University based on food chart, weight and height measurement, blood hemoglobin test with an option on Thalassemia and Blood Sugar test done to record the genetically impounded symptoms present in them. Though the respondents hail from the reserved category and/or economically weaker families, their eagerness towards higher education encouraged the researcher to observe the level of health and nutritional awareness in them while the urge for education override all. The field survey done under the ICSSR Senior Fellowship Scheme is entailed through the analysis of Government documents including 2011 census report National Family Health Survey Report 4 (NFHS 4) and the District Human Development Report 2009. Also papers and articles have been evaluated as a guide to the present research. The data collection on the educated women communities are done in the Diamond Harbour Women University and the evaluation of the data is done by a team of medical practitioner, Nutritionist and Psycho Analyst while information on personal and impersonal survey is collected through questionnaire and direct interaction followed by random survey. The arrangement for field survey demanded occasional and need based involvement of medical practitioner to investigate significant cases of special nature. The overall aim of the research is to set up a cue to the family socio-economic condition and its correlation with women nutritional position. The data collection method was innovative because it was conducted following students to student interaction in the class room situation.

Keywords: health nutrition, reserved category, student respondent, universities studies

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Maitreyee Bardhan Roy

Institute of Development Studies Kolkata, India

Correspondence: Maitreyee Bardhan Roy Institute of Development Studies Kolkata Ae 697 Salt Lake City Kolkata-700064, India, Email maitreyee25@rediffmail.com

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Introduction

The central theme of the present research veers round a strategically impounded concept, that the health and the nutritional status of the women community is important not only for their healthy living but also for the enjoyment of their healthy reproductive rights. It becomes evident that the good health of women are the essential preconditions for the enjoyment of healthy reproductive rights but unfortunately in the Third World Nations the understanding of the concept is not considered important under the traditional patriarchal family structure. The present research keeping in mind the severe health condition of the women community of rural India, makes an effort to study the health and nutritional status of the educated women from the reserved category families of the District of South 24 Parganas, West Bengal, India. Since the research funding is a part of the ICSSR Senior Research Fellowship project, the main purpose of the present research is to go for an in-depth study on the issue of health and nutritional status of the educated women community absorbed in Post Graduate studies in Diamond Harbour Women University. The ultimate aim of the study is to go for an awareness program along with the health analysis of the women students of the University. The study therefore made an effort to organize a two phased program of the health assessment and the health awareness so that the respondents along with the knowledge of their health status, being determined by the Medical Professional will also get an opportunity to imbibe the health awareness in them through the consortium of experts like Nutritionist, and Psycho Analyst to imbibe in them on good health habits through the low-cost nutritional diet and through behavioral analysis of the respondents being effected by poor nutritional condition. Expert intervention of the nutritionist in the health awareness program aims

to help the respondents to gather knowledge on low cost but healthy diet chart easily available at their door steps. Hence the overall aim of the health awareness project is to enable the students group to reach out to their own locality as a 'knowledge sharing mode' so that the long standing effect of the health awareness program spreads up through them at the community level. The project on the one hand is expected to enlighten the information user about the good health strategy and on the other hand it acts as an information source at the locality level. Thus the present research aims to evolve an organized health awareness strategy for the women community of the coastal as well as at the Delta region of South 24 Parganas. Over and above the health analysis of the educated reserved category of the women community commuting to the University for Post Graduate Studies. The researcher, while initiating her journey towards the health and nutritional analysis of the women students absorbed in the highest level of academic assignment of the University studies evaluated a few documental evidences as a guideline to the future research. The documents therefore included 2011 census report, NFHS (4) Report (2015-16) and also the District Human Development Report –South 24 Parganas (2009).¹⁻³ Since the research findings indicated the dismal condition of the health of the women (As per NFDS 4 Report 67% women are anemic in the District) of the Coastal and the Delta Region the worst affected areas among them is the Sundarban Delta region of the District (planning and Development Department Government of West Bengal 2009).³ A survey conducted on the health status of the pregnant women by a NGO named Centre For Strategic Studies in 2013 also confirmed the same consequences⁴ To the researcher the pregnant Women's Health condition was in a dismal state (S.k. Bardhan Roy 2013). Considering the long standing effect of the women's health as a matter of social responsibility, the researcher

took up the proposed survey and as the author of the present article focuses the result of her research studies conducted during 2018-20 period under ICSSR sponsored Senior Research Fellowship Program.

Research questions

The two very important research questions may arise at the time of analysis of the basic objective of the study are; 1. How far health assessment is possible by a non-medical person? 2 How much authentic will be the research findings from a health report point of view?

At this outset, the researcher took the effort to concentrate on interaction with the Medical Practitioner as well as with the Nutritionist, to look for the proper answer to the question Since the aim of the research is to observe the health assessment and the nutritional status of the educated reserved category girls students under Post Graduate studies, hail from the marginalized families of South 24 Parganas, a two steps strategies have been determined before initiating the field survey 1. Orientation of the students to inform them about the project purpose 2. Motivation of the students to act as respondents.

The data collection method adopted at this level again included a three step motivational procedure. 1, Interaction with the students, at least for three consecutive sessions. 2 Distribution of questionnaire in two parts, a) Questionnaire for personal Survey b) Questionnaire on impersonal survey (based on the data on health analysis). However, the third phase of impersonal survey became the main source for the determination of the health status of the respondents, based on the medical report as analyzed and evaluated by the medical Practitioner, followed by the intervention of the nutritionist and the psychoanalyst on the remedial issues. Hence, the overall aim of the research is considered the study as the quality research that include rigorous analysis of the quantitative data collected through the constant involvement of the researcher in the field survey, data collection and data analysis associated with the study. Since the respondents are the students of Diamond Harbour Women University, the permission for initiating such a program demanded the prior permission of the University authority. Hence, the research survey and the project activities have been carried out within the University campus. Thus the ICSSR Senior Fellowship Project paved the way to the researcher to convert the University campus as the base of the field survey with the willing support of the Medical practitioner, Nutritionist and Psycho-Annalist and the researcher herself with the prior permission of the Vice Chancellor of the University. The number of respondents included 400 reserved category students collected from the list of SC,ST, OBC A, OBC B, and the other students belonging to BPL families and Physically handicapped students category. The names of the students are collected from the University list for reserved category students. The health assessment program was originally initiated involving the students were originally initiated in August 2018.

To answer the second part of the research question, i.e. 2 How much authentic will be the research findings from a health report point of view? Data analysis in the present survey is based on primary source, however the selection of site is done depending on the Government reports, records and documents. The census report 2011 indicated that,¹ the pressing needs of the area is the Health and Nutritional status of the women in South 24 Parganas, the research design chalked out. The demographic profile of the research area thus included the coastal region with the world famous Sundarban Delta region of the District of South 24 Parganas. The infrastructural support to the survey came from Diamond Harbour Women University. The

income structure of the people of the Coastal and the Delta region is based on informal economy and both men and women earners are present both at the formal and the non-formal economic sectors, like fishing, agricultural activities, Bidi biding etc. The Occupation at the delta region rests exclusively on women because, continuous natural calamity in the region compelled the male members to migrate to the urban centres for the purpose of earning. The women community left back to their villages are absorbed mainly in the non-formal sectors of the economy. Constraint in family earning made the living tough. 65% families are living below poverty line. Out of 65% earner group 86% are Hindu population and rest 33.24% are Muslim population, Out of the total Hindu Population, 33% are scheduled caste and. Male-female ratio is 1000:949. Female literacy rate is 78.57% (Census 2011) Scheduled caste women literacy 33.44%. The educated women group constituted 16.87% women the involvement of men in higher education has been showing a receding trend thus only 7.67% male are absorbed in higher education in the region. Panchayat record of 2006 declared the delta region of South 24 Parganas as the most backward part of the district in WB.

Since the initiation of the proposal for health assessment of the students respondents certain important issues came up and they are considered important for impartial survey; 1. The students' behavioural transcendent. 2 Their health perception through height and weight measurement for body mass analysis. 3. Their Hemoglobin test for their standard health analysis 4. The history of health problems according to their perception. This was considered important to study behavioural transcendent of the students involved as the respondents of the research. A three step questionnaire was initially handed over to the respondents to fill up. All these steps are carried out for understanding the health condition of the reserved category girls students of the University (The term reserved category included Scheduled caste, OBC, Minority community, Below poverty line and students from Bidi binding families). Since, the plan to work on imbibing health status awareness without recommend remedial measures, a two way health assessment and analysis was initiated. 1. Hemoglobin test, evaluation of report and to medical support sought for any remedial measures if at all required. Nutritional status was evaluated through the body mass Index based on height weight measurement A team of students respondent who consented to work for the project was entrusted with the responsibility of the height weight measurement consecutively in helping them to fill up the questionnaire. Blood collection for hemoglobin test was carried out adopting three different modes. 1. Blood test through health camp. 2 Group Blood test of the left out students in the Diamond Harbor Super Specialty Hospital 3. The left out group submitted their Hemoglobin test report done individually while necessary help in this regard was sought from the medical practitioner to study the health report and to devise means for their remedy. The student respondents suffering from low hemoglobin status an arrangement was made for their Thalassemia Test, the students complaining gastro-intestinal diseases, gynecological Problem, regular fever and any other waterborne diseases are asked to visit the medical practitioners of Super Specialty Hospital. However Blood sugar Test and Blood group detection was carried out consecutively with the hemoglobin test. The steps taken by the medical practitioner for analysis included. 1. Analysis of the Hemoglobin test report based on which advise for consecutive tests to the concerned respondents such as Blood Sugar Test, Thalassemia test followed. 2. Conducting a session with the respondents for further advise 3. Development of awareness in them about low cost nutritious diet and training on Health and Hygiene Nutritionist Dietitian, Food and Nutrition Board Eastern Region. Ministry of Women and Child

Development Government of India was associated with the project so that along with health analysis, knowledge on low cost nutritional food preparation be made and training on healthy and hygienic living be planned out accordingly. All these reports authenticated the research findings from health report point of view (the second point of Research Question).

The health survey was not concentrated on health assessment only. Specialized professional group was involved to create a new generation of socio-culturally educated women group (the first generation educated) who can claim themselves both educated and empowered women in the low cost good health drive. Also they are involved in 'good health drive'. They are expected to carry with them the knowledge on good health essential for good living (The motto of the respondents groups as decided by them is 'Good Health, Good Life'. They readily agreed to carry the ideas with them, to their locality and help them to involve in the good health drive through the mother to the children.

The respondents are asked to fill up an impersonal questionnaire (developed depending on Indian Statistical Institute (ISI) format). However, a preliminary discussion was carried out with the willing participation of the respondents for their orientation on good health package as one of the essential ingredients of education and empowerment of the girls' students.

Profile of diamond harbour women university

As a 'Location Based Study', the present research has been carried out in Diamond Harbor Women University of South 24 Parganas, West Bengal. The respondents selected for the study are enrolled in the University as the reserved category students. Being located close to Kolkata Metropolis, the residents of the District enjoyed the scope for continuous connection with the Kolkata city proper, but the socio-economic condition of the families had been obstructing the women students to commute from the villages of South 24 Parganas to Kolkata for higher study. Considering the inconvenience of the Women for higher education from the coastal region, the Chief Minister of West Bengal Ms Mamata Banerjee proposed for the establishment of a University exclusively for the women in the District, South 24 Parganas. The Diamond Harbour Women University gained West Bengal Government affiliation, through the State Legislative Assembly Act on 28th January 2013. The University though located in a township named Diamond Harbour, under the District of South 24 Parganas, caters to the academic needs of the women students from nearby Panchayat areas and also from the coastal as well as from the Sundarban Delta region of the District. Majority students of the University commute from the nearby villages and are from the reserved category population. They belonged to the first generation educated families and, a special attention was attached to their nutritional status, because majority students are from the farmers' family, while women headed families hail from the Bidi Binding Community or from the families of small farmers and daily wage earners families. However, incorrigible interest of women students towards higher education has also been enhanced mainly because of the enormous facilities involved in the Government policies for financial support to the women students through diversified scholarship schemes like Merit cum means scholarship, scholarship for the families of Bidi Binders, scholarship for scheduled caste, OBC and the minority community students. Added to this the Kanyashree Project III (Respected Women) of the Chief Minister of West Bengal has enhanced the tenacity of the girls' students for higher studies (from 2017 the Kanyashree Project is expected to cover the post graduate unwedded women students under the Kanyashree III

Project. This marked the initiation of overwhelming support of our chief Minister for women's education. This was the outcome of award winning effort of the State from UNICEF in 2017. Thus the financial support in the form of scholarships came as an added incentive to the women group and enabled them to go for higher studies.

Methodology

Taking into consideration the health status of an average Indian educated woman from rural background, the present research aims to explore the level of awareness they have regarding the need for healthy living, their daily diet, their awareness regarding the effect of their good health on the future generation and also how far they have contributed towards creating a healthy society by carrying the message of Good Health awareness to the community women within their locality. To nurture all these issues sincerely and in collecting authentic data in this regard, the present survey is proposed to be taken up by the researcher through two way method arranged chronologically; 1. Discussion and interaction. 2. Chalk out the plan (already initiated). 3. Selection of the mode of health evaluation. 3. Collect information about the prevalent diseases in them. The past history of their diseases (Report collected from the student is attached). 3. Use of questionnaire for collecting dietary and other information. 4. Height weight measurement of the respondents (will be done within the University campus). 5. Hemoglobin test and consultation with the medical practitioner, nutritionist as a mode of direct support (already selected and discussion initiated), ancillary support like Blood test (responsibility taken by Government Super Specialty Hospital Medical Superintendent). 6. Information dissemination through student to student interaction. This will be done through student's involvement for necessary support (like Height weight measurement and filling up questionnaire). 6. Random selection of respondent for cross verification of the information given by them in the questionnaire (especially about the dietary chart). University students will be involved during their free time with the permission of the University authority. Already preliminary permission of the University authority is acquired verbally and the stage-wise development in the field is expected to be done within the University campus with the time to time development of the research. Involvement of the students in data collection like, interaction with the students, helping them to fill up questionnaire by the students through student to student interaction as an important means of information dissemination through the students at the grass root level.

Report of health assessment

The health assessment included; A) Determination of Body Mass Index through height weight measurement, B) Hemoglobin test, carried out to determine the general health status of the respondents. C) Medical analysis of the cases and detecting special arrangements for the treatment of special cases (by the Medical Practitioner). D) Interaction of medical practitioner regarding thalassemia and Blood sugar test report. E) Health awareness and low cost healthy food chart by the nutritionist. Hence the successful implementation of the program demanded the concerted effort of both the learner and the learned.

Health evaluation of the women are carried out as a three stage analysis. 1. The respondents reported their persistent diseases. Like Gastro Intestinal disease. Almost all students complained of the same symptoms prevalent in them. According to them the problem is so persistent that it demanded regular medical intervention. 2. Presentation of diet Chart and BMI analysis based on their food chart. (Absence of family awareness regarding their daughter's diet

and their health indicated low BMI status of the respondents. (it is taken for granted that the women should not be given too much attention because after marriage they have to go to a different family so they should grow up the habit of adjusting with the new family situation. While the cases are different with the male, members of the family. They are offered special care in their food and diet, they are

considered as the future care taker of the family. 3 Hemoglobin test report of the respondents- while some respondents showed interest to go for Blood Sugar test and thalassemia test was arranged for the willing respondents. Blood group of the respondents are done along with hemoglobin test as an awareness measure.

Table 1 The table below (all data in numbers) presents an overview of the medical facilities available and patients treated in the hospitals, health centres and sub-centres in 2014 in South 24 Parganas district¹⁸

Health & family welfare deptt, WB													
Subdivision	Hospitals	Rural hospitals	Block primary health centres	Primary health centres	Other state govt depts	Local bodies	Central gov deptts / PSUs	NGO / Private nursing homes	Total	Total number of beds	Total number of doctors	Indoor patients	Outdoor patients
Alipore Sadar	-	3	3	7	1	3	-	48	65	1,159	199	33,498	633,233
Baruipur	1	6	1	18	-	2	-	66	94	1,045	201	48,114	1,266,244
Canning	1	3	1	6	-	-	-	15	26	351	49	22,467	666,377
Diamond Harbour	1	6	3	17	-	-	-	68	95	1077	169	65,051	1,325,535
Kakdwip	1	3	1	11	-	-	-	20	36	458	73	28,707	405,501
South 24 Parganas district	4	21	9	59	1	5	-	217	316	4,090	691	197,837	4,397,890

Note: The district data does not include data for portions of South 24 Parganas district functioning under Kolkata Municipal Corporation. The number of doctors exclude private bodies. District Census 2011

Out of the 400 respondents, 154 respondents opted for thalassemia test while the test report indicated 8% as HbE carrier and 4% beta Thalassemia carrier. The rest 146 opted for Blood PP test. Hence negligible portion of the respondents, (only 2 % are detected as marginally effected. While rest are in the lower range in Blood sugar detection BMI Status of 243 respondents are detected below 18.4. They fall under the category below average in BMI Status while 118 respondents fall under average BMI category i.e above 18.5-24.09 and rest 29 student respondents fall under over weight category. The overall ratio in terms of the percentage 60.75% are below average, 29.5% respondents falling within the average BMI status while only 9.75% respondents are overweight.

Percentage of students respondents suffering from hemoglobin deficiency (<13) are 78% while rest 22% are normal (>13). Hence there is a close similarity in between the BMI status and hemoglobin deficiency and interestingly, the first category fall under low income category i.e. income within Rs3000/-Rs5000/- per month while rest 9.75 % fall under the income category in between Rs6000/-Rs20,000/- i.e, comparatively better income structure. However, the low income families may be divided into two parts. Land owning Families and Landless families. Land holder families having fragmented land can manage to procure their rice partly from the field but for the landless families, cash income is their only source. As a result among the lower income group also there are two categories of health status of women. The above data conforms the NFHS report (4) of 2015-16.² The report that displays the Hemoglobin status of the women of the District. As per the official record 47.0% of the pregnant and married women in the age group of 15-49 are anemic (<11.0g/dl)%. While 68 % of the non-pregnant women of the same age group are anemic (<12.0 g/dl %). The overall anemia deficiency among the women from the rural

areas of South 24 Parganas is 67.7 %. The recent assessment therefore is an indication that nothing much has changed within the same time span. On the contrary, the health evaluation under the present research indicates that the education of the women community has failed to change their strategies in life regarding the importance of their health and nutritional status. Thus the tenacity of women for higher education has encouraged the researcher to involve in their health and nutritional studies and hence proposed for nutritional awareness program for them so that their education and health needs to corroborate together and help them to change their vision of life in reality.

Over and above the 400 student respondents, 20 married and pregnant women expressed their willingness to join the team Though they fall under the low income reserved category women students, but they are excluded from the list of respondents, because due to the detection of pregnancy they were kept directly under the supervision of Government Health Care Centre where regular supervision of the pregnant ladies, home care of the women by the Anganwaris and Asha Workers (Health workers of the Government health Care Centre) have opened a way to maintain strict watch on the locality women Based on the Survey on Health analysis. The researcher made an effort to gather information on the general health status of the respondents. However health assessment report indicated that out of the 154 out of 400 respondent women respondent underwent thalassemia test and out of them 4% are detected as Beta Thalassemia Carrier and 8% as HbE carrier. Unfortunately till their mid-twenties they did not have any concept about the genetically impounded diseases prevalent in them. The question regarding the monthly visit of the respondents to the Health Centre or to the Super Specialty Hospital, out of 400 respondents 60% reported that they visit the Hospital for health Check up once in a month. In their opinion Gastro-intestinal discomfort

an menstruation related discomfort in them compel them to visit the Medical Practitioner, 20% complained of regular occurrence of fever compel them to visit health Centre, rest 20 % visit the Primary Health Centre occasionally and in case of emergency. However no respondents are aware of their blood group.

Out of the 400 students involved as the respondents in the present Research based on caste criterion, do not have the general idea on their health needs. The standard condition of the health as detected among in the respondent needs to be taken care of because the Health vulnerability of the region is one of the important issues that needs to be attended. Involvement of women in Pisciculture results in the development of gynecological problems among them, while their nutritional deficiency is in a severe state. Under the circumstance, the researcher became inquisitive to focus on the health and nutritional status of educated women in the district to find out the state of health of the educated women commuting the University from reserved category community. Purpose behind concentrating on this category is to find out the contribution of higher education of women on their health and nutritional status. The Government's Reservation policy in the one hand has offered them the scope to assimilate them in the mainstream society through special educational opportunities, while the academic exposure is expected to help them to work out their overall development. But the question that remained unanswered at this stage is the level of their achievement in health awareness field. Since the overall development in the field is obstructed mainly by the culture of patriarchy, any positive stances needed awareness drive to develop the health awareness in them. Thus at the last stage of data collection a door to door ethnographic studies are done to evaluate the level of awareness achieved by the women community as a whole through the information dissemination by the educated women group to their community and how far the health and nutritional status of the women have enabled them to change their vision of life.

Study tools

The tools used in this survey mainly constituted interview based questionnaire survey. The enquiry is mainly concentrated to the social and demographic conditions of the families, type of food consumed, general health issues, sources of drinking water, quality of drinking water. Reproductive health of women was also treated as a part of the survey while questionnaire consisted of the detailed information about the income and the number of members in the families to observe family members and food distribution correlation other than the information on general health status of the women. Health analysis parts of the study are through analyzed by the Medical practitioner, based on biochemistry report of Haemoglobin test. Thalassaemia test and blood sugar test, while the height weight measurement is done by the researcher with help of the student respondents through group formation. It helped the researcher to concentrate on ancillary activities associated with the survey.

Literature review

To look to the nutritional status of the reserved category educated women, the literature survey at this stage is mainly concentrated on the study of the evaluation of the nutritional status of Indian women exclusively to look to the different aspects of the health as observed by the researchers mainly absorbed in area studies with the intention to determine the similar steps based on the same line of action in the present study. Hence at this stage the procedure adopted by Dr. S.K Bardhan Roy in his study entitled Adoption Potential and Consumer's acceptance on Bio-fortified Rice in West Bengal on

the nutritional status of the pregnant women of the coastal; region of South 24 Parganas has been consulted. Besides this two other books considered as the most important source for the demographic profile of the area included Environment and Livelihoods in Tropical coastal Zones: Managing Agriculture- Fishery-Aquaculture Conflicts, Edited By C.T Hoanh,⁵ T.P. Tuong, J.W. Gowing and B. Hardy Under the series Comprehensive Assessment of Water Management in Agriculture, Over and above this regarding the health and nutritional issue, Krishna Soman's Women's Health and Rights to Health in Independent India: An Overview gave comprehensive idea on the correlation of women health with her diversified activities associated with her life. The researcher also concentrated on literature survey, like consulting various reports, research papers and books and articles on nutritional issues. Already the books consulted on Nutritional issues on women included the following titles. Women's Health and Rights to Health in Independent India, by Krishna Soman.⁶ A situational Analysis of Women and Girl's in West Bengal by Mukul Mukherjee⁷ National Commission for Women 2004. 'Women and Health in India: An Analysis', by Sunil Kumar Kamalapur⁸ and Somnath Reddy: International Research Journal of Social Sciences Vol.II (10) 10-15 October 2013. However Prof Maitreyee Bardhan Roy Chapter entitled; A College Reaching out to society: A Practical Model of knowledge Dissemination. Published by IGI Global in 2017⁹ as a chapter in the Book named A hand Book of Research on Social Science Education an University Outreach as a tool for regional Development (Editor) Panduranga Narasimha Rao, Elizabeth Ritz et al.¹⁰ A volume in the Advances in Educational Marketing, Administration, and Leadership (AEMAL) Book Series IGI Global has been followed as a part of the literature survey of the present research.

Concluding remarks

While evaluating the health status of the women students of South 24 Parganas one has to accept the level of vulnerability the residents face in their everyday living, The locality is not only responsible for the development of severe health constraints in them. Their socio-economic status is also responsible for the development of health and nutritional vulnerability in women, The factors responsible for that are many. 1 Financial constraint of the families, 2. System of Patriarchy prevalent in the families result in the neglect of women's health and nutritional needs. 3. Early marriage. 4. Girl child constraint their academic pursuit. 5 Early child birth constraints her health 6. Birth of girl child constraint the family members to treat her as an insider because women are treated as an outsider and meant for marriage, hence spending money on them is never considered viable. 7. Environmental vulnerability among the respondents of Delta Region is one of the major hurdles for their survival. However Kanyashree Prokalpa (Support to the education of Girls) of the Government of West Bengal became an important gateway for the education of the women. As per 2018-19 data women's enrollment in the higher educational field has significantly increased. The reflection of such a positive trend as observed among the women of South 24 parganas District may create a positive impact if an overall health and nutritional program is adopted for the women of the District on a regular basis.

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Conflicts of interest

The authors declare no conflict of interests.

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