International Journal of Current Advanced Research
ISSN: O: 2319-6475, ISSN: P: 2319-6505, Impact Factor: 6.614
Available Online at www.journalijcar.org
Volume 7; Issue 8(E); August 2018; Page No. 14891-14896
DOI: http://dx.doi.org/10.24327/ijcar.2018.14896.2716

Research Article

IMPACT OF MID-DAY MEAL PROGRAMME ON STUDENTS IN WEST BENGAL

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A R T I C L E I N F O

Article History:

Received 04th May, 2018
Received in revised form 16th June, 2018 Accepted 25th July, 2018
Published online 28th August, 2018

Key words:

Mid-day meal programme, Enrolment, attendance.

A B S T R A C T

The government has left no stone unturned to achieve the aim of universalization of elementary education by launching various schemes to enrol and retain the maximum number of students and minimize the dropout rate. One such scheme launched by the government was Mid-day meal scheme that aims to primary and upper primary level in improving the nutritional status of children, encouraging poor children, belonging to disadvantaged sections, to attend school more regularly and help them concentrate on classroom activities. Various studies have been conducted in India about mid-day meal scheme and students achievement in schools. Most of the studies revealed that there exist a positive relationship between mid-day meal program and enrolment and attendance of students.

INTRODUCTION

Realizing health and educational benefits of an effective scheme, feeding programme the Government of India launched a centrally sponsored scheme, the National Support to Primary Education (NP-NSPE) in 1995. As per directive of the Supreme Court vide its order dated 28th November 2001 all the State Governments were directed to implement theMid-Day Meal Scheme by providing every child in Government and Government aided lower primary schools with a cooked Mid-Day Meal (MDM). In October 2007, the scheme was extended to cover children of upper primaryclasses (i.e. class VI to VIII). At first in 1980 three via, Gujarat, Kerala andTamil Nadu and UT of Pondicherry had launched Mid-day meal programmewith their own resources. In West Bengal MDM was started in Calcutta city by Keshav Academy of Calcutta as compulsory mid - day Tiffin on payment basis at therate of four annas per child per month. The main objective of the programmewas to improve the nutritional status of children in primary section of Government schools and encourage poor children, belonging to disadvantaged sections, to attend school more regularly and help them concentrate onclassroom activities. Mid-Day Meals programme is look upon as having the potentiality of motivating school children to attend schools regularly as it provides them some kind of food regularly. For these reasons Mid-Day Meals programme is considered to be a valuable input in the development of elementary education. This programme is introduced in primary schools with a view to attract children to schools for increasing enrolment and completion of formal education.

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This programme was essentially to attract children and retain them in schools particularly at the primary stage. However Mid-day meal fails to address its multidimensional benefits due to various reasons such as poor infrastructure, low priority givenby the policy makers, lack of integration and lack of awareness Poor involvement by community, PTA, teacher's perception for MDM as additional burden is some of the many drawbacks of the scheme. Various evaluations conducted on the MDMP and the literature has indicated poor awareness and negative attitudes of the staff members and teachers and dissatisfaction among the children as one of the major reasons for failure of the programme.

Objectives of the Study

O1. To compare the impact of mid-day Meal programme on students residing in rural and urban schools.
O2. To study the impact of Mid-Day Meal programme among students between rural male and rural female.
O3. To study the impact of Mid-Day Meal programme among students between urban male and urban female.

Hypotheses

H01*:* There is no significant difference of Mid-Day Meal programme between rural and urban schools students.
H02: There is no significant difference of Mid-Day Meal programme between rural male and rural female.
H03*:* There is no significant difference of Mid-Day Meal programme between urban male and urban female.

METHODOLOGY OF THE STUDY

In any form of research, the methodology involved in the entire process is of paramount importance. In any conceived research problems, methodology is the path which a researcher

follows to address that particular problem. From the very beginning, when the problem is formulated, through the steps like- coming up with appropriate objectives, formulating hypotheses or research questions, defining the terms of importance and the terms used, identifying a particular population to work on, following an orderly approach of choosing the samples, building data tools for data collection, standardizing those tools, data collection procedure adopted, analysis and interpretation of the raw data and at the end analyzing and interpreting the trends and answers submerged in the data; all these steps of a particular research are governed by a particular method identified as suitable by the researcher and is the 'methodology' of that particular research.

Variables

In this study, the investigator is considering three types of variables. This three type of variable are given below-

Major variable

Impact of Mid-Day Meal programme

Categorical Variables

Gender: a) Male;b) Female
Location: a) Rural; b) Urban

Population

The geographical area of the study was conducted on the area of Murshidabad district in West Bengal. In this research students were considered class VIII (both boys and girls).

Sample and Sampling Procedure

The samples were selected randomly from Murshidabad districts of West Bengal. A total 4 school selected randomly. Random Sampling techniques were adopted for the study. There were 100 students taken as sample for this study. Both male and female were considered in this study. The data collection certificates of issued by the head of the institutions are given in the appendix (Appendix-II).

Table 1 Sample Frame of the Study

District	No. of Schools	Gender				Total
		Male		Female		
		Rural	Urban	Rural	Urban	
Murshidabad	4	25	25	25	25	100

Tools Used

The researcher has used tools for this particular study. The first one was a self-made questionnaire of impact of Mid-Day Meal Programme on society to collect data from class VIII students trainees.

Impact of Mid-Day Meal Programme on Students Scale (MDMPS)

The scale was constructed by the investigator with the help of his supervisor. The categories of responses were Likert type i.e. 'strongly agree', 'agree', 'disagree', 'strongly disagree' and '4', '3', '2', '1' were the respective scores awarded for the responses to positive items. Some items were negative in nature and the scoring was done in reverse order. A total 20 items were there in the scale.

Validity of the Tool

Content validity of the tool was done expert rating of the items by three experts. The experts rated each item on a three point rating scale. The categories of rating were 'Relevant', 'Somewhat Relevant' and 'Not Relevant'. Any item of the scale which was rated by even one of the experts as 'not relevant' was dropped from the final scale.

Procedure of Data Collection

For conducting the research, data had been collected from Class VIII students. Four schools from Murshidabad district of West Bengal were selected randomly.

Presentation of Data

All the raw data collected from students were tabulated in MS Excel and further analysis were done M.S Excel.

Descriptive Statistics of total Mid-Day Meal Progrrame

Table 1 Descriptive Statistics of MDMP

TOTAL MDMP	
Mean	**53.69**
Standard Error	0.488596216
Median	54
Mode	58
Standard Deviation	**4.885962163**
Sample Variance	23.87262626
Kurtosis	-0.995927496
Skewness	-0.274296134
Range	20
Minimum	42
Maximum	62
Sum	5369
Count	100

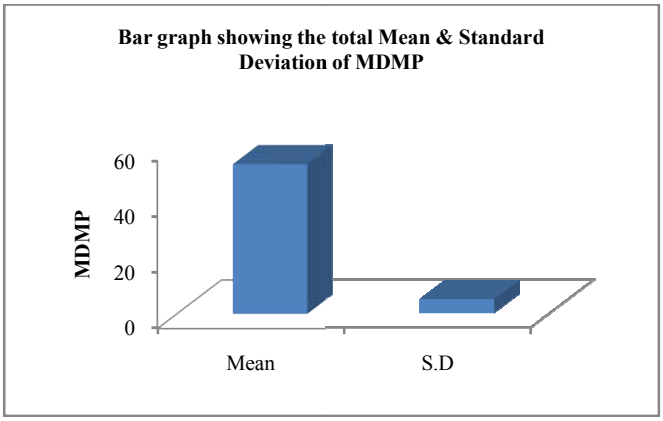

Figure 1 Bar graph total Mean & Standard Deviation of MDMP

Descriptive Statistics of Rural Mid-Day Meal Progrrame

Table 2 Descriptive Statistics of MDMP (Rural)

Rural mdmp	
Mean	**56.7**
Standard Error	0.455577678
Median	58
Mode	58
Standard Deviation	**3.221420653**
Sample Variance	10.37755102
Kurtosis	-0.923091231
Skewness	-0.469295871
Range	11
Minimum	51
Maximum	62
Sum	2835
Count	50

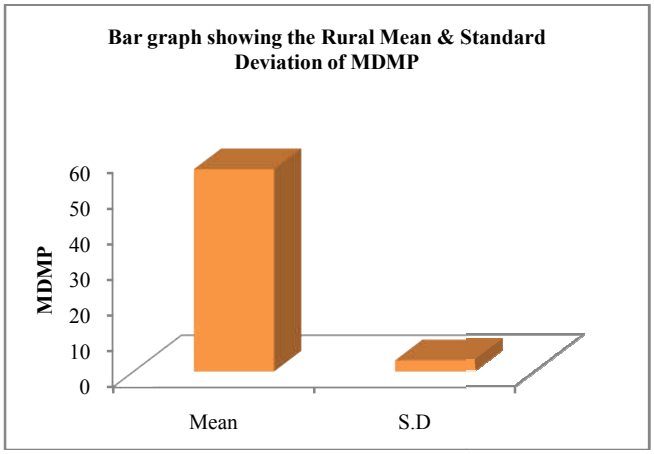

Figure 2 Bar graph Rural Mean & Standard Deviation of MDMP

Descriptive Statistics of Urban Mid-Day Meal Progrrame

Table 3 Descriptive Statistics of Urban MDMP

Urban mdmp	
Mean	**50.68**
Standard Error	0.622332676
Median	49.5
Mode	48
Standard Deviation	**4.400556551**
Sample Variance	19.36489796
Kurtosis	-0.633094688
Skewness	0.401779375
Range	17
Minimum	42
Maximum	59
Sum	2534
Count	50

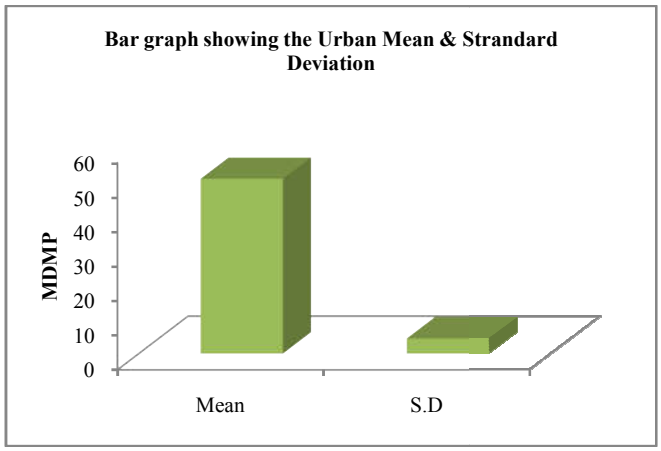

Figure 3 Bar graph Urban Mean & Standard Deviation of MDMP

Analysis and Interpretation of data

The data collected from the sample attributes were analyzes using the data analysis package. Two types of statistical operations were executed to test the three hypotheses mentioned.

a. t-Test
b. Correlation

***Software Used*:**The raw data were tabulated in MS Excel 2007 and analysis of data was done through MS Excel 2007 too.

Objective-wise Analysis of Data

Objective no. 1

***O_1*:** To compare the impact of mid-day Meal programme on students residing in rural and urban schools.

For fulfilment of the above mentioned objective, null hypotheses were formulated and tested which were as follows:
***H_o1*:** There is no significant difference of Mid-Day Meal programme between rural and urban schools students.

Testing of $H_0$1 and Interpretation

Table 4 t-Test: Two-Sample Assuming Equal Variances (for hypotheses 1)

	Rural	Urban
Mean	**56.7**	**50.68**
Variance	10.37755102	19.36489796
Observations	50	50
Pooled Variance	14.87122449	
Hypothesized Mean Difference	0	
Df	98	
t Stat	**7.805363457**	
P(T<=t) one-tail	3.29225E-12	
t Critical one-tail	1.660551218	
P(T<=t) two-tail	6.5845E-12	
t Critical two-tail	**1.984467404**	

Hence, t stat > t Critical two-tail at 0.05 level of significance
Therefore, the difference of mean of the two variables is statistically significant at 95% confidence level.

Interpretation

From the analyses in Table 4.1 it is seen that in case of two sample t-Test assuming equal variance for students of rural and students of urban, the t Stat or calculated t value is 7.805363457 and t Critical two tailed value is 1.984467404 (t Stat > t Critical). Hence t is significant at 0.05level. So, $H_0$1 is rejected and, considering the values of means of the two variables, an inference may be drawn as: there exists significant difference of Mid-Day Meal programme between rural and urban schools students.

Table 5 Result Correlation Matrix between Rural & Urban Students

Variable	n	df	Correlation Coefficient (r)
Rural Urban	100	98	-0.38409

***Interpretation*:** From the above scatter diagramCorrelation Coefficient i.e. 'r' value is **-0.38409** so, it is clearly expressed that there exist negative correlation of MDMP between rural students and urban students.

Objective

***O_2*:** To study the impact of Mid-Day Meal programme between rural male and rural female students.
For fulfilment of the above mentioned objective, null hypotheses were formulated and tested which were as follows:
***H_o2*:** There is no significant difference of Mid-Day Meal programme between rural male and rural female students.

Testing of $H_0$2 and Interpretation

Table 4.3 t-Test: Two-Sample Assuming Equal Variances (for hypotheses 2)

	Rural Male	Rural Female
Mean	**57.28**	**56.12**
Variance	7.543333333	12.94333333
Observations	25	25
Pooled Variance	10.24333333	
Hypothesized Mean Difference	0	
Df	48	
t Stat	**1.281422493**	
P(T<=t) one-tail	0.103100626	
t Critical one-tail	1.677224197	
P(T<=t) two-tail	0.206201251	
t Critical two-tail	**2.010634722**	

***Interpretation*:**From the analyses in Table 4.2 it is seen that in case of two sample t-Test assuming equal variance for rural Male and rural Female, the t Stat or calculated t value is 1.281422 and t Critical two tailed value is 2.010634 (t Stat < t Critical). Hence, t is not significant at 0.05level. So, $H_0$1 is retained and it can be inferred that there exist no significant difference of Mid-Day Meal programme between rural male and rural female students.

Objective

***O_3*:** To study the impact of Mid-Day Meal programme among students between urban male and urban female.

For fulfilment of the above mentioned objective, null hypotheses were formulated and tested which were as follows:

***H_o3*:** There is no significant difference of Mid-Day Meal programme between urban male and urban female.

Testing of $H_0$3 and Interpretation

Table 4.4 t-Test: Two-Sample Assuming Equal Variances (for hypotheses 3)

	Urban Male	Urban Female
Mean	**50.32**	**51.04**
Variance	22.22666667	17.04
Observations	25	25
Pooled Variance	19.63333333	
Hypothesized Mean Difference	0	
Df	48	
t Stat	**-0.574500595**	
P(T<=t) one-tail	0.284155984	
t Critical one-tail	1.677224197	
P(T<=t) two-tail	0.568311968	
t Critical two-tail	**2.010634722**	

***Interpretation*:**From the analyses in Table 4.2 it is seen that in case of two sample t-Test assuming equal variance for rural Male and rural Female, the t Stat or calculated t value is -0.57450 and t Critical two tailed value is 2.010634 (t Stat < t Critical). Hence, t is not significant at 0.05level. So, $H_0$1 is retained and it can be inferred that there exist no significant difference of Mid-Day Meal programme between urban male and urban female students.

Major Findings

In accordance with the objectives specified in this particular study and through various data analysis and interpretation used, many findings have come forth. Following are the major points of those findings;-

Findings Related to MDMP Between Rural students and Urban students

To compare impact of MDMP under different variables such as rural, urban, male, female, Mid-Day Meal Programme (MDMP) was administered. After scoring, the data was tabulated in MS Excel 7 and analyzed. The findings are as follows:

i. The mean score of MDMP among the 100 school students from 4 schools was found to be 53.69, which is more than the average Thus, this statistical value it may be assumed that students possess a moderately impact of MDMP on students.
ii. Average mean score of rural students about MDMP was found to be 56.7 and the averages mean score of urban students 50.68. So, it indicates that the Impact of MDM have a different among the rural and urban students.
iii. By dividing the MDMP score in percentile rank it is seen that 14 of the 50 students have lower score in MDMP, 26 have moderate and 10 have high score in MDMP of the rural students.
iv. By dividing the MDMP score in percentile rank it is seen that 18 of the 50 students have lower score in MDMP, 20 have moderate and 12 have high score in MDMP of the urban students.

Findings Related to MDMP between Rural Male students and Rural Female Students

The major findings are as follows:

The mean score of MDMP among the 50 rural male from 4 schools was found to be 57.28, which is more than the average and mean score of MDMP among the 50 rural female from 4 schools was found to be 56.12. Thus, from this statistical value it may be assumed that students of rural male and rural female possess a slightly mean difference of MDMP.

Findings Related to MDMP Between Urban Male students and Urban Female Students

The major findings are as follows:

The mean score of MDMP among the 50 urban males from 4 schools was found to be 50.32, which is more than the average and mean score of MDMP among the 50 urban females from 5 schools was found to be 51.04. Thus, from this statistical value it may be assumed that students of urban male and urban female possess a slightly mean difference of MDMP.

Findings with respect to Relationship between Rural students and Urban students

The study reveals that there exist negative correlation (r = -0.38409) between rural students and urban students. The correlation value was found to be significant. It means impact of MDMP on students between rural and urban are negatively related to each other.

Suggestions for Further Researches

The present study may generate the urge and need for conducting further researches concerning this particular field of study. Some suggestions are put forward as following:

i. The study may be conducted with an increased sample size and taking samples from various types of school under the WBBSE all over West Bengal.

ii. Future studies can consider categorical variables which may have some impact of MDMP on students.
iii. Effect of MDM, role of teacher, family income, location etc. can be explored through future researches which can be qualitative as well as quantitative in nature.
iv. Studies with more comprehensive samples may reveal various patterns of MDM related question use and its effect on students in different part of the state as well as country.
v. Qualitative studies could also be done to overcome the paucity of literature in this area.
vi. Further studies may be conducted to compare between this classes or board and among the different classes or other board (ISC, CBSE, and ICSE) of West Bengal as well as India.

CONCLUSION

Mid-Day Meal programme is one of the most important programmes of the Government to encourage children to come to schools and participate in the learning process without worrying for their meal, especially that of day time. The programme in the holistic manner helps in bringing back all school going age children back to schools, improve retention ratio of school children and arrest dropout rate besides providing nutritious meals to growing children. The State has done commendable work in implementation of Mid-Day Meal Programme by coverage of institutions and children as per plan; working days on which meals were served; percentage of meals served, etc. The Department will further improve the implementation of Mid-Day Meal if suitable measures are taken to absorb the funds allocated.

Investigating Through the looking glass of Quantitative research the Present Researcher found that

i. The students have varying level of impact of MDMP both rural and urban areas.
ii. There is significant difference of MDMP on students between rural areas students as well as urban areas students.
iii. There is significant difference found of MDMP on rural areas male and rural areas female students. On the other hand significant difference found of MDMP on urban areas male and urban areas female students.
iv. The study reveals that there exist negative correlation between rural students and urban students.

Therefore, it was concluded that the clients of government primary schools were the children who belonged to the poor families. Though, the objectives and potential benefits of the MDM scheme were mainly: increased enrolment, attendance and retention; improved child nutrition; and social equity. Though, the enrolment statistics have improved and the dropouts might have reduced. Finally we can say that Mid-Day Meal Programme is a great initiative by the govt. as a result literacy rate increasing effectively and reduced child labour in our society and finally we found a fruit full earth.

References

1. Nath, B. &Nath, I. (2015). A study of the impact of Mid-Day-Meals programme on enrolment and retention of primary school children. *International journal of applied research,* PP- 407-413, ISSN:2394-5869. Retrieved form http://www.allresearchjournal.com/archives/2015/vol1issue10/PartF/1-10-19.pdf
2. Molla, F. & Sheikh, J. (2015) Impact of Mid-Day Meal Programme on Educational Level: A Case Study of Ballabhpur Village, Birbhum District, and West Bengal, ISSN ONLINE(2319-8753. Retrieved from, http://www.rroij.com/open-access/impact-of midday-meal-programme-oneducational-level-a-case-study-ofballabhpur-village-birbhum-district-andwest-bengal.php?aid=54049
3. Laxmaiah A[1], Sarma KV, Rao DH, Reddy G, Ravindranath M, Rao MV, Vijayaraghavan K. (1999) Impact of mid day meal program on educational and nutritional status of school children in Karnataka. Retrievedfrom,https://www.ncbi.nlm.nih.gov/pubmed/10745363
4. Garg, M. Impact of Mid Day Meal Programme on School Participation, Nutritional Status and Educational Attainments.Retrievedfrom, https://www.iimcal.ac.in/sites/all/files/pdfs/abstract_manisha_garg_.pdf
5. Rajeev, J (2014) Assessment Of The Nutritional Status Of Primary School Children Who Are The Beneficiaries Of Mid-Day Meal Scheme: A Cross-Sectional Study In Kanjirappally Block Panchayath, Kottayam. Retrived from,http://dspace.sctimst.ac.in/jspui/bitstream/123456789/2480/1/6464.pdf
6. Paul,P.K&Mondal,N.K. (2012) Impact of Mid-day Meal Programme on Academic Performance of Students: Evidence from few Upper Primary Schools of Burdwan District in West Bengal. Retrieved from, ISSN: 2249-2496https://www.ijmra.us/project%20doc/IJRSS_AUGUST2012/IJMRA-RSS1750.pdf
7. Jayaramany, R.Simrothz, D &Vericourt, F.D. The Impact Of School Lunches On Primary Schoolenrollment: Evidence From India's Midday Meal SCHEME" Retrievedfrom,https://www.isid.ac.in/~pu/conference/dec_10_conf/Papers/RajiJayaraman.pdf
8. Singh, S. & Gupta, N. (2014). Impact of Mid Day Meal on Enrollment, Attendance and Retention of Primary School Children. Retrieved from, https://www.ijsr.net/call.php
9. Thakur, P. (2013) Assessment Of Children Availing Mid Day Meal Scheme. Retrieved form, https://www.researchgate.net/publication/303242637_ASSESSMENT_OF_CHILDREN_AVAILING_MID_DAY_MEAL_SCHEME
10. Bonds, S. (2012) Food for thought: Evaluating the Impact of India's Mid-Day Meal Program on Educational. Retrieved from, file:///J:/Samim%20Pen%20drive%20all/SAMIM%20dissertation/pdf/Bonds.pdf
11. Mishra, S. (2013) Monitoring and Evaluation of Mid-Day-Meal Scheme in Sikkim. *International Journal of Humanities and Social Science Invention* ISSN (Online): 2319 7722, ISSN (Print): 2319 7714. Retrieved from, file:///J:/Samim%20Pen%20drive%20all/SAMIM%20dissertation/pdf/5..pdf
12. Uma (2013) Mid-Day Meal Scheme and Primary Education in India: Quality Issues. *International Journal of Scientific and Research Publications*, Volume 3, Issue 11, November 2013 1 ISSN 2250-3153. Retrieved from,

file:///J:/Samim%20Pen%20drive%20all/SAMIM%20dissertation/pdf/6..pdf

13. Mansukhlal, J.K, (2012) A Study of Effectiveness of the Mid-Day Meal Scheme Implemented In Primary Education' Singhania University Pacheri Bari, Jhunjhunu (Raj.), India. Retrieved from, file:///J:/Samim%20Pen%20drive%20all/SAMIM%20dissertation/pdf/4..pdf
14. Sarma, *et al* (1995) Impact of Midday Meal Program on Educational and Notional Status of School-going Children in Andhra Pradesh, India. Retrieved from, file:///J:/Samim%20Pen%20drive%20all/SAMIM%20dissertation/pdf/101053959500800109.pdf

How to cite this article:

Tanmay Naskar and Samim Aktar (2018) 'Impact of Mid-Day Meal Programme on Students in West Bengal', *International Journal of Current Advanced Research,* 07(8), pp. 14891-14896. DOI: http://dx.doi.org/10.24327/ijcar.2018.14896.2716

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