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RESEARCH ARTICLE

Midday Meal Programs in Institutional and Community Schools of Nepal: A Comparative Analysis of Students' Meal Choices

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ABSTRACT
Midday meals play a crucial role in satisfying and motivating students during teaching-learning activities, ensuring that they receive their basic education rights. As food and nutrition are fundamental for every living being, and since students spend a significant portion of their day in school, they require snacks to sustain their energy levels. The study aimed to recognize modalities related to parents' education and evaluate school physical facilities associated with midday meals in institutional and community schools. The research, conducted with the participation of school principals and fifth-grade students, revealed significant disparities in providing midday meals and the quality of school facilities. The study employed an explanatory sequential design. Ten headteachers and 240 students were the samples for this research. The interview schedule and observing rating scale were used as data collection tools. The study explored how parents' education levels influence their choices regarding where to enroll their children. It also discovered that parents with lower qualifications prefer community schools, while those with graduate qualifications lean towards institutional schools. Additionally, snack consumption habits differ between institutional and community schools, reflecting potential socio-economic influences. It was found that over half of students in institutional schools brought homemade lunches, while community schools offered meals in canteens. The findings underscore the need for targeted interventions to enhance school facilities, particularly addressing identified shortcomings to ensure the well-being and safety of students participating in the midday meal program.
KEYWORDS: Institutional schools, community schools, midday meals, quality education

INTRODUCTION
A school is an educational institution in which teachers and students continuously perform teaching and learning. In the educational realm, schools in Nepal are typically classified into two primary types, namely, community schools and institutional schools, based on distinct characteristics and operational functions.

Community schools get help from the government and are managed by local governments for basic and high school education after the Constitution Act 2015 and changes to the federal government (Chikanbanjar, 2017). Institutional schools, on the other hand, resembling private schools, receive support from parents and trustees, with no government involvement in setting fees or other structures, as these schools are solely funded by parents and trustees (Adhikari, 2019). One significant aspect of schooling is the provision of health and nutrition programs, which play a critical role in the physical and cognitive development of students.

School health and nutrition is one of the aspects of the school health program. It is essential to the physical, mental, social and educational development. It is one of the interventions to motivate students to admission to school, reducing the dropout of students, too. The government of Nepal (2008) focused on school health and nutrition programs for children by providing them with food. School midday meals provide at least one nutritious meal to all learners, especially early child learners, and to class five students who studied in community schools (Government of Nepal 2020). The Republic of South Africa, Department of Basic Education (2023), had the slogan that every child is a national asset. The National School Nutrition Program (NSNP) is designed to enhance learners' educational capabilities by providing nutritious school meals. Implementing the program has improved punctuality, regular attendance, concentration, and overall well-being of participating students. Schools are encouraged to create gardens to supplement menus with fresh produce, aligning with South African Food Based Dietary Guidelines (2023). This initiative imparts skills to learners, teachers, and parents for growing grain and vegetables. Similarly, the government of Nepal started the program in 2020 with a booklet about managing school midday meals.

Anderson (1972) discussed the historical development of school nutrition programs, citing instances such as Bavaria offering free school lunches for underprivileged children and France implementing a law in 1885 to hold community school authorities responsible for students' health. Anderson emphasized the role of schools in health promotion through the School Health Program (SHP), mainly focusing on the importance of canteen planning to facilitate the school's midday meal. In Nepal, schools are categorized based on student enrollment into three types (small- 50, middle 51-150 and large schools up to 151 students). The United Kingdom (1945), the United States and Switzerland (1946), Japan (1947), Indonesia (1967), Thailand (1970), Korea (1973), and Singapore (1975) started school nutrition programs (Rani & Sharma, 2008; Giri, 2015). Additionally, Giri (2015) noted that the midday meal program is interchangeably called the school meal program in Nepal.

Nepal's government started this program to reduce malnutrition and improve teaching and learning activities to motivate students. Bhattacharya et al. (2004) introduced the midday meal program to ensure universal primary education of satisfactory quality for all schoolchildren below the age of 14. The program aims to increase enrollment, improve attendance and retention, and enhance nutritional status. School nutrition programs were the second largest in 1999, just less than half the size of the Food Stamps Program and twice as large as the Supplemental Program for Women, Infants, and Children (WIC). Nepal government provided Rs. 15 per day per student for 180 days with their attendance. Cohen et al. (2013) conducted a two-year pilot study in Boston middle schools to assess nutrient losses and economic costs associated with school meal waste. The research found that students fell below recommended nutrient levels, with an estimated annual cost of discarded food reaching $432,349. This highlighted significant food waste, inadequate nutrient consumption, and a mismatch between foods served and consumed. A SHNP is a comprehensive initiative to promote

and support students' physical, mental, and social well-being within educational settings. These programs typically incorporate various components to improve students' health and nutritional status, enhancing their ability to learn and bloom.

The SHN addresses the needs of children's hunger by supplying meals throughout the day (WHO, 1948). In 2006, Nepal's Ministries such as MoHP and MoE developed a strategy to address diseases in school children. Supported by Japan International Cooperation Association (JICA), they launched a five-year Joint Action Plan (JAP) in 2008. A pilot SHN project was implemented in the Sindhupalchowk and Syangja districts, covering 1113 community schools. The government of Nepal (2010) published the CFS manual with the help of UNICEF. The minimum indicator is carrying school meals from their homes, not junk and packaged foods. The desired outcome is to establish a canteen and provide hot meals on school premises. The school's midday meal is one of the aspects of a child-friendly school. Rathi et al. (2015) compared school nutrition and midday meal programs in India, highlighting variations in centralization, menu patterns, and objectives. While school nutrition programs in India prioritize nutrition education and healthy eating habits, midday meal programs primarily address hunger and malnutrition, ensuring students receive at least one nutritious meal during the school day. In Nepal, the midday meal program aims to boost enrollment, retention, and attendance and promote learning and health.

Banstola and Acharya (2015) conducted a cross-sectional study in Nepal's Pumdi Bhumdi village, focusing on child nutrition and health for 290 primary school children aged 5 to 10. The research revealed high prevalence rates of underweight (35.4%), stunting (44.2%), and wasting (12.3%), emphasizing malnutrition as a significant community health concern. The study concluded by advocating for prioritized health programs, mainly targeting vulnerable groups. UNICEF (2019) meeting on Sustainable Development Goals (SDG 2) by 2030 along with the increase in child literacy rate. Such programs also increase student enrolment, attendance, and retention rates. Jointly, these factors contribute to better educational outcomes and improved child health. The effort by the government is worthy; however, to run a midday meal at that rate of NRs 15, the budget still falls short.

This program is supported by many NGOs and other organizations like UNICEF, Food for Life Nepal (FFLN), etc. FFLN (2022) highlights economic challenges in Nepal, where families survive on incomes often less than NRs 100 (USD 3 monthly) per person. Food for Life Nepal addresses the financial problems of community school children by providing nutritious meals and adhering to high standards for improved growth. The program enhances attendance and meets sustainable development goals, but government budget constraints make FFLN crucial in bridging the funding gap for the midday meal program. FFLN's centralized kitchen concept, with a capacity of 10,000 meals per day, incurs a cost of Rs. 25-30 per meal, with additional support from corporate collaborations of FFLN (2022). The distinction between a school nutrition program and a school midday meal program lies in their scope; the former provides comprehensive nutrition throughout the day, while the latter typically serves a hot lunch during the lunch period. The government launched midday meals.

Tripathi (2023) underscored headteachers' concerns about insufficient government-provided funds for midday meals, prompting schools to seek support from diverse sources. Community school headteachers highlight insufficient government funding, causing tension in providing cooking foods. Institutional schools did not receive government support; however, they obtained parental funds.

Therefore, the study aims to delve into these variations in midday meal programs between institutional and community schools in Pokhara. It also aims to assess

modalities, students' perception of midday meals, food quality as headmasters, and researchers' observation of physical facilities.

RESEARCH METHODS

An explanatory sequential research method was employed for this study, with the entire population comprising headteachers and students. The research used a multistage sampling technique. Pokhara was selected due to a growing and large city where no prior study had been conducted. Three wards out of total 33 wards and five schools representing different grade spans (ECE to 3, ECE to 5, ECE to 8, ECE to 10, and ECE to 12) were randomly chosen. Schools were selected with the help of a bulletin published by the Education Division of Pokhara in 2020, where all the schools' names, headteachers, and cell numbers were published. The sample included five institutions and five community schools. Ten headmasters, equally distributed between community schools and institutions, participated, along with 240 fifth-grade students (120 from community schools and 120 from institutions) who were surveyed. Before the formal data collection, the interview schedule and participant observation were pilot-tested tools in similar schools in Annapurna Municipality. Ethical considerations were observed, ensuring teachers from participants' schools did not influence students' responses. The collected data were processed using statistical tools, specifically the Statistics Process of Social Science (SPSS, 2020). The results were organized and presented in tabular form. Physical facilities were observed through the preparing scale, using literature like survey tools (Anderson 1972, pp. 364-65, 445-447) and child-friendly school manuals. Furthermore, a descriptive analysis was conducted to examine and present the results obtained from the observational data.

RESULTS AND DISCUSSION

The researcher emphasises four topics in this section of results and discussion, each systematically addressed and elaborated upon. These areas have been thoroughly discussed and analyzed sequentially.

Parents' Education and with Midday Meal Modalities

The mode of providing midday meals to students is referred to as the modality. There were three primary modalities prescribed by the school's midday meal management help booklet: snacks prepared by the mother group, assistant staff, and the cook inside school premises, tiffin system and catering; the school could buy the snacks from the catering department (Government of Nepal, 2020). Educational qualification is one of the major aspects that make people wise to decide what is good and bad to eat. It helps to decide whether their children eat in the canteen or carry their meals from home.

Table 1

Associations Between Parents' Educational Attainment and Midday Meal Modalities

Mothers' Education	Institutional schools		Community Schools		
	Canteen Snacks	Homemade Snacks	Canteen Snacks	Homemade Snacks	Total
1 to 8	7 (12.2%)	9 (14.2%)	75 (62.2 %)	× ×	91
9 to 12	25 (43.8%)	21 (33.3%)	40 (33.3%)	1 (0.8%)	87
Bachelor and above	25 (43.8%)	33 (52.5%)	4 (3.4 %)	× ×	62

Total	57 (43.8%)	63 56.2%	119 (99.17%)	1 (0.83%)	240
Father's Education					
1 to 8	8 (14.2 %)	7 (11.1%)	60 (50.8%)	× ×	75
9 to 12	20 (35%)	20 (31.7%)	47 (40%)	1 (50%)	88
Bachelor and above	29 (5.8%)	36 (57.1%)	11 (9.2%)	1 (50%)	77
Total	57	63	118	2	240

Table 1 illustrates that 91 mothers and 75 fathers possessed educational qualifications ranging from 1 to 8 classes, with only 16 mothers and 15 fathers opting to enroll their children in institutional schools. More than half of students attending institutional schools were found to consume homemade snacks. Similarly, 87 mothers and 88 fathers held qualifications from 9 to 12 classes, with only 46 mothers and 40 fathers sending their children to institutional schools. Among these students, over half were observed consuming snacks from the school canteen. Furthermore, 62 mothers and 77 fathers possessed bachelor's degrees or higher qualifications, with only 58 mothers and 65 fathers choosing institutional schools for their children. Most students in these schools (57.1%) preferred homemade snacks.

Conversely, nearly all students in community schools relied on the school-provided canteen for their meals. Additionally, it was noted that only a few students brought supplementary food from home if they had special dietary requirements. Banstola and Acharya (2015) identified significant associations between underweight and factors like family occupation, economic status, and the mother's education. Tripathi (2023) found an association between school midday meals and other variables like parents' education and occupation. Institutional schools offer students the option of homemade and canteen meals, whereas community schools exclusively provide meals while imposing restrictions on consuming junk food.

Homemade food refers to meals brought by students in their lunchboxes for midday consumption at school, guided by their preferences and affordability for parents. Out of the 124 responses received, 64 students in institutional schools preferred homemade snacks, while most community-school students (119) preferred the food provided by the school. More than half of institutional school students (63) brought homemade food, including biscuits, noodles, fruits, vegetables, Chapati, Bread, Pizza, Potato chips, French fries, and similar items. The Government of Nepal (2020) recommended nutritious menus in the middle hilly region, encouraging parents to adhere to these guidelines. Furthermore, it was suggested that Child-Friendly Schools (CFS) should establish proper canteens and utilize locally available ingredients for nutritious midday meals according to government guidelines (Government of Nepal, 2010). The government of Nepal (2020) concluded that food is consumed not only to satisfy hunger but also to provide nutrients to the body. The international norm is that students should get 30 percent of their nutrition from the school's midday meals. The midday meal program is essential in developing human capital.

Issues Related to Midday Meals through Students' Responses

Examining the issues related to midday meals through students' responses provides a valuable and direct insight into the efficacy and impact of this crucial school nutrition program. As the primary beneficiaries, students offer unique perspectives on the quality, variety, and overall satisfaction with the meals provided. Their responses shed

light on potential challenges such as menu preferences, nutritional concerns, and dining experience. Additionally, students' feedback can uncover issues related to meal accessibility, hygiene, and the program's implementation. Examination of students' responses, a more holistic understanding of the strengths and weaknesses of the midday meal initiative emerges, guiding policymakers and educators in addressing the program's shortcomings and enhancing its positive outcomes for the well-being of students.

Table 2

Students' Responses to the Sanitation

Questions	Institutional Schools		Community Schools	
	Yes	No	Yes	NO
Is the floor clean and in good repair?	88 (73.3%)	32 (26.6%)	77 (64%)	43 (36%)
Is there adequate light in the dining room?	70 (58.1%)	50 (41.9%)	49 (40.6%)	71 (59.3%)
Are there proper seats in the canteen?	74 (61.4%)	39 (38.6%)	67 (55.6%)	53 (44.4%)
Is the water safe and pure?	63 (52.2%)	57 (47.8%)	41 (34%)	79 (66%)
Are the serving utensils child-friendly?	91 (75.5%)	29 (24.5%)	81 (67.3%)	39 (32.7%)
Are students satisfied with the midday meal?	45 (37.3%)	65 (62.7%)	83 (69%)	37 (31%)
Are the meals hygienic and free from spoilage?	91 (75.5%)	29 (24.5%)	75 (62.5%)	45 (37.5%)
Do students get soap and water near the wash basin?	89 (74.1 %)	31 (23.9%)	52 (43.3%)	68 (56.7%)
Is there proper disposal of garbage?	49 (40.8%)	71 (59.2%)	29 (24.2%)	91 (75.8%)
Does the cook wash their hands before cooking and serving?	73 (60.8%)	47 (39.1%)	49 (40. 8%)	71 (59.2%)

Based on Table 2, a majority of students in institutional schools reported positive conditions regarding cleanliness and maintenance of the floor (73.3%), adequate light in the dining room (58.1%), availability of proper seats in the canteen (61.4%), child-friendly serving utensils (75.5%), satisfaction with the midday meal (37.3%), hygienic and spoilage-free meals (75.5%), access to soap and water near wash basins (74.1%), and the cook's hygiene practices (60.8%). However, institutional schools faced challenges related to the safety and purity of water (52.2%) and proper garbage disposal (40.8%).

Conversely, in community schools, students reported similar positive conditions regarding cleanliness and maintenance of the floor (64%), adequate light in the dining room (40.6%), availability of proper seats in the canteen (55.6%), child-friendly serving utensils (67.3%), satisfaction with the midday meal (69%), hygienic and spoilage-free meals (62.5%), access to soap and water near wash basins (43.3%), and the cook's hygiene practices (40.8%). However, community schools encountered challenges related to the safety and purity of water (34%) and proper garbage disposal (24.2%). These findings suggest areas of improvement for both institutional and community schools in ensuring better sanitation facilities and practices for students.

More than two-thirds (69%) of community school students were satisfied with the midday meals, as found by Singh and Gupta (2015), who emphasized the crucial role

of the Mid Day Meal (MDM) scheme by satisfying with the meals which increase the daily going to schools for achieving education for all. Their study in Uttar Pradesh, using cluster random sampling, highlights the positive impact of the MDM scheme on enrolment and attendance day to day in primary schools.

Headteachers' Observations of Canteen Environments

Headteachers' precise observations of canteen environments are instrumental in safeguarding the holistic well-being of students in educational institutions. These assessments encompass crucial factors such as cleanliness, hygiene, and the overall condition of the canteen. Headteachers' scrutiny extends to the conduct of cooking staff, utensil hygiene, and adherence to prescribed standards, including cooks' dress. These assessments offer valuable data for policy adjustments, fostering an environment that promotes healthy and enjoyable dining experiences for students. It emphasizes physical well-being and a positive overall learning environment. Anderson (1972) underscored the necessity of comprehensive observations for program effectiveness. Table 3 offers a comprehensive understanding of their insights into canteen dynamics.

Table 3

Headteachers' Observations Related Midday Meals

Variables	Institutional Schools		Community Schools	
	Number	Percent	Number	Percent
Clean and good repair floor	5	(100%)	5	(100%)
Adequate light	5	(100%)	5	(100%)
Bacteriological safe water	5	(100%)	5	(100%)
Free from cooking odors	4	(80%)	5	(100%)
Meals free from contamination	3	(60%)	5	(100%)
Proper disposal of garbage	3	(60%)	3	(60%)
Kept clean clothes by cook	3	(60%)	4	(80%)

Table 3 presents headteacher observations regarding various aspects of midday meals in both institutional and community schools. In institutional schools, all observed variables, including having a clean and good repair floor (100%), adequate light (100%), bacteriologically safe water (100%), and proper disposal of garbage (60%), were reported at high percentages. However, there were some areas for improvement noted, such as meals being free from cooking odors (80%), meals free from contamination (60%), and the cook maintaining clean clothes (60%).

Similarly, in community schools, headteachers reported high percentages for all observed variables, including having a clean and good repair floor (100%), adequate light (100%), bacteriologically safe water (100%), meals free from cooking odors (100%), meals free from contamination (100%), proper disposal of garbage (60%), and the cook maintaining clean clothes (80%). These findings suggest satisfactory conditions for midday meals in both institutional and community schools, with minor areas identified for improvement, particularly in institutional schools regarding meal contamination and cleanliness of the cook's attire. Overall, the findings suggest that while institutional and community schools generally maintain satisfactory conditions related to midday meals, there are slight disparities in some aspects, particularly in institutional schools regarding meal contamination, proper garbage disposal, and the cleanliness of the cook's clothing. These differences highlight areas for potential improvement in ensuring school meal programs' overall health and hygiene.

Researcher's Observation for Evaluating Components of the Midday Meal Program

As a part of the qualitative research methodology course, one of the assignments was to observe, record, analyze, and draw inferences on "how the facilities were managed in the school canteen." This methodology has become a common feature of qualitative research and could be helpful in sociological research. Participant observations are inevitable. However, participant observation is the most effective in determining the program's condition. The study showed a comprehensive approach to evaluating the quality of facilities associated with school midday meals, utilizing a carefully developed rating scale encompassing forty distinct parameters within three different areas, such as physical facilities in the kitchen, WASH or Water, Sanitation and Hygiene as well as serving and others. The primary objective was to assess and compare the facilities across institutional and community schools. Table 4 shows the physical facilities in the community schools and institutional schools.

Table 4

Assessment of Physical Facilities Related to Midday Meals

SN	Particular	Institutional Schools			Community Schools		
		G.	S.	P.	G.	S.	P.
A.	**Physical Facilities in the Kitchen**						
1.	The roof of the kitchen	2	3	×	2	2	1
2.	Height of the kitchen	3	2	×	2	2	1
3.	Facilities of wash bin inside the kitchen	2	2	1	2	1	2
4.	Appropriate light to see in the kitchen	2	3	×	2	2	1
5.	Appropriate store in the kitchen	2	3	×	2	3	×
6.	Appropriate ventilation in the kitchen	3	2	×	2	2	1
7.	Space of the Kitchen	3	2	×	×	3	2
8.	The handkerchief is used to catch hot pots	3	2	×	×	2	3
9.	Kitchen Fuel (Electric, gas, firewood)	1	4		×	5	×
10.	Safety of stoves, gas cylinders, and so on	×	×	5	×	×	5
11.	Utensils for cooking	4	1	×	4	1	×
12.	Utensils for serving	4	1	×	4	1	×
13.	Kitchen knife, chopping board	4	1	×	4	1	×
14.	Cooks were using a hair net	×	1	4	×	1	4
15.	Cooks were using Apron while cooking	×	2	3	2	1	2
16.	Places of cooking items	4	1	×	1	3	1
17.	Appropriate space and food safety on display	2	3	×	1	3	1
18.	Places of uncooked items	3	2	×	2	2	1
19.	Serving area or table	4	1	×	2	1	2
20.	Adequate furniture in the dining	2	2	1	1	2	2
B.	**WASH (Water, Sanitation and Hygiene)**						
21.	Sanitation in the kitchen	2	3	×	2	2	1
22.	Sanitation of store and dining	2	3	×	1	3	1
23.	Water taps inside the kitchen	3	1	1	3	1	1
24.	Soap and water inside the kitchen	4	1	×	1	3	1
25.	Towel for the cook inside the kitchen	1	3	1	×	2	3

26.	Utensils are washed with soap and water	3	2	×	3	2	×
27.	Dryness of the utensils by towel or soft clothes	4	1	×	2	3	×
28.	Hand washing before and after cooking	5	×	×	×	5	×
29.	Hand washing before and after serving	4	1	×	×	5	×
30.	Hand washing facilities for students	3	2	×	1	2	2
31.	Waste disposal	4	1	×	2	3	×
32.	Drainage/ pit for wastewater	4	1	×	2	3	×
33.	Adequate, safe, and pure drinking water	3	2	×	×	5	×
34.	Clean seats and space in the dining	2	3	×	1	3	1
35.	Hygenic foods to satisfy the hunger	2	3	×	1	3	1
C.	**Serving and Others**						
36.	Priority to serve	3	2	×	3	2	×
37.	Cooperation while serving	4	1	×	1	2	2
38.	Time for eating	2	3	×	1	3	1
39.	Language and politeness of food suppliers	2	3	×	1	3	1
40.	Cooks have training in meal preparation	2	1	2	1	1	3
	Total Number	107	75	18	59	94	47
	Total Percent	53.5	37.5	9	29.5	47	23.5

Table 4 shows that a subset comprising nine items exhibited similarity in institutional and community schools. These commonalities included utensils and equipment, water facilities, hygiene practices, waste management, and kitchen space. Furthermore, a subgroup of four schools demonstrated congruent excellence in specific aspects, garnering good ratings for the kitchen roof, sanitation, wash-bin placement, and adequate lighting within the kitchen environment.

Fourteen facilities exhibited a satisfactory standard in institutional and community schools, highlighting a commendable consistency in meeting specific criteria. Conversely, seven facilities did not meet the requisite standards, thus being classified as subpar in institutional and community schools. The overarching findings derived from the observations unveiled that most institutional schools, constituting (53.5%), and (29.5%) of community schools, possessed worthy facilities. Correspondingly, several institutional schools (37.5%) and community schools (47%) demonstrated satisfactory facilities. In contrast, a relatively small proportion of institutional and community schools (9%) and (23.5%) were categorized as having poor facilities.

Both institutional and community schools share similarities in terms of utensils and equipment for cooking and serving. Parameters such as utensils for cooking, utensils for serving, kitchen knives, chopping boards, and appropriate light for visibility in the kitchen receive comparable scores. Both types of schools score similarly in water-related aspects, including water facility inside the kitchen, wash bin inside the kitchen, and adequate safe and pure drinking water. Both institutional and community schools show consistency in hygiene practices, including hand washing facilities for students, hand washing before and after cooking, hand washing before and after serving, and sanitation of utensils. Parameters related to waste disposal and drainage/pit for wastewater exhibit similar scores in institutional and community schools. The assessment of kitchen space shows similarities between institutional and community schools. Both types of schools seem to have comparable scores regarding the space available in the kitchen and the safety of the stove and gas cylinder.

Differences can be seen in kitchen fuel, safety measures, hand washing facilities and soap availability, hand washing facilities and soap availability, dining area, cooking training, food quantity, cooperation while serving, and language and politeness. Community schools rely heavily on gas for kitchen fuel, while institutional schools use a mix of electric stop, gas, and firewood. One institutional school used firewood without smoking inside the kitchen. The kitchen is made without any partitions and has a high roof. Using electric air to burn the fire, smoke is collected, and the outlet is high. Only dry firewood is used to reduce smoke. Using firewood in the modern kitchen has two main advantages. The first one uses firewood, which is found near the villages and is going to decay. The second one is that the kitchen is made to warm the water used in washing dishes. This difference might indicate variations in the financial capacity and resources available to the two types of schools. Community schools score higher in safety measures for stoves, gas cylinders, and other equipment.

This could suggest a more cautious approach or better maintenance to ensure safety in community schools. Institutional schools generally score higher in providing hand-washing facilities for students and ensuring the availability of soap and water inside the kitchen. This difference highlights a potential disparity in the focus on hygiene and sanitation practices. The assessment of the serving area or table, appropriate seats and space in the display, and adequate furniture in the dining area indicates a difference in the quality of dining facilities. Institutional schools seem to provide better infrastructure in this regard as compared to community schools.

Community schools receive higher scores for providing training to cooks on meal preparation. This suggests a greater emphasis on skill development and training programs in community schools, potentially due to resource allocation or educational policies. Institutional schools score higher in providing adequate food to satisfy hunger. This could be attributed to differences in budget allocation or a greater emphasis on the nutritional aspect in institutional schools. Institutional schools score higher in cooperation, indicating a potentially more organized and efficient serving process. There is a slight difference in the language and politeness of food suppliers, with institutional schools scoring marginally higher.

CONCLUSION

The study investigates the impact of parents' education and occupation on midday meal choices. Nearly all students in community schools ate the meals provided in the canteen. It was noted that only a few students brought supplementary food from home if they had special food prepared. Institutional schools provided the option of both homemade and canteen meals. Nearly two-thirds of institutional school students brought homemade food, including biscuits, noodles, fruits, vegetables, chapati, bread, pizza, potato chips, French fries, and similar items.

Headteachers' precise observations on cleanliness, hygiene, and overall canteen environment contribute to policy adjustments, developing a healthy eating atmosphere for students. Physical facilities were observed through the preparation scale, and it was concluded that there are varying hygiene and sanitation standards between institutional and community schools. There are clear opportunities for improvement, particularly in institutional schools, regarding ventilation, kitchen fuel availability, and cooks' usage of proper aprons and hair nets. On the other hand, community schools may benefit from enhancing sanitation practices in store and dining areas and ensuring consistent hand washing before and after serving meals. These findings emphasize the importance of ongoing monitoring and improvement efforts to ensure the provision of safe and hygienic midday meals for students.'

AUTHOR CONTRIBUTIONS

I declare that this manuscript is originally produced by me.

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