Teachers’ and Parents’ Perceptions on Eating Behaviour of Primary School Students: A Qualitative Study

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Abstract
This study explores the perceptions involved in the healthy eating behaviour of 1st, 2nd, and 3rd-grade students in a primary level community school in Nepal. A total, ten observations during mid-day meal and three focus group discussions were conducted among teachers and parents. Sixty students from grade one to three, five teachers and sixteen parents took part in the study. All the participating teachers and parents were engaged in dialogue conferences during focus groups and students’ eating behaviours were observed by the teachers and parents during tiffin time throughout the study. Thematic-content analysis based on the qualitative approach was used on the collected data from the field notes during a series of participant observations and focus group discussions. It is found that the family norms and feeding culture around a child’s domestic life have an active role in establishing and promoting healthy habits that persists throughout. It is also noted that parental food habits and feeding strategies are the most dominant determinants of children eating behaviour and food choices of mid-day meal during tiffin time at the school. It is recommended that parents and teachers should expose their children and students to a range of good food choices and acting as positive role models.

Keywords: Food choice, mid-day meal, green vegetables, parental choice, school children

Introduction
Community schools in Nepal are the best places for launching health promotion programmes because of the ability to reach significant target people. In the schools in Nepal, students stay about six to seven hours in six days a week. Schools, therefore, serve as a major part of their socialization and include with respect to modification of dietary behavior. Only very few community schools are aware of students taking healthy mid-day meal at the school and taking green and natural food items at home. Healthy eating behaviour in schools can foster positive attitudes and values among students (Ahmadi, Black, Velazquez, Chapman, & Veenstra, 2015; Tyrrell, Townshend, Adamson, & Lake, 2015). There is research-based evidence that school-based awareness programmes can be effective in promoting healthy eating habits among children (Loth, MacLehose, Larson, Berge, & Neumark-Sztainer, 2016). As a part of the school curriculum, nutrition education needs to be launched in the schools that aware and motivate students towards healthy eating habits. Eating locally available natural food items increase physical strength, positive lifestyle and good mental capacity of children (Loth et al., 2016; Pickett, Michaelson, & Davison, 2016). Tamiru, Argaw, Gerbaba, Nigussie, Ayana, & Belachew (2016) found that school-based nutrition education helps to improve the body mass index among the students. A recent study in Nepal also found that the implementation of healthy eating behavior was able to increase the number of students by decreasing the dropout rate.
(Ahmadi et al., 2016). Decreasing drop outs enhances learning achievement among school level students.

The school-based nutrition programme is aimed at uplifting malnutrition and controlling obesity by consuming natural foodstuffs. These practices decrease the consumption of junk foods and help to develop healthy citizens in the future. Many studies show a significant reduction in their consumption of junk foods and the significant increase in the consumption of vegetables, but these effects were not sustained (Naidoo, Nyembezi, Thomas, Lachman, & Kagge, 2019; Schapiro, Green, Kaller, Brindis, Rodriguez, Alkebulan-Abakah, & Chen, 2019). A major difficulty in promoting healthy eating among basic level students is that most of the school students find healthy eating unappealing (Lim, Lim, Teh, Kee, Khoo, Ganapathy, & Tee, 2017; Ronto, Ball, Pendergast, & Harris, 2016).

Students’ eating habits are shaped by school education, the pattern of mid-day meal policy of the school and parental influences. Apart from preparing their meals, parents serve as role models in making dietary choices of children. School teachers have the authority to correct students’ unbalanced nutritional habits such as taking junk foods and unhealthy dietary behaviour (Fleary, & Ettienne, 2019). Recent studies show that parents are more prone to unhealthy eating behaviour during peer social gatherings (Gutuskey, McCaughtry, Shen, Centeio, & Garn, 2016; Peltzer, & Pengpid, 2016). Similarly, the rules and regulations in the school are closely associated with students’ dietary behaviour (Gutuskey et al., 2016). Advertisements in the mass media can influence how students perceive their food and availability in the market. Such perceptions can lead to unhealthy dietary patterns and make students more prone to eating disorders as a result.

It is an urgent need to assist healthy behaviours among primary level students in Nepal as they are more prone to the victim of junk food resulting ill-health. It is a great necessity to develop good food choices among parents and school-going children (Hart, Herriot, Bishop, & Truby, 2003). Behavioural modification among teachers, students and parents is necessary which are influential factors making children healthy. School education is necessary to impact upon children’s developing food behaviours and attitudes through the behaviours they model and reinforce (Perry et al., 1988; Campbell & Crawford, 2001), the opinions they express, the food opportunities they control (Robinson, 2000) and the information they impart (Anliker et al., 1990; Gibson et al., 1998). In order to modification of the habit of children, parents must, however, possess the understanding and motivation required to assimilate dietary guidelines (Southgate, 1992).

Given the importance of adopting healthy mid-day meal practices from an early age and given the crucial role of schools in students’ socialization, many school-based health programmes have been designed to promote healthy dietary practices. Moreover, most of the school-based awareness programmes which are related to dietary habits have been rarely implemented in Nepal. This study, therefore, assessed a school-based health education programme designed to implement a more interactive and collaborative approach thought likely to engage primary level students in a community school. This study aims to explore the existing mid-day meal practices of primary level students in the community schools and dogmatic parental attitudes in relation to the eating and good food choices among children of age below eight.
Methods

A qualitative research method was used in this study consisting a series of dialogue conferences in three focused group discussions (FGDs). Two FGDs were done with parents and one with teachers who are teaching at grades one to five. Ten participant observations were carried out in the tiffin time\(^1\) throughout the study period to explore the eating behaviour of 1-3 graders focusing on healthy eating habits. Purposively selected school was a co-educational community school with diverse ethnicity of students. The population studied comprised all of the students studying from grade one to three. Purposive sampling was used to select a community school and parents while census sampling was applied to select a total of sixty students from grades 1-3. Parents were selected randomly by using the simple random sampling approach and they were voluntarily taking part in the study. Written consent has been taken from parents for them as well for their children throughout the study. Participating students were from 6-10 years old. They were allowed to make their own food choices for tiffin with minimal influence from parents during the study period. A majority of the school students were living in their own houses and only a few of them were living in a rented home. The details of the sampled population are given in table 1.

<table>
<thead>
<tr>
<th>Participants</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>Tool applied</th>
<th>Sampling method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents</td>
<td>6</td>
<td>10</td>
<td>16</td>
<td>FGD</td>
<td>Random</td>
</tr>
<tr>
<td>Teachers</td>
<td>4</td>
<td>1</td>
<td>5</td>
<td>FGD</td>
<td>Census</td>
</tr>
<tr>
<td>Students of Grade 1</td>
<td>10</td>
<td>13</td>
<td>23</td>
<td>Participant observation</td>
<td>Census</td>
</tr>
<tr>
<td>Grade 2</td>
<td>6</td>
<td>11</td>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade 3</td>
<td>11</td>
<td>9</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>37</td>
<td>40</td>
<td>77</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The school-based healthy eating awareness programme lasted for three months from May to July 2019. One tiffin time observation was done 3 days per week and it took about two and a half months. Two FGDs were conducted among teachers and parents before observations and one FGD with the parents was conducted after the observation schedule was over. During the observations, parents and teachers were with the researcher. Notes were prepared in each and every observation on the basis of hand washing before and after meal, type of food children eat, junk or homemade food they eat, either they eat by hand or spoon, eat food with water or without water and presence of any flowers and green leaves in the food items.

A series of dialogue conferences in FGDs were carried out based on mid-day meals and the daily meals taken by the students at the school. The programme had one informal presentation by a parent, one by the teacher and few lines with the researchers about healthy meal and its advantages along with the mid-day meal and the problems caused by eating junk food items. Informal conversations were done with the school teachers during tea time due to their busy schedules in the school. All the information collected from the research participants based on the basic understanding of healthy eating habits, the importance of the right choices of mid-day meals and the consumption of green leafy vegetables were recorded. All the collected data were transcribed and translated carefully.

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\(^1\) Half an hour time (12:45-1:15) in which students and teachers eat day food.

\(^2\) Food taken by students during the school day.
Sampled parents and teachers were required to record the food consumed daily as for breakfast, lunch, afternoon tea/snacks and dinner. Four questions were asked at the end of each observation to the students with respect to each meal (i) Have you had the meal at the home before coming to school today? And what have you eaten? (ii) At what time did you take your meal? (iii) Did you cook the meal yourself or it is cooked by your family members or brought from the market? And (iv) Do you like to eat food as a mid-day meal at the school? The themes of each question/query were recorded, transcribed and translated in English from which the themes were generated to explore eating behaviour of primary school students.

**Results**

The effectiveness of healthy eating behavior was evaluated based on the information collected from students’ feeding habits during tiffin time at the school, teachers and parents who participated in the focus group discussions, observations of mid-day meal behavior of students and informal conversations with all the participants. There were ample details about the type and quantity of food consumed, but the focus of the study was on either participants (students) consumed mid-day meal regularly at the school or the type of food they eat. Also, other related factors like handwashing before meal, eating fruits and vegetables and taking homemade foods are also explored. The findings indicated that most of the students were eating instant and junk food items such as noodles, low-quality chocolates, pani puri, tataura, chatpate, beaten rice and bhuja. Most of the students did not wash their hands before the mid-day meal. Among them, very few of them wash hands only with water. None of the students eat green vegetables and fruits during ten observations. When I asked with the parents about the consumption of vegetables in the mid-day meal, one parent said:

> Our children eat vegetables in the morning meal. They drink cow milk, sometimes egg, and most of the time they like to eat rice and ‘daal’. But they eat very little and so it is not sufficient for the whole day. When they return home, they are hungry.

Most of the parents claimed that their children eat lunch and dinner regularly. Very few of them were skipping lunch and dinner if they were tired or not having food to eat at the evening. However, almost all of the parents reported that their children skip breakfast but they take only a cup of tea each day before going to morning work. They shared the importance of breakfast to keep the body healthy and fit as well but there is nothing at home to eat in most of the days. School going children eat little at home in the morning. Most of the parents reported that children eat rice and ‘daal’ in the morning and they want instant noodles to eat at the tiffin time in the school. So, they demand money with us. One of the parents said in his own words like this:

> My daughter takes rupees 20 each day to take a mid-day meal at the school. I heard from her elder brother that she brought low-quality chocolates of rupees 5 before going to the school. At day time, she bought a packet of noodle and eat dry. I know that it is not good for her health but … I cannot stop it. She cries and does not go to school if I prepare homemade food for her. It creates the problem to change her habit. I am thinking to share with the teacher so that she can leave this habit.

Another parent shared her experience and said:

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3 A kind of readymade junk food item.
I prepare a mid-day meal for my children daily. My little daughter takes homemade food to the school but the son demands money to eat noodles. Due to his wrong feeding habit, he is lean and thin in comparison to my daughter. And so he is weak in the study.

The voices of two parents are the representative voice of almost all the parents except in a few cases. We observed the same scenario while observing the eating habits of primary level children in the school. Most of them eat noodles, beaten rice without water. Many of them do not sit while taking tiffin. They run along the ground and eat while running. Most students do not wash their hands before eating food items.

In the case of food taking habits, the result is a little bit different in which only two parents reported that they provide green vegetables in snacks that they usually eat lunch. Most of them provide milk tea and biscuits with sugar. Overall, it is found that the daily dietary patterns in terms of meals taking habits have changed during our observation period for three months.

It is found from the FGDs that one relevant aspect of the family environment may be the family health climate, which is defined as the shared perceptions and cognition concerning a healthy lifestyle within a family. It reflects the individual experience of daily family life, the evaluation of health-related topics, and expectations with respect to typical values, behaviour routines, and interaction patterns within the family. This conceptual framework includes psychosocial concepts such as family functioning, conflicts, communication, socio-economic status, and parental practices. Children's ability to imitate the actions of others and learning by observation in particular from their parents' could explain the kind of food styles developed.

Analysis of the parents' voice of the focus group discussions revealed that participating students mostly engaged in unhealthy dietary practices such as skipping breakfast, having an irregular dining schedule and consuming unhealthy food under peer influence. These unhealthy food items were mostly junk food items and chocolates. Many participants perceived healthy eating to be unattractive and as tasting awful. They also perceived healthy eating as expensive, out of reach and impractical. Parents and teachers further reported that dietary behaviour was heavily influenced by their friends who were consuming junk foods. Few students reported in the informal conversations that their parents were not able to serve as role models as they had unhealthy eating habits. Two students shared similar issues during the informal conversation and said:

Our parents bring junk food to us when he drinks alcohol after work. He comes with packed foods in his pocket. When he reaches our home, he smiles and gives us such foods like potato chips, noodles, chocolates and others. We are happy to see the packed foods because these foods are tasty in comparison to homemade foods.

During FGDs, parents oppose students' voices. But female parent participants in FGDs argued that sometimes we drink alcohol and in this time, we bring good foods like meat to our children. Others reported that they seldom received children's advice on healthy eating practices. During lunch hours, students often chose food from retailers nearby the school offering a low price even though they were aware of its low nutritional value. Female participants reported that they tried to avoid taking much rice as it contains carbohydrates that make our body fat. Analysis of the third focus group discussions revealed a definite increase in respondents' knowledge about healthy eating behaviour. They reported that they had learned from the health talks and the dialogue conferences in the FGDs about the importance of natural and fresh food items.
Overall, parent and teacher participants reported that they perceived healthy eating behavior meetings and conversations successfully. All of them reported that they gained knowledge about healthy eating either at home or at school. In this connection, five parents reported in the FGDs after observation of students eating behavior and committed as:

We are committed to send green vegetables each day and minimize the intake of junk food items to our children. We will prepare homemade food that we have like potato, rice, bread and so on and send in tiffin boxes as the mid-day meal to our children.

One parent participant said that she had started to consider nutritional values in making dietary choices. In the same way, other parent participants reported that this awareness programme at the school helped them to develop healthy eating habits.

It is found that in almost all the families, fathers have a great deal of influence on young children’s nutrition and some differences were noted when compared to mothers’ feeding practices. Fathers are generally less likely to monitor children’s food intake and to limit access to food. The common feeding influence is pressuring children to eat. The result showed that the use of excessive control over a child’s feeding disregards the child’s independence. The majority of the feeding practices studied were responsive and included encouragement and support of the child’s autonomy and independence, moreover, they help in organizing the feeding environment to improve the child’s competence in choosing and eating meals.

During the FGD of teachers, one of the teachers (T1) argued like this:

The school has a major role to aware students to take healthy food items. We are continuously awaking children to change their daily behaviour. We promote them to eat fresh and green vegetables available in the local community. But we are not able to control it as the parents are not strictly applying the same from each home.

Another female teacher (T2) argues the line of the teacher (T1) and noted as:

Well, I suppose healthy eating should best be taught at school although; as they get older they do seem to take notice of what they’re told at school. But I think…schools really could be motivating children to eat natural foods so far they can. I don’t think the school is not doing anything to control the wrong habit of taking junk foods by children. And we are responsible to control this situation in the future.

Another female teacher (F3) pointed out her opinion like this:

The price and time are less to prepare healthy food items but due to parental misconceptions, children expense more money for daily food items. They are not getting healthy food instead. I prefer homemade organic food and I say the same to my students.

All the discussions, conversations, observations and dialogue conferences during FDG sessions, reveal that students do not have healthy feeding behavior for mid-day meal in tiffin time at the school. Teachers and parents argue to transform their eating behavior and consumption of green vegetables, flowers and fruits as well as give priority on homemade food items in the coming days.

**Discussion and Implications**

The above findings are consistent with the known influences of mid-day meal choice primary level students (Acharya, Devkota & Shrestha, 2019; Loth et al., 2016). This suggests that these practices are applicable to Nepalese contexts. The feeding practices adopted by Nepalese parents appear to reflect the consumption of junk foods.
Nearly all the participants acknowledged the use of verbal encouragement to foster healthy eating among primary level students.

This school-based healthy eating behaviour programme has demonstrated an innovative and engaging way to promote healthy eating, at least in the community schools in Nepal. Evidence from the teachers’ and parents’ opinion suggests that they have to adopt a one-way of thinking to daily eating behaviour. Connecting this line, Loth et al., (2016) found that parental authoritative style on feeding habit shape the eating habits of children. A study carried out by the team of researchers, Senanayake et al., (2001) suggests that healthy eating behaviour was not good enough among the students. Many factors influence healthy eating behaviour research participants. Also, the family system that surrounds a student’s domestic life is an active role in establishing and promoting eating habits that will persist throughout their life (Gutuskey et al., 2019; Schapiro et al., 2019; Tamiru et al., 2016). Fathers and mothers act differently towards their children; fathers generally act in a more tolerant way and exert less active control on food intake. The authoritative behaviour and some parental control are likely needed to moderate student’s intake of food items.

Limiting how often certain food is brought into the home, avoiding stores that sell unhealthy foods, and serving small but adequate portions should provide children with opportunities to develop self-regulation in eating habits. Parents have the determining role in promoting healthy consumption of fruits and vegetables in all the meals (Ahmadi et al., 2016; Hart et al., 2003). Offering children different foods beginning in the complementary feeding period and providing repeated exposure of disliked foods to stimulate their taste and help them to accept many foods later in life is a necessary strategy to develop healthy eating habits. All of these strategies come together during family meals. This setting has significant social importance in a child’s life and parents should expose their children to a range of good food choices. In this connection, Acharya (2016) argued that the habit of children can be changed through critical thinking practices in primary classrooms. It seems that the school plays a significant role to change all sorts of habits of children either related to food choices or learning.

The importance of the family environment for children’s health behavior has been demonstrated, but the underlying mechanism of this influence remains unclear (De Cosmi, Scagliori, & Agostoni, 2017; Perez-Cueto, 2019). Previous studies have indicated that a positive family system may be part of a process that establishes and promotes beneficial health habits through role modeling, provision of healthy foods, and support for engaging in healthy eating behaviour (Chien, Chien, Chang, & Chen, 2018; Ciborska, Klobukowski, & Pierzchala, 2018). The family can consider a system, as it is more than the sum of individuals. One relevant aspect of the family environment may be the family health climate (Schwartz, Vandenbergh-Descamps, Sulmont-Rosse, Tournier, & Feron, 2018; Storey et al., 2016), which is defined as the shared perceptions and cognition concerning a healthy lifestyle within a family. It reflects the individual experience of daily family life, the evaluation of health-related topics, and expectations with respect to typical values, behaviour routine, and interaction patterns within the family. This conceptual framework includes psychosocial concepts such as family functioning, conflicts, communication, socio-economic status, & parental practices and style. Children’s ability to imitate the actions of others and learning by observation in particular from their parents and caregivers could explain the kind of food styles developed.

Accordingly, educational programmes should be offered to all children from different socioeconomic levels, with a goal of promoting to reduce imitation of the junk foods from the
mass media like television. Parents should receive advice on how to establish long-term healthy habits and create pleasant eating patterns in their children while becoming aware of behavioural determinants that favour malnutrition and eating disorders. Overall, the school is the best place to develop the healthy eating behaviour of school-going children in Nepal.

**Conclusion**

This qualitative inquiry provides first-hand evidence about the perceptions of 1st, 2nd and 3rd graders and their parents, of the influences on primary children mid-day meal habits. The findings show that parents and school environments play an important role to influence over students’ mid-day consumption. These findings suggest major targets for effective nutrition interventions to improve the eating behavior of primary school children in Nepal.

**Author’s contribution**

MA collected, analyzed, interpreted and drafted the manuscript. KPA provided scholarly comments on the manuscript. Both the authors read and approved the final version of the manuscript.

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**Ethical Statement**

Consents were obtained from all the research participants.

**Disclosure statement**

No potential conflict of interest was reported by the author.

**References**


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References


