

Perceptions and Practices of Teachers towards School Feeding Programs during COVID-19 pandemic

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Abstract - Due to the COVID-19 pandemic, the entire world experienced a catastrophic health crisis. And early response of many governments was a lockdown "stay at home" policy aimed at preventing people from moving because the virus was thought to spread through contact with an infected person. This study is aimed at understanding the perceptions and practices of teacher's towards School Feeding Programmes during COVID-19. The study participants who took part in the study were from 4 different regions namely; Khomas region, Otjozondjupa region, Kavango East region and Oshana region. The study design for this thesis is a cross sectional study design which falls under descriptive studies. The sample size was 24 participants from 7 different schools in Namibia. The sampling method that was used was purposive sampling. This study used a mixed method of both quantitative and qualitative method as a form of data collection. The findings indicated that out of the 24 respondents, 25% felt like the School Feeding Programmes were "very effective" during COVID-19, 54.1% of them felt like "slightly effective" and 20.8% of them thought that the SFP's were "not effective". The findings also indicated that only 2 out of the seven schools had vegetable gardens which support School Feeding Programmes. Majority of the teachers agreed that schools that have gardens had a better advantage during COVID-19 as they did not solely rely on the government to supply them with food but they could rather grow their own food and use it as a substitute for when the government cannot supply the schools with food.

Majority of the teachers believed that the government and the SFPs did enough to ensure that the SFPs were effective during the COVID-19 pandemic. This is because despite the pandemic, some of the schools were still able to work around it. Teachers also aired their perceptions on the importance of adapting vegetable gardens. Most of the practices put in place by some of the schools included giving the learners or the parents of the learners a dry ration to take home. Some schools also allowed children to go to school at least 1 to 2 times a week to receive food.

Keywords: Health Crisis, School Feeding Programmes, COVID – 19 Pandemic, vegetable gardens, dry ration

1.1 Introduction

In Namibia, many citizens depend of various government initiatives and welfare programmes such as emergency relief programs with one of them being (School Feeding Programmes) SFPs (Philippines, 2010). The COVID-19 pandemic breakout in 2020, as well as prolonged drought and flooding, have pushed these programs to their limits (Philippines, 2010). Since April 2020, more than 3 million cases of COVID-19 infection have been recorded worldwide , with the United States and Europe being the hardest-hit regions worldwide (Weder di Mauro, 2020). The COVID-19 pandemic and associated lockdown policies have had negative impacts on education, health and nutrition globally. With the exception of vital services, the lockdown had its own economic consequence, as it halted most economic operations and activities such as SFPs (Julius, Nuugulu, & Homateni Julius, 2020). To prevent the disease from spreading further, many countries throughout the world, including Namibia, have implemented social distancing, in order to restrict contact with one another as well as other precautions such as hand washing. With the exception of essential services such as medical and pharmaceutical services, Banks, essential legal, financial services, payment services, and medical aid funds and logistics services, the lockdown required the closure of most institutions, schools, businesses, and service providers (*The Namibian* , 20, 2020).

The (Namibian School Feeding Programmes) NSFP has increased student access to education, improved school attendance and retention rates, and improved learning, nutrition, and overall health (Philippines, 2010). The initiative, which included pre-primary and primary schools across the country, reached 468,457 students in 1,530 schools (Philippines, 2010). Poorer households are more likely to rely on school feeding services for access to nutritional diets, and the closing of school feeding programs is likely to harm them

disproportionately (Abay, Amare, Tiberti, & Andam, 2021). Furthermore, child nutrition may be jeopardized because many children from low-income families rely on SFPs for daily sustenance (Zar, Dawa, Fischer, & Castro-Rodriguez, 2020). While COVID-19 cases tend to be lower among children, national responses to the pandemic can have significant implications for child nutrition and educational results.

1.2 Background of study area

According to the 2020 Vulnerability Assessment and Analysis (VAA) study, approximately 428,000 Namibians—or one out of every six—are now food insecure (Philippines, 2010). Many of the children who receive school meals may already be nutritionally deficient, vulnerable, or at risk (J. Neitzel, M. Vargas, N. Aburto, V. Aguayo, C. Burbano, 2012). SFPs play a major role for parents in order to keep their children in school especially the girl child (World Food Programme). School feeding programs increase the consumption of locally produced food from smallholder producers, while also improving the health and nutrition of students and provide social security to recipient families (Ministry of Education, 2019). Since SFPs were established in 1991, it has reached about 330 000 learners from 1400 different schools within all 14 Regions in Namibia (Ministry of Education, 2019). According to the WFP (World Food Programme), there is a clear need to support vulnerable people during the COVID-19 pandemic where income and food security seems to be a huge problem (Borkowski, Santiago, Correa, Burbano, et al., 2021). “School closures due to COVID-19 have disrupted the normal distribution channels through which school meal programmes operate and many children may be without this vital source of food” (Borkowski, Santiago, Correa, Burbano, et al., 2021). The role of teachers in SFPs is to supervise the learners and ensure that each learner that benefits from SFP that is in his/her class has gotten a meal (Banda & Mwanza-Kabaghe, 2019). Teachers' roles in SFPs were centered on monitoring, sensitization, discipline, participation in school decision-making, and timetabling (Banda & Mwanza-Kabaghe, 2019).

1.3 Problem statement

School Feeding Programmes are projected to supply up to 30–50 percent of a child's daily nutritional needs through meals that are healthier than those cooked at home for the same expense (Mayurasakorn, Pinsawas, Mongkolsucharitkul, Sranacharoenpong, & Damapong, 2020). According to the WFP, about 370 million school children from at least 161 countries missed out on their daily meals which they obtain from school (WFP) for many children, the food from the SFPs is the only meal they get in a day and is the only meal that contributes to their daily nutrient requirement (Philippines, 2010). Based on a study performed in Addis Ababa's public

primary schools, roughly 27% of kids eat only once a day, with another 16% confirming that they do not eat for the entire day (Ababa et al., 2021). 368 million children in pre-primary and secondary school (47 percent girls) worldwide are currently missing school meals, with 148 million in Sub-Saharan Africa (Coker et al., 2021). In accordance with an article by UNESCO, about 35.9 million primary and secondary school learners are currently out-of-school as a result of the school closures (Obiakor & Adeniran, n.d.). According to an article on urban food system governance and food security in Namibia, 8% of households in Windhoek's informal settlements are food secure while the 76% of households are severely food insecure (Crush, Nickanor, & Kazembe, 2021). Closures of schools and daycare centers around the country have resulted in a huge increase in childcare and learning support needs, with working women and single moms bearing the brunt of the burden. Pandemic response tactics have kept nearly 1.5 billion children out of school, or more than half of the world's student population (J. Neitzel, M. Vargas, N. Aburto, V. Aguayo, C. Burbano, 2012).

Children who rely on SFPs might suffer from nutrition related disorders such as malnutrition, stunting, wasting and many other disorders (Borkowski, Santiago, Correa, Burbano, et al., 2021). It might even affect their school work as lack of a balanced diet or food may result in lack of concentration in class. Malnutrition also causes compromised immune systems, leaving malnourished children more susceptible to a variety of ailments, including viruses (Borkowski, Santiago, Correa, Burbano, et al., 2021). The impact of the lockdown measures on various sectors in the primary, secondary, and tertiary industries has resulted in a loss of GDP of between 5 and 7.5 billion Namibian dollars. Due to missed revenue, business trading hours, and employment losses, Namibia is expected to lose N\$6 billion to N\$12 billion in private demand (consumption) (Julius et al., 2020). This will be the first research conducted in Namibia that seeks to understand the effects of COVID-19 on School Feeding Programmes based on the perception of teachers. This study then aims at exploring the perceptions of teachers on their experiences on school feeding programs during COVID -19.

1.4 Purpose of the study

1.4.1 The purpose of this study is to determine the perceptions of teachers regarding school feeding programs during the COVID-19 pandemic in order to understand the effectiveness of School Feeding Programmes during COVID-19.

1.4.2 Objectives:

To determine the perceptions of teachers on school feeding programmes during the COVID-19 pandemic.

To identify the practices put in place by teachers on school feeding programs during COVID-19 pandemic.

1.4.3 Research questions:

What were the perceptions of teachers on School Feeding Programmes during the COVID-19 pandemic?

What practices did teachers put in place regarding School Feeding Programmes during the COVID-19 pandemic?

2:0 Literature review**2.1 Introduction**

The emergence of the novel coronavirus illness (COVID-19), which is destroying the planet in an unprecedented manner, has a colossal influence on all sectors of human activity today, more than any other recent incident (Otegunrin, Otegunrin, Fasina, & Abiodun, n.d.). It's also worth noting that in the majority of African countries, poverty, corruption, and conflict occurrences have all been linked to hunger (Otegunrin et al., n.d.). "Article 24 states every child's right to good quality health care, clean water and nutritious food while article 28 explains every child's right to an education" (Ministry of Education, 2019). School-based nutrition programs, on the other hand, have been found to enable catch-up from early development failure, making them crucial coping and mitigating solutions to the nutritional loss children may encounter throughout the crisis (Borkowski, Santiago, Correa, Bundy, et al., 2021). Children also get access to meals supplemented with micronutrients important for their growth and well-being through the school-feeding program. According to an article by UNICEF (United Nations International Children's Emergency Fund), malnutrition could potentially worsen due to COVID-19 and approximately about 6.7 million children could become wasted during the pandemic (Mueenuddin, 2021). At schools where children rely on SFPs, the closure of schools may cause learners to miss daily meals and can also result in learners dropping out of school especially those from lower income groups (Note & Systems, 2020).

2.2 What are School Feeding Programmes?

The Millennium Development Goals (MDGs) initiative and several subsequent conferences attended by African leaders, which aimed to address issues like peace, security, good

economic, political, and corporate governance and to make the continent an appealing location for foreign investment, are credited with the introduction of school feeding. The three major goals were to improve children's academic performance and education, as well as their nutrition and health, and to give families safety nets to withstand social and economic crises. In order to combat poverty, increase enrollment in schools, and improve student performance, school feeding programmes have been implemented in many developed and developing nations of the world. By delivering meals in schools, these initiatives hope to improve schoolchildren's attention spans and learning capacities by preventing the short-term hunger that could otherwise affect students' performance. The World Food Programme and its development agencies provide various types and levels of support for school feeding programmes, which are currently employed in over 161 countries and feed over 388 million children in schools. A recent study conducted in Brazil looked to establish the primary standards for creating school menus. They include behaviors, food acceptance, food culture, acceptance, food availability, nutritive value, management, and production.

2.3 Importance of School Feeding Programmes

School feeding programs (SFPs) aim to reduce children's short-term hunger, enhance their nutritional status and cognition (Jomaa, McDonnell, & Probart, 2011). There is growing evidence that under nutrition in children has serious negative economic effects on both individuals and countries and that improving children's diets and nutrition can have positive outcomes for both their academic performance and school behavior as well as their future productivity. School feeding is an important and widely distributed safety net for needy children and their families (Kwatubana & Molaodi, 2021). The balanced meals served at school play a part in reducing the triple burden of malnutrition—under nutrition, hidden hunger, and obesity—that afflicts school children, particularly in developing nations. -SFPs are integrated into national protection systems and are critical components of national food and nutrition security policies, functioning as a social safety net for children who are most vulnerable to malnutrition in all aspects (Colón-Ramos et al., 2022). According to a research conducted in South Africa, many households were faced with a complete loss of income, a reduction in income, or uncertainty around layoffs and unemployment. Around 388 million children in 161 countries ate meals at school every day of the school year at the start of 2020 (Delbiso, Kotecho, & Asfaw, 2021).

As a result, the provision of school meals in low-income nations has expanded significantly over the last decade (with 36% more students enrolling in the school feeding program between 2013 and 2020) (Delbiso et al., 2021). Around 388 million children in 161 countries ate meals at school every day

of the school year at the start of 2020 (Delbiso et al., 2021). As a result, the provision of school meals in low-income nations has expanded significantly over the last decade (with 36% more students enrolling in the school feeding program between 2013 and 2020) (Delbiso et al., 2021). According to a study done in Ghana, children enrolled in a school feeding program had much greater and more sufficient intakes of energy, nutrients, and micronutrients (WFP, 2019).

2.4 Challenges faced by School Feeding Programmes

It's worth noting that even before the lockdown, the administration of the school meal program faced difficulties, however Lockdown, on the other hand, worsened these issues (Kwatubana & Molaodi, 2021). Some of these existing challenges included; food being delivered late, there were insufficient resources, there was a breakdown in communication between caterers and teachers, there were poor management tactics, and there were no monitoring systems (Kwatubana & Molaodi, 2021). When COVID-19 started, the school closures had a huge impact, emphasizing the significance of school food programs (Kwatubana & Molaodi, 2021). According to a research conducted in Latin America and the Caribbean, school closures impacted 85 million SFP beneficiaries, while governments struggled to continue their programs to combat food and nutrition insecurity in these people while adhering to social distance requirements (Colón-Ramos et al., 2022). The advantages to nutrition are minimal when compared to those from nutrition programs aimed at younger children, and they are frequently more expensive than other programs that give school inputs to boost school involvement (WFP, 2019).

Based on a study conducted in Ghana, the challenges that the SFPs faced was the poor participation of parents to ensure that the SFPs are running optimally (Sulemana, Ngah, & Majid, 2013). Some schools also spoke on the lack of funds and community support. Another significant issue cited by those in charge of implementing the program for head teachers and SFP teachers is the lack of adequate training or other capacity-building opportunities (Jomaa et al., 2011). According to the respondents' conclusions in the study conducted in Ghana, they did not receive any formal training prior to beginning to implement the program (Sulemana et al., 2013).

Institutional closures have far-reaching societal and economic effects, affecting not just students, teachers, and their families (Ngwacho, 2020). Many young children rely on these School feeding programs to obtain a balanced diet so when schools close, children's nutrition is compromised. Due to school closures and a high prevalence of unemployment and retrenchments, the necessity for providing meals for learners has increased during COVID-19 (Kwatubana & Molaodi,

2021). Although the advantages of school meals are well known, there is still debate over how effective SFPs are.

3:0 Methodology

3.1. Background of study area

The research problem can be approached methodically using research methodology whereby we examine the many approaches typically used by a researcher to analyze his research challenge, as well as the reasoning behind them (Coello, 2012). This chapter then entails the different steps that were undertaken to ensure that the research questions and objectives were met. It covers the study design, sampling size and method, data collection methods and data management

3.2. Study design

The purpose of study design is to make it possible to gather pertinent data with the least amount of work, time, and money (Coello, 2012). The study design chosen for this study was a cross sectional study design which falls under descriptive studies. The reason for choosing cross sectional studies is because, this can be used to assess the attitudes and knowledge of individuals (Kesmodel, 2018).

3.3. Sampling size and sampling method

Sampling is the process of choosing a sample from an individual or a large population for a certain type of research goal (Bhardwaj, 2019). The type of sampling that was used is the purposive sampling which is a type of non-probability sampling. This is because the researcher only seeks to attain information from teachers. The prevalence of School Feeding Schemes in Namibia was at 81% in 2019 among pre-primary and primary schools in the country (Ministry of Education Arts and Culture, 2019).

The formula for calculating sample size is: $n = z^2 pq / d^2$ where n = the desired minimum sample size, z = confidence level (1.95), p = 0.5 since the number of teachers in the schools is not known, q = 1.0 - p and d = degree of accuracy (0.05)

$$n = z^2 pq / d^2$$

$$n = (1.95^2)(0.05)(0.5) / 0.05^2$$

$$n = 38$$

Based on the calculations above, the sampling size was 38 but due to time constraints and also not all teachers within the schools is involved or has the knowledge of the SFP and did not want to partake, the sample size was reduced to 24.

3.4. Data collection methods

To answer specified research questions, test hypotheses, and assess results, data collection is the act of acquiring and measuring information on variables of interest in a systematic and defined manner (Megel & Heermann, 1994). This study used a mixed method of both quantitative and qualitative method as a form of data collection.

Quantitative – The nature of quantitative data is numerical, and it can be calculated numerically. Different scales, including the nominal scale, ordinal scale, interval scale, and ratio scale, are used to measure quantitative data. Such data frequently (but not always) includes measurements of something (Megel & Heermann, 1994). It uses a standardized, systematic strategy and make use of techniques like surveys and questionnaires. A questionnaire was developed which was self-administered and consisted only of close-ended questions. The sample size for the self-administered questionnaire was 24. The questionnaires were then given to teachers who are involved with the SFP and willing to participate. The main goal of the questionnaire was to understand the perception of teachers on the School Feeding Programmes during COVID-19.

Qualitative – Qualitative data is usually in non-numerical and is in the form of sentences or words (Megel & Heermann, 1994). Qualitative approaches typically use unstructured methods of data collecting to properly examine the topic and try to answer the "how" and "why" of a program (Megel & Heermann, 1994). It is usually used to answer open-ended questions and they include interviews, group discussions and focus groups (Bhardwaj, 2019). The sample size for the interviews was 5 participants out of the 24 and participants were chosen based on who was available.

3.5. Data analysis

In a nutshell, data analysis is a technique for using facts and numbers to address the issue at hand (Ashirwadam, 2014). A Statistical Package for the Social sciences (SPSS) version was used to store, organize, analyze and present the data that was collected. The analyzed information is then presented by means of tables. The qualitative data was transcribed using verbatim transcription. Excel and Microsoft word were used to code and create themes for the qualitative data.

3.6. Ethical considerations

This study undertakes to uphold the fundamental principles of research ethics by:

- The Faculty of Health and Applied Sciences research ethical committee

- All participants will complete a written informed consent form.
- There will be a full disclosure of information to the research participants before completing the consent form, that way the participants will be able to make an informed decision on whether to go ahead with the research or withdraw.
- Participants will be given the choice to on whether to carry on with the research or not without any sort of manipulation or coercion.
- Confidentiality of participant's personal information will be maintained.
- Study participants will not be exposed to any harm or risks.
- Participants will be allowed to withdraw from the research at any time that they wish without any penalties.
- Effort will be made to ensure that participants thoroughly comprehend the material provided.
- To maximize autonomy, only competent people will be allowed to partake in the research and proxy consent will be obtained from the proxy of the study participant.
- Information about the study will be communicated in a language that the study participants all understand.
- Authorization for everything that is going to be done will be obtained from the study participants.

3.7. Limitations

Some of the limitations of the study included lack of time, some of the teachers did not want to take part as they felt like they did not have enough knowledge on the SFP of the school and also the sample size had to be reduced because only 2-4 teachers at most schools were involved with the SFP. Sampling error might have been introduced in the study, this may be due to an error in the sample size calculation. Another limitation was be that study participants might not be honest when answering questions on the questionnaires.

4:0 RESULTS

4.1 Introduction

This chapter addresses the main objectives of the research by presenting the research findings. These findings are based on the perspectives of teachers regarding SFP during the COVID-19 pandemic. The data is then presented in the form of tables. This section shows the results from the self-administered questionnaires.

4.2 Demographics

Table 4.2.1: The table below shows the demographic information of the teachers

Gender	Frequency	Percentages (%)
Male	3	12.5
Female	21	87.5
Total	24	100
Ethnicity		
Oshiwambo	11	45.8
Colored/Baster	1	4.2
Damara>Nama	4	16.7
Herero	1	4.2
Kavango	5	20.8
Caprivian	2	8.3
Total	24	100
Name of school		
Aurora Primary school	2	8.3
Five Rand primary school	2	8.3
Kulisuka Senior Primary school	5	20.8
MH. Greef Primary school	7	29.2
Michelle Mclean Primary school	2	8.3
Nau-Aib Primary school	1	4.2
Onkuumbwimbi Combined school	3	12.5
Otjomuise Primary school	2	8.3
Total	24	100

- Gender

- Name of school

The study had a sample size of 24 respondents in total. The socio-demographic information states that out of the 24 respondents, 91.6% of the respondents were female while 8.3% of the respondents were male.

The different schools from which the respondents are; Aurora Primary school 8.3%, Five Rand primary school 8.3%, Kulisuka Senior Primary school 20.8%, MH. Greef Primary school 29.2%, Michelle Mclean Primary school 8.3%, Nau-Aib Primary school 4.2%, Onkuumbwimbi Combined school 12.5% and Otjomuise Primary school 8.3%.

- Ethnicity

The ethnicity of the respondents were; Oshiwambo, Colored/Baster 4.2%, Damara>Nama 16.7%, Herero 4.2%, Kavango 20.8% and Caprivian 8.0%.

4.2.2 Results for Quantitative data

Table 4.2.2: The perceptions of teachers on school feeding programmes during the COVID-19 pandemic

	Question	Yes	Percentage %	No	Percentage %
1	When schools closed down, were school feeding programs able to provide food to the learners?	10	41.6	14	58.3
2	Do you think the school feeding programme can improve the learner’s nutritional aspects?	20	83.3	4	16.6
3	Do teachers play any role in School Feeding Programmes?	24	100	0	0
4	Teachers of the school are actively involved in the SFP during COVID-19.	24	100	0	0
5	Does the Schools Feeding Programme receive sponsorships from other organizations other than the government during COVID-19?	14	58.3	10	41.6

6	Do the teachers assist in the preparation of meals?	24	100	0	0
7	Do you think that teachers and other school staff need to be more involved to ensure the effectiveness of SFP?	24	100	0	0
8	Do you think that the School Feeding Programmes were effective during the COVID-19 pandemic?	13	54.1	11	45.8
9	Do you think the Government and school did enough to ensure the effectiveness of the SFP during COVID-19?	13	54.1	11	45.8
10	Do you find any children that are malnourished?	3	12.5	21	87.5
11	Do you think vulnerable learners suffered during COVID-19 due to lack of food usually provided by SFP?	17	70.8	7	29.1
12	Do you think that the parents of the learners are aware of the importance of SFP's?	19	79.1	5	20.8
13	Are there health checkups done at the schools to help assess the nutritional status of the learners?	0	0	24	100
14	Do you think that School Feeding Programmes should continue running even during pandemics.	24	100	0	0

The table above shows the results of the first objective which was to determine the perceptions of teachers on school feeding programmes during the COVID-19 pandemic. Out of the 24 participants, 58.3% of the participants said that when schools closed down, the SPs were still able to provide food to the learners while 41.6% of the respondents said that the SFPs were not able to provide food for the learners. 16.6% of the respondents do not think that SFPs can improve the learner's nutritional status while 83% of the respondents think that SFPs cannot improve the nutritional status of learners. Out of the 24 respondents, 100% of them claimed that teachers play a role in the SFPs and that they are all actively involved in the SFP. 58.3% of the respondents said that the SFPs receive sponsorship from other organizations and not only the government whereas 41.6% of the respondents stated that the SFP does not receive sponsorship from other organizations. A 100% of the teachers agreed that all teachers of the school need to be actively involved with the SFP.

Furthermore, 54.1% of the teachers claimed that the SFPs were effective during the pandemic while 45.8% of the

Table 4.2.3: The practices put in place by teachers on school feeding programs during COVID-19 pandemic

	Questions	Yes	Percentage %	No	Percentage %
1	Does the school vegetable garden support the SFP	7	29.1	17	70.8
2	Do you think that school vegetable gardens can support SFPs in times like COVID-19?	24	100	0	0
3	Do you think adapting vegetable gardens at school would help reduce food shortage faced by SFPs	17	70.8	7	29.1
4	Do you think that schools with vegetable gardens had a better advantage compared to those without vegetable gardens when it came to food shortage for the SFPs during COVID-19	20	83.3	4	16.6
5	Did the school host hand washing campaigns and COVID-	22	91.6	2	8.3

teachers claimed that the SFP were not effective during the pandemic. 54.1% of the respondents think that the government and schools did enough to ensure the effectiveness of SFP while 45.8% of the respondents do not think that the government and schools did enough. Moreover, 12.5% of the teachers said that they find children that are malnourished while 87.5% do not find any malnourished children at the school. 70.8% of the teachers say that vulnerable children suffered during COVID-19 due to a lack of food usually provided by SFPs while 29.1% of them said that vulnerable children did not suffer during COVID-19. 79.1% of the teachers think that the parents of the learners are aware of the importance of SFPs, while 20.8% of the teachers don't think that the parents are aware of the importance of SFPs. Out of the 24 respondents, a 100% of them stated that there aren't any health checkups done at the school to assess the nutritional status of the learners. Furthermore, a 100% of the respondents also agreed that SFPs should continue running even during pandemics.

	19 prevention campaigns as a measure to strengthen the effectiveness of SFPs during COVID-19				
6	Measures put in place				
	Learners did not get food at all	3	12.5	21	87.5
	Learners were given food to take home	2	8.3	22	91.6
	Learners could sit at school and eat their food while adhering to COVID-19 measure	12	50	12	50
	Learners received dry ration to take home	6	25	18	75
	Learners go to school once or twice a week to receive food	1	4.1	23	95.8

The table above shows the results for the second objective which was to identify the practices put in place by teachers on school feeding programs during COVID-19 pandemic. The table shows that out of the 24 respondents, 29.1% of the respondents said that the school has a vegetable garden that supports the SFP, while 70.8% of the respondents said that the school does not have a vegetable garden. The table also indicates that a 100% of them think that school vegetable gardens can support SFPs in times like COVID-19. 70.8% of the respondents think that adapting school vegetable gardens would help reduce food shortage faced by SFPs while 29.1% of the teachers do not think that adapting school vegetable gardens helps to reduce food shortage faced by SFPs. 83.3% of the respondents think that schools that had vegetable gardens had a better advantage compared to schools that do not have vegetable gardens. However, 16.6% of the

respondents do not think that schools with vegetable gardens had a better advantage compared to those that do not have vegetable gardens.

91.6% of the respondents stated that the school had hand washing campaigns and COVID-19 prevention campaigns as a measure to strengthen the effectiveness of the SFPs while 8.3% of the respondents stated that the school did not have hand washing and COVID-19 prevention campaigns. Among the practices put in place during the COVID-19 pandemic, 8.3% stated that learners were given food to go eat at home and 25% of them received a dry ration to take home. 50% of the respondents said that learners could sit at school while adhering to the COVID-19 regulations and 4.1% said that learners could go once or twice a week to school to receive food. However, 3% of the respondents said that no practices were in place therefore the children did not receive any food.

4.2.4 Results for Qualitative data

This section shows the results obtained from the interviews that were held with some of the teachers. The responses are presented in quotes.

Table 4.2.4: Results obtained from the interviews

Questions	Response
1. Do you think that SFPs were effective during COVID-19?	Respondent 1: “Uhhh yes, it improves the concentration of the learners and it motivates the learners to come to school because they know they will get food at school”. Respondent 2: “Yes it was. A lot of kids were coming to eat because some of the parents lost their jobs. We also gave them some uncooked maize meal to take home to prepare porridge” Respondent 3: “They were very effective because most of the parents lost their jobs and the unemployment rate was so high. It was also effective in regards to children that lost their parents and therefore did not have food at home. So the SFP somehow helped them” Respondent 4: “Yes it was, because we fed almost 80 kids a day and now after COVID-19, we feed about a 100 and something” Respondent 5: “Yes they were effective because we did not cook here, the learners were given dry food such as maize meal, sugar and oil to take home”.
2. Do you think that the SFPs that they were running effectively even during the	Respondent 1: “I think that the SFP does enough to ensure that the children are fed as it feeds a lot of children. But I think the only problem is that they do not give food to the children every day. So I think it would have been better if the SFP provided food to the learners everyday”. Respondent 2: “We are just struggling with the delivery of the food to the school. For example this year we only received the maize meal in June and by that time the school had to try to by the food

<p>Pandemic.</p>	<p>themselves such as the macaroni and maize meal” Respondent 3: “The SFP was giving mostly to the children that were registered as vulnerable, not just any child because the food was not enough so maybe if they could just open the door to everyone to be getting food everyday”. Respondent 4: “I think that we should get more sponsors especially for the veggies and meat because we usually have the rice, macaroni and pap, but those two were our problem”. Respondent 5: “I think we could have followed up to see if maybe they finished what we gave them so that they could come back and get more. So we could have done better in that way.</p>
<p>3. Do you think that the government could have done better to ensure that the School Feeding Programmes were running effectively even during the Pandemic.</p>	<p>Respondent 1: “The government did do enough but also I feel like the government needs to employ more staff to assist in the kitchen to prepare the food because there are only 2 staff currently that prepare the food in the kitchen”. Respondent 2: “ I will say maybe that the government should try to deliver the food on time”. Respondent 3: “ Well the Government does not provide nutritious food apart from the maize meal for the pap, so the government could maybe invest more into buying nutritious food like vegetables or proteins for the schools” Respondent 4: “I think that they have done enough because it’s not only the responsibility of the government but also us, the parents and community members we also need to do more. The government already made sure that we have the programme running so we also need to be active and not only say the government, the government everytime”. Respondent 5: “Yes, they could have given us a green light to store the food here in the school store room and tell us how many bags to give to each child and then tell them to come get again in a few weeks or so”</p>
<p>4. Do you think that parents are aware on the importance of SFPs?</p>	<p>Respondent 1: “Yes, I think that the parents of the children are aware of the importance of school feeding programmes because there are a lot of children that attend therefore they would not send their children there if they did not know the importance” Respondent 2: “ They are because we also receive donations from them such as veggies, canned food and other more” Respondent 3: “ Yes they are aware because the parents usually donate good amounts of food and also the community would provide the school with things like chicken and vegetables” Respondent 4: “They are aware of the programme, because some of them even donate some stuff to us. We ask and they give us”. Respondent 5: “They are because, if we don’t cook then the parents will call us and those are the parents that really can’t afford for their kids so SFP does a lot for their kids”.</p>
<p>5. In what way do you think adapting school vegetable gardens would help in times of pandemics such as COVID-19?</p>	<p>Respondent 1: “It would be very helpful in situations where the school run out of food, so they won’t have to always wait on the government to provide all the time” Respondent 2: “It does but unfortunately we so not have a garden, but we are thinking of adapting one probably by next year as it is really needed” Respondent 3: “We are actually planning on adapting one and something that every school should adapt as it would also give responsibility to the learners to feel like they have given back to the school and also the children will be happy to harvest and eat food that they have grown themselves” Respondent 4: “I think if we start the garden, then we will go all the way”. Respondent 5: “It would be important because in that way you don’t only provide the children with porridge but also vegetables which are an important part of our diet so it would be very effective”</p>
<p>6. Do you think that School Feeding Programmes should continue running even during pandemics rather than closing down.</p>	<p>Respondent 1: “I think that they should continue operating because that one meal being given by the SFP could be the only meal that that child is having that day”. Respondent 2: “I think that they should continue to working, because we have orphans and vulnerable children and also houses that are run by children, so if it closes completely, I really don’t know.” Respondent 2: “Yes, they should definitely continue working because when they closed down some of the children had nothing to eat due to the increase in the unemployment rate” Respondent 3: “Definitely, because for some children, that could be their only meal for the day so they should not close down at all”. Respondent 4: “Yes, because some children are orphans and don’t really have a bread winner at</p>

	<p>home so if SFP completely close then these children might not eat”.</p> <p>Respondent 5: “Yes, although it would be a bit tricky when we are dealing with contagious diseases and viruses but they should continue to run”.</p>
<p>7. What would you recommend that SFP do rather than completely close down during pandemics?</p>	<p>Respondent 1: “I think letting the children come to school at least 2-3 times in a week to get food would be really helpful”.</p> <p>Respondent 2: “Maybe we as the life skills teachers can try and contact the parents to come to school and get the dry ration from the schools”.</p> <p>Respondent 3: “That’s a bit tricky because this is a school located in Khomasdal and we have some children that live very far so maybe the SFP can get in connection with churches in the community and assist in the soup kitchen and identify where most of our learners live that that they can attend the feeding programme there but this would require us to separate the learners from the community so it would be really tricky”</p> <p>Respondent 4: “For example in my location, we had outreach programmes whereby people would come and give children food, so maybe the schools can also adapt that”</p> <p>Respondent 5: “During a pandemic like COVID-19 it would be tricky because the virus spread when you are in contact with the person so I think maybe giving uncooked food to the parents so that they can rather go cook at home”.</p>

Table 4.2.5: Themes generated from the responses

Theme	Sub-theme
Effectiveness of SFPs	<ul style="list-style-type: none"> • Improved concentration • Motivated children to come to school • Gave children uncooked maize meal (dry ration) to take home • Helped children that lost their parents • Fed around 80+ children
Challenges faced by SFPs	<ul style="list-style-type: none"> • Do not give children food everyday • Food was not enough • Food not delivered on time • Did not do follow up on children
Recommendations for the government	<ul style="list-style-type: none"> • Employ more staff to assist in kitchen • Deliver food on time • Invest more in buying nutritious food • Parents and community members need to do more also • Quantity needed to be given to each child
Knowledge of SFPs by parents	<ul style="list-style-type: none"> • A lot of children attend the SFP • Receive donations • Parents call us when we don’t cook
Benefits of vegetable gardens	<ul style="list-style-type: none"> • Helpful when schools run out of food • Gives responsibility to learners • Happy to harvest and eat what they have grown • Important part of diet
Reasons to continue running SFPs	<ul style="list-style-type: none"> • Could be the only meal the child is receiving • We have orphans and vulnerable children • Nothing to eat due to increase in unemployment • Children might not eat
Recommendations for SFPs	<ul style="list-style-type: none"> • Come to school 2-3 times a week • Give dry ration • Connect with churches and community members • Identify where most of our learners live

- Outreach programmes
- Provide food to learners everyday
- Deliver food on time
- Get more sponsors

5.0: Discussion and Recommendations

5.1 Introduction

This section goes into detail on the findings of the study in relation to the aim, study objectives and the research questions. The purpose of this study was to determine the attitudes of teachers regarding school feeding programs during the COVID-19 pandemic in order to understand the effectiveness of School Feeding Programmes during COVID-19. The first objective was to determine the perceptions of teachers on school feeding programmes during the COVID-19 pandemic. The second objective was to identify the practices put in place by teachers on school feeding programs during COVID-19 pandemic. Majority of the respondents were females who accounted for a percentage of 87.5% while the male respondents were only 12.5%. Among the respondents, 45.8% of them were Vamboes, 4.2% were Colored/Baster, 16.7% of them were Damara>Nama, 4.2% were Herero, 20.8% were Kavango and 8.3% of the respondents were Caprivan. The respondents were from 7 schools located in 4 different regions in Namibia. The names of the regions were; Khomas region, Otjozondjupa region, Kavango West region and Oshana region. The names of the schools were Aurora Primary school, Nau-aib Primary school, Aurora Primary school, Kulisuka Senior Primary school, MH Greef Primary school, Otjomuise Primry school and Onkuumbwimbi Combined school.

5.2 Perceptions of teachers on school feeding programmes during the COVID-19 pandemic.

The results show that 83.3% of the respondents think that SFPs can improve the nutritional status of learners while 16.6% of the participants do not think that SFPs can help improve the nutritional status of the learners. This is supported by a study San Jose., (2016) which stated that Depending on the child's nutritional status prior to beginning the programme, the school feeding program had a beneficial impact on child weight gain, demonstrating the program's effectiveness for weight management. The findings indicated that out of the 24 respondents, 100% of the respondents indicated that all teachers are actively involved in the SFPs. However, according to an article by Iddrisu., (2018), teachers who supervise and monitor the educational system, are not actively involved in the feeding program, which results in a less effective and efficient delivery. This therefore shows that

there is no relationship between the study findings which claim that teachers are actively involved in the SFPs and the article by Iddrisu which shows that not all teachers are involved in the SFP. Additionally, a 100% of the respondents think that teachers and staff members need to be actively involved in the SFPs to ensure its effectiveness. These findings are related to a study by Iddrisu, (2018), which states that when teachers are not involved, the program does not benefit the school children to its full potential. Therefore, at the school level, teachers need to be given administrative responsibilities of the SFPs.

Out of the 24 respondents, 62.5% of the respondents stated that the SFP received sponsorship from other organizations other than the government during COVID-19 while, 37.5% of the respondents stated that the SFP did not receive any sponsorship from other organizations other than the government during COVID-19. Similarly 20% of the teachers said “I think that they have done enough because it’s not only the responsibility of the government but also us, the parents and community members we also need to do more. The government already made sure that we have the programme running, so we also need to be active and not only say the government, the government every time”. This shows that since the government made provision to ensure that SFPs have been implemented, it is therefore the responsibility of the schools to ensure that they get sponsorships from other organizations rather than always relying on the government.

Based on the findings, 79% of the participants said that the SFP were effective while 20.8% of them said that the SFP were not effective during COVID-19. Similarly, an article by Amolegbe., (2020) states that research has demonstrated that schools can provide an effective vehicle to ensure that food is effectively delivered. A teacher from MH Greef Primary school went on to say that “Yes it was, because we fed almost 80 kids a day and now after COVID-19, we feed about a 100 and something”. This shows that despite the Pandemic and the school lockdowns, schools were still able to find ways to ensure that the learners were fed regardless. A 100% of the respondents feel like the government did enough in terms of the provision of food although 20% from the teachers stated that there is still room for improvement on the quality of food provided by the government. The teacher stated that “Well the Government does not provide nutritious food apart from the maize meal for the pap, so the government could maybe invest more into buying nutritious food like vegetables or proteins for the schools”. These findings indicate that the government

only provides starchy foods such as maize meal for porridge and does not provide a variety based on the nutritional composition of food.

Furthermore, 70.8% of the teachers do not find children that are malnourished while 29.1% of teachers find children that are malnourished. According to an article by The Comprehensive National Nutrition Survey (CNNS) (2016–18, in the age range of 5 to 9 years, 35.2% of children are underweight, and 24.1% of children in the age range of 10 to 19 years are underweight. Similarly, a 100% of the participants stated that there aren't any health checkups done at the school to assess the nutritional status of the children (Ministry of Health and Family Welfare (MoHFW) & Population Council, 2019). Therefore since there aren't any health checkups done at the schools, the answers provided by the respondents on whether or not they find malnourished children is not reliable.

70.8% of the respondents think that vulnerable children suffered during COVID-19 due to a lack of food usually provided by SFPs while 29.1% of the respondents do not think that vulnerable children suffered. 40% of the teachers that were interviewed had the same view that said "I think that they should continue to working, because we have orphans and vulnerable children and also houses that are run by children, so if it closes completely, I really don't know. This is related to an article by (Welsh Government, 2020) which states that when it came to the closure of SFPs, a sizable portion of students from more vulnerable backgrounds endured ongoing disadvantages. This shows that vulnerable learners from poor backgrounds, where disadvantaged due to the closure of schools and SFPs.

5.3 Identify the practice put in place by teachers on school feeding programs during COVID-19 pandemic.

Out of the 7 schools, only 28.5% of the schools have school vegetable gardens where one of the teachers said "Unfortunately we do not have a garden, but we are thinking of adapting one probably by next year as it is really needed". The other 71.4% of the schools did not have school vegetable gardens. This indicates the need for schools to adapt school vegetable gardens. The respondents were asked on the benefits of adapting vegetable gardens as a measure to ensure effectiveness and 40% of the teachers that were interviewed said "It would be very helpful in situations where the school run out of food, so they won't have to always wait on the government to provide all the time". 70.8% of the teachers agreed that schools that have gardens had a better advantage during COVID-19 as they did not solely rely on the government to supply them with food but they could rather

grow their own food and use it as a substitute for when the government cannot supply the schools with food. These findings are related to a study by Luz Mercado., (2021) that agrees that school vegetable gardens are important by saying that the consequences of the pandemic have been greatly mitigated by school gardens, which act as a space that not only offers access to fresh vegetables to reduce food insecurity but also as a source of social support and mental well-being for the learners and communities at large.

Out of the 24 respondents, 87.5% of the respondents claimed that measures were put in place to ensure that the learners received food despite the COVID-19 pandemic. 25% of the respondents said that learners received a dry ration that they could take home to cook and eat with their family, 12.5% of the respondents said that children would go to school once or twice a week to collect a cooked meal which they could go eat at home and while 50% of the respondents claimed that learners could have their meals at school while adhering to the COVID-19 regulations. 20% of the teachers said: "Yes they were effective because we did not cook here, the learners were given dry food such as maize meal, sugar and oil to take home". In relation to this, the World Food Program (WFP) has been giving take-home rations for families with students as part of its "School feeding at home" effort to make sure kids continue to get the food they need (Delbiso et al., 2021). This shows that take home rations were one of the practices adapted schools to ensure that the children were fed even during the lockdown.

Teachers were asked to give recommendations on practices that they could adapt when faced with pandemics and 25% of the teachers said "That's a bit tricky because this is a school located in Khomasdal and we have some children that live very far so maybe the SFP can get in connection with churches in the community and assist in the soup kitchen and identify where most of our learners live that they can attend the feeding programme there but this would require us to separate the learners from the community so it would be really tricky". 4.2% of the teachers said that the children should be allowed to go to school at least 2-3 times a week to receive cooked food to go eat at home. 25% of the teachers that was interviewed said "I think letting the children come to school at least 2-3 times in a week to get food would be really helpful".

100% of the teachers that were interviewed expressed that the SFPs should not close down during pandemics but rather find ways to sustain it although they also thought that it would be tricky especially when faced with viruses or diseases that are contagious such as COVID-19. The reasons given by the participants as to why SFP should not close down were such as the fact that during pandemics such as COVID-19, a lot of parents lost their jobs due to the economic crises faced by the

country therefore the meals that the children received from the SFPs made a difference in their lives. Furthermore, to support these findings “Significant job losses for South Africans have been caused by COVID-19 and its related economic impacts” (Kean & Armstrong, 2020). One of the teacher also said “I think that they should continue working, because we have orphans and vulnerable children and also houses that are run by children, so if it closes completely, I really don’t know.” These findings are related to a survey done in public primary schools in Addis Ababa which found that roughly 27% of them only eat once a day, while 16% acknowledged that they occasionally skip meals (Delbiso et al., 2021). This expresses the need for SFP to adapt practices such as those mentioned by the teachers in the study to ensure that SFPs continue to operate in order to support the vulnerable children.

5.2 Conclusion

It is very important for School Feeding Programmes to be in operation even during pandemics as these meals SFPs are projected to supply up to 30–50 percent of a child's daily nutritional needs through meals that are healthier than those cooked at home for the same expense (Mayurasakorn et al., 2020). 54.1% of the teachers believed that the government and the SFPs did enough to ensure that the SFPs were effective during the COVID-19 pandemic. This is because despite the pandemic, some of the schools were still able to work around it. Only 2 out of the 7 schools had vegetable gardens that help support School Feeding programmes. Teachers also aired their perceptions on the importance of adapting vegetable gardens. Some of the practices put in place by some schools included giving the learners or the parents of the learners a dry ration to take home. 4.2% of the schools also allowed children to go to school at least 1 to 2 times a week to receive food.

5.3 Recommendations

- The research showed that not a lot of schools have gardens, therefore it is important for schools to establish school gardens that could be used as substitutes for when the government is unable to provide food to the school feeding programmes.
- Schools can also start having fundraisers and keep the money aside just to ensure that when another pandemic arises and schools have to go on lock down, schools are still able to use the funds to buy food and supply the most vulnerable learners with dry ration to take home.
- Most schools had to resort to completely closing down the SFP. The government should rather find ways to sustain the programme even when the country is faced by a pandemic as a lot of school going children rely on these meals offered by the SFP. The strategies could include

- Some schools complained about receiving food late from the government which resulted in schools having to reduce the portion sizes and only giving a limited number of children food. The SFPs should rather seek in finding more sponsorships from non-governmental organizations and community members.
- In order to ensure that the SFP are running optimally, all parties need to be involved in the School Feeding Programme and not only the government and the teachers but the whole community at large as this benefits everyone.
- Community members and parents also need to be educated on the importance of nutrition this way they can work together to help maintain the SFP maybe by donating if they can or assist in starting a garden at the schools

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