



ENHANCING COMMUNITY SUSTAINABILITY THROUGH NUTRISKWELA (Nutrition Education): AN ANALYSIS OF ECONOMIC, SOCIAL, AND ENVIRONMENTAL IMPACTS

¹Kamlesh Devi C. Dhutti, ²Karren Christine B. Lat

¹Program Chair, Tourism Management, ²Faculty

¹School of Tourism and Hospitality Management,

¹Colegio de San Juan de Letran Calamba, Calamba City, Philippines

Abstract: This research aimed to assess the effects of the Nutriskwela project on its beneficiaries from the partner community at Letran Calamba. In particular, it focused on identifying the intended and unintended impacts of the Nutriskwela project concerning economic, social, and environmental factors; recognizing the gaps (both planned and unplanned); and outlining the challenges and concerns faced in executing the Nutriskwela project. A qualitative research methodology was used for this study, involving 28 mothers who participated in a focus group discussion (FGD), key informant interviews with the Barangay Nutrition Scholar (BNS) and a Barangay Councilor, and reflective activities from the four (4) Project Moderators.

The findings indicated that the Nutriskwela project has positively impacted the communities as intended in economic, social, and environmental aspects. One of the project's primary objectives was to enhance the capabilities of mothers with beneficiary children to maintain improvements in their children's nutrition. They received training in livelihood activities, such as food processing, to help meet their undernourished children's financial needs. The mothers acquired nutrition knowledge, particularly in making use of locally available food (e.g., fish and vegetables), safe food preparation, and nutrition, which contributed to enhancing their children's nutritional status. Brochures distributed within the community served as a resource for preparing nutritious meals. The community enjoyed a continuous supply of fresh, nutritious food in an accessible and affordable way through edible gardening. Conversely, the project's contributions to the communities did not entirely align with the original plan concerning economic, social, and environmental factors. Significant cost reductions for mothers resulted from growing food in their backyards. Additionally, mothers became aware of the health risks associated with using artificial flavorings in their meals. The mothers of beneficiary children encouraged other mothers to adopt edible gardening practices to provide their families with fresh and nutritious produce, which gradually spread throughout the community.

Moreover, the study identified gaps in the project's implementation, particularly the lack of continuity in activities due to management by four different faculty moderators over five successive years. The closeness of the families' homes posed challenges to their participation in activities organized by the STHM. Furthermore, the results highlighted issues and concerns related to the Nutriskwela project's Mothers' Class and Livelihood Programs. Although the nutritional status of undernourished children improved, some uninterested mothers prioritized their vices over participating in the activities. Regular monitoring of Body Mass Index (BMI) by faculty moderators was lacking. It was also noted that there was insufficient documentation of the activities undertaken. Simply providing lectures and seminars was inadequate for ensuring the project's sustainability; instead, continuous monitoring and evaluation are necessary.

The researchers suggest that the moderators of the Nutriskwela project enhance their record-keeping practices and that STHM should maintain duplicate project documentation. Additionally, it would be advisable to assign a single faculty moderator for better execution of the activities. Furthermore, it is essential to maintain continuity in the activities offered to the partner community. To guarantee the sustainability of the food production knowledge shared in the mothers' class, forming an association or establishing partnerships with local business owners to market the products made by beneficiary mothers could be initiated by the implementers.

Keywords: *Mother's Class, Nutrition Education, Livelihood Programs, Community Extension*

I. INTRODUCTION

The pursuit of sustainable development, which considers economic, social, and environmental aspects, is a top priority in our ever-evolving world. Tackling child nutrition is one significant way to promote the well-being of future generations, which is an essential

part of sustainable development. The Sustainable Development Goals (SDGs) serve as a worldwide appeal to eliminate poverty, protect the environment, and ensure prosperity for all, highlighting that child nutrition is a vital element of sustainable development. Analyzing the interconnectedness of these goals reveals that prioritizing child nutrition is not only a moral obligation but also a sensible long-term investment.

Nutrition is fundamentally at the heart of the Sustainable Development Goals (SDGs) due to its multisectoral nature and diverse significance. Besides achieving “Zero Hunger” (SDG2), advancements in nutrition are essential for realizing and benefiting from all 17 SDGs. Positive nutrition is linked to reduced poverty (SDG 1), enhanced productivity in the workforce and educational settings (SDGs 4 and 8), better health and wellness outcomes (SDG 3), and decreased inequality (SDGs 5 and 10). Furthermore, improved nutrition and food security contribute to the development of more resilient and sustainable communities, technologies, and environments (SDGs 6, 7, 9, 11-17). A significant portion of the knowledge, skills, and behaviors necessary for adopting sustainable and healthy eating practices is gained through nutrition education.

In September 2015, the Philippines and 192 other member states of the United Nations committed to achieving the 17 Sustainable Development Goals (SDGs) along with their 169 associated targets by 2030. As stated by the United Nations (2023), the SDGs represent a "global call to action to end poverty, protect the planet, and ensure that all people enjoy peace and prosperity." The global goals build upon the Philippine Development Plan (PDP) for 2017–2022 and the country’s long-term aspirations laid out in AmBisyon Natin 2040, expanding on the unfinished agenda of the Millennium Development Goals (MDGs) and offering a greater number and range of goals and targets across economic, social, environmental, and governance dimensions of development (National Economic and Development Authority (NEDA 2017; NEDA 2016).

Promoting nutritional health is a commendable endeavor among institutions and individuals alike. In the Philippines, the Commission on Higher Education (CHED) mandates that colleges and universities offer civic and educational services to their communities. Universities, colleges, and other higher education institutions (HEIs) play a crucial role in fostering economic, social, and environmental advancement in the Philippines. Through enhanced community engagement via extension services, these institutions are also vital for achieving the sustainable development goals agenda. While Sustainable Development Goal 4 emphasizes equitable quality and inclusive education specifically concerning HEIs, their influence extends across all objectives through their research outputs, campus initiatives, and educational practices. HEIs are expected to engage in extension, research, and teaching (Ogunyemi & Adebayo, 2022). Being central to networks that include government, civil society, and business partners, they are among the most important sources of ideas and solutions for global challenges. They also hold vast potential to effect positive change.

Higher education institutions are crucial in creating a society that is more sustainable by pursuing the goals of the 2030 Agenda (Santos & Oliveira, 2021). As a cornerstone of social development, educational institutions have a social responsibility to engage in empowering communities and transforming lives through the dissemination of knowledge and technology via training, workshops, seminars, and technical advice. In her research on the effects of community extension programs, Dilao (2022) highlighted that resolving community issues necessitates collaboration among local government officials, community members, and academic institutions. She argued that a knowledge-based sector is vital to providing a scientific assessment of the challenges faced by the community. By Republic Act 7722, the Commission on Higher Education (CHED) compels higher education institutions to contribute to societal transformation. Educational institutions play a critical role in utilizing their knowledge, skills, best practices, and resources to enhance the living conditions of local communities. Thus, dynamic learning institutions are encouraged to improve their faculty members' expertise by sharing their knowledge and skills with the surrounding communities.

Barangay Masili is located in the City of Calamba, within the province of Laguna. As of 2015, the population of Barangay Masili was 3,680 (PhilAtlas, 2024). The Colegio selected Barangay Masili as its partner community based on criteria established by the Community and Extension Services Department (CESD).

II. OBJECTIVES OF THE STUDY

The study aimed to determine the impact of the Nutriskwela project on its beneficiaries from the Letran Calamba partner community. Specifically, the study sought to attain the following:

To identify the impact of the Nutriskwela project on the community as planned in terms of:

- Economic;
- Social;
- Environmental;

To identify the impact of the Nutriskwela project on the community not according to the plan in terms of:

- Economic
- Social;
- Environmental;

To determine the gaps (planned and unplanned); and

To describe the issues and concerns in the implementation of the Nutriskwela project in terms of:

- Mother’s Class
- Livelihood Programs.

3.1 Population and Sample

Participants of the study were the community residents of Barangay Masili. Community participants were purposively selected for the study based on the following criteria: a) participated in any one of the Nutriskwela activities, 2) bonafide residents of Barangay Masili, and c) consented to join the study. Likewise, the Barangay Nutrition Scholar (BNS), Barangay Councilor, and Project Moderators were also part of the study.

A total of twenty-eight (28) mothers of beneficiary children participated in the FGD to determine their experiences and evaluate the nutrition knowledge gained during the conducted mothers' classes and capacity-building seminars. Meanwhile, one (1) Barangay Nutrition Scholar (BNS), and one (1) Barangay Councilor were the key informants of the study and four (4) Project Moderators' reflections of the activities were analyzed to determine the issues and concerns in the implementation of the project in terms of the Mothers' Class and the Livelihood Programs.

3.2 Data and Sources of Data

The study was conducted in a partner community located in Barangay Masili, situated in the City of Calamba, within the Province of Laguna, approximately 5-6 kilometers away from Letran Calamba. Barangay Masili has been a joint partner community of Colegio de San Juan de Letran Calamba in community extension initiatives of different course programs from 2015 to 2020. Nutriskwela was conceptualized with the primary objective of lessening the malnutrition incidences in Barangay Masili through nutrition education and capacitating the family for sustained food production.

The researchers sought approval from the Community Extension Service Department and the Barangay Captain of the partner community before the conduct of the study. The participants of the study were identified through the compiled documents from the CESD and coordinated with the Barangay Secretary to gather them on the scheduled date for the interview. Likewise, informed consent was obtained from the participants before the conduct of the interview. Confidentiality and anonymity were observed in the study.

FGDs were conducted to probe the impact of the Nutriskwela project on the community as planned and unplanned in terms of economic, social, and environmental aspects, and the planned and unplanned gaps. Issues and concerns in the implementation of the project in terms of the mother's class and livelihood programs were gathered using KII with the Barangay Nutrition Scholar (BNS) and Barangay Councilor and Project Moderators' activity reflection.

3.3 Conceptual framework

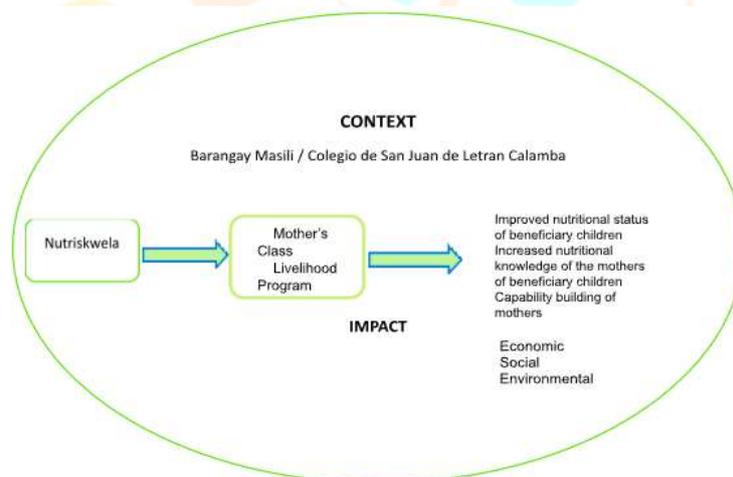


Figure 1. Conceptual Framework of the Study

The envisioned effects of the Nutriskwela (Nutrition Education) project were framed through the lens of community participation (Figure 1). This study takes place within the context of community service as an integral part of the educational experience. The impacts of the Nutriskwela mothers' classes and livelihood programs conducted in Barangay Masili, the community partnered with Colegio de San Juan de Letran Calamba, were evaluated.

The methods used for assessing impacts depend on two main factors: first, the goals of the assessments; and second, the availability of data and resources (OECD, 2022). The study explored the economic, social, and environmental dimensions as a means of evaluating the impacts of Nutriskwela. The techniques employed were specifically designed to help comprehend the effects of the activities implemented. The Food and Nutrition Research Institute (FNRI) report, which revealed that 33% of preschool-aged children faced undernutrition, mainly stunting, triggered the establishment of Colegio's Nutriskwela community engagement program (FNRI, 2022). The impact of the project was thoroughly evaluated against the ESG (Environmental, Social, and Governance) Framework, focusing on initiatives like the Mothers' Class and Livelihood Program. The ESG framework aids in understanding how an organization regulates risks and seizes opportunities linked to environmental, social, and governance factors. ESG takes a comprehensive view that sustainability goes beyond environmental concerns. Sustainability is a broader notion incorporating economic, social, and environmental aspects, while ESG specifically pertains to a set of standards within these three areas used to assess the performance and behavior of organizations. The three pillars or principles of sustainability—environmental, social, and economic—are collectively referred to as ESG (Environmental, Social, Governance).

The anticipated outcomes of the project include: enhanced nutritional status of the children benefiting from the program, increased nutritional knowledge among the mothers of these children, and skill development for the mothers of the beneficiary children.

III. RESEARCH METHODOLOGY

This research methodology outlined the procedures that the researchers utilized to conduct the study. This section of the study discusses the research design, instrument of the study, data analysis, and ethical considerations.

3.1 Research Design

The study utilized descriptive research design. The qualitative research approach was applied to carry out the research study in a natural setting and allows the researcher to become part or involved in the study. It intends to develop a deep exploration, understanding, and interpretation of a phenomenon. Specific to this study, the researchers attempted to make a deep description of the phenomenon through the use of a variety of techniques such as focus group discussion (FGD), key informant interviews, and activity reflection.

3.2 Instrument of the Study

The study utilized a self-constructed, semi-structured interview guide with open-ended questions developed by the researchers. The questions answered the needed data on the research problem regarding the impact of the Nutriskwela project implemented by the School of Tourism and Hospitality Management for the Extension Program in the identified target community. Two (2) sets of interview guides were developed: one for the Focus Group Discussions (FGD) with the mothers of beneficiary children who were recipients of nutrition education programs; and another for the Key Informant Interview (KII) with Barangay Nutrition Scholar (BNS) as frontline nutrition educators and Barangay Councilor. The interview guide was validated by an expert for its accuracy and reliability.

3.3 Data Analysis

The participants were interviewed to examine and investigate their experiences of community service programs after obtaining consent from the Barangay Captain. Using a semi-structured interview methodology, open-ended questions were used to interview the participants. The questions were then recorded and transcribed to create a thematic analysis that would help interpret the data. The data were analyzed through manual thematic analysis where the interviews were first transcribed, then the transcriptions were coded and themes were extracted from the interviews. By assigning the coding categories to the verbatim data, a systematic technique and an inductive approach were used to conduct a thorough analysis of the data. To allow the themes to emerge from the raw data, the notes were read and reread before the codes were obtained from the interview transcripts.

Data collected from FGDs and KIIs were analyzed using thematic analysis and CES moderators' reflections were analyzed using simple descriptive narrative analysis.

3.4 Ethical Considerations

This study was conceptualized, planned, gathered, and treated the data in consonance with the ethical standards and considerations of research. The identities of the participants of the study were kept confidential; their consent was asked if they were willing to participate and that their names may be written in the manuscript. This was documented by writing their names and signatures on the interview sheet. The same is true with those who refused not to be named. Their decision was also respected as the paper progressed. The administration of the interview guide also followed the protocol of research, all was properly coordinated. The participants were given enough time to answer the interview guide.

The informed consent form was explained before the conduct of the study. The expected output from the participants, the amount of time required for participation, the expected risks and benefits, the fact that participation was discretionary, and participants could withdraw at any time with no negative repercussions, and the protection of confidentiality of their response, were considered.

IV. RESULTS AND DISCUSSION

In order to answer the research questions and complete the research study, it is essential to analyze the data thoroughly that is collected during the study. This section presents the study's findings, derived from the research results using a qualitative method. The findings were obtained through a qualitative data analysis technique which involved thematic analysis of the interview responses. This section also examines the key results with the intended research question, which is the base of this research study.

The researchers presented the significant findings necessary to draw conclusions and make recommendations. Researchers formulated different themes based on the in-depth interviews conducted, and data verification was performed through document trails to ensure the accuracy of each claim. The impact of Nutriskwela on the nutritional status of the children beneficiaries and the nutrition knowledge of the mothers who participated in mothers' classes and on their capability building were discussed in this section. The impact of the project on the community as planned and unplanned in terms of economic, social, and environmental aspects was presented. Also, both planned and unplanned gaps were discussed. Issues and concerns in the implementation of the project in terms of mothers' class and livelihood programs were likewise examined.

4.1 Impact of Nutriskwela project to the community as planned

4.1.1 Economic

Table 1 Economic Impact of Nutriskwela Project to the Community as Planned

Codes	Themes	Interpretation
<ul style="list-style-type: none"> • Livelihood activities- bangus na sardinas • Livelihood activities-alamang 	<ul style="list-style-type: none"> • Food Processing 	Economic Impact of Nutriskwela Project to the Community as Planned

Focus Group Discussion (FGD) determined the different livelihood activities provided by the Colegio that benefitted the community. Several studies showed that food alone does not guarantee improved nutritional status. The child’s nutritional status is a function of not only the quality and quantity of the dietary intake but also an interplay of morbidity, child-caring practices, and household variables such as income and parental education (https://www.nutrition.gov/Retrieved: 24 January 2017). The implementers of the Nutriskwela project recognized the need to reinforce the program through the inception of the mother’s class. Mother’s class aimed at educating the parents primarily the mothers of beneficiary children for continuous improvement of the nutritional status of children at home. Mothers were taught livelihood activities such as food processing which could be a source of income to support the dietary intake of undernourished children at home. Some mothers who used the knowledge gained in livelihood programs helped them earn an additional income for the family.

According to Participant 1, “*Ang napag-aralan ko diyay ay may livelihood program na nabuo noon ung sa prutas, binigyan ng puhunan, bumili sila ng prutas at ibinenta nila. (4. P1.S1) Ung sa pagluluto naman nila ng alamang at saka ng sardinas na bangus, naistop din po un pero ung puhunan ay nanatili po at ang ginagawa po namin ay ibinibili po ng bigas bago ipinapautang ang bigas. (4. P1.S2) Kumita naman po, nandun ung puhunan pero ung mga members po ay umalis na. (4. P1.S3) Kumbaga ano lang, ung iba na ayaw, halimbawa ay ayaw ka na, ung incentive mo ay makukuha mo, ung tinubo. (4. P1.S4).*”

4.1.2 Social

Table 2 Social Impact of Nutriskwela Project to the Community as Planned

Codes	Themes	Interpretation
<ul style="list-style-type: none"> • Feeding Nutritious Foods to Children • Improved Height and Weight • Strong Immune System 	<ul style="list-style-type: none"> • Improved Nutritional Status of Children 	Social Impact of Nutriskwela Project to the Community as Planned
<ul style="list-style-type: none"> • Food Preparation • Effective Strategies in Food Preparation 	<ul style="list-style-type: none"> • Gained Nutritional Knowledge 	

Focus Group Discussion (FGD) determined the nutritional status of beneficiary children. Results revealed that there was an improved nutritional status of undernourished children since their mothers attended the mothers’ class and applied the knowledge gained in preparing nutritious foods at home for the family. Most of them applied the strategies learned like mixing vegetables in their viand by cutting it in very small pieces or mashing it in a way that the children will not be able to notice since there are children who do not eat vegetables. It helped also the mothers in feeding their children with nutritious food especially those who have children not eating vegetables as Participant 3 stated, “*Dun din sa food na maghahalo ka ng gulay na hindi nila makikita pero ihahalo mo para lang makain nila kasi ung iba po ay hindi kumakain ng gulay.*” Also, as mentioned by Participant 2, “*Nililiitan ang hiwa, di nila alam na sitaw yun, yung sitaw nililiitan ng hiwa.*” The height and weight of the children improved. It was observed by the mothers through the bodybuild of their children. Underweight children gained weight as well. The parents have evidenced the improvement of their children’s health only physically although the Body Mass Index (BMI) was not checked regularly. The mothers were able to give the nutrition the children needed at the right age. According to Participant 2, “*Siguro naman po may napakinabangan ung pagtuturo ng ganon kasi kagaya po nun ung mga panahon na ung mga tinitimbang naming ay maliliit pa below 5 years old po ung tinitimbang po namin underweight po sila pero ngayon syempre ung iba ay high school na eh talaga pong minsan nagugulat po kami, ikaw ba un ang liit mo noon pero ngayon ang laki-laki mo na. (4. P2.S2) Kumbaga noong maliit pa sila mga medyo malnourish, medyo mababa ang timbang pero ngayon naman po malalaki sila, kumbaga as in malulusog sila, kumbaga may improvement. (4. P2.S3).* Likewise, mothers mostly validated that their children occasionally get sick because their children get the right nutrition that makes their immune system strong as Participant 9 shared, “*Magandang ano naman siya kasi maging and mga anak naming ay di na masyadong sakitin, mga ganon kasi nanormalize na naming ung pagkain ng mga gulay.*” Also, the feeding program was recalled as part of the Nutriskwela project although it was not continuously implemented.

Moreover, FGD discovered the nutrition knowledge gained by the twenty-eight (28) mothers of beneficiaries during the mother’s class. Topics discussed were Utilization of the food around the area (e.g. fish, vegetables), Preparation of the utilized food with demonstrations, Safe Food Preparation, and Nutrition. Results revealed that most of the mothers who attended the FGD cannot recall the mother’s class conducted by the faculty members of the School of Tourism and Hospitality Management. It is reasonable that some of them had difficulty recalling the learnings gained, as the activities were conducted one to four years ago Participant 6 said, “*Matagal na nga po kaya di na po maalala.*” According to the article published in PsyBlog’s archive about how memory works (“Memory and Recall”, 2012), memories become harder to access without rehearsal. This means it is not the memory that is going off but the ability to retrieve it. On the other hand, those who remembered the mothers’ class had selective memory. Some mothers who recalled something about the lecture-seminars they attended, cited preparation of nutritious foods and utilization of the food around the area as the topic they attended as Participant 1 stated, “*Yun nga, ang natutunan po naming ay paghahain ng masustansiyang pagkain katulad po ng nabanggit ni BNS na dito lang sa barangay makikita mo na ung mga gulay-gulay na dapat ay bibilhin mo pa pero meron naman sa bakuran.*” They became more conscious when it comes to the preparation of nutritious foods for their children. They acquired knowledge that the simple vegetables grown in their own backyard can be a nutritious source of food. When asked whether they learned or not, they said they learned a lot and were able to apply their learnings mostly at home. Cooking squash soup was one of the foods that they cannot forget among other food taught by Letran that their family liked the most as stated by Participant 2, “*Di ko malilimutan ung squash soup, ginagawa ko rin naman po sa amin, nasarapan din naman po sila. Nagustuhan ng anak ko at ng mister ko yung squash soup, ito yung natutunan ko sa pagtuturo ng Letran po.*” One of them was able to use the knowledge gained in preparing food for children in the Day Care and others for feeding program as stated by Participant 4, “*Sa akin po nung nagluluto ako sa Day Care, ginagayat ko ng maliliit ung mga gulay par lang po makain ng mga*

bata. (5. P4.S1).” Similarly, nutrition knowledge gained was applied in caring for oneself, especially by eating nutritious foods from the start of pregnancy until delivery. Eating the right foods will help mothers give the nutrition their child needs during breast-feeding as mentioned by Participant 1, “Saka isa pa ang natutunan po namin talaga ay pangalagaan ang kalusugan specially sa pagbubuntis pa lang eh nasusustain na yung kalusugan ng baby dahil un nga po ung mga magulang kumakain na ng masusustansiyang pagkain hanggang sa panganganak, ung pagpapabreast-feed kumbaga dala ng ano, natutunan nila ng mga babae na pangalagaan ang kanilang mga sarili, pagkain ng masustansiyang pagkain at sa paglaki ng kanilang mga anak ay supervised po nila ung tamang pagpapakain ng masustansiyang pagkain. (3. P1.S3).”

In addition, based on the reflection of project moderators during AY 2017-2018, brochures about proper food handling and preparation of nutritious foods were distributed to the families that served as their guide in preparing their food. Likewise, the mothers recalled the different foods prepared and cooked as part of the livelihood program like the food processing. According to Participant 2, “Sa livelihood, ito yung ginawang alamang saka yung bangus na sardinas, yung sardinas na ginawang, ahh ung bangus na ginawang sardinas. (1. P1.S4) Nilagay nila sa bote, tapos inisteam. (1. P1.S5).”

4.1.3 Environmental

Table 3 Environmental Impact of Nutriskwela Project to the Community as Planned

Codes	Themes	Interpretation
<ul style="list-style-type: none"> Nutritious food found everywhere 	<ul style="list-style-type: none"> Food Security (Edible Gardening) 	Environmental Impact of Nutriskwela Project on the Community as Planned

FGD determined the realization of mothers in the importance of having an edible garden in every home to have a cheaper source of nutritious foods to serve on their table. They learned that nutrition cannot be obtained from the expensive food but from the cheaper ones that they can get from their own garden as mentioned by Participant 2, “Hindi naman po ang natutunan namin doon na hindi po sa presyo, hindi sa sarap kumbaga ang sustansiya po kahit diyan lang sa pali-palibot natin masusustansiyang pagkain ay makukuha natin hindi sa mamahaling pagkain lang. (2. P2.S2) Kasi un nga po sa malunggay lang, kalabasa lang is makukuha na natin ang sustansiya, ung makakapagpalusog sa mga bata. (2. P2.S3).”

4.2 Impact of Nutriskwela project on the community not according to the plan

4.2.1 Economic

Table 4 Economic Impact of Nutriskwela Project on the Community Not According to Plan

Codes	Themes	Interpretation
<ul style="list-style-type: none"> Cheaper Source of Nutritious Foods Free Source of Nutritious Foods 	<ul style="list-style-type: none"> Food Security 	Economic Impact of Nutriskwela Project on the Community not According to Plan

FGD revealed that it cuts the cost of mothers in buying the nutritious ingredients to be used in their everyday menu preparation for their family because they can get it everywhere like malunggay and also from their own garden.

4.2.2 Social

Table 5 Social Impact of Nutriskwela Project on the Community Not According to Plan

Codes	Themes	Interpretation
<ul style="list-style-type: none"> Happiness of Mothers Seeing their children happy Effect of Artificial Flavorings 	<ul style="list-style-type: none"> Satisfaction of the Children for Other Programs Provided by the Colegio Awareness on the Use of Flavor Enhancers and Seasonings 	Social Impact of Nutriskwela Project on the Community not According to Plan

FGD recalled that the programs provided by the college always made the mothers happy seeing their children fulfilled and satisfied as revealed by Participant 5, “Un nga po ung mga bata pag nakikita namin masaya hindi po naming makalimutan ung tulong na ginagawa ng Letran kasi pag nakikita naming masaya ang mga bata ay sobrang sarap po sa pakiramdam. (10.P5.S1).” Likewise, the mothers realized that adding artificial flavorings in the food is not good for the health and must be avoided as said by Participant 2, “Un po ung ano natutuhan namin na dito pag nagluluto sila diyan maraming gumagamit ng kunwari mga vetsin hindi po ayun kahit hanggang po sa ngayon are ung naano ko na hindi dapat gumamit ng mga vetsin hindi dapat gumamit ng mga ganyan mga artificial kasi hindi un tama kaya kahit ngayon ang mga anak ko ay matatanda na hindi ko nakagawian na gumamit ng mga vetsin, ung mga pampasarap. (8.P2.S1).”

4.2.3 Environmental

Table 6 Environmental Impact of Nutriskwela Project on the Community Not According to Plan

Codes	Themes	Interpretation
<ul style="list-style-type: none"> Growing Vegetables in their Backyard 	<ul style="list-style-type: none"> Edible Gardening 	Environmental Impact of Nutriskwela Project on the Community as Planned

FGD ascertained that some of the mothers started to grow vegetables in their own backyard to have nutritious food always in the home and served on their table fresh without any chemicals. Edible gardening was also expanded to their barangay to benefit the community.

4.3 Gaps

The activities in the Nutriskwela project were implemented for five consecutive years by the STHM faculty moderator and student volunteers. Activities given were according to the needs assessment done in the community before the start of the project implementation which was handled by four different faculty-moderators. As a result, there was no continuity in the activities implemented in the community. Also, not all of the families were given the chance to participate because of the proximity of their houses. Only those families located near the barangay hall were given the chance even though the secretary was informed of the activities ahead of time.

4.4 Issues and Concerns in the Implementation of the Nutriskwela Project

4.4.1 On Mothers' Class

Table 7 Issues and Concerns in the Implementation of the Nutriskwela Project on Mothers' Class

Codes	Themes	Interpretation
<ul style="list-style-type: none"> Not interested mothers No continuity in the implemented activities Proximity of other participants 	<ul style="list-style-type: none"> Issues and concerns in the implementation 	Issues and Concerns in the Implementation of the Nutriskwela Project on Mothers' Class

The specific aim of transforming the nutritional status of certain beneficiary children from undernourished to well-nourished, however, was not completely successful. The Barangay Nutrition Scholar (BNS) identified several factors contributing to this. At the beginning of the program, some mothers showed little interest in their children's anthropometric measurements because they were preoccupied with leisure activities such as playing bingo. These mothers prioritized their vices over the health of their children. Additionally, some mothers displayed a lack of interest in feeding their children during feeding programs.

Mandal (2012) states that malnutrition is the result of insufficient essential nutrients in one's diet. Treatment varies based on multiple factors, including the severity of malnutrition, its underlying cause, the ability to feed oneself, and the capability to eat and digest food normally. Age, mental condition, and living environment should also be taken into account. While supplemental feeding can enhance children's weight, results are not immediate. Enhancing nutritional status requires time. According to data collected from reflections of the project moderators, there was a lack of consistency in executing activities in the barangay, such as accurately monitoring the height and weight of the beneficiary children. Moreover, the activities were not documented effectively. It was also noted that only those residing near the barangay hall benefited from the activities, while other mothers were occupied with providing food for their children at school and managing household responsibilities during activity times. Oftentimes, individuals from distant Purok were not served.

Furthermore, reflecting on the project for AY 2017-2018, the Project Moderator observed that most mothers were eager to learn about preparing nutritious meals and possessed a fundamental understanding of nutrition. The Project Moderator also noted that holding seminars and distributing brochures were insufficient for achieving the goal of a sustainable initiative to combat malnutrition. Similarly, the reflections from the Project Moderator for AY 2018-2019 indicated that educating parents through lectures and seminars alone wasn't enough for the project's sustainability; there should also be comprehensive evaluation and monitoring of activities, particularly concerning the BMI of the beneficiary children to assess and monitor their health effectively.

4.4.2 On Livelihood Programs

Table 8 Issues and Concerns in the Implementation of the Nutriskwela Project on Livelihood Programs

Codes	Themes	Interpretation
<ul style="list-style-type: none"> The continuity of the activities 	Issues and concerns in livelihood programs	Issues and Concerns in the Implementation of the Nutriskwela Project on Livelihood Programs

FGD revealed that there was no continuity in the training conducted in the barangay. Only a few trainings were also reflected in the documentation submitted by the Project Moderators since each of them handled the project for only a year. The sustainability of food production was not attained.

Summary of Significant Findings

The impacts of the Nutriskwela project on the community as planned in terms of social, economic, and environmental aspects were determined through FGD. Results revealed in terms of social aspect that there was an improved nutritional status of undernourished children since their mothers attended the mothers' class and applied the knowledge gained in preparing nutritious foods. Some mothers who recalled something about the lecture seminars they attended, cited preparation of nutritious foods and utilization of the food around the area as the topic they attended. They became more conscious when it comes to the preparation of nutritious foods for their children. They also acquired knowledge that the simple vegetables grown in their own backyard can be a nutritious source of food. Mothers said they learned a lot and were able to apply their learnings mostly at home. Similarly, nutrition knowledge gained was applied in caring for oneself, especially by eating nutritious foods during the start of pregnancy until delivery and during breastfeeding which helped mothers give the right nutrition to their children. Likewise, the mothers recalled the different foods prepared and cooked as part of the livelihood program like food processing. Results ascertained the impact in terms of economic aspect that some mothers who used the knowledge gained in the livelihood program helped them earn an additional

income for the family. Lastly, results determined the impact in terms of environmental aspect the realization of mothers in the importance of having an edible garden in every home to have a cheaper source of nutritious foods to serve on their table. They learned that nutrition cannot be obtained from the expensive food but from the cheaper ones that they can get from their garden. Similarly, the impacts of the Nutriskwela project on the community not according to plan in terms of social, economic, and environmental aspects were also identified through FGD. Results revealed the impact in terms of that the programs provided by the college always made the mothers happy seeing their children fulfilled and satisfied. Results showed the impact in the economic aspect that it cuts the cost of mothers in buying vegetables to be used in the food that they prepare for their children because of growing vegetables in their garden. Lastly, results also revealed the impact in terms of the environment that some of the mothers started to grow vegetables in their backyard to have nutritious food always in the home and served on their table fresh without any chemicals. Edible gardening was also expanded to their barangay to benefit the community.

The gaps both planned and unplanned were determined by FGD. The activities in the Nutriskwela project were implemented for five consecutive years by the STHM faculty moderator and student volunteers. Activities given were according to the needs assessment done in the community before the start of the project implementation which was handled by four different faculty-moderators. As a result, there was no continuity in the activities implemented in the community.

About issues and concerns, the Nutriskwela project was not without challenges during its implementation. The planned impacts of Nutriskwela based on the strategic and operational plans were: (1) improvement of nutritional status to undernourished children in the barangay as a result of conduct of mothers' class; (2) increased nutritional knowledge of the mothers of beneficiary children; (3) capability building to sustain the nutrition of children beneficiary as a result of mothers' class; and (4) sustainability of food production and its corresponding market through market study and formation of association of mothers for livelihood purposes. Among the planned impacts, the sustainability of food production and its corresponding market were not attained. The constraints identified were time and funds to support the market study and form the association. Also, the continuity in the implementation of the activities was not maintained.

Nutriskwela is a nutrition education project which aims to assist in the improvement of the nutritional status of preschool children. The project is significantly relevant to the department as the major courses offered are nutrition, culinary, food, and beverages which are directly applicable in the application of the theories learned at school. On the other hand, it is also relevant to the beneficiaries since a great number of preschools nowadays are mostly considered undernourished.

V. CONCLUSION

The effectiveness of the seminars and training was evident in several ways. Livelihood program knowledge gained is used as an additional source of income for the family, and edible gardening cuts the cost of the mothers in preparing nutritious food for the family economically. The children beneficiary improved their nutritional status during the covered period of implementation; mothers of children beneficiaries gained knowledge in terms of proper nutrition, safe food handling, and good parenting; the project demonstrated an influence on home-eating and cooking practices; and mothers' class were effective at imparting food production knowledge, which can help in the capacity building of mothers of children beneficiary socially. However, the Body Mass Index (BMI) was not checked regularly and not documented, the mothers based only the nutritional status of their children on their body build. Mothers started to grow vegetables and other nutritious foods in their backyard and serve them fresh on their table, and edible gardening was expanded to their barangay to benefit the community environmentally.

The Nutriskwela project activities of STHM for Barangay Masili were well implemented. Seminars and training activities on proper food preparations and production for mothers of beneficiaries were likewise conducted. The aim to increase the knowledge of the mothers of beneficiary children particularly in the aspect of nutrition and safe food preparation was attained. Mothers of beneficiary children learned about food safety and the importance of proper nutrition for children. The participants applied the knowledge gained in Mothers' Class at home for their family and in the Livelihood training and seminars conducted that helped to improve the nutritional status of their children. However,

The activities in the Nutriskwela project were implemented for five consecutive years by the STHM faculty moderator and student volunteers. Activities given were according to the needs assessment done in the community before the start of the project implementation which was handled by four different faculty-moderators. As a result, there was no continuity in the activities implemented in the community. Also, not all of the families were given the chance to participate because of the proximity of their houses. Only those families located near the barangay hall were given the chance even though the secretary was informed of the activities ahead of time.

Issues and challenges faced by the Nutriskwela project include: incomplete documentation of weight, height birthdate, and other documents; monitoring of anthropometric measurements; and sustainability of food production learned from the mothers' class.

VI. RECOMMENDATIONS

Based on the findings presented, here are some recommendations for further enhancing the impact of the seminars and training and sustaining the project:

1. Continuity of the project and continuous monitoring and evaluation of the livelihood programs. A continuous program on educating the community must be considered to be more sustainable.
2. It was recommended to have continuous proper monitoring and evaluation of the Body Mass Index (BMI) of the same sets of children to keep track of their nutritional status.
3. To ensure the sustainability of food production learned from the Mothers' Class, an association can be formed or a tie-up with business owners within the area can be initiated by the implementers to market the products produced by beneficiary mothers.
4. An update to the parents' budget-friendly nutritional food demonstration is important.

On the other hand, there must be continuity in the activities provided to the partner community.

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