Lived Experiences of Health Workers in the Implementation of Soil-transmitted Helminthiasis Deworming Program in South Cotabato: A Phenomenological Inquiry

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ABSTRACT

Background. The deworming program, also known as preventive chemotherapy, is one of the most important strategies in combatting Soil-transmitted Helminthiasis. With more than two decades of implementation, only a few countries have reached the target deworming coverage of 75% by the World Health Organization (WHO). In the Philippines, the national deworming coverage from 2018 to 2022 is still below both the WHO and the Department of Health's target deworming coverage. As a result, there is an increasing prevalence of soil-transmitted helminthiasis among populations in endemic areas in the country including South Cotabato.

Objective. The purpose of this qualitative study was to describe the experiences of health workers in the implementation of the STH deworming program in South Cotabato, specifically their lived experiences in implementing the deworming program, the challenges and issues they encountered during the implementation, coping strategies, and their insights about the status of the deworming program in the province and how to improve it.

Methods. Seventeen health workers implementing the deworming program in the province of South Cotabato were interviewed through in-depth interviews and focus group discussions. Interviews were conducted online due to mobility restrictions during the pandemic. The transcripts were analyzed using Colaizzi's descriptive phenomenological method and essential themes were formulated.

Results. Our analysis revealed that health workers' lived experiences revolve around ensuring the quality implementation of the program such as combatting misconceptions about deworming through house-to-house visitation and education campaigns, reaching far-flung areas, and ensuring children are in good health condition before taking a deworming medicine. Common challenges experienced by the participants were the misconceptions and disinformation regarding deworming, the limited and difficult access to some areas, problems in logistics, and the limited support of some stakeholders. Moreover, participants cited the

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importance of good community engagement, active involvement and commitment of stakeholders, providing support to health workers, and robust monitoring and evaluation of the program in improving the implementation of deworming.

Conclusion. In the context of this study, there is still a need to intensify the training for implementers to cater more effectively to the concerns of the people and debunk misconceptions about the program. Utilization of various media for information dissemination, enhancing access to hard-to-reach areas, and strengthening community engagements, particularly with barangay and local government officials are essential to address the gaps in the implementation. There must also be improvements in monitoring and evaluation of the program, and additional support and incentives to healthcare workers to sustain implementations.

Keywords: lived experiences, health workers, deworming program, soil-transmitted helminthiasis, phenomenological method

INTRODUCTION

For more than two decades, deworming or preventive chemotherapy, the large-scale periodic use of anthelminthic or deworming medicines for populations at risk of Soil-transmitted helminthiasis (STH) remains the major strategy recommended by the World Health Organization (WHO) for preventing STH-related morbidity.[1] Deworming can be implemented by giving deworming medicines to the entire population (mass drug administration), specific groups at risk (targeted chemotherapy), and screened or suspected STH-infected individuals (selective chemotherapy).[1]

Currently, the WHO recommends deworming as a public health intervention for preschool and school-age children, non-pregnant adolescent girls, women of reproductive age, annually or biannually using single-dose albendazole (400 mg) or mebendazole (500 mg), particularly in STH-endemic areas with 20% or more baseline prevalence of any STH. Deworming is also recommended among pregnant women after the first trimester who live in areas with a 20% or higher baseline prevalence of hookworm and/or *Trichuris trichiura* infection in pregnant women and an anemia prevalence of 40% or higher among pregnant women.[1] Based on WHO's consolidated evidence, deworming medicines used such as albendazole and mebendazole show significant egg reduction rates above the reference threshold, establishing the deworming medicines' efficacy in reducing STH-related morbidities.[1]

However, even with the long years of its implementation, the deworming program continues to face a lot of challenges and one of the biggest hurdles is the low deworming coverage. In the recently published road map by the WHO for Neglected Tropical Diseases in the years 2021–2030, the proportion of preschool-age children (PSAC) and school-age children (SAC) covered by the deworming program worldwide is still at 59 percent, which is lower compared to the 75 percent target by the year 2020.[2] On top of that, among the 75 countries identified to have at least 75 percent deworming coverage for PSAC and SAC by 2020, only 21 of these countries have reached the target coverage.[2]

In the Philippines, the intensive campaign for administering several medications like albendazole, as part of the WHO and the DOH's deworming program is amplified by setting the deworming coverage in the entire country at a ceiling target of 85 percent.[3] However, the lack of policy for CDC-based deworming which includes institution-based and non-institution-based delivery continues to confront the effort of controlling STH. This was evident in the number of regions in the Philippines that did not reach the target deworming coverage. In 2017, the deworming coverage estimated and reported by the Demographic and Health Surveys (DHS) was 48 percent while the WHO reported a 75.7 percent national deworming coverage in the same year.[4] According to the data presented by the Neglected Tropical Diseases - Management Information System of the DOH, particularly for STH deworming coverage in 2018, 12 out of 17 regions in the Philippines are still below 50 percent in their PC coverage, with three regions reaching more than 50 percent. Only two regions, namely Region X and Autonomous Region of Muslim Mindanao (ARMM) have a PC covering beyond 85 percent.[5] From 2019 to 2022, the WHO[6] reported a consistent decline in the national coverage of STH deworming program in the Philippines for school-aged children. In 2019, the deworming coverage for school-aged children was 58.55 percent, decreasing to 57.66 percent in 2020, 45.03 percent in 2021, and 41.56 percent in 2022. In the same years, there has also a decreasing trend in the national STH deworming program coverage in preschool-aged children. In 2019, the national coverage was 60.3 percent. In 2020 and 2021, the national coverage was 55.38 percent and 52.22 percent, respectively. There was an increased national deworming coverage from 2021 to 2022 at 73.7 percent but still fell short of reaching the target deworming coverage of 85 percent in the country.[6]

As a result of the low deworming coverage, a spike in STH cases was observed. In 2020, the prevalence of STH particularly in PSAC is 50.2 percent while for the SAC is 41.3 percent (V. Belizario, Jr., personal communication, November 14, 2020). According to the Act to End NTDs East[7], STH is still endemic to the 82 provinces in the Philippines including South Cotabato.

Some identified barriers to deworming programs are rooted in the fear of the respondents from the adverse effects of the deworming medicines on their child, distrust of the person administering the medications, and doubts about the effectiveness of the deworming medicines.[8] Some challenges were also rooted in the misconception specifically

on the side effects of the deworming medicine as spread by some individuals in the community, the inequity in the distribution of deworming medicines, and other gender-biased perceptions.[4,9] While the DOH and Department of Education (DepEd) already intensified the orientation for the parents to address their questions and concerns about deworming to alleviate the problems mentioned previously, the deworming coverage in the country is still low.[10]

Several enablers for the deworming program were also identified by some authors. The enablers of good deworming implementation include the preference of the population that the deworming medicines be distributed per household, the benefit of having access to free deworming medicines through Mass Drug Administration (MDA), the empowerment that comes with the ability of women to decide on the welfare of their family members; the good community structure, the numbers of the volunteers in the community, presence of partners who train community drug distributors, the availability of funding, and the presence of the religious and cultural groups.[11,12]

In South Cotabato, data from the South Cotabato Integrated Provincial Health Office (SCIPHO) for their community-based mass deworming accomplishment report for STH reveals a decreasing trend in the total deworming coverage as coverage in July 2018 is at 45.45 percent, January 2019 is at 44.00 percent, January 2020 is at 42.00 percent, and July 2020 is at 57.00 percent.[13] As observed from the given data, the deworming coverage in the province is slacking off way farther from the 85 percent target coverage of the DOH.

Additionally, according to the first national STH baseline prevalence survey conducted by Soares Magalhães et al.[14], South Cotabato is among the provinces with high predictive prevalence for *Ascaris lumbricoides* (20-50%), *Trichuris trichiura* (10-50%), and Hookworm (10-30%). South Cotabato is also one of the provinces in the Philippines with SAC that have low functional literacy due to STH infections.[15] Therefore, there is a need to be more aggressive in reaching out to communities to take part in the deworming program to lessen the burden of STH in the province.

As evidenced by the mentioned scenario and recent reviews, this phenomenological study was conducted to describe and understand the perceptions and experiences of the health workers in the implementation of the STH deworming program in South Cotabato to further investigate the problem of low deworming coverage. Specifically, this study aimed to unfold the lived experiences of the participants in implementing the STH deworming program in South Cotabato, understand how the participants cope with the challenges regarding the implementation of the STH deworming program, and finally, solicit insights from the participants to improve the deworming program in the province.

The researcher used Colaizzi's descriptive phenomenological method in analyzing the set of data taken from interviews of the participants that is comprised of seven steps: familiarization, identifying significant statements, formulating meanings, clustering themes, developing an exhaustive description, producing the fundamental structure, and seeking verification of the fundamental structure. Colaizzi's method helped the researchers extract relevant information from health workers who implement the STH deworming program in the field—educating the community about the program and distributing the deworming medicines. Since they directly interact with the community, their first-hand experiences and thorough understanding of what happens on the ground become indispensable and reliable sources of information.

MATERIALS AND METHODS

Research Design

In this study, we utilized the phenomenological research design, a specific type of qualitative research that involves philosophical and psychological inquiries that can describe the lived experiences of the participants regarding a certain phenomenon.[16] Phenomenological research design is apt to be used in this study since this research design is best to provide a meaningful understanding of the reality by focusing and exploring on the actual experiences of the participants.

Participants

A total of 17 health workers who are implementing the deworming program in the province of South Cotabato were interviewed. Three of them are nurses, three are midwives, and 11 are BHWs. We used purposive sampling in selecting the participants since according to Elo et al.[17], purposive sampling is best for qualitative studies especially when the researcher is interested in participants with the best knowledge about the topic.

For the inclusion criteria, all participants must be health workers involved in implementing the STH deworming program in South Cotabato. They must have at least two years of participation in the implementation of the STH deworming program in the province. Those who did not meet the criteria mentioned above were excluded from the study.

Data Collection

We first sought approval from the Dean of the Graduate School of the University of the Immaculate Conception (UIC) and obtained ethical clearance from the UIC Research Ethics Committee (REC) before the conduct of the data collection (Protocol Code: AI-GS-27-09-2021). We also submitted the interview guide to three experts for validation. Then, we asked permission from the heads of the SCIPHO and health offices in South Cotabato to interview their health workers who have been part of the implementation of the STH deworming program in the province. Soon after the heads of the different offices granted the interviews and after they identified the participants eligible to take part in the study, we immediately informed the participants about the purpose of the interview.

After that, the participants were asked to read, comprehend, and sign the informed consent form (ICF). Due to the Inter-Agency Task Force for the Management of Emerging Infectious Diseases (IATF) restrictions involving limitations to onsite and up-close interactions, the interviews were done virtually, via Google Meet, and each interview session was recorded with the consent of the participants.

Data Analysis

The data analysis technique that was used was anchored to the framework of Colaizzi's descriptive phenomenological method to answer the research questions of the study. This method of analysis is comprised of seven steps that require intensive analysis with each step being close to the collected data and is also commonly used in health science research. The result of this analysis is a thorough and well-described experience of the participants, and these participants can also check the data themselves which is also a good form of validation of the data gathered.[18]

RESULTS

Profile of the Participants

Table 1 shows the list of the study participants with descriptions of their type of participation, current position, and the number of years spent in the deworming program. Ten health workers implementing the STH deworming program in South Cotabato were interviewed through IDI while seven of them were interviewed through FGD. Out of the 17 participants, three of them are midwives, three are nurses, and 11 are BHWs. As for their years of service, nine of these health workers have been implementing the STH deworming program in their respective municipalities in South Cotabato for more than 10 years while eight of them have spent less than 10 years in service, a minimum of two years.

Table 1. List of the Study Participants with Descriptions of their Type of Participation, Current Position, and the Number of Years Spent in the Deworming Program

Code of the Participants	Type of Participation	Current Position	Years Spent in the Deworming Program
HW1	IDI	Midwife II	16
HW2	IDI	BHW	11
HW3	IDI	BHW	19
HW4	IDI	BHW	5
HW5	IDI	Nurse	7
HW6	IDI	Midwife II	2
HW7	IDI	Nurse	7
HW8	IDI	BHW	5
HW9	IDI	Nurse	3
HW10	IDI	Midwife	6
HW11	FGD	BHW	5
HW12	FGD	BHW	18
HW13	FGD	BHW	30
HW14	FGD	BHW	25
HW15	FGD	BHW	12
HW16	FGD	BHW	14
HW17	FGD	BHW	30

IDI – In-depth Interview, FGD – Focus Group Discussion, BHW – Barangay Health Worker

Lived Experiences of Health Workers in the Implementation of the STH Deworming Program

Four essential themes emerged from the analysis of the transcribed responses of the participants regarding their experiences in the implementation of the STH deworming program in South Cotabato. The essential themes are: *Intensify Community Education on STH Deworming Program, Ensuring Quality Service Delivery, Existing Disparity of Access to Health Care, and Monitoring Health Outcomes.* These can be seen in Table 2.

Intensify Community Education on STH Deworming Program

As narrated by the participants, their lived experiences in implementing the STH deworming program in the province of South Cotabato can be summarized into how they can reach more people and how they can effectively deliver the program.

As shown in the following responses, the participants described how they encountered some parents who refuse to have their children dewormed:

> *May mga parents na ayaw magpadeworm kahit na binigay mo na sya, sila mismo yung ayaw mag-painom na parents.* (IDI_HW08)
>
> Some parents refuse to deworm their children even if you have already given them the deworming medicines.

Because of this, health workers take their time to do house-to-house visits to deliver the deworming medicines in their respective communities and explain to the parents or guardians the benefits of the deworming program to convince them. Through their house-to-house visits, the health workers can also get the chance to answer the concerns of the parents, reducing the inhibitions of the parents and guardians towards the program. These experiences were shared in the following responses:

> *… ginabigay namin house to house. Kasi po… kung… fix yong post, hindi sila magpunta.* (IDI_HW01)
>
> We do house-to-house distribution of the deworming medicines because if they are asked to go to a specific area or post, they won't come.

Table 2. Lived Experiences of Health Workers in the Implementation of the STH Deworming Program

Intensify Community Education on STH Deworming Program	Ensuring Quality Service Delivery	Existing Disparity of Access to Health Care	Monitoring Health Outcomes
Misinformation about Deworming • Having to convince the parents on the benefits of deworming. • Dealing with parents' refusal to deworm their children.	***Follow the Program Requirements*** • Ensuring the absence of cold and cough during the intake of the deworming medicine. • Conducting deworming activities every six months.	***Transportation Problem*** • Experiencing a lack of transportation going to far-flung areas.	***Inability to Trace Adherence to Medical Prescription*** • Parents do not administer the received deworming medicines from health workers.
Conducting House to House Visits • Delivering deworming medicines to residences. • Visiting houses to explain the program.	***Communicate with Stakeholders*** • Sending letter to schools to implement the deworming program. • Distributing information materials about the deworming program.	***Misconception about Deworming in the Community*** • Parents have fears that worms may come out from their children's mouths, ears, and anus. • Expecting stomachache due to deworming.	***Hesitancy to the Prescribed Deworming Medicine*** • Doubting the effectiveness of the deworming medicine from the health center. • Requesting for branded deworming tablet.
Accessing Isolated Barangays • Walking 2-3 hours going to geographically isolated and disadvantaged areas.	***Implementation of the Program with the Community*** • Working with the community to render the deworming activity. • Conducting cluster activity with health workers - one-stop-shop.		

Since house-to-house delivery of deworming medicines became one of their major strategies, some health workers have difficulty reaching some areas in their community because they are geographically isolated areas. Some far-flung areas take approximately 2-3 hours to reach from the village.

The following responses reveal the struggle of some health workers to reach some areas in their communities:

> *bale ang mahirap lang dun … is yung mga far-flung areas, like mga sitios po…nagte-take ng 2–3 hours na walking lang.* (IDI_HW05)

> The difficult part of the implementation is to reach the far-flung areas like the sitios because it takes us 2-3 hours using walk alone.

Ensuring Quality Service Delivery

The health workers also shared how important it is for them to make sure that the community receives quality services and information about the deworming program. They identified that proper instructions must be given to the parents or guardians to minimize the side effects of the deworming medicines, like the child should not be experiencing any flu-like symptoms and/or cough before taking the deworming medicines, and they should be taking the correct doses of the deworming medicine at a correct interval (every after six months) through the guide of the health workers. The responses of the participants in ensuring that proper protocols are followed during the implementation of the STH deworming program are the following:

> *Kung nagaubo hindi niyo gid sila pagtagaan, kay bawal gid na sa mga bata, nang nagasip-on… sang purga.* (IDI_HW04)

> If the child has a cough or cold, do not give them the deworming medicine.

The health workers also identified that there is a need to intensify the chain of communication among partner institutions, especially the schools, in informing the children and their parents or guardians about the deworming activities and providing them with flyers so they can be educated about the program. Further, to properly manage the deworming program, health workers also recognized that there should be a close engagement with the community and involve different health workers like nutritionists, midwives, nurses, and BHWs during the conduct of the deworming program to properly assess the condition of the recipients of the program.

In the following responses, HW07 (IDI) and HW05 (IDI) gave the importance of information dissemination and strengthening community engagement in the success of the deworming program in their municipality:

> *…may mga flyers man kami nga ginahatag… para kung di gid man nila makuha ang instruction… mabasa nila sa mga flyers.* (IDI_HW07)

> We give out flyers in case they are not able to understand the instructions, they can read them on the flyers.

> *Nagbabayanihan…Nag-ka-cluster kami composed of nurses, midwives, BHWs, and BNS, so, one-stop shop yan, Sir.* (IDI_HW05)

> We do Bayanihan. We work in a cluster composed of nurses, midwives, BHWs, and BNS. It's like a one-stop shop, Sir.

Existing Disparity of Access to Health Care

One of the common challenges that the participants experienced in implementing the STH deworming program in their respective municipalities in South Cotabato is making the program more equitable to the community, especially in the far-flung areas. This factor is one of the several factors that could also explain why the province of South Cotabato has not reached the target deworming coverage for the past three years. Some sitios are geographically isolated and the transport mechanisms to reach these places are very limited.

In the cited response below, HW09 (IDI) narrated that they have a hard time reaching the far-flung areas to bring deworming medicines per family:

> *Ang pinakabudlayan lang namon nga part is tong sa mga far-flung areas gud kay medyo layo man gud.* (IDI_HW09)

> The toughest part (of implementing the program) is reaching the far-flung areas because they are quite far to reach.

In addition, the participants commonly mentioned the usual problem in deworming programs which is the fear of the parents that their children will suffer extreme side effects from taking the deworming medicine. Even without prior experience of such adverse effects, some parents take precautions from the talk of the town and refuse to submit their child to be dewormed. HW15 (FGD) narrated her experience with this problem:

> *… nahadlok sila tungod gani sang mga may ara sila mga nabatian nga istorya nga …ng bitok gani nga ga gwa sa baba.* (FGD_HW15)

> The parents are afraid because they heard of some stories that worms came out of the mouths of those who were dewormed.

Monitoring Health Outcomes

Another challenge that surfaced in the interview was the uncertainty of whether the parents or guardians administered the deworming medicines to their children or not. Some health workers said that there were instances when the parents just received the deworming medicine, but they just kept it or threw it away. This problem was experienced by HW12 (FGD), and her statement was:

> *…ang nanay kuhaon lang pagkatapos… sabat nila, oo ah painumon lang namon, pero hindi man painumon kag gina tago lang nila.* (FGD_HW12)

> Some mothers will only get the deworming medicines and will respond that they will let their children take them. However, they just keep it.

Some parents also developed a distrust of the quality of the medicines provided by the government which is why they refused their children to be dewormed. They doubt the effectiveness of the deworming medicines being distributed by the health workers. Sometimes, they also demand a branded deworming medicine to be given to their children. This concern is highlighted in the response below:

> *… daw wala sila salig sang purga nga makuha nila sa health center kay ang iban gapangita sang mga branded gid.* (IDI_HW07)

> They doubt the effectiveness of the deworming medicine they get from the health center and some of them ask for the branded ones.

Coping Mechanism to the Challenges in the Implementation of the STH Deworming Program

As the responses of the participants were analyzed, two essential themes encapsulate the ways the participants cope with the challenges that they encountered during the implementation of the STH deworming program in South Cotabato. They are: *Establishing a Good Relationship with the Community and Use of Health Information for Management Purposes*. These essential themes, together with the codes and core ideas, are presented in Table 3.

Table 3. Coping Mechanism to the Challenges in the Implementation of the STH Deworming Program

Establishing a Good Relationship with the Community	Use of Health Information for Management Purposes
Building Connections with Stakeholders	***Information Dissemination***
• Conducting group orientation and feeding programs. • Asking the barangay for food sponsorship.	• Conveying the benefits of deworming for the children. • Conducting house-to-house health education to parents.
Dedication to their Job	***Following the Program Protocol***
• Feeling happy with one's job. • Feeling fulfilled in rendering service to the people. • Developing love for the community. • Seeing the changes among the children.	• Asking parents to sign the deworming form. • Seeking the help of those in charge of the feeding of each purok. • Referring children to the concerned health workers.
	Follow-up Instruction
	• Asking them to repeat the instructions in administering deworming medicine. • Requiring them to give full attention to instructions. • Conducting daily and weekend visits. • Creating a centralized form of information dissemination.

Establishing a Good Relationship with the Community

To cope with problems encountered during the implementation of the STH deworming program in South Cotabato, the participants identified that it is essential to build a good rapport among the people in the community. It is a way to build trust and confidence of the people towards them and makes it easier for them to communicate effectively and carry out their duties well.

They also conduct feeding programs through the help of the barangay, and some of them even give candies to the children as a reward for their participation in the program. These strategies were mentioned by the participants in their responses as seen below:

> *…mag conduct sang feeding program para makahikayat.* (IDI_HW10)

> …to conduct a feeding program to encourage them to join (the deworming program).

> *Kung mag-deworm kami is usually gina tipon gid namon per purok ang mga parents no, para isahan ka orient.* (IDI_HW07)

> If we implement the deworming program, we usually gather the parents per purok to do the program orientation.

The participants also find delight in their job as a way for them to be more persistent in implementing the program even if problems arise on some occasions. Their dedication and purpose to serve their community fuel their drive to keep working despite the challenges they faced during the implementation. Some of them mentioned that when they see an improvement in the child's weight and overall nutritional status, they are more inspired to work.

The participants mentioned these work motivations as shown in the responses below:

> *daw napalangga ko na ang akon ubra ba, ng makabulig lang ko sa tao.* (FGD_HW13)

> I learned to love my work …that I was able to help others.

Use of Health Information for Management Purposes

The use of different means to communicate and inform the community about the benefits, potential side effects, and the general aim of the deworming program aids the participants to lessen, or in some cases, remove some of the problems that arise during the implementation of the program. Some of their problems, as cited in previous paragraphs, resulted from parents' or guardians' inhibition to having their children dewormed due to gossip in the community. With this, the participants highlighted their role as the ones who will educate the parents and guardians about the benefits of conducting the deworming program.

HW14 (FGD) shared her strategy for dealing with problems encountered during the implementation of the STH deworming program:

> *Information dissemination man lang… para makaintindi gid sila kung paano nila na i-care ang bata nila.* (FGD_HW14)

> We only need information dissemination to make sure that the parents understand how they can take care of their children.

The participants also ensure that they follow and share the correct protocols of the program with the parents whenever concerns are brought up to make sure that the recipients of the program are properly directed and well-informed. For example, when parents decided not to deworm their children, BHWs require the parents to sign the deworming form which aims to document that the parents declined that their child will be dewormed and are aware of the risks inherent to that decision. Moreover, if some children develop any side effects from taking deworming medicines, or if the child who is not dewormed experienced parasitism, the participants made it clear that the parents can still refer their child to the barangay health center for a checkup. Their statements are the following:

> *…sakaling hindi papayag yong mga magulang, kailangan naming magpapirma para hindi magsisisi.* (IDI_HW02)

> …in cases where the parents do not allow their children to be dewormed, we require them to sign (the deworming form) to ensure that they acknowledge the risks.

> *kung may ginabatyag, Sir, ginahambalan namon ang nanay nga diretso lang kamo sa health center.* (FGD_HW16)

> If their children feel any discomfort or illnesses (as side effects of taking the deworming medicine), we give them instructions to visit our health center.

Aside from these, the participants also mentioned that the parents or guardians must know the correct way of administering the deworming medicine to their children so, they ask the parents or guardians to recite the steps, or the instructions given by the health workers. Additionally, the participants also conduct monitoring through group chats and even house visitation to follow-up on the recipients of the program.

> *…every purok may group chat kami, para ipaalam namin "O may deworming kami ngayon."* (IDI_HW08)

Table 4. Insights Shared by the Participants

Improving Community Governance Structure
Be Consistent and Persistent
• Monitoring the children.
• Making follow-ups.
• Updating the master list.
• Sustaining motivation to help.
• Reminding the community through media.
Importance of Financial Planning
• Providing needed medicines.
• Conducting quarterly feeding program.
• Giving incentives to BHWs.
• Approving the Resolution of the Municipal to Barangay concerning the budget for the monthly feeding program.
The Necessity of Program Evaluation
• Conducting random fecalysis.
• Measuring BMI during the release of modules.

> We have a group chat (on Messenger) for every purok so we can inform them: "We have deworming now."

Insights Shared by the Participants

As one of the most important persons who work in the field, the health workers who implement the STH deworming program have shared their own ideas regarding the implementation of the program in the province. In Table 4, we can see that the essential theme that emerged from the transcribed responses of the participants about their insights as implementers of the STH deworming program in the province of South Cotabato is *Improving the Community Governance Structure.*

Improving the Community Governance Structure

One of the insights shared by the participants is the tenacity and consistency in implementing the program. They recognize that to have a successful implementation, the health workers should be persistent in monitoring the status of their community. This can be done through intensive follow-ups and house-to-house visitations. To make sure that no child will be left behind, some of them identified that one of their best practices involved the constant updating of their master list to track and monitor the number of children who need deworming. Some also mentioned that maximizing the use of social media, radio stations, and printed materials for announcements can also help in information dissemination. These strategies can be read from the following responses:

> *naga hatag kami poster sa kada purok…kada purok …naga pamutang kami tarpaulin.* (IDI_HW03)

> We give posters and put tarpaulins in every purok.

> *may master list kami sina. So, makita namon didto kung sino ang mga nahatagan sang purga kag kung sin-o ang wala.* (IDI_HW07)

> We have a master list where we check the names of those children who received deworming medicines and those who did not.

The implementers also believed that financial support from the barangay and/or local government unit for the regular feeding programs should be continued and encouraged to help the health workers attract more recipients and help them prepare the children to receive the deworming medicine with a full stomach. With this, they can engage more with the people and at the same time, ensure the well-being of the children taking the deworming medicine.

> *Approved Resolution sang Municipal to Barangay nga may budget every month ang feeding program.* (IDI_HW10)

> There must be an approved resolution from the LGU and barangay to allocate a budget every month for feeding programs.

There should also be a regular evaluation of the program, according to the participants, to assess what else needs to be improved and gauge the success of the implementation. Random fecalysis was also suggested to see if the children were infected by parasites or not. Distribution of the modules during this pandemic should also be taken advantage of to check the Body Mass Index (BMI) of the children for the assessment of their nutritional status since in some cases, parents bring their children during the distribution of the learning materials in schools. These suggestions were lifted from the following responses:

> *Mas ma okay tani kung may ara gid sing evaluation ang program… bisan mag random fecalysis nalang.* (IDI_HW01)

> It would have been better if there was an evaluation of the program, even just random fecalysis.

> *kung magkuha bala sang module ang ginikanan kag ginadala ang bata diri sa health center para ipa-kilo kag ipa-height* (IDI_HW06)

> If they get the modules in schools, the parents usually bring their children and visit the health center to measure their height and weight.

DISCUSSION

Lived Experiences of Health Workers in the Implementation of the STH Deworming Program

As health workers who have implemented the program for several years, the participants identified that providing Information, Education, and Communication (IEC) campaign and guidance among the members of the community via house-to-house visitations helped them reach

more people, educate them about the program, and clear the misconceptions regarding the program. This finding is aligned with the result of the study by Lorenzo et al.[8] indicating that issues like knowledge gaps about the deworming program can be addressed by reinforcing health education and providing clarity in disseminating information.

Considering that house-to-house delivery of deworming medicine is the primary approach of the health workers in conducting the deworming program, additional training to equip health workers in educating the community more effectively must be a priority. Although implementers already have sufficient knowledge about the technicalities of the program, they should also be prepared and trained to cater to concerns and address them in a way that is more comprehensible for the people to understand. Their familiarity with the dialect, culture, and traditions of the community should also be considered to effectively communicate with them. As one of the participants mentioned during the interview, being a health worker who works in the same community and tribe where she belongs helped her to implement the program a lot easier because she was already accustomed to how the people think in their community and she even has a breeze in communicating with the people because she also speaks the same language with them. Also, this could be utilized as a strategy in planning which implementers should be assigned in an area, especially when trying to penetrate communities with solid cultural identity just like in some areas in South Cotabato. In addition, the implementers should also be given extra allowances for food and transportation to compensate for the extra costs they need when they go to hard-to-reach areas.

These findings are parallel with the study of Asfaw et al.[12] recognizing good community structures, training of drug distributors, home-to-home visitation, and awareness creation as facilitators in improving the deworming program. Awareness programs, or health education campaigns, should also be maintained and sustained to achieve better outcomes.[12] These results also supported the study of Ali et al.[19] indicating that when combined with health education, MDA, or deworming programs, can improve the condition of the community due to the sustained control of helminthiasis in the community.

Moreover, a large-scale, effective information dissemination strategy requires maximizing resources and connections to make sure that all or most members of the population are aware of the schedules, special instructions, and other details regarding the program. For some barangays, *rekorida* or announcing information via mobiles and or other vehicles with huge speakers still serves as a good way to inform the community. It would also be important to maximize the use of social media, television channels, and even radio stations to inform and educate the public about the frequently asked questions about the deworming program and provide specific instructions to follow when parents decide to deworm their child at home. These methods could reinforce the efforts of the health workers to educate and orient the people and this will also ensure that the public is well-informed about the program.

Aside from the ideas mentioned above, the planning committee should also strengthen the "Bayanihan" or clustered activities which include the involvement of various health workers in the barangay health center or even from municipal health offices to conduct regular rounds in the community to check the status of the children. This is another way to execute proper assessments of the health status of the children whether they are eligible to take the deworming medicines or not. These findings agree with the study of Legge et al.[9] which revealed that the community perceived good community engagement as an important strategy to enhance the trust and confidence of the people towards the program.

For the challenges encountered, almost all the participants enumerated that the top-most concern during the implementation of the program was the misinformation and disinformation in the community. Parents usually do not allow their children to be dewormed because of the terrifying and exaggerated stories they hear from their neighbors and friends about deworming. This finding also adheres with the results of Lorenzo et al.[8] where parents fear that the worms become erratic and will emerge from the mouth and other parts of the body of their children. They fear this adverse side effect, and this prompted some of them not to join the deworming program. The same problem was mentioned in the study of Nath et al.[20] wherein participants fear the side effects of taking deworming medicines, thus they opt not to include their child in deworming programs.

In addition, some participants also raised the issue of accessibility of some sitios. They also lamented that one of their struggles is reaching these far-flung areas. This finding corroborates the results of the study of Bah et al.[21] stating that there is still a challenge for health workers to reach and maintain wide deworming coverage in remote rural areas and urban slums. This also agrees with the study of Lo et al.[4], which revealed that geographical variations could be a factor in the deworming coverage and that deworming programs are more concentrated in wealthier populations instead of the poor ones.

Streamlined and intensive planning could help eliminate these problems. From the strategies to improve health education campaigns to organizing effective means to access far-flung areas, careful and well-researched planning could help in addressing these issues. As a province that is characterized by some hills and mountains, South Cotabato still has some geographically isolated areas thus, consideration of this feature needs to be focused on.

Some cases during the implementation of the deworming program also reveal that parents fail to administer the deworming medicine to their children due to the lack of trust and confidence in the deworming medicine provided by the government. According to the participants, some parents do not refuse to accept the deworming medicines directly.

Due to this problem, it was identified that, if possible, the children, together with their parents, would be convened in an area, and join the feeding program so that the health workers can administer the deworming medicines once the children have eaten a full meal. Through this initiative, the health workers can guarantee that the children took the deworming medicine since it was them, the health workers, with the presence of the parents, who administer the deworming medicine. Some health workers also find this labor-efficient because they can orient the parents in one area and when there are questions, they can also be addressed and explained to the crowd.

The Participants Coping with the Challenges

The participants recognized that working in a community entails intensive immersion into the culture of the community, their way of life, and even their prejudices. It takes a solid dedication to continue doing their job and it even needs genuine compassion for the people they serve to go the extra mile in the name of service. This type of motivation conforms with the findings of the study by Njomo et al.[22] stating that teachers who implement the deworming program in schools are more motivated when they see their students improve in their studies and their health become better after being dewormed.

Furthermore, when the implementers feel that they are being supported by their barangay and even their respective LGUs, they can maximize the strategies they planned and continue the activities that they usually practice like the feeding program. This shows that the financial and moral support from the leaders of the community is a huge contributor to uplifting the status of the program and securing its success. This finding corroborates with the study of Krentel et al.[23] that good community engagement motivates health workers to continue doing their job, and the support that community engagement provides should be sustained until the outcomes of the program are reached.

The Insights of the Participants

The idea of strengthening community governance structure when it comes to program implementations continues to become relevant in recent years because of the recognition of the importance of mobilizing community leaders to assist, lead, and facilitate community involvement in the programs of the national government. This factor urges everyone to participate in public health programs to ensure that the coverage or the reach of the implementation becomes bigger and that the program becomes a success. The participants identified that the barangay should provide added incentives to the BHWs to compensate them for the extra work that they do and provide financial assistance for the feeding programs they organize for the children. The result of this study confirms the study of Njomo et al.[22] stating that teachers who implement deworming programs feel motivated when they are given sufficient moral and financial support.

There should also be a constant supply of deworming medicines so that the implementation will not be hampered. In addition, they also shared that it is important to do follow-ups to make sure that the parents were able to administer the deworming medicines to their children and whether these children feel well or not. These findings back up the study of Geyer et al.[11] stating that women in the community find it helpful when deworming medicines are made available for free. Further, the result supports the study of Asfaw et al.[12] which enumerated that the constant availability of deworming medicines and good community structure facilitates better acceptability of the deworming program in the community.

Evaluation of the program is also important according to the participants to check their progress in helping their community. Regular follow-ups and evaluations of the program must be in place to document the progress and aspects of the program to be improved. This can be utilized to solicit more feedback from the community which is a more formal and intentional way to check on the community. The team handling the deworming program can also make necessary adjustments and recalibrations in their initiatives, budgets, and assignments when lapses and losses are clearer and properly identified.

CONCLUSION

Our descriptive phenomenological analysis revealed that health workers who implement deworming program steadfastly reach and educate their target program participants commonly through house-to-house visits. The participants of the study highlighted the need to intensify IEC campaigns by doing *rekorida* or maximizing the use of social media to address misconceptions about deworming that hinder parents from allowing their children to be dewormed. They also shared their plight in reaching geographically isolated and disadvantaged areas, hindering them from accessing some of their target participants because of this limitation. To improve the implementation of deworming, the interviewed health workers magnified the significant contributions of community involvement, and active participation and support of stakeholders in the implementation of deworming to improve the reach and sustainability of the program. Even with the unwavering dedication and the fulfillment felt by our health workers in helping children in their communities to be STH-free, health workers still suggest that providing enough funding for the implementation and reimbursement of their expenses will alleviate the burden of the costs they sometimes bear just to implement the program. Moreover, the participants also emphasized the constant monitoring and evaluation of the program to identify the measures to improve it.

Considering these findings, policy development implications must be reviewed. This includes utilizing multiple platforms in disseminating information regarding deworming programs and innovating more effective ways

to strengthen health program promotions; vitalizing multi-sectoral involvement to encourage commitments that will fill in the gaps in terms of finances, infrastructure, support, and other barriers in logistics; investing in robust and reliable local and national health information systems for evidence-based decision-making; prioritizing the hiring of medical professionals in their native communities to increase the trust and confidence in the delivery of the program; urging local government units to build infrastructures to provide easier access to far-flung areas, and revisiting the structure of the implementation of deworming programs to strengthen active community engagement.

There are still lots of things to be done, but emphasizing actions in controlling and eliminating STH can make huge differences in the lives of many, especially our children. After all, our children depend on the decisions we make for them.

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