ORIGINAL ARTICLE

Filipino Mothers' Initial Reactions and Responses to the Birth of a Child with a Cleft Lip and/or Palate: A Cross-sectional Study

Fernando Alejandro C. Ligot, PhD,[1] Patricia Erika C. Bautista[2,3] and Rachelle L. Alcovindas[3]

[1]*College of Allied Medical Professions, University of the Philippines Manila, Manila, Philippines*
[2]*Young Champions Learning Hub, Pampanga, Philippines*
[3]*Operation Smile Philippines, Makati, Philippines*

ABSTRACT

Background. The manuscript describes the initial reactions, concerns, and coping responses of Filipino mothers upon the birth of a child with cleft lip and/or palate. It highlights that mothers experience predominantly negative emotions (e g., shock, anxiety) alongside hope, with major concerns focused on feeding, speech, cost of surgical intervention, and social stigma. Mothers commonly respond by seeking professional help, information, social support, and engaging in religious coping behaviors.

Objective. The study explored the initial reactions, concerns, and responses of Filipino mothers to the birth of their child with a cleft lip and/or palate. It aimed to identify which of the cleft types (i.e., cleft lip, cleft palate, and cleft lip and palate) showed the highest number of identified reactions, concerns, and responses.

Methods. The study employed a quantitative research design using descriptive statistics to present the data. Purposive sampling was utilized to recruit the participants. 201 Filipino mothers of children with cleft lip and palate were recruited from a local cleft center and through an online support group of mothers with children with cleft. Data were obtained using a self-administered questionnaire that was developed based on existing tools and modified by the researchers to suit the study objectives. The instrument was subjected to a two-level validation process conducted by a team of professional speech pathologists. Results were presented using tables and graphs depicting the frequency of the participants' responses on the specifics of the study. The questionnaire was written in English and was also translated into Tagalog, the predominant local language in the Philippines.

Results. The initial reactions expressed by the mothers included shock (63.68%), anxiety (49.75%), worry (76.61%), and sadness (54.22%). However, a notable positive reaction was also reported, as many mothers felt hopeful (78.10%) that something could be done to improve their child's condition. The concerns raised by the mothers ranged from the costs of intervention and potential effects on the psycho-emotional development of the children due to bullying in school, as well as the impact of the condition on feeding (70.64%), speech (74.12%), and social relationships (37.31%). Many mothers sought consultations with medical and health professionals (91.54%), while others looked for existing parent support groups (50.74%) or consulted with family members (29.85%). The internet (78.10%) played a crucial role in helping these mothers by providing information about cleft lip and/or palate, guidance on where to seek help, and advice on what steps to take. Additionally, many mothers relied on their religious and cultural backgrounds (83.85%) as a means to cope with the situation.

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Corresponding author: Fernando Alejandro C. Ligot, PhD
College of Allied Medical Professions
University of the Philippines Manila
Pedro Gil St., Ermita, Manila 1000, Philippines
Email: fciligot@up.edu.ph
ORCiD: https://orcid.org/0009-0005-7670-2142

Conclusion. The reactions, concerns, and responses of parents upon the birth of a child with a cleft lip and/or palate were congruent with other studies reported. The results showed that mothers of children with cleft lip and palate showed the highest number of reactions, concerns, and responses, while mothers of children with cleft palate exhibited the least reactions, concerns, and responses.

Keywords: cleft lip, cleft palate, cleft lip and palate, maternal reactions, concerns, psychosocial responses, Philippines, cleft care

INTRODUCTION

The occurrence of a child being born with a facial deformity, such as cleft lip and palate, is about 1 in every 1,000 births.[1] Childbirth is a highly anticipated event in all cultures, regardless of race, beliefs, or social status. However, the joy and excitement can shift dramatically if the child is born with a facial anomaly like cleft lip and palate. Research indicates that mothers often experience a wide range of emotional responses upon discovering that their child has a birth defect.[2-4] This situation not only triggers emotional reactions but also creates significant stress for mothers and families as they navigate the challenges of raising an infant with a facial deformity.[5,6] The incidence of cleft in the Philippines is 1.94 per 1000 live births, according to a study by Murray et al.[1]

These responses arise from mothers' limited understanding of the cleft condition and their expectations regarding the challenges their infants may face, including issues with feeding, speech, mental health, and social acceptance.[4,7,8] The potential difficulties that a baby with a cleft lip and palate might encounter can be as diverse and numerous as the emotional reactions of their mothers.[9]

Although many studies have focused on the challenges faced by infants born with cleft lip and palate, there is a lack of research on the emotional responses of mothers to the birth of such children.[6] Research indicates that mothers from various cultural backgrounds react differently to the birth of a child with facial deformities.[8] Cultural diversity significantly influences how mothers respond to this situation. In the study by Black et al., it was found that Thai mothers, influenced by Buddhism, tend to react with acceptance, understanding, and calmness, which helps reduce their feelings of anxiety and depression regarding their child's condition.[8] Conversely, Chinese mothers often have negative reactions, viewing the child as a financial burden. Meanwhile, mothers from Latin American countries, due to their Catholic beliefs, may interpret the cleft as a divine occurrence, leading to a sense of acceptance as they see it as a condition sent by God.[10]

Literature presents evidence of the diverse reactions, concerns, and responses of mothers from various countries and cultures regarding children born with cleft lip and palate.[10-12] This issue is particularly pronounced in low- and middle-income countries (LMIC), such as the Philippines. A lack of information on this topic can impact the provision of care by cleft interventionists not only to the children but also to the mothers of these children. If these issues are not addressed, they may negatively impact how mothers care for their children, potentially harming the development of those with cleft lip and palate. Likewise, information obtained in the study may help psychosocial specialists and speech-language pathologists in developing curricular programs that would equip students and professional clinicians with the appropriate competencies to provide adequate and timely support to Filipino mothers of children with cleft lip and palate. Health policymakers may also benefit from the study in terms of acquiring additional data on the crafting of early intervention care policies for would-be mothers of children with cleft, akin to the Newborn Screening Act.[4,9,11]

The purpose of the study was to describe the initial reactions, concerns, and responses of Filipino mothers upon the birth of their child with a cleft lip and palate using the research project-validated research questionnaire. Likewise, the study looked into the reactions, concerns, and responses of mothers of children with cleft lip, cleft palate, and cleft lip and palate.

METHODS

Study Design

The study utilized a cross-sectional quantitative descriptive research design. The rationale for using this research method fits the objective of the study, which aims to describe the variables identified. Furthermore, the design provides a systematic manner of obtaining data.

A constructed survey questionnaire created by the researchers, which was subjected to a validation process to determine its Content Validation Index (CVI) score, was used to obtain the necessary data. The tool was expected to identify the initial reactions, concerns, and responses of mothers. Participants were chosen using a purposive-convenience sampling method.

Study Participants

Two hundred fifteen (215) mothers were recruited for the study, but only 201 were ultimately included. This was due to 14 participants being unable to complete the survey, leading to their exclusion, while others were disqualified because their child's age did not meet the specified inclusion criteria. The cohort was composed of a composite group of participants coming from a cleft center in Manila, Philippines, as well as from an online support group for families with children who have cleft lip and palate. The research team felt that recruiting patients from the cleft centers and the online platform was the appropriate way of gathering participants for the study. Inviting participants from the general population would have taken more time and could have resulted in a possible delay in the project timeline. Moreover, the study's

sampling method utilized a purposive method since the study population was quite specific and therefore recruiting from the cleft center and the online support group was considered the more appropriate site to locate possible participants for the study. The participants were only categorized according to the type of cleft their children present and not by any other classification.

We included the biological mothers of children with the condition between the ages of 0 and 12 years old. We excluded children who have either been diagnosed with a developmental disorder or who have a craniofacial condition.

Data Collection

The research utilized a survey tool that was developed from existing literature and modified by the researchers to align with the study's objectives.[5,11] Eight qualified speech-language pathologists reviewed and validated the tool, and two pilot surveys were carried out. After the second pilot survey, the final version of the instrument was produced by integrating the feedback from the validators.

Participants were recruited from a non-governmental cleft center that provides services for individuals with cleft lip and palate. Many of the participants were walk-in patients seeking consultations for surgery, dental care, and speech therapy. Additionally, some participants were sourced from an online social media support group for parents of children with clefts. The research team posted invitations on their social media page, including a QR code for interested individuals to scan and join the study. Mothers from both the cleft center and the online support group who consented to participate were added to the study's database. They received copies of the study agenda and the consent form. Participants were asked to sign the consent forms and email a signed copy to the research team. Once the consent forms were signed, the survey commenced. Participants from the online support group received digital surveys via Google Forms, while those at the cleft center were given printed surveys. Those with hard copies had 15-20 minutes to complete the survey, while online participants had 2 days to finish. Personal information was recorded by the participant in the survey form.

Participant recruitment occurred from December 2023 to February 2024, followed by three months of data collection. Once the survey period concluded, the survey forms were gathered and organized. The online Google Forms were saved in a Google folder that was exclusively accessible to the research team. All online survey responses were recorded and stored in a Google folder in the computer system accessible only to the research team.

Study Instrument

The study's survey instrument was organized into four sections. The first section collected demographic information about the participants. The next three sections included items/statements that explored the mothers' reactions, concerns, and responses to having a child with a cleft condition. The reactions section featured 12 items, each starting with "When I learned about my child's condition, my initial reaction was/were…". The items in this section focused on the emotional and mental reactions of the mothers. The second section, which focused on the mothers' concerns, contained 14 items/statements beginning with "After I learned about my child's condition, my initial concerns were…". In this section, the participants were asked to identify the potential problems that they are or would be anticipating because of the child's condition. The final section addressed the mothers' responses and included 9 items/statements that started with "When I learned about my child's condition, I did the following…". The final section reflected statements that focused on the steps or actions that the participants took after realizing the situation of their child. Participants were instructed to select all the items that were relevant to them in each section. Since the responses of the participants were personal, based on their experiences, the researchers deemed it necessary to consider all their responses for the study.

The survey instrument was created in both English (Appendix A) and Tagalog (Appendix B), one of the local languages in the Philippines, to ensure that mothers who are not fluent in English could easily respond. Both versions of the survey underwent a content validation process using the Content Validation Index (CVI). Ten professional speech-language pathologists were invited to validate the questionnaires, but only eight submitted their validation score sheets. For an item on the survey to be deemed valid, it must achieve a CVI score of 1.0. Additionally, the overall survey instrument must have an aggregate CVI score of 0.78 or higher to be considered valid. The research survey instrument achieved a CVI of 0.8, confirming its content validity and appropriateness for the study.

Data Analysis

The research is a quantitative study that employed descriptive statistics, particularly frequency distribution, to illustrate how the variables are spread according to the demographic characteristics of the participants, as well as their reactions, concerns, and responses categorized by cleft types. Since the study only required simple inferential statistical analysis, the research team only used Microsoft Excel as the quantitative method for analyzing and presenting the data.

Ethical Considerations

The research study received technical approval from the College Research Committee of the UPM College of Allied Medical Professions (UPM-CAMP CRC). Additionally, the ethics clearance for the study was granted by the Review Ethics Board of the National Institutes of Health at the University of the Philippines Manila (UPM-NIH REB). In compliance with data privacy, each survey form is de-identified with a corresponding participant number assigned. All survey forms are accessible only to the research team.

All the participants were asked to sign a consent form that includes statements regarding data privacy, voluntary participation, and their right to withdraw from the study.

RESULTS

Demographic Information of Participants

Table 1 shows that many of the participants are mothers in their mid-20's and 30's. Likewise, 57.2% (115) of the participants were college graduates or had received tertiary education. 113 (55.2%) were currently employed during the study period.

43.78% (88) of the participants' children were between 0 and 2 years old. On the other hand, only 3 (1.49%) belonged to the 12-14 years old bracket. The most common number of children with clefts was born with a cleft lip and palate (Table 2).

Table 1. Participant Demographics

	Number	Percentage
Age Range (years)		
16-20	3	1.49
21-25	15	7.46
26-30	51	25.37
31-35	61	30.34
36-40	35	17.41
41-45	29	14.42
46-50	6	2.9
51-55	1	0.497
Educational Attainment		
Tertiary	115	57.21
Secondary	80	39.80
Basic	6	2.98
Employment Status		
Employed	113	56.21
Unemployed	88	43.78

Table 2. Distribution of Participants' Children Based on Cleft Type

	Number	Percentage
Age Range (years)		
0-2	88	43.78
3-5	47	23.38
6-8	39	19.40
9-11	24	11.94
12-14	3	1.49
Cleft Type		
Cleft Lip (CL)	45	22.38
Cleft Palate (CP)	29	14.42
Cleft Lip and Palate (CLP)	127	63.18
Sex		
Male	122	60.69
Female	79	39.30

Mothers' Reactions

Table 3 presents the reactions of mothers whose children have cleft lips (CL), cleft palates (CP), and cleft lip and palate (CLAP). The top 6 reactions of the parents in all three categories, CL, CP, and CLAP, include expression of being shocked (128, 63.68%), anxiety (100, 49.75%), worry (154, 76.61%), sadness (109, 54.22%), disbelief (100, 49.75%), and hopefulness (157, 78.10%).

Mothers' Concerns

Table 4 presents the top 6 concerns of mothers. Out of the 201 participants, 125 (62.1%) expressed concern regarding how the facial deformity/cleft can be corrected. 122 (60.69%) parents were concerned about the cost of having the cleft repaired. Many mothers, 46.26 (73.63%), were concerned about their child being bullied in school and/or on the playground. The presence of a cleft in the lip and palate often affects feeding, hence it is of the biggest concern of the participants, 142 (70.64%). Related to the oral structures is the ability to communicate verbally, 149 (74.12%) parents expressed concerns about speech. Because cleft is a facial disfiguring condition, it is often visible, and 75 (37.31%) of parents felt that it would affect the socialization of the children.

Mothers' Responses

Table 5 identifies the steps/responses taken by mothers upon learning about their child's condition. Seven (7) items in this section received the most responses from the participants. 150 (74.62%) of the mothers searched the internet for professionals to consult. 157 (78.10%) of the mothers looked for parent support groups. Many mothers, 184 (91.54%), consulted doctors and nurses on what they should do. While some consulted their spouses/partners 102 (50.74%), others asked their families 60 (29.85%). The internet played a significant role in the responses of the mothers; 158 (78.60%) searched for information on cleft on the internet. Lastly, 168 (83.85%) mothers turned to their faith.

Table 6 describes the number of items chosen by the participants. Participants in the CLAP group have chosen the most items in all three variables (Reactions, Concerns, and Responses). The participants in the CP group showed the lowest number of items chosen.

DISCUSSION

The study clearly showed that mothers of children born with cleft lip and palate experience a myriad of reactions, concerns, and responses regardless of the type of cleft the children have. The birth of a child is one of the most eagerly anticipated events in life, typically accompanied by joy, excitement, and hope.[13] However, unexpected situations, such as having a child with a facial deformity like a cleft, can lead to emotional turmoil for families or mothers. A notable percentage of mothers with children who have cleft lip (9.4%),

Table 3. Distribution of Mothers' Reactions Based on Cleft Type (N=201)

	Cleft Lip, n (%)	Cleft Palate, n (%)	Cleft Lip and Palate, n (%)	Total, n (%)	Mean ± SD
Shame	4 (1.9%)	1 (0.49%)	9 (4.47%)	14 (0.07%)	4.67 ± 4.04
Worried	29 (9.4%)	25 (12.43%)	100 (49.75)	154 (76.61%)	51.33 ± 42.19
Disappointed	9 (4.47%)	1 (0.49%)	19 (9.40%)	29 (0.14%)	9.67 ± 9.02
Shocked	29 (9.40%)	13 (6.46%)	100 (42.70%)	128 (63.68%)	42.67 ± 38.37
Anxious	21 (10.40%)	18 (8.90%)	61 (30.30%)	100 (49.75%)	33.33 ± 24.01
Happy/excited	3 (1.49%)	0	8 (3.90%)	11 (0.05%)	3.67 ± 4.04
Sad	17 (8.45%)	17 (8.45%)	75 (37.31%)	109 (54.22%)	36.33 ± 33.49
Afraid	15 (7.46%)	15 (7.46%)	61 (30.30%)	91 (45.27%)	30.33 ± 26.56
Guilty	0	13 (6.46%)	40 (19.90%)	53 (26.36%)	17.67 ± 20.40
Disbelief	17 (8.45%)	8 (3.90%)	75 (37.30%)	100 (49.75%)	33.33 ± 36.36
Angry	2 (2.48%)	0	5 (2.48%)	7 (0.03%)	2.33 ± 2.52
Unprepared to care for the child	3 (1.49%)	5 (2.48%)	5 (2.48%)	13 (0.06%)	4.33 ± 1.15
Felt hopeful that something can be done for my child's condition	33 (16.00%)	19 (9.40%)	105 (52.00%)	157 (78.10%)	52.33 ± 46.14
Other reactions	0	0	0	0	0

Table 4. Distribution of Mothers' Concerns Based on Cleft Type (N = 201)

	Cleft Lip, n (%)	Cleft Palate, n (%)	Cleft Lip and Palate, n (%)	Total, n (%)	Mean ± SD
How will we fix my child's face/mouth?	29 (14.4)	3 (1.49)	93 (46.26)	125 (62.1)	41.67 ± 46.32
How much will the surgery for the cleft cost?	24 (11.90)	20 (9.95)	78 (38.80)	122 (60.69)	40.67 ± 32.39
Will my child be able to go to school?	10 (4.97)	2 (0.99)	6 (2.98)	18 (0.09)	6.00 ± 4.00
Will my child be accepted by my:					
Husband/partner	6 (2.98)	2 (0.99)	18 (18.95)	26 (12.93)	8.67 ± 8.33
Family	7 (3.48)	3 (1.49)	11 (5.47)	21 (0.10)	7.00 ± 4.00
Friends	4 (1.99)	0	16 (7.96)	20 (0.09)	6.67 ± 8.33
Community	17 (8.45)	9 (4.47)	13 (6.46)	39 (19.4)	13.00 ± 4.00
Will I be accepted by my:					
Husband/partner	1 (0.49)	1 (0.49)	2 (0.99)	4 (0.02)	1.33 ± 0.58
Family	4 (1.99)	0	6 (2.98)	10 (0.05)	3.33 ± 3.05
Friends	1 (0.49)	0	7 (3.48)	8 (0.04)	2.67 ± 3.79
Community	5 (2.48)	1 (0.49)	6 (2.98)	12 (0.06)	4.00 ± 2.64
Will my child be bullied?	32 (15.9)	23 (11.4)	93 (46.26)	148 (73.6)	49.33 ± 38.08
Will my child exhibit problems in:					
Feeding	26 (12.93)	17 (8.45)	65 (32.33)	142 (70.6)	36.00 ± 25.51
Speech	33 (16.4)	25 (12.40)	91 (45.27)	149 (74.1)	49.67 ± 36.02
Language	12 (5.97)	12 (5.97)	39 (19.4)	63 (31.34)	21.00 ± 15.59
Learning	13 (6.46)	12 (5.97)	38 (18.91)	63 (31.34)	21.00 ± 14.73
Socializing with other children	29 (14.44)	19 (9.45)	27 (13.43)	75 (37.31)	25.00 ± 5.29

cleft palate (6.46%), and cleft lip and palate (42.7%) reported that their initial reaction was shock. Many experienced anxieties for various reasons, including uncertainty about the cause of the condition and how to care for a child with a facial deformity.[14] This anxiety often stems from the fear of the unknown regarding nursing or feeding.[4] Despite these negative feelings, a considerable number of mothers of children with cleft lip (19%), cleft palate (9.4%), and cleft lip and palate (52%) expressed some positive hope for their child's future.[4,5,15] This positive response is reflected in their reaction of hopefulness that something can be done about their child's condition.

Previous studies have claimed that mothers' reactions and responses are contingent upon the type and severity of the cleft.[15] The top reactions identified by the majority of mothers included hope [157 (78.10%)], worry [154 (76.61%)], shock [109 (54.22%)], and anxiety and disbelief [100 (49.75%)]. Table 6 shows the comparison of the top

Table 5. Distribution of Mothers' Responses Based on Cleft Type (N = 201)

	Cleft Lip, n (%)	Cleft Palate, n (%)	Cleft Lip and Palate, n (%)	Total, n (%)	Mean ± SD
Refused to take care of my child initially	1 (0.49)	0	0	1 (0.05)	0.33 ± 0.58
Rejected the child	0	0	0	0	0
I stopped working so I could take care of my child	14 (6.96)	9 (4.47)	33 (16.4)	56 (27.86)	28.67 ± 12.66
I searched the internet for professionals I can consult	32 (15.92)	18 (8.99)	100 (49.75)	150 (74.62)	50.00 ± 43.86
I searched for support groups of parents of children with cleft	32 (15.92)	17 (8.45)	108 (53.73)	157 (78.10)	52.33 ± 48.79
I asked the following people/groups what to do:					
Doctors/nurses	34 (16.91)	30 (14.92)	120 (59.7)	184 (91.54)	61.33 ± 50.85
Family	16 (79.6)	21 (10.44)	52 (25.87)	89 (44.27)	29.67 ± 19.50
People in my neighborhood	9 (4.47)	5 (2.48)	11 (5.47)	25 (23.43)	8.33 ± 3.05
People in my workplace	4 (1.90)	2 (0.99)	8 (3.98)	14 (0.07)	4.67 ± 3.05
Immediately informed my:					
Husband/partner	25 (12.43)	11 (5.47)	66 (32.83)	102 (50.74)	34.00 ± 28.54
Family	23 (11.4)	7 (3.40)	64 (31.84)	60 (29.85)	31.33 ± 29.40
Friends	9 (4.47)	7 (3.40)	30 (14.92)	46 (22.88)	15.33 ± 12.74
I did not immediately inform my:					
Husband/partner	1 (0.49)	1 (0.49)	2 (0.99)	4 (0.02)	1.33 ± 0.58
Family	1 (0.49)	0	1 (0.49)	2 (0.01)	0.67 ± 0.58
Friends	2 (0.99)	4 (1.9)	6 (2.98)	12 (0.06)	4.00 ± 2.00
I researched online about the cleft	37 (18.4)	20 (9.95)	101 (50.24)	158 (78.6)	52.67 ± 42.71
I read books about clefts and how to care for a child with a cleft	16 (79.6)	8 (3.90)	54 (26.86)	78 (38.80)	26.00 ± 24.58
Did not bring my child outside of our home	3 (1.49)	0	5 (2.48)	8 (0.04)	2.67 ± 2.52
Prayed	32 (15.92)	20 (9.95)	116 (57.71)	168 (83.58)	56.00 ± 52.31

6 reactions cited by the participants. This table reveals that mothers of children with CL and CLAP had high citations of the reactions compared to mothers of children with CP. This could probably be attributed to the fact that a cleft palate is not overtly visible, unlike a cleft lip and palate, where the facial anomaly is externally visible. Likewise, children with CLAP conditions would have a higher incidence of feeding and speech issues than children with CL. And because of this, the mothers of CL and CLAP children reacted more extremely. This result validates the findings that the type of cleft affects the reactions of mothers.[15] The results also revealed that all the participants cited feeling hopeful that something can be done.

It is common for parents to have immediate worries when their child is born with a medical or physical condition, such as a cleft lip and palate. A significant concern for mothers of children with cleft lip (14.4%) and cleft lip and palate (46.26%) is how to address the deformity. Since cleft lip and cleft lip and palate involve visible physical deformities, it is understandable that correcting these issues becomes a top priority. One of the initial responsibilities of a new mother is to nurse the child. However, because of the cleft in the lip and/or the palate, an immediate concern of mothers is how to feed the child and whether the child will have difficulty eating later. Latching to either a breast nipple or a bottle nipple is one of the feeding problems most infants with cleft lip would experience.[13]

Table 6. Number of Items Selected per Cleft Type

	Cleft Lip, n (Mean ± SD)	Cleft Palate, n (Mean ± SD)	Cleft Lip and Palate, n (Mean ± SD)
Reactions	182 (13.00 ± 11.66)	135 (9.64 ± 8.55)	649 (46.36 ± 38.41)
Concerns	253 (14.88 ± 11.53)	149 (8.76 ± 9.00)	609 (35.82 ± 34.28)
Responses	291 (15.32 ± 13.32)	180 (9.47 ± 9.00)	877 (46.16 ± 44.44)

A facial deformity can significantly affect a child's emotional and psychological development due to the societal stigma associated with their appearance. Specifically, a cleft can negatively impact a child's social and psychological development, as seen in related studies.[1,16] The presence of a facial disfigurement, along with difficulties in speech and communication, often leads to bullying (CL, 15.9%; CP, 11.44%; CL, 46.26%), which can limit the child's social interactions and result in social isolation.[8,9] Speech issues

are among the most noticeable challenges faced by children with a cleft, as the condition affects the lips, teeth, and palate. Consequently, speech becomes a primary concern for mothers (CL, 16.41%; CP, 12.43%; CLP, 45.27%), who may anticipate the future difficulties their child will encounter, even when the child is still an infant.

Moreover, the expense associated with plastic surgery is a significant worry, with 11.9% of mothers of children with cleft lip and 38.8% of mothers of children with both cleft lip and palate viewing it as a critical issue. However, addressing cleft conditions goes beyond just surgery; it also necessitates a complete approach that includes dental care, speech therapy, and potentially audiological support for those experiencing hearing difficulties.[17] Participants in the study also expressed concern about their child's psycho-emotional development, which can be affected by the social stigma associated with the condition.[14] Social discrimination and isolation are common experiences for children when they begin attending school. Some teachers may underestimate the abilities of children with clefts, leading to their exclusion from class activities that involve verbal participation.[4] This exclusion also occurs in social settings, such as the playground. However, despite the condition, a considerable number of mothers reacted with hope that something could be done to their child's cleft. This reaction is reflected in a study by Yuan et al. that found hope played a significant factor in their resiliency in coping with the situation.[16]

Of all the cleft types, there were more mothers of children with CLAP who cited the top 6 Concerns compared to mothers of CL and CP children. A cleft lip and palate present a more complicated situation because of the involvement of several oral structures. Feeding, speech, and the overt physical facial deformity often result in social isolation and discrimination. As such, the concerns of parents are heightened. Notwithstanding the cost, since the surgical intervention and, in most cases, dental health care are provided at separate occasions. There is a looming concern about the overall cost of intervention, whether the cleft is an isolated cleft lip, isolated cleft palate, or a combination cleft lip and palate. Surgical intervention for any craniofacial condition entails considerable cost.

Mothers instinctively seek answers to the challenges they face, especially when giving birth to a child with a cleft. They quickly look for ways to address their concerns. The internet has made it easier for these mothers to connect with essential professionals and groups focused on cleft care.[7] Among mothers of children with cleft lip (CL), 32 (15.92%) sought online consultations, while 100 (49.75%) of mothers with both cleft lip and palate (CLP) did the same.[16] Additionally, a number of participants searched online for information about clefts, with 18.4% looking for information on CL, 9.95% for cleft palate (CP), and 50.24% for CLP. This finding aligns with existing literature that highlights the internet as a valuable resource for locating health professionals and accessing crucial information.[18]

Health support groups provide individuals with various health issues a place to seek assistance, advice, learn from fellow members, and receive guidance on their path to recovery. One example is parent support groups for children with cleft conditions. Numerous international and local support groups are available for parents of children with clefts, offering information to new mothers or caregivers about the condition, where to find professional help, the types of interventions needed, and tips for caring for a child with a cleft. Additionally, these groups offer emotional and psychological support to mothers. The common experiences of mothers play a vital role in the support the groups provide. Among the mothers of children with cleft lip (CL), 32 (15.92%) participated in these groups, while 17 (8.45%) of mothers of children with cleft palate (CP) and 108 (53.73%) of mothers of children with cleft lip and palate (CLP) did the same.

Religion plays a vital role in the socio-cultural landscape of the Philippines, regardless of the specific faith individuals practice. In a study conducted among Jordanian mothers of children with cleft, their positive attitudes towards the condition were influenced by their religious beliefs and traditions.[18,19] As a result, nearly all mothers, regardless of the type of cleft their children have, showed high response values about their coping mechanisms.[19] Specifically, 32 mothers (15.92%) of children with cleft lip (CL), 20 mothers (9.95%) of children with cleft palate (CP), and 116 mothers (57.71%) of children with both cleft lip and palate (CLP) relied on prayer as a way to cope with their circumstances. This finding aligns with existing literature that highlights the role of religion or belief in the supernatural as a way for individuals to navigate challenges. Cultural beliefs and practices often influence mothers' reactions and responses when giving birth to a child with an illness or deformity. Religious beliefs are frequently considered coping strategies that help individuals find resolution to their problems.[8,19]

Study Limitations

The current research has some limitations. First, because the study involves a small sample size, its results cannot be generalized beyond this specific group. Additionally, the cultural context of the participants may limit the applicability of the findings to other settings. Although the study identified three key areas—reactions, concerns, and responses—it did not explore the correlations among these areas. Future research should aim to conduct a more thorough analysis of the collected data.

CONCLUSION

The study revealed that Filipino mothers' reactions, concerns, and responses to the birth of a child with a cleft lip or palate, regardless of the type, are similar. However, it clearly indicates that mothers of children with cleft lip and palate identified more reactions, concerns, and responses compared

to mothers of children with cleft lip and cleft palate only. The mothers expressed various concerns, including the medical interventions required, the associated costs, the social stigma tied to the facial deformity, and the impact of the condition on the child's physiological abilities, communication skills, and social development.

Additionally, the religious culture of the region plays an important role in the lives of its people. Many mothers reported that prayer and adherence to their religious and cultural beliefs were among their immediate responses. Furthermore, the use of technology emerged as a common response among many participants. They sought information, consulted with others, and looked for groups to provide psychosocial and emotional support regarding their child's condition through the internet. The study provided information that is relevant to cleft care, more specifically in developing or creating programs for support of psychosocial issues experienced by mothers. It also opens the field to further discussion in addressing psychosocial support for cleft information.

Statement of Authorship

All authors certified fulfillment of ICMJE authorship criteria.

Author Disclosure

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APPENDICES

Appendix A. Survey Form (Tagalog)

Mothers' Reaction to Cleft
Survey Form (Tagalog)

Inaanyayahan po namin kayong makilahok sa aming pananaliksik na, **"Filipino Mothers Initial Reactions and Responses to Their Children Born with Cleft Lip and Palate: A Quantitative Cross Sectional Study"**. Sa pamamagitan ng pagsagot ng survey form na ito, layunin ng pananaliksik na ito malaman ang mga reaksyon, alalahanin at mga tugon ng mga nanay nang malaman nila na ang isinilang nilang sanggol ay may binggot (cleft lip and palate). Wala pong tama o maling sagot, nais lang namin malaman ang inyong mga tugon sa mga tanong. Maari po kayong pumili ng higit sa isang sagot. Inaasahan namin na inyong sasagutin ang mga tanong nang may buong katapatan. Maraming salamat.

PERSONAL NA IMPORMASYON

Pangalan ng Magulang (optional): _____
Edad ng Magulang: _____ Trabaho: _____
Tagumpay sa Larangan ng Edukasyon: _____.
Tirahan/Address: _____
Pangalan ng Bata (optional): _____
Kasarian ng Bata: _____
Edad ng Bata: _____
Uri ng cleft o bingot: _____

SURVEY QUESTIONS

Direksyon: Sagutan ang mga sumusunod na tanong ng tapat. Pumili ng mga sagot na pinaka angkop sa iyo. Maaaring pumili ng higit sa isang sagot.

A. MOTHERS' REACTIONS (REAKSYON)

Ang mga sumusunod ay mga reaksyon na maaari ninyong nadama nang malaman ninyo na may bingot ang inyong anak.

Nang malaman kong may bingot ang anak ko, ito ang aking naging reaksyon ...

1. Nagulat ..... [ ]
2. Hindi mapalagay ..... [ ]
3. Nahiya ..... [ ]
4. Nag-alala ..... [ ]
5. Nadismaya ..... [ ]
6. Natuwa/masaya ..... [ ]
7. Nalungkot ..... [ ]
8. Natakot ..... [ ]
10. Hindi makapaniwala ..... [ ]
11. Nagalit ..... [ ]
12. Hindi handang alagaan ang anak ..... [ ]
13. Umasa na mayroong magagawang paraan sa kondisyon ng anak ..... [ ]
14. Iba pang reaksyon (idetalye) _____
    _____

B. MOTHERS' CONCERNS (ALALAHANIN)

Ang mga sumusunod ay mga bagay na naging alalahanin (concerns) ninyo nang malaman ninyo na may bingot ang inyong anak.

Nang malaman kong ang isinilang kong sanggol ay may bingot (cleft lip and palate) ang mga pangunahin inalala ko ay kung ...

1. Makakakain ng mabuti ang anak ko? ..... [ ]
2. Paano maaayos ang mukha at bingot ng anak ko? ..... [ ]
3. Magkano ang gagastusin para sa opera? ..... [ ]
4. Makakapagsalita pa ba siya ng maayos? ..... [ ]
5. Makakapag aaral ba ang anak ko ? ..... [ ]
6. Tatanggapin ba ang anak ko ng:
   a. aking asawa/kinakasama? ..... [ ]
   b. aking pamilya ..... [ ]
   c. aking mga kaibigan ..... [ ]
   d. aking komunidad ..... [ ]
7. Tatanggapin ba ako ng:
   a. aking asawa/kinakasama ..... [ ]
   b. aking pamilya ..... [ ]
   c. aking mga kaibigan ..... [ ]
   d. aking komunidad ..... [ ]
8. Mabubully ba sya? ..... [ ]
9. Magkakaroon ba sya ng problema sa
   a. pagkain ..... [ ]
   b. pananalita ..... [ ]
   c. pag-intindi ..... [ ]
   d. pagkatuto ..... [ ]
   e. pakikisalamuha ..... [ ]
10. Iba pa mga alalahanin: _____
    _____

C. MOTHERS' RESPONSES (TUGON O GINAWA)

Ang mga susunod ang mga hakbang o tugon na maaaring ninyong ginawa nang malaman ninyo na may bingot ang iyong anak.

Nang malaman kong ang isinilang kong sanggol ay may bingot (cleft lip and palate) ilan sa aking pangunahing ginawa ay ...

1. Tumangging alagaan ang aking anak sa simula ..... [ ]
2. Tinakwil ko ang aking anak ..... [ ]
3. Tumigil sa trabaho para alagaan ang aking anak ..... [ ]
4. Naghanap sa internet ng mga propesyonal na maaaring kong kunsultahin ..... [ ]
5. Naghanap ng mga grupo (support group) ng mga magulang at pamilya na mayroon anak na may binggot o cleft ..... [ ]
6. Tinanong ang mga sumusunod kung ano ang pwede kong gawin:
   a. doktor/nars ..... [ ]
   b. aking pamilya ..... [ ]
   c. mga kapitbahay ..... [ ]
   d. mga katrabaho ..... [ ]
7. Ipinaalam ko kaagad sa:
   a. aking asawa/kinakasama ..... [ ]
   b. aking pamilya ..... [ ]
   c. aking mga kaibigan ..... [ ]
8. Hindi ko ipinaalam sa:
   a. aking asawa/kinakasama ..... [ ]
   b. aking pamilya ..... [ ]
   c. aking mga kaibigan ..... [ ]
9. Naghanap ako ng impormasyon sa internet tungkol sa bingot o cleft ..... [ ]
10. Nagbasa ako ng mga libro tungkol sa bingot o cleft ..... [ ]
11. Hindi ko inilabas o inilalabas ng bahay ang aking anak ..... [ ]
12. Nagdasal ..... [ ]
13. Iba pang mga hakbang: _____
    _____

Maraming salamat sa inyong partisipasyon.

Appendix B. Survey Form (English)

Mothers' Reaction to Cleft
Survey Form (English)

We would like to invite you to participate in our research project – **"Filipino Mothers Initial Reactions and Responses to their Children Born with Cleft Lip and Palate: A Quantitative Cross-sectional Study"**. By answering this survey form we will be able to determine the initial reactions, concerns, and responses of mothers upon learning that their child was born with a cleft lip and palate. There are no correct or incorrect answers and the survey does not intend to make any judgements on the participants' responses.

PERSONAL INFORMATION

Name of Parent (optional): _____
Age of Parent: _____ Work: _____
Educational Attainment: _____
Address (optional): _____
Name of Child (optional): _____
Sex of Child: _____
Age of Child: _____
Type of Cleft: _____

SURVEY QUESTIONS

Directions: Answer the survey as honestly as you can. Choose the ones that most apply to you. You may choose more than one (1) answer for every section

A. MOTHERS' REACTIONS

The following items may be reactions that you felt upon knowing that your child has cleft.

When I learned about my child's condition, these were my initial reactions ...

1. Shocked ..... [ ]
2. Anxious ..... [ ]
3. Shame ..... [ ]
4. Worried ..... [ ]
5. Disappointed ..... [ ]
6. Happy/excited ..... [ ]
7. Sad ..... [ ]
8. Afraid ..... [ ]
9. Guilty ..... [ ]
10. Disbelief ..... [ ]
11. Angry ..... [ ]
12. Felt unprepared to take care of the child ..... [ ]
13. Felt hopeful that something can be done for my child's condition ..... [ ]
14. Other reactions: _____
    _____

B. MOTHERS' CONCERNS

The following items are possible concerns upon learning that your child has a cleft.

When I learned about my child's condition, these were my initial concerns ...

1. How will my child feed/eat? ..... [ ]
2. How will we fix my child's face/mouth? ..... [ ]
3. How much will the surgery for the cleft cost? ..... [ ]
4. Will my child be able to speak properly? ..... [ ]
5. Will my child be able to go to school? ..... [ ]
6. Will my child be accepted by:
   - my husband/partner ..... [ ]
   - family ..... [ ]
   - friends ..... [ ]
   - community ..... [ ]
7. Will I be accepted by:
   - my husband/partner ..... [ ]
   - family ..... [ ]
   - friends ..... [ ]
   - community ..... [ ]
8. Will my child be bullied ..... [ ]
9. Will my child exhibit problems in:
   - feeding ..... [ ]
   - speech ..... [ ]
   - language ..... [ ]
   - learning ..... [ ]
   - socializing with other children ..... [ ]
10. Other concerns: _____
    _____

C. MOTHERS' RESPONSES

The following items may be your responses upon knowing your child has cleft.

When I learned about my child's condition, these were the initial responses I did ...

1. Refused to take care of my child initially ..... [ ]
2. Rejected the child ..... [ ]
3. I stopped working so I could take care of my child ..... [ ]
4. I searched the internet for professionals I can consult ..... [ ]
5. I searched for support groups of parents of children with cleft ..... [ ]
6. I asked the following people/groups what to do:
   - doctors/nurses ..... [ ]
   - family ..... [ ]
   - people in my neighborhood ..... [ ]
   - churchmates ..... [ ]
   - people in my workplace ..... [ ]
7. Immediately informed my
   - husband/partner ..... [ ]
   - family ..... [ ]
   - friends ..... [ ]
8. I did not immediately inform my
   - husband/partner ..... [ ]
   - family ..... [ ]
   - friends ..... [ ]
9. I researched online about cleft ..... [ ]
10. I read books about cleft and how to care for a child with a cleft ..... [ ]
11. Did not bring my child outside of our home ..... [ ]
12. Prayed ..... [ ]
13. Other responses: _____ [ ]
    _____ [ ]