



future adult health (Shekar et al. 2017). In children, malnutrition typically refers to chronic conditions, such as stunted growth (stunting) or acute wasting caused by the loss of fat and muscle mass (Briend et al. 2015). Unfortunately, although these programs generally improve weight gain, their impact on height increase remains limited, even in contexts with high compliance (Kristjansson et al. 2015). This raises questions regarding other potential mechanisms that may need to be considered. The concept of environmental enteropathy, caused by repeated exposure to and colonization of the gut by pathogenic bacteria, is also considered a major cause of stunting (Petri, Naylor, and Haque 2014). The risk of stunting increases in cases of low birth weight and prematurity, which also contributes to the high mortality rates during this period (Christian et al. 2013). Stunting is considered a primary indicator of child well-being and reflects social inequalities during the early stages of life (De Onis and Branca 2016; Vrolijk et al. 2019).

The control of stunting in the Sikka Regency has not been optimal because of low public awareness of the importance of the first 1,000 days of life. The community in the Sikka Regency has not fully recognized the long-term impact of malnutrition during the 1,000 days of life on children's future health and intelligence. This has resulted in inadequate feeding practices for infants and pregnant women, insufficient attention to exclusive breastfeeding during the first six months, and imbalanced nutrition for children during this critical period (Torlesse et al. 2016). Therefore, a more intensive and strategic approach is needed to raise public awareness of the importance of the 1,000 HPK in addressing stunting, which requires a cross-sectoral effort, including the involvement of religious institutions such as the Family Pastoral Commission of the Diocese of Maumere.

The Family Pastoral Commission of the Diocese of Maumere is part of the structure of the Maumere Diocesan Pastoral Center, extending the pastoral work of Bishop, the highest leader of the Catholic Church at the diocesan level (Puspas, 2019). The scope of the commission's work includes accompanying Catholic families, from the preparation phase of marriage to post-marriage life. In relation to the first 1,000 days of life and efforts to reduce stunting in the Sikka Regency, which reached 13.8% in February 2023 (DP2KBP3A Kab. Sikka, 2023), the Pastoral Commission views full acceptance of a child from conception as a crucial part of continuing the new generation (Puspas, 2014).

Stunting control in the Sikka Regency has not been optimal due to low public awareness of the importance of 1,000 Days of Life. This period, which covers pregnancy to the second birthday of the child, is critical for preventing stunting, as it is when physical growth and brain development occur most rapidly (Wong, Moy, and Nair 2014). However, many in Sikka are still unaware of the long-term impact of malnutrition during the 1,000 Days of Life on children's future health and intelligence. This lack of awareness leads to inadequate feeding practices for infants and pregnant women, insufficient attention to exclusive breastfeeding for the first six months, and imbalanced nutrition for children during this critical period (Torlesse et al. 2016). Furthermore, there are misconceptions about parenting and the father's role in supporting the child's health during this time, resulting in incomplete interventions. Research conducted by Wardani et al. in Bangkalan Regency showed that community understanding of stunting is still limited, with some believing that stunting is caused by genetic factors (Wardani, Harumi, and Sholikah 2023). Various efforts, including education from local governments and organizations such as the Family Pastoral Commission, have been made, but the results are not yet optimal. Obstacles such as limited resources, inadequate training for health workers, and a lack of integration between stunting prevention programs and family development activities exacerbate this situation. Therefore, a more intensive and strategic approach is needed to raise public awareness of the importance of the 1,000 Days of Life in preventing stunting in the Sikka Regency.

The Family Pastoral Commission intervenes with married couples through early awareness of the meaning of marriage and Catholic family life; early awareness of the 1,000 Days of Life, which includes conception, pregnancy, childbirth, postpartum, infancy, and the child's development up to age two; raising awareness among couples about the importance of paying attention to the 1,000 Days of Life through education on pregnancy care, postpartum interventions, exclusive breastfeeding for the first six months, and complementary feeding for children up to two years old; and promoting effective parenting within the family (Wardani et al. 2023). These four key aspects are conveyed during religious strategic moments, such as the Marriage Preparation Catechesis (MPC), and during training for parents prior to their children receiving the sacraments of baptism and first communion. The preparation to receive these sacraments provides a grace-filled opportunity for the Family Pastoral

Commission to accompany parents while also offering children an understanding of the sacraments. Thus, the role of the Family Pastoral Commission is to provide information and education on the 1,000 Days of Life to parents, both those who already have children and those expecting (Septiawati 2018).

In relation to the first 1,000 Days of Life and efforts to eliminate stunting in the Sikka Regency, the role of the Family Pastoral Commission involves interventions through raising early awareness about the meaning of marriage and Catholic family life; early awareness of the 1,000 Days of Life, including conception, pregnancy, childbirth, postpartum, infancy, and child development up to the age of two; education on pregnancy care, postpartum interventions, exclusive breastfeeding, and complementary feeding until the child reaches two years of age; and the promotion of effective parenting within families (Shekar et al. 2017).

However, several challenges persist in implementing the Family Pastoral Commission's program on early awareness of the first 1,000 Days of Life. These include the fact that not all parishes incorporate 1,000 Days of Life material into family development curricula during Marriage Preparation Courses or training for parents of children receiving baptism and first communion, particularly in parishes with high stunting rates, as they do not yet perceive the material as essential. Additionally, not all parishes have trained personnel to deliver the 1,000 Days of Life material; many couples attending pre-marriage care already have children over the age of two; many couples still feel uncomfortable involving fathers in providing stimulation to their unborn babies or assigning fathers a role in the upbringing of their babies or children, and many couples do not practice exclusive breastfeeding for various reasons.

Therefore, early awareness efforts regarding the first 1,000 Days of Life are needed through an analysis of the community's level of understanding, appreciation, and satisfaction with the materials disseminated by the Family Pastoral Commission. The results of this analysis will serve as a foundation for designing more effective training enhancements and program integration to support stunting prevention efforts in the region. The core research problem can be summarized as follows. This study explores how well the community in Sikka Regency understands the concept of the first 1,000 Days of Life as promoted by the Family Pastoral Commission. It also examines the extent to which the community appreciates the Commission's role in supporting families during this crucial period, and how satisfied they are with the services and assistance provided by the Commission in accompanying families throughout the first 1,000 Days of Life.

## **METHODS**

The method used in this research is a descriptive quantitative design with an analytical survey approach that examines the level of understanding, appreciation, and satisfaction of the Catholic community in Sikka Regency regarding the role of the Pastoral Family Commission in supporting the First 1000 Days of Life and analyzing their relationships. This study employed a correlational analytic design with a cross-sectional survey approach to explore temporary issues by collecting data at one point in time (Jonathan Saswono 2006). The population in this study comprises all Catholic married individuals in the Sikka Regency, based on the total number of households (83,633 households). The sampling procedure used in this study was non-probability with purposive sampling (a sampling technique with specific considerations). The sample size was calculated using the Slovin formula, resulting in 2,427 respondents who had participated in or were currently involved in activities led by the family commission regarding the first 1000 Days of Life in their respective parishes (from 38 parishes within the Maumere Diocese).

This research was conducted across 38 parishes within the working area of the Maumere Diocese, spanning 21 districts in the Sikka Regency. Data collection will be done door-to-door, as the research team visits the 38 parishes according to the Pastoral Family Commission's support schedule. This study will be conducted from July to August 2024.

The research instrument used was a survey questionnaire consisting of 37 questions. For the criteria of respondents' level of understanding, there were 14 questions with response options of "yes" (scored 2) and "no" (scored 1). The categories for understanding levels were good understanding (scores: 24-28), moderate understanding (scores: 19-23), and poor understanding (scores: 14-18). The criteria for the level of appreciation consisted of 11 questions, with response options of "yes"

(scored 2) and "no" (scored 1). The categories for appreciation levels were as follows: good appreciation (scores: 24-28), moderate appreciation (scores: 19-23), and poor appreciation (scores: 14-18). Regarding satisfaction level, there were 12 questions with four response options, and the satisfaction categories were very satisfied (scores: 27-48), satisfied (scores: 25-36), and dissatisfied (scores: 12-24). The instrument was tested for its validity and reliability. The validity test results showed a  $p\text{-value} < \alpha$  (0.05), making all 37 questions valid. The reliability test results indicated that the calculated Cronbach's alpha was greater than the required value, confirming the reliability of the instrument.. Data collection will be done directly and indirectly by distributing survey forms to respondents, and indirectly through Google Forms, with the link shared in areas with good Internet access. The research data included both general and specific data. General data included the respondent's gender, age, occupation, education level, parish, and spiritual organizations they were part of. Specific data pertain to the level of understanding, appreciation, and satisfaction of the Sikka Regency community regarding the role of the family commission in supporting the first 1000 Days of Life. Data analysis was conducted using univariate analysis to observe the frequency distribution of each variable, and bivariate analysis to examine the relationships between variables. Bivariate analysis was performed using the gamma correlation test, as the data were ordinal, with a significance level of  $\alpha = 0.05$ , using the SPSS 20 software for computerized processing.

The research procedure follows several stages: a) Preparation Stage: The research team prepares all the necessary aspects related to the research activities. The team held coordination meetings, assigned tasks, prepared permission letters from the Sikka Regency Government (Number: PTSP.503.070/309/VII/2024), tested the reliability and validity of the research instrument, and handled research ethics with the Research and Community Service Institute of Nusa Nipa University (Number: 137/00). KE.NN/VI/2024, all of which were conducted before the research began. b) Observation Stage: The research team conducted preliminary observations at the research locations and mapped the target areas for subsequent research. The observations focus on the activities of the Pastoral Family Commission in supporting the First 1000 Days of Life across 38 parishes, including activities such as marriage preparation catechesis, parent support for children receiving sacraments of baptism, and first communion. c) Research Stage: The team divided the tasks to conduct the survey with respondents who had provided prior consent. d) Data Validation Stage: The research team validates the data collected both offline and online, ensuring that they are ready for analysis in the next stage. e) Data Analysis Stage: The team analyzes the data to draw conclusions from the research.

## RESULTS

This section presents the descriptive characteristics of the study participants, followed by analyses of the relationships between levels of understanding, appreciation, and satisfaction regarding the role of the Family Pastoral Commission in supporting the First 1,000 Days of Life. Descriptive statistics are used to summarize respondents' sociodemographic profiles and organizational affiliations, while subsequent analyses examine patterns of program-related outcomes.

**Table 1. Sociodemographic Characteristics, Organizational Affiliation, and Levels of Understanding, Appreciation, and Satisfaction among Respondents (n = 2,427)**

Variables	n	%
<b>Gender</b>		
man	1180	48.6
woman	1247	51.4
<b>Age</b>		
Late Adolescence (17-25 Years)	336	13.8
Early Adulthood (26-35 Years)	1577	65.0
Late Adulthood (36-45 Years)	214	8.8
Early Elderly (46-55 Years)	166	6.8
Late Elderly (>56 Years)	134	5.5
<b>Education Level</b>		
Kindergarten/primary school,	135	5.6
Junior high school	195	8.0

<b>Variables</b>	<b>n</b>	<b>%</b>
Senior high school	757	31.2
University	1340	55.2
<b>Occupation</b>		
clergy/monk/nun	54	2.2
entrepreneur/business owner	678	27.9
Civil servant/Police/Army/State-owned enterprise employee	629	25.9
private sector employee	496	20.4
retiree	316	13.0
farmer/laborer/fisherman/motorcycle taxi driver	254	10.5
<b>Spiritual Organization</b>		
clergy/monk/nun	54	2.2
St. Anna, Legion of Mary, St. Joachim, Divine Mercy, Charismatic, KBHTM, CFC, Priskat, Waberkat	290	11.9
Lay Pastoral Minister	392	16.2
Ordinary congregation members	1691	69.7
<b>Level of Understanding</b>		
Good Understanding	1233	50.8
Moderate Understanding	807	33.3
Poor Understanding	387	15.9
<b>Level of Appreciation</b>		
Good Appreciation	1211	49.9
Moderate Appreciation	599	24.7
Poor Appreciation	617	25.4
<b>Level of Satisfaction</b>		
High Satisfaction	1136	46.8
Moderate Satisfaction	1268	52.2
Poor Satisfaction	23	0.9

Table 1 presents the sociodemographic characteristics, organizational affiliation, and levels of understanding, appreciation, and satisfaction among the respondents. Slightly more than half of the participants were female (51.4%), and the majority were in early adulthood (26–35 years; 65.0%). More than half had completed university education (55.2%), while only a small proportion had primary-level education (5.6%). Regarding occupation, most respondents were entrepreneurs or business owners (27.9%), followed by civil servants or state employees (25.9%), whereas clergy or religious workers accounted for the smallest proportion (2.2%).

Most respondents were ordinary congregation members (69.7%), with fewer serving as lay pastoral ministers (16.2%) or belonging to religious organizations. In terms of program-related outcomes, half of the respondents demonstrated good understanding of the First 1,000 Days of Life (50.8%), while 33.3% had moderate and 15.9% had poor understanding. Similarly, nearly half reported high appreciation (49.9%), and most expressed moderate to high satisfaction with the Family Pastoral Commission's role (52.2% and 46.8%, respectively), with dissatisfaction reported by less than 1% of respondents.

**Table 2. Distribution of Respondents by Parish of Affiliation and Stunting Rate in Sikka Regency (n = 2,427)**

<b>Parish origin</b>	<b>n</b>	<b>%</b>
St Yohanes Baptista Boganatar	92	3.15
Sta Maria Bintang Laut Nebe	93	3.19
Sta Perawan Maria Ratu Tanarawa	199	6.82
Kristus Raja Talibura	127	4.35
Kenaikan Kristus Watubala	92	3.15
Santissima Trinitas Runut	68	2.33
Renha Rosari Halehebing	37	1.27
St Fransiskus Xaverius Habibola	45	1.54
St Martinus Bola	88	3.02
St.Petrus Kloangpopot	53	1.82

Parish origin	n	%
Salib Suci Kloangrotat	68	2.33
Mater Boni Consili Watublapi	69	2.36
Renha Rosari Kewapante	149	5.11
Hati Yesus Maha Kudus Ili	29	0.99
St Yosef Freinademetz Bolawolon	121	4.15
St Maria Imaculata Habi	65	2.23
St Gabriel Waioti	47	1.61
St Thomas Morus Maumere	161	5.52
St Yosef Katedral	186	6.37
Spiritu Santo Misir	29	0.99
Kristus Raja Wolonmaget	80	2.74
Sta Maria Magdalena Nangahure	80	2.74
St Yohanes Maria Vianey Magepanda	220	7.54
Sta Maria Bintang Laut Uwa	37	1.27
Keluarga Kudus Lei	44	1.51
Roh Kudus Nelle	1	0.03
St Fransiskus Xaverius Koting	4	0.14
St Yosef Wairpelit	19	0.65
St Mikhael Nita	58	1.99
Sanctissima Trinitas Bloro	15	0.51
Sta Maria Imaculata Lela	11	0.38
St Ignasius Loyola Sikka	18	0.62
Hati Tak Bernoda Perawan Maria Tilang	97	3.32
Sta Maria Imaculata Lekebai	69	2.36
Salib Suci Mauloo	58	1.99
St Vincentius A Paolo Feondari	103	3.53
Sta Maria Dari Gunung Karmel	41	1.41
Sta Maria Kusuma Karmel Wolofeo	145	4.97

Table 2 presents the distribution of respondents across 38 parishes in Sikka Regency along with their corresponding stunting rates. The largest proportion of respondents originated from St. Yohanes Maria Vianey Magepanda Parish (7.54%), followed by Sta Perawan Maria Ratu Tanarawa (6.82%) and St. Yosef Katedral (6.37%). In contrast, the smallest proportions were observed in Roh Kudus Nelle (0.03%), St. Fransiskus Xaverius Koting (0.14%), and Sta Maria Imaculata Lela (0.38%). These variations reflect differences in parish size and participation levels and provide contextual information for interpreting community engagement in stunting-related programs across parishes.

**Table 3. Relationship Between Level of Understanding and Level of Appreciation**

Level of Understanding	Level of Appreciation						<i>p value</i>
	Good		Moderate		Poor		
	n	%	n	%	n	%	
Good (n = 1,233)	1,080	87.6	153	12.4	0	0.0	<0.001
Moderate (n = 807)	131	16.2	446	55.3	230	28.5	
Poor (n = 387)	0	0.0	0	0.0	387	100.0	

Table 3 shows a clear gradient in appreciation levels across categories of community understanding regarding the First 1,000 Days of Life. Among respondents with good understanding, the vast majority demonstrated good appreciation (87.6%), while none reported poor appreciation. In contrast, respondents with moderate understanding were more evenly distributed, with over half showing moderate appreciation (55.3%) and nearly one-third reporting poor appreciation (28.5%). All respondents with poor understanding reported poor appreciation (100.0%). These findings indicate a strong positive association between understanding and appreciation, which is statistically significant ( $p < 0.001$ ).

**Table 4. Relationship Between Level of Understanding and Level of Satisfaction**

Level of Understanding	Level of Satisfaction						<i>p value</i>
	Good		Moderate		Poor		
	n	%	n	%	n	%	
Good (n = 1,233)	1,136	92.1	77	6.2	20	1.6	<0.001
Moderate (n = 807)	0	0.0	804	99.6	3	0.4	
Poor (n = 387)	0	0.0	387	100.0	0	0.0	

Table 3 presents the relationship between level of understanding and level of satisfaction with the role of the Family Pastoral Commission. Almost all respondents with good understanding reported being very satisfied (92.1%), with only a small proportion reporting dissatisfaction (1.6%). Respondents with moderate understanding were predominantly satisfied (99.6%), while none reported being very satisfied. Similarly, all respondents with poor understanding reported being satisfied rather than very satisfied or dissatisfied. The association between understanding and satisfaction was statistically significant ( $p < 0.001$ ), suggesting that higher understanding is closely linked to greater satisfaction.

**Table 5. Relationship Between Level of Appreciation and Level of Satisfaction**

Level of Understanding	Level of Satisfaction						<i>p value</i>
	Good		Moderate		Poor		
	n	%	n	%	n	%	
Good (n = 1,211)	1,003	82.8	208	17.2	0	0.0	<0.001
Moderate (n = 599)	133	22.2	443	73.9	23	3.8	
Poor (n = 617)	0	0.0	617	100.0	0	0.0	

Table 4 demonstrates a strong relationship between appreciation and satisfaction levels. Most respondents with good appreciation reported being very satisfied (82.8%), whereas none expressed dissatisfaction. In contrast, respondents with moderate appreciation were mainly satisfied (73.9%), with a smaller proportion reporting very high satisfaction (22.2%) or dissatisfaction (3.8%). All respondents with poor appreciation reported being satisfied, with none indicating very high satisfaction or dissatisfaction. This relationship was statistically significant ( $p < 0.001$ ), indicating that higher appreciation of the Family Pastoral Commission's role is strongly associated with higher satisfaction.

## DISCUSSION

Knowledge plays an essential role in health as it is one of the primary factors supporting the development of healthy behaviors. According to Notoatmodjo (2012), the knowledge and awareness gained from experience can lead to behavioral or action changes, which ultimately results in better learning outcomes for the future. Health education serves as an effective and intensive tool for disseminating information designed to improve aspects of health that require attention.

This study found a significant and strong relationship between respondents' levels of understanding, appreciation, and satisfaction regarding the role of the Family Pastoral Commission in the 1000 Days of Life program within the Diocese of Maumere, Sikka Regency. The results showed that 50.8% of the community in the Sikka Regency had a good understanding of the 1000 Days of Life, with an appreciation level of 49.9% and a satisfaction level of 46.8%. However, a low level of understanding (15.9%) was still observed in certain parishes with high stunting rates, accompanied by an appreciation level of 25.4% and satisfaction level of only 0.9%. This poses a challenge for the Family Pastoral Commission to design optimal work programs to address stunting in the Sikka Regency. This study aligns with the research by (Fentiana, Nasution, and Ginting 2021), which showed a correlation between mothers' knowledge of the 1000 Days of Life and stunting rates in Tanjung Baru Village, Padang Lawas Regency. Approximately 55% of children in the area experienced stunting, while 61.7% of mothers had little knowledge of the 1000 Days of Life. This study recommends increasing knowledge through regular counseling activities at health posts and community centers. Similarly,

Septiawati's research in Palembang revealed a correlation between mothers' knowledge of the 1000 Days of Life Movement and stunting occurrences in their children (Septiawati 2018).

Stunting in infants is influenced by the nutritional status during pregnancy through the preconception period. This condition is a chronic nutritional issue, in which the mother's nutritional status before pregnancy significantly affects child growth. A prolonged lack of energy intake during the 1000 Days of Life can hinder child growth, making this period known as the golden period that determines a child's future health and intelligence. Nutritional patterns during this period were heavily influenced by mothers' knowledge levels. A lack of knowledge about nutrition leads to low dietary diversity and food quality. According to Mubarak (2011), seven factors influence knowledge: education, occupation, age, interest, experience, environment, and information. Individuals with sufficient knowledge tend to apply it in their daily lives (Darsini, Fahrurrozi, and Cahyono 2019).

Another study by (Hidayati, Yulastini, and Fajriani 2022) highlighted the importance of educating women of reproductive age about the 1000 Days of Life program, demonstrating that improved understanding can enhance maternal attitudes and practices. Additionally, studies by (Suryagustina, Wenna Araya 2018) in Palangka Raya and Julaecha in Makassar supported findings that health education has a significant impact on stunting prevention (Julaecha 2020). In the Sikka Regency, cultural factors such as the demand for dowry or bride prices before formalizing marriage according to religious rites often create psychological pressure on couples. This issue adversely affects the optimal fulfillment of nutrition for pregnant mothers and children up to two years old. With a stunting rate of 37.9% in 2023 (Indonesian Health Survey Data) and an increase from 35.3% in 2022, more effective interventions are urgently needed to address this issue, particularly in the East Nusa Tenggara region.

### **Implications for Public Health**

The findings of this study may have several important implications for public health policies and practices, particularly for improving the quality of maternal and child health. The Family Pastoral Program can serve as an effective intervention model to raise awareness of the importance of 1000 Days of Life. Considering the high level of public satisfaction with the role of pastoral families, public health policies could better accommodate community-based approaches.

This support program involves leaders of all religions strengthening existing health programs, making them more acceptable and implementable by the community. The success of health programs must involve all cross sectors, including the government, community organizations, and religious institutions. Education for about 1000 Days of Life is crucial for promoting healthy behaviors. Interventions through family pastoral programs provide evidence that education based on religious or spiritual principles can help improve public understanding of nutrition, immunization, and maternal and child health.

The results indicate that pastoral leaders play a significant role in influencing public health behaviors. This can serve as a basis for health authorities to establish closer collaboration with religious figures, enabling health messages to be communicated more effectively. Since the first 1000 Days of Life is a critical period for preventing stunting and other developmental issues in children, policies that support the role of family pastoral care can contribute to reducing stunting rates in the Sikka Regency and other areas, aligning with national and international health goals.

### **Limitations and Cautions**

This study has several limitations that need to be considered. First, the varying number of respondents from the 38 parishes within the Maumere Diocese in Sikka Regency creates an imbalance in the data, meaning that the results from some parishes may not adequately represent the larger population. Additionally, the low participation of respondents, particularly in areas with high stunting rates, such as in the districts of Waigete, Tanawawo, Mego, and Palue in the Sikka Regency, may affect the quality and generalizability of the findings. This is important because engagement in these areas is highly relevant in analyzing the role of Family Pastoral Care in supporting the first 1000 Days of Life, especially considering the significant stunting issues present there.

### **Recommendations for Future Research**

Future research should aim to expand the sample size by including more respondents from all parishes in the Sikka Regency, particularly from areas with high stunting rates. Further studies are needed to identify the factors that hinder community participation and to implement more effective

approaches to enhance participation in regions more affected by health issues such as stunting. Additionally, an in-depth analysis of the role of Family Pastoral Care in areas with high stunting rates should be the focus of subsequent research to develop more targeted strategies for supporting public health during the first 1000 Days of Life.

## CONCLUSION

The conclusion of this study is that the level of understanding, appreciation, and satisfaction of respondents regarding the 1000 Days of Life program promoted by the Family Pastoral Commission of the Maumere Diocese in the Sikka Regency falls into the good category. Furthermore, there is a significant and strong relationship between the level of understanding and the levels of appreciation and satisfaction of respondents regarding the role of the Family Pastoral Commission in guiding the 1000 Days of Life program in the working area of the Maumere Diocese, Sikka Regency.

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