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Exclusive breastfeeding practice and sources of support during COVID-19 pandemic in Indonesia

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ABSTRACT

In 2018, the national coverage of exclusive breastfeeding among infants aged 0-5 months in Indonesia was still low. The COVID-19 pandemic can be a challenge to increase the coverage of exclusive breastfeeding. This study investigated the association between sources of breastfeeding supports and exclusive breastfeeding practices among mothers with infants aged under 6 months during the COVID-19 pandemic in Indonesia. This study used a cross-sectional study design through an online survey from November 2, 2020, to February 8, 2021. A total of 248 subjects were obtained through convenience sampling. Data analysis was done by bivariate analysis using Chi-square or Fisher's exact test. Most of the subjects were aged 18-34 years old (90.7%), had higher education level (86.7%), had household income range Rp.3,000,000 - Rp.7,199,999 (39.2%), lived in Java Island (83.1%), had an infant aged ≤ 4 months (76.2%), and had a baby boy (51.2%). The proportion of exclusive breastfeeding was 79.0%. The most common sources of breastfeeding support were obtained from husband (91.1%) and health workers (65.7%), followed by family (62.9%). No significant association was found among all support sources on breastfeeding with exclusive breastfeeding. However, the proportion of exclusive breastfeeding among mothers who received husband support (80.1%) was higher than those who did not (68.2%). The most convenient and feasible breastfeeding supports that mother could obtain during pandemics were home-based supports. Mothers, their husbands, and families should be the priority target for health professionals to provide preventive and promotive breastfeeding intervention.

Keywords: COVID-19 pandemic, exclusive breastfeeding, family support, husband support, Indonesia.

ABSTRAK

Cakupan nasional pemberian ASI eksklusif pada bayi usia 0-5 bulan di Indonesia masih rendah pada tahun 2018. Pandemi COVID-19 dapat menjadi tantangan dalam usaha peningkatan cakupan pemberian ASI eksklusif. Penelitian ini bertujuan untuk mengetahui hubungan antara sumber

dukungan menyusui dengan praktik pemberian ASI eksklusif pada ibu dengan bayi berusia di bawah 6 bulan selama pandemi COVID-19 di Indonesia. Penelitian ini menggunakan desain studi potong lintang melalui survei daring selama 2 November 2020 – 8 Februari 2021. Sebanyak 248 subjek diperoleh secara convenience sampling. Analisis data melalui analisis bivariat menggunakan uji Chi-square atau Fisher's Exact. Sebagian besar subjek berusia 18-34 tahun (90,7%), berpendidikan tinggi (86,7%), memiliki pendapatan rumah tangga berkisar Rp3.000.000 -Rp7.199.999 (39,2%), berdomisili di Pulau Jawa (83,1%), memiliki bayi usia 4 bulan (76,2%), dan memiliki bayi laki-laki (51,2%). Proporsi pemberian ASI eksklusif sebesar 79,0%. Sumber dukungan menyusui terbanyak diperoleh dari suami (91,1%) dan petugas kesehatan (65,7%), diikuti oleh keluarga (62,9%). Tidak ditemukan hubungan yang signifikan antara semua sumber dukungan menyusui dengan ASI eksklusif. Namun, proporsi pemberian ASI eksklusif pada ibu yang mendapat dukungan suami (80,1%) lebih tinggi dibandingkan dengan ibu yang tidak mendapat dukungan suami (68,2%). Dukungan menyusui yang paling mudah dan mungkin untuk diperoleh ibu selama pandemi adalah dukungan berbasis rumah. Ibu, suami, dan keluarga harus menjadi sasaran prioritas bagi tenaga kesehatan untuk memberikan intervensi pemberian ASI secara preventif dan promotif.

Kata kunci: ASI Eksklusif, dukungan keluarga, dukungan suami, Indonesia, pandemi COVID-19.

INTRODUCTION

Indonesia is facing the triple burden of child malnutrition. Data in 2018 show the prevalence of children under 5 years old with underweight, wasting, and stunting were 10.2%, 17.7%, and 30.8%, respectively. Child obesity was 8.0%, slightly decreasing from 11.9% in 2013. Child anemia was 38.5%, increased from 28.1% in 2013 [1– 3]. Furthermore, the emergence of the Coronavirus disease-19 (COVID-19) pandemic has impacted global public health, including child health and nutrition due to the disruption of the health system, socio-economic, and food system. These disruptions are potentially challenges exacerbating the malnutrition problem among children [4,5].

Infant and young child feeding, especially exclusive breastfeeding up to 6 months and breastfeeding up to 12 months, is a proven strategy to achieve optimal child growth and development [6,7]. Thus, breastfeeding remains to have an important role in preventing lifethreatening infections in infants and young children during the COVID-19 pandemic [8]. Unfortunately, even before the COVID-19 pandemic, the national

coverage of exclusive breastfeeding among infants aged 0-5 months in Indonesia was 37.3% in 2018 [1] which is still far from both the targets of the WHO [9] and the government's mid-term plan of 50% by 2025 [10].

There are multiple determinants of exclusive breastfeeding, which range from individual setting to structural-level normal circumstances [6,11].However, there will be further challenges ensure exclusive breastfeeding practices during such an infectious disease pandemic. It is plausibly due to the indirect effects of a pandemic on the exclusive associated factors of breastfeeding Furthermore. [12,13].restriction of movement and separation from the loved ones or other family members, lossing freedom, fears of disease, and changes in income and job, can lead to negative psychological effects, especially for vulnerable groups such as pregnant mothers and new mothers [14,15].

To date, several studies have already observed the impacts of the COVID-19 pandemic among breastfeeding mothers, but there are still limited studies that investigate the association between sources of

breastfeeding supports with exclusive breastfeeding practices during pthe andemics. It is important to investigate this association to provide a greater understanding of the pandemic impacts to find the effective strategies to improve breastfeeding exclusive practices. Therefore, this study aims to investigate the association between sources of breastfeeding supports with exclusive breastfeeding practices among mothers with infants aged under 6 months during COVID-19 pandemic in Indonesia.

METHODS

Study design, sample, and sampling procedure

This study was conducted as a quantitative study using a cross-sectional study design. It is part of the COVID-19 Mom-Baby Study conducted in the UK and Malaysia. Data collection was carried out online from 2nd December 2020 to 8th February 2021. The study population was mothers above the age of 18 years old, who were currently living in all regions of Indonesia and have an infant aged under 6 months (<183 days). All mothers with a different type of infant (e.g. twin, premature, low-birth weight, or any type of medical conditions) and a different type of infant feeding practices (breastfeed, formula-fed or mixed-fed) were eligible to participate in this study. Subjects who were eligible and gave online consent became the participants, except those who were pregnant.

The sample size was calculated based on the multivariate analysis used in the COVID-19 Mom-Baby Study. This calculation involved a rule of event per variable (EPV) requiring a minimum sample size needed of 10 cases per independent variable [16]. With 21 variables consisting of maternal, infant, household characteristics, maternal risk for COVID-19 and mood. as well as sources of breastfeeding support used in the project, added with 10% for incomplete cases, the total samples required was 231 subjects. However, the present study focuses only on maternal-infant characteristics and breastfeeding support.

The subjects were taken using non-probability sampling with convenience sampling techniques. The survey invitation with a link of the online questionnaires through the Limesurvey® platform was advertised and distributed on websites and social media pages of SEAMEO RECFON and Department of Faculty of Medicine, Nutrition, Universitas Indonesia, as well as the research team's contact through social media and messenger services. The research team also collaborated with relevant organizations working in the maternal and child health to disseminate the survey invitation through their networks and/or social media accounts.

Instrument

The instrument used in this study was an online structured questionnaire adapted from the UK COVID-19 New Mum Study developed by University College London (UCL). The questionnaire has five parts; A) Sociodemographic characteristics of Mother and Infant (25 questions), B) Current Infant Feeding Practices (39) questions) and Household Food Security (18 questions), C) COVID-19 Pandemic and Its Impacts (21 questions), D) Infant feeding and behavior and any changes to COVID-19 pandemic questions), and E) Mother's Activities, Mood and Access to Support during COVID-19 Pandemic (34 questions). Questions related to current infant feeding practices or breastfeeding practices were based on Indonesia Basic Health Research 2018 and Indonesia Demographic and Health Survey 2017 [17,18]. Some questions were adapted to the Indonesian situation and the final Indonesian questionnaire was pre-tested.

Measures

infant's Mother's and characteristics: sociodemographic characteristics of mother, including level. maternal educational age. household income level in the last 1 month, mother occupation during the pandemic, and living location. Infant profiles were asked, including date of birth, sex, birth weight, and gestational age. Sources of infant feeding support were assessed based on the mother's answer to question "Where do you get support with infant feeding from?". The breastfeeding patterns were defined according to World Health Organization definition [19]. (WHO) Exclusive breastfeeding definition was infants who were received only breast milk including milk expressed or from a wet-nurse, without any additional solid or liquid supplement including water, except oral rehydration solution (ORS), drops, or syrups (e.g. vitamin, minerals, medicines) from the previous day.

Data collection procedure

The eligible subjects who have received the survey invitation and interested to take part in this study could fill the questionnaire directly through the survey link bit.ly/mombabystudy. At the beginning of the questionnaires, a brief description of the survey, research purpose, and benefits were provided. Initial validation confirmed each eligibility criterion using screening questions. Data quality assurance measures taken included 1) providing CAPTCHA [20] 2) Name, email, phone number, and IP-address checking [21,22] 3) Time speed, attention check question, and pattern answer checking [21,23], and 4) Confirmation to the respondents through messager services or telephone if any inconsistent, missing, or implausible data were found.

Statistical analysis

Univariate analyses presented in frequency and percentage were done to provide descriptive characteristics of subjects on the exclusive breastfeeding practices and the sources of support. Bivariate analysis using Chi-square or Fisher test was performed to show the association between the exclusive breastfeeding practice and its sources of support with the significant level set at p<0.05. All analyses were performed by using IBM SPSS Statistics 20.0.

Ethics

Ethical approval was obtained from the Ethics Committee of the Faculty of Medicine, Universitas Indonesia – Dr.Cipto Mangunkusumo Hospital (KET 357/UN2.F1/ETIK/PPM.00.02/2020).

RESULTS

During data collection from 2nd December 2020 to 8th February 2021, a total of 1,214 responses were obtained. Among those responses, a total of 538 responses were excluded with following reasons: 251 responses did not fill the online survey at all, 73 responses did not the screening questions, responses had an infant aged 6 months or above, 3 responses were from a male respondent, did not have an infant, and whose infant was not the respondent's child, 131 responses did not complete feeding practices Therefore, there were 301 responses with infants aged (under 6 months or <183 days). However, there were 5 duplicate responses identified from the identical name, email address, and phone number. those with complete We included responses and when both duplicate responses were completed, only the recent one was included in this study. The total responses with infants aged under 6

months was 296 with 48 excluded responses due to incomplete Therefore, the total responses included as

subjects in this study were 248 subjects (Figure 1).

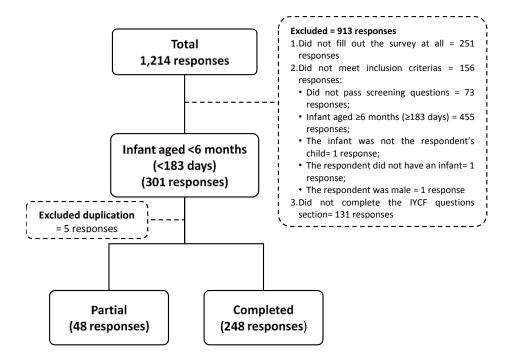


Figure 1. Diagram of subjects obtained in the study.

Mother's infant's and characteristics are presented in **Table 1**. Most of the subjects were aged between 18-34 years with a median of age of 29 years old, 86.7% had a diploma to master degree, 45.6% was housewife, and 39.2% had household income in the last 1-month Rp.3,000,000 - Rp.7,199,999 (equal to USD 206.9 - 496.4), and 83.1%

was living in Java Island, with the West Java Province was the highest proportion all provinces. Infant's characteristics included a median of age was 3 months, with 76.2% was aged ≤ 4 94.4% was normal birth months, weight/NBW (2,500 - 4,000 gram), and 96.0% was full-term (37–42 weeks).

Table 1. Distribution of mothers' and infants' characteristics (N=248)

Proportion n (%)	
$29(20-44)^1$	
225 (90.7)	
23 (9.3)	
33 (13.3)	
215 (86.7)	
34 (13.7)	
54 (21.8)	
21 (8.4)	
113 (45.6)	

Characteristics	Proportion n (%)
Others ²	26 (10.5)
Household income in the last 1 month	,
$\leq Rp.2,999,999$	54 (21.8)
Rp.3,000,000 – Rp.7,199,999	97 (39.2)
$\geq \text{Rp.7,200,000}$	97 (39.1)
Living location ³	
Sumatera island (Aceh, North & West Sumatera, Riau, Jambi,	19 (7.7)
Bengkulu, and Lampung Provinces)	
Java island	
Jakarta Province	
West Java Province	49 (19.8)
Central Java Province	70 (28.2)
Yogyakarta Province	26 (10.5)
East Java Province	18 (7.3)
Banten Province	19 (7.7)
Bali & Nusa Tenggara island (Bali, West & East Nusa	24 (9.7)
Tenggara Provinces)	3 (1.2)
Kalimantan Island (West & East Kalimantan Provinces)	
Sulawesi island (North, South, Southeast, and West Sulawesi	9 (3.6)
Provinces)	
	11 (4.4)
Infants	
Age	3 (0-5) 1
\leq 4 months	189 (76.2)
> 4 months	59 (23.8)
Sex	
Male	127 (51.2)
Female	121 (48.8)
Birthweight	$3,100(2,000-4,500)^{1}$
LBW (<2,500 gram)	6 (2.4)
NBW (2,500 – 4,000 gram)	234 (94.4)
HBW (> 4,000 gram)	8 (3.2)
Gestational age	$39(32-42)^1$
Pre-term (<37 weeks)	10 (4.0)
Full-term (37 – 42 weeks)	238 (96.0)

¹ Median (Min-Max)

Table 2 presents the current breastfeeding practices pattern of the subjects. It showed that of 248 subjects, 79.0% were exclusively breastfed. Other subjects were predominantly breastfeeding, practicing formula feeding, and combination feeding, respectively 10.5%, 2.4%, and 8.1% of the total subjects. Among the subjects who gave mixed feeding, it was identified that the

types of food items that had been given to their baby were quite diverse, ranging from commercial baby food, rice, and cereal groups, vegetables, and fruit, to animal protein sources. Sources of support for infant feeding that mother reported receiving during the COVID-19 pandemic is demonstrated in **Table 3**. The most common sources of support for infant feeding were obtained from

² Other occupations included teachers, early childhood educators, lecturer, non-civil servant government employee, doctor, contract or temporary employees, therapist, farmer, laboratory assistant, and researcher

³ Living locations only covered 25 provinces of a total of 34 provinces in Indonesia

husbands (91.1%) and health workers (65.7%), followed by family (62.9%). Other supports that reported were from friends (37.9%), support groups (26.2%), and online sources (16.1%). Results of bivariate analysis (Table 4) revealed no significant associations between all of the

sources of infant feeding support with exclusive breastfeeding. However, the proportion of exclusive breastfeeding practices among subjects who did not receive husband support (68.2%) was lower than those who receive husband support (80.1%).

Table 2. Distribution of current breastfeeding practices pattern (N=248)

Breastfeeding practice	Proportion n (%)
Exclusive breastfeeding	196 (79.0)
Predominantly breastfeeding	26 (10.5)
Formula feeding	6 (2.4)
Combination feeding (breast milk/formula milk + semi-solid/solid food)	20 (8.1)

Table 3. Distribution of sources of infant feeding supports (N=248)

Source of breastfeeding supports	Proportion n (%)
Husband	226 (91.1)
Family	156 (62.9)
Health professional	163 (65.7)
Friends	94 (37.9)
Social group ¹	65 (26.2)
Online sources ²	40 (16.1)

More than 20 social groups were identified including AIMI, Ayah ASI, Mommy Squad, Selasi (Yayasan Sentra Laktasi Indonesia), Pejuang ASI Indonesia, Birth Club Indonesia, Exclusive Pumping Mama Indonesia (E-ping), Homemade Healthy Baby Food (HHBF), Gema Indonesia Menyusui (GIM), Aku Cinta ASI Indonesia, Ambubaba birth club, Komunitas MPASI Homemade (KMHM), Sentra Laktasi Muslimah/Salma, NGASIyuk,

Table 4. Association between Sources of Breastfeeding Supports and Exclusive **Breastfeeding Practices (N=248)**

Variables -		Breastfeeding ctices	_ Total p -		Crude OR
	Non-EBF n (%)	EBF n (%)	Total	<i>value</i> ^a	(95%CI)
Husband support					
No	7 (31.8)	15 (68.2)	22	0.269^{b}	1.8(0.723 - 4.876)
Yes	45 (19.9)	181 (80.1)	226		1
Family & Friends support					
No	18 (28.1)	46 (71.9)	64	0.102	1.7(0.892 - 3.340)
Yes	34 (18.5)	150 (81.5)	184		1
Health professional suppo	ort				

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Online sources which were web-based, mobile apps-based, forum discussion or more were identified, including Orami parenting, The Asian Parents, Kursusku.id, Healthcare Pedia Indonesia (Support Group HaPpy), gaiaparenting.com, Kelas Menyusui Online (KMO), Ibupedia.com, femaledaily.com/mommiesdaily.com, etc.

Variables	Exclusive Breastfeeding Practices		Total p-	р -	Crude OR
	Non-EBF n (%)	EBF n (%)	Total	value ^a	(95%CI)
No	21 (24.7)	64 (75.3)	85	0.296	1.3 (0.745 – 2.621)
Yes	31 (19.0)	132 (81.0)	163		1
Social group & online	supports				
No	35 (21.9)	125 (78.1)	160	0.636	1.2(0.611 - 2.237)
Yes	17 (19.3)	71 (80.7)	88		1
Total	52 (21.0)	196 (79.0)	248		

^aChi-Square Test ^bExact Fisher Test

DISCUSSION

The result of this study showed proportion of exclusive breastfeeding practice among subjects was high (79.0%). The proportion was higher than the national exclusive breastfeeding rate in 2019 (67.74%) [24]. In line with this, the results from a similar study during the early COVID-19 pandemic period in 6 provinces in Indonesia through rapid survey showed that infants aged under 6 months that only fed breast milk on the previous day was 87.8% [25]. The positive impact of the COVID-19 pandemic that might improve exclusive breastfeeding practices is mothers had much time to focus on feeding their baby, so did partner to support mothers during work from home [26]. In addition, it might be due to most of mothers who already breastfeeding did not have a plan or consideration to stop breastfeeding during the COVID-19 pandemic [27].

In this study, the most source of support that subjects received was from their husband/partner. Similar findings were also found from a study on the experience and infant feeding practice of new mothers during the COVID-19 pandemic in England which showed that the most source of support that mother received and the most influential support that mother perceived were husband/partner [28]. This can be

explained that the available time of husband/partner to support mother was increased when working from home [26]. Husband/partner becomes a valuable source of support for mother through his active participation in childcare, especially when mother experienced limited access to family members or friends who may provide this support before pandemic [28]. Ogbo et al found different types of supportive parental behavior, which are support in the form of verbal encouragement and support in the form of actions [29]. While, Davidson and Ollerton categorized parental supportive behaviors as knowledge, help, encouragement, and responsiveness [30]. Health professional support, as well as family and friend support, also became the most breastfeeding supports that mothers received during the pandemic. As the family is the closest environment for mother and infant, the family becomes the first setting for the motherinfant dyad in infant feeding practices, specifically breastfeeding after discharge from the health care facility [31,32]. The roles of family in providing the values and beliefs in breastfeeding practices [33]. Health professionals or health workers are more skilled and experienced, so they can help mothers with health risked circumstances that can result in delayed breastfeeding, for example, high-risk pregnancy, assisted

delivery and long hospital stays, maternal illness, low-birthweight newborn babies, and preterm, ill [6]. Breastfeeding support and service from health care facilities were received during antenatal care (ANC), delivery, and postnatal care (PNC).

The bivariate analyses show that support the husband's was not significantly associated with exclusive breastfeeding, which is consistent with a previous study in Indonesia [34]. **Decision-making** in exclusive breastfeeding by mothers might explain why some mothers who received husband's support still did not practice exclusive breastfeeding. Several factors might influence a mother's decision in breastfeeding, including sociodemographic characteristics, personal experiences, social and professional support, changes to the family dynamic, etc [35,36]. The involvement of the husband in the mother's decision-making process of breastfeeding is determined by mother's perception, which the commonly mothers perceive that husband is not part of breastfeeding decision and most of the time husband felt left out However, the proportion [37]. exclusive breastfeeding among mothers who received husband support was higher than those who did not receive husband support. This might be caused by the positive impact of the COVID-19 pandemic that mother's perceived, such as fewer visitors that give mothers more time to focus and relax on feeding their baby, can increase confidence breastfeeding due to enhanced mother's privacy, increased responsive feeding due to less of household routine, and had much husband support when working from home [26].

Family and friend supports was significantly associated not exclusive breastfeeding. It is inconsistent with previous studies in Indonesia that showed family supports was positively

associated with exclusive breastfeeding [33,38]. Family provides mothers the values and beliefs in breastfeeding practices [33]. This different finding might happen because mothers are able to decide which family supports they should accept or reject, especially for the supports that mothers considered harmful to the breastfeeding practices maintaining exclusive breastfeeding [39].

Health professional support also not associated with exclusive breastfeeding, which previous studies had similar results [40,41]. In contrast, other several previous studies in Indonesia showed a significant association between worker/health care facilities health support with exclusive breastfeeding practices [32]'[42]. Different findings might be because of an unspecific period of health professional support that mothers received in this study. Health workers' or health professionals' supports for mothers is important in a critical period of the newborn during the hospital stay and after discharge from hospital for stabling lactation and lowering the risk of exclusive breastfeeding termination [6],[43],[44].

No association between social groups & online supports with exclusive breastfeeding practice was also found in this study. A systematic review and metaanalysis study found that no difference in the proportion of exclusive breastfeeding until 6 months between mothers who received peer support and those who did not in high-income countries [45]. This might be due to a preference to get advice and support on breastfeeding from professional health workers mothers in high-income countries [45]. Similarly, the previous study in the UK among infants born during lockdown vs before lockdown in the COVID-19 pandemic showed that only fewer among infants born during lockdown group perceived online support as the main influence on infant feeding compared to

infants born before lockdown group [46]. Mothers with younger infants needed more practical support establishment of breastfeeding [46]. While online support commonly is used by mothers for seeking informational support [47]. However, this kind of support has the potential to be utilized more in the effort to improve breastfeeding practices as the development of maternal and child health support groups and the increasing use of digital technology in disseminating health information even before the pandemic. As the univariate results, more than 20 support groups and online supports were identified. The types of online supports mothers used/received that commonly application-based, web-based, or social media-based online supports. While for the social group support, it was also mostly obtained in an online manner (e.g. social media, webinar, online course, etc.) due to the movement control order during pandemic circumstances. Similarly, Brown and Shenker reported from a study in the UK that mothers hardly access face-to-face support from group support social [26]. characteristic of online based-social support was a virtual community that has experienced from many members mothers, easy to access, also some of them available in different regions [48]. Furthermore. online groups effectively help mother with anxiety problem that avoids attending face-toface groups and provide time flexibility to be accessed [49]. Thus, this kind of support is still relevant for mothers in pandemic circumstances. However. several considerations for the utilization online support were of misinformation or invalid information that was sometimes posted, lack of regulation, polarized debate or judgment for using not breastfeed or using infant formula, etc [49]. Therefore, it is suggested to have a high literacy on

digital information or the internet and still need to be accompanied by health professionals to obtain valid information.

The current study was the large survey observing the source of infant feeding supports and exclusive breastfeeding practice among mothers during the COVID-19 pandemic, which is still limited to being discussed in previous studies, especially in Indonesia. This study has the limitation that the overall prevalence of exclusive breastfeeding was based on the mother's self-reported infant feeding information at the previous 24 hours, which might lead to recall bias. However, the exclusive breastfeeding practice in this study was assessed based on a standard and valid questionnaire that was also used widely on a national survey. In addition, this study only observed current exclusive breastfeeding practices that might not be interpreted as 6 monthexclusive breastfeeding practices WHO recommendation. Another concern is the socio-demographic characteristic of the subjects that mostly were 18–34 years old, had high education and income level, and lived in Java Island that might be due to the accessibility of the internet or literacy of information and technology. Therefore, the findings in this study cannot be directly generalized Indonesian population.

CONCLUSIONS

The findings of this study show that various sources of supports on breastfeeding for mothers are still relevant and needed to ensure exclusive breastfeeding practices during pandemic circumstances. The most sources of supports that mothers obtained were from the home environment (husband and family or significant others), as well as health professionals. Government should target mothers and their husband or family as a priority target for health

professionals to provide preventive and promotive breastfeeding intervention because the most sources of support in infant feeding that mothers perceived were husband, health professional, and family. In pandemic circumstances, the modification and innovation of ANC visits or any other mother and children health services are needed. Mothers can use online counseling or home visitation to access ANC services or any other source of supports on breastfeeding. Future analyses of the survey data are needed to explore more about mother's experiences change, such as everyday lifestyle, finances, access, and utilization in healthcare services to get the whole picture of the effects of the COVID-19 pandemic on exclusive breastfeeding practices. Furthermore, the survey should cover all Indonesia regions with more diverse samples.

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