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Breast is Best: Determinants of Breastfeeding in Bali

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BREAST IS BEST

Determinants of Breastfeeding in Bali

Leah Hardenbergh

Advisor: Bu Sita van Bemmelen

SIT Study Abroad Indonesia: Arts, Religion, and Social Change

Fall 2016

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Abstract

Breastfeeding greatly benefits the health of newborns, providing them with needed antibodies and protection from numerous diseases, including some of the leading causes of infant mortality. This paper explores breastfeeding practices in Bali, and the wide array of factors that have led to these practices. After discussing how breastfeeding fits into the larger context of maternal and newborn health, I explain factors in Bali that affect a woman's decision to breastfeed and experience while breastfeeding. Determinants include those related to health, financial position, and social status. I explore the history of formula companies and formula as an alternative to breastmilk, as well as current laws in Indonesia related to breastfeeding. I conclude with the areas of greatest potential to improve breastfeeding rates in Bali, as well as the strengths of breastfeeding in Bali that can serve as an example for the rest of the world.

Introduction

Personal route to ISP

There are few tasks more daunting than selecting a topic for independent study in a country you are just getting to know and a language you are just realizing you really do not know. To curb all the unfamiliarity, I wanted to select a topic about which I had some previous experience. This brought me to the idea of maternal and newborn health. I spent the eight months prior to my Indonesia departure as an intern at Maternova. Maternova is a social enterprise which distributes innovations in maternal and newborn health around the world. During my time here, I not only fostered an interest and a passion in maternal and newborn health, but also explored several specific topics within this realm. One of these topics was breastfeeding.

Breastfeeding is something I have always known about, but I had no idea the extent of its positive impact on the health of both mother and newborn. I have since realized that I was not alone in my unfamiliarity. Around the world, breastfeeding is often underutilized because of a lack of information about the positive health effects with which it is associated. If every baby were breastfed within the first hour of birth, the global infant mortality rate would fall 22% (Palmer, 2016, p. 21). This is a pretty significant figure for something that is provided by the body without cost.

Not only is breastmilk free of charge, but for many families infant formula is very expensive. It is therefore often only feasible for wealthier families. Breastfeeding, however, breaks the pattern of better health outcomes associated with more wealth, which is reflected in Bali's unique economic position. Compared to the rest of Indonesia, Bali has experienced

significant economic growth in recent years, with tourism replacing agriculture as the largest industry. However, economic growth has benefitted certain populations in Bali more than others, increasing levels of economic inequality on the island. Therefore, the cost of infant formula places a much heavier burden on certain families. Formula is associated with wealth and a higher socioeconomic status.

Socioeconomic status does not only affect breastfeeding by determining who can and cannot afford alternatives. It also determines the populations for which breastfeeding is most critical. “Whether a child is breastfed or not is a question of sickness and health in the rich world and a matter of life and death in the poor world.” (Palmer, 2016, p. 17) In Bali, these two “worlds” just happen to be much more intertwined than usual.

My approach to the topic of breastfeeding is primarily from a health perspective. While breastfeeding leads to the best health outcomes, I want to make it clear that this does not mean it is the best decision for every woman. A woman should have the power to make decisions for herself and her child. However, decisions surrounding breastfeeding go far beyond health; there is an array of socioeconomic factors which take away from the autonomy of the woman in her decision to breastfeed. In this paper I explore these factors to see how they impact breastfeeding outcomes. The ultimate goal is to understand the constraints from various factors that impact a woman’s decision-making process, and how these can be addressed so women have full autonomy.

There are two terms used throughout this paper that are necessary for complete understanding. *Exclusive breastfeeding* is the consumption of only breastmilk and no other food or drink, including water. *Optimal breastfeeding* is breastfeeding within an hour after birth,

exclusive breastfeeding for six months, and continued breastfeeding with complementary foods for up to two years. These are the recommendations from the World Health Organization, UNICEF, and almost all health professionals, which have been extensively studied and proven as the best practices for the health of newborns and mothers.

Objectives of the study

During a brainstorming meeting prior to ISP, a list of questions was presented for the students to consider as we approached the start of our independent studies. One of these questions was, “who will benefit from your ISP?” Then, and now, I know that the person most likely to benefit from my ISP is me. Yet this got me thinking about what I hoped to accomplish. The reason I am interested in breastfeeding is because of the potential of its impact. For each woman, the breastfeeding decision and process is affected by countless factors. By hearing individuals’ experiences with breastfeeding, my hope was to gain an understanding of the factors limiting the potential impact of breastfeeding in Bali. In the conclusion of the study I share my thoughts on how optimal practices can be improved based on these individuals’ lives and the factors that influenced their decisions surrounding breastfeeding. My hope is this will spark an interest, an idea, or an action for someone in the future – myself included.

Field study methods

I spent the first week of my ISP in Munduk Pakel, a rural farming village in the Tabanan regency of Bali, where I interviewed four women. Three were mothers with young children, and one was a grandmother and primary caregiver. I then moved to Denpasar, the island’s capital, for two weeks. In Denpasar, I conducted nine interviews with mothers, as well as two

interviews with midwives – one a retired Balinese woman, and one an Australian woman who has been working in Bali for over 20 years.

All of the mothers (and grandmother) I interviewed had children younger than five years old, and all had one, two, or three children. Of the women with multiple children, some had children over five years old, so the data is not limited to children under five, but is limited to mothers with children under five. Interviews were semi-structured; I had a list of interview questions, but asked follow-up questions when my language and understanding allowed. All interviews were conducted in Bahasa Indonesia (Indonesian language) except the interview with the Australian midwife, which was conducted in English.

My questions for mothers began with basic information: name, age, job, number of kids, and ages of kids. I asked about breastfeeding information and sources before birth. I then moved on to the breastfeeding process, with questions about duration of breastfeeding (exclusive and total), problems while breastfeeding, and factors that affected their decisions while breastfeeding. If mothers used formula at any point, I asked about when formula was used, the brand of formula, and reasons for using formula. Finally, I asked the mothers' opinions about breastfeeding versus formula, such as which they think is better and how each affects health.

The most obvious limitation I encountered during the ISP was language. Although I had help both writing interview questions and transcribing interviews from native Indonesian speakers, my own understanding during interviews was limited. This prevented me from asking follow-up questions or responding as I would have if my Indonesian language skills were

stronger. There were also certain questions that were confusing to some of the women, and I was not always able to clarify.

Another clear limitation of my field study was time. Three weeks and 15 interviews is not enough for an extensive analysis and statistically significant conclusions. My interviewees were contacted through connections (snowball sampling) and were not random, so results are not necessarily generalizable. Although the results may not represent an exact portrayal of breastfeeding habits in Bali, there are themes that emerged during interviews that support my conclusions. Large, random samples may be more accurate, but information gathered from individual experiences can be just as valuable when seeing where changes can be made most effectively.

Along with limitations, I want to address factors that affected my ISP experience. I am a white, American, college educated student. This affects how I was perceived by my respondents, and the dynamic between us. Although I tried to make interviews as comfortable and natural as possible, this undoubtedly had an impact on my interactions. This privilege may have been the reason respondents were willing to participate, or affected their responses.

Summary of findings

Certain themes emerged during my 13 interviews with mothers which helped illuminate where efforts to improve breastfeeding rates should be focused. Every mother said she thought breastmilk was better than formula for her baby, and every mother tried to breastfeed, but three said they were unable to with at least one of their children. When asked about breastfeeding information known before birth, only four mentioned optimal breastfeeding duration. This was reflected in practices; rates were very high for breastfeeding in general, but

fell significantly when looking at rates of exclusive breastfeeding for six months, or continued breastfeeding for two years. Social pressure was generally not a strong determinant, but the family played an important role for many women, both as a source of information and support. The price of formula had no influence for some women, and others reported it as the primary reason to breastfeed. Employment status affected the duration of breastfeeding for many women. These themes will be discussed and elaborated on throughout the paper, and I will use them to discuss the areas with the most potential to improve rates of breastfeeding.

Breastfeeding in context: An overview of maternal health and newborn health

Worldwide

Health inequalities exist in many forms; they are apparent between countries, races, genders, communities, and across socioeconomic levels, to provide just a few examples. There are huge gaps in the knowledge and resources available worldwide, especially in the communities where they are most needed. One of the topics where these inequalities are most apparent is maternal and newborn health. 99% of maternal deaths occur in developing countries, the majority of which are from preventable causes.

Since 2000, there has been a global push for improving both maternal and newborn health and reducing mortality rates. At the Millennium Summit in the year 2000 the United Nations established the Millennium Development Goals, eight international development goals aimed at addressing some of the world's most pressing problems. Two of the eight goals targeted maternal and newborn health. Goal four aims to reduce child mortality rates, and goal five, to improve maternal health. While these are listed as two separate goals, the health of mothers and the health of newborns are largely intertwined. "Interventions aimed at reducing the

incidence of maternal mortality will also reduce the prevalence of stillbirths and neonatal deaths.” (Adashi & Oey-Gardiner, 2013, p. 2)

One “intervention” that can greatly benefit the health of both mothers and newborns does not require any outside intervention at all: breastfeeding. For the newborn, breastfeeding helps protect against infection, reduces diarrhea and malnourishment, and provides essential nutrients, all of which reduce the risk of infant mortality. For mothers, breastfeeding reduces rates of ovarian cancer, breast cancer, reduced bone density, and helps with the spacing of pregnancies.

The optimal practices for breastfeeding, recommended by the World Health Organization (WHO) and UNICEF, along with almost all newborn health experts, is a diet consisting entirely of breastmilk for the first six months of an infant’s life, with supplemental breastfeeding lasting for two or more years. Yet only 2/5 of infants worldwide receive diets consisting exclusively of breastmilk for the first six months of life. If these guidelines were followed universally, it would save the lives of an estimated 800,000 infants annually, along with 20,000 women (Young child feeding, 2016). It is remarkable that something so accessible and so beneficial is so underutilized.

Indonesia

The push for improvement in maternal and newborn health was certainly evident in Indonesia, where maternal mortality fell 56% between 1990 and 2013, largely due to an influx in the number of midwives. In 1989, the Indonesian government launched a program called the Midwifery Education Rapid Training Program, which eventually led to the establishment of midwifery academies. In 2003, the Ministry of Education took over health education, drastically

increasing the number of midwifery academies, and, in turn, the number of midwives. The number of midwives in Indonesia grew from 52,000 in 2006 to over 200,000 in 2013 (Adashi & Oey-Gardiner, 2013, p. 2). There were also movements to place a midwife in every village, making their services more accessible in rural areas.

Unfortunately, quantity of midwives was chosen over quality. With so many midwives being trained in such a short time, most did not receive the thorough, hands-on training sufficient to prepare them for the wide range of demands in maternal and newborn health, including time-sensitive emergencies (Adashi & Oey-Gardiner, 2013). Additionally, many midwives who were stationed in villages and rural areas relocated to more urban areas in search of more patients, putting rural areas back in need of services. For many Indonesian women, midwives are their main source of information not only for the birth process but for proper care for a newborn, including breastfeeding practices. Insufficiently trained midwives may lack the knowledge to inform mothers of optimal breastfeeding practices. The potential impact of the surge of midwives fell short, leaving much room for improvement in the realm of maternal and newborn health in Indonesia.

This room for improvement was investigated in a joint study by the U.S. National Academy of Sciences and the Indonesian Academy of Sciences. The resulting paper, "Reducing Maternal and Neonatal Mortality in Indonesia," laid out a series of recommendations and policy advice on (as the title probably suggests) reducing maternal and neonatal mortality in Indonesia. In one hundred pages of data, research, and analysis, breastfeeding was not once mentioned. The closest the report came to discussing breastfeeding was in the eighth and final recommendation, "Education and Empowerment." It stated, "educating girls and young

women saves lives by enabling a mother to make better decisions... and by giving her the information she needs to effectively nourish and care for her infant.” (Adashi & Oey-Gardiner, 2013, p. 99) Close, but no cigar.

One explanation for why breastfeeding was left out of this document is that breastfeeding practices in Indonesia were considered sufficient and not in need of improvement. This, however, is wishful thinking. While breastfeeding rates have improved in Indonesia over the course of the last decade, they are far from optimal; in 2012, only 42% of babies exclusively breastfed for the first six months of life (Walters et al., 2016). According to a recent study, optimal breastfeeding could save the lives of 5,377 children under two annually in Indonesia, along with the lives of 800 mothers (Walters et al., 2016). Breastfeeding is not typically viewed as an “intervention”; it is something that already exists and has existed longer than any health devices, programs, or policies. Perhaps this is why it is so easily overlooked.

It is important to understand the larger maternal and newborn health framework and status in Indonesia before focusing on Bali. Much of the data I have included is for all of Indonesia, because there are limited resources specific to Bali. However, Indonesia is a diverse nation home to a diverse population. Every island is a unique combination of the ethnic, religious, and linguistic components that compose Indonesia as a whole. While certain features of maternal and newborn health can be applied throughout the country, understanding the specific challenges faced by a certain community is vital for progress to be made on the ground level.

Bali

The first recommendation from “Reducing Maternal and Neonatal Mortality in Indonesia” was to ensure that all births occur in a certified facility. This is one area where Bali is ahead of the field. The relatively small size and dense population of Bali facilitates access to health facilities. For this reason, the percentage of women who give birth in a facility in Bali is much higher than the national average. Nevertheless, within Bali there is still quite a bit of variation. People living in urban areas have better access to major hospitals and facilities than those in rural areas, especially in parts of East Bali. Overall, however, accessibility in Bali is strides ahead of other parts of Indonesia.

Health facilities are not the only thing more accessible in Bali. Especially in recent decades, Bali has experienced greater impacts of globalization. One of these impacts is ease of access to information. With increasing influence from tourism and a role in international markets, new ideas and information enter Bali faster than other parts of Indonesia. This has a major effect on the health industry. Health practices and recommendations are constantly evolving as new studies, technologies, and medicines emerge, so places where information is more readily available are more equipped to use the most up-to-date practices. With a constantly growing wealth of knowledge, enacting even small changes in health practices can greatly improve health outcomes.

Just as a growing economy does not benefit all members of a population equally, neither does a growing wealth of information. Some parts of Bali have been completely transformed by tourism and outside influence, while others have remained untouched. Changes in the health industry in Bali are experienced unevenly. Furthermore, many of the

most advanced health facilities are marketed to Westerners rather than Balinese or Indonesian migrants living on the island. Although technology and information in the health industry is increasingly accessible in Bali, access depends on wealth. However, as I mentioned earlier, breastfeeding practices do not necessarily follow the pattern of better health outcomes associated with increased wealth.

This goes to show how complex the combination of factors are that affect any given health practice. Bali is uniquely positioned on the cusp of contemporary and tradition, of isolation and globalization. Because Bali's circumstance is unlike anywhere else in the world, breastfeeding in Bali is unlike anywhere else in the world. The factors in Bali that influence the decision to breastfeed will be the focus of the rest of this paper.

Determinants of breastfeeding in Bali

Health

Benefits of breastfeeding

The list of health benefits associated with breastfeeding is long, but it is important to understand the depth of the potential of breastfeeding. Infants who breastfeed are at lower risk of gastro-intestinal infection, respiratory infection, late onset sepsis, urinary tract infections, ear infections, allergic diseases, type 1 and type 2 diabetes, obesity, childhood leukemia, and sudden infant death syndrome. On average, they have better neurological development, cholesterol levels, and blood pressure. Women who breastfeed are at lower risk for breast cancer, ovarian cancer, and hip fractures and reduced bone density (Palmer, 2016, p. 216-217). The extent of the benefits vary from child to child, but are highest with immediate

breastfeeding after birth, exclusive breastfeeding for six months, and supplemental breastfeeding for two years.

When I asked my informants why they chose to breastfeed, the majority of responses were related to its health benefits: *lebih bagus, lebih sehat* (better, healthier). A few women went on to discuss more specific reasons, including that it is better for the brain, makes the baby stronger, keeps the baby from getting sick, and is more sterile. None of the women mentioned their own health as a reason. While health benefits for newborns were reportedly the leading reason for breastfeeding, the specific benefits were largely unknown.

Sources of information

If health is the primary determinant for the majority of women who breastfeed, it is important to know where their information on the topic is coming from. All of the women I interviewed had a medical professional present when they gave birth – either a midwife, a doctor, or both. Almost all of the women reported receiving information about breastfeeding from a health professional prior to birth, but many women only recalled being told that breastmilk is better for the baby than formula. Four women mentioned the amount of time they should breastfeed – exclusive for six months and continued for two years – in reference to queries about the information they received from a professional. Women also received information about breastfeeding from friends and family, but this was usually about the logistics of breastfeeding. About half of women said they searched for information themselves, on the internet or in books. This was also reported as general information that breastmilk is better for health than formula.

So, while almost all of my informants said that breastmilk is better for the infant's health than formula, none really understood why. Of course, the list of specific health benefits associated with breastfeeding is long and detailed, and I would not expect a woman to know them all. It is likely that some women were told, or found themselves, more information about breastfeeding, but did not remember it during interviews. Yet some of the benefits are a very convincing argument for breastfeeding instead of using formula, so I was surprised they were not mentioned more often.

Timeline

The effects of breastfeeding depend greatly on frequency and duration. The most critical window of time is immediately after birth. This is due to colostrum, a special type of milk produced the first few days following childbirth. Colostrum contains a more concentrated supply of nutrients and antibodies than mature breastmilk. It greatly benefits the gastrointestinal tract, digestion, and is an immediate boost to the immune system. Over the first week or two after birth, colostrum gradually transitions to mature breastmilk. Although the beneficial properties of breastmilk do not stop with the colostrum, they are most concentrated during this time and provide immediate protection at the point of greatest vulnerability (La Leche League International, 2016).

Just like breastfeeding in general, the potential of colostrum is limited by limited knowledge. It is usually yellow-orange in color, and thicker and stickier than normal breastmilk. If a mother did not know about colostrum, there would likely be uncertainty about whether it was normal and safe for the baby. She may wait a few days until the breastmilk starts looking "normal," thinking that it was just a temporary problem. Two of the women I interviewed did

not start breastfeeding until at least two days after birth. I do not know whether it was due to lack of information about colostrum or another factor. Regardless, the sooner after birth a baby is breastfed, the more it can benefit from the protective properties of colostrum.

A mother who does not know optimal breastfeeding practices is very unlikely to follow them. Four women reported getting information that followed along with the guidelines of exclusive breastfeeding for six months and complimentary breastfeeding for two years. During the interviews, there were one or two cases where I think there was a misunderstanding of exclusive breastfeeding as before formula, rather than before any other food. Of the women where understanding seemed clear, five exclusively breastfed for six months, although in one case, only with her second child. Information on the total time breastfeeding is also not available for all of the interviewees, because many were still breastfeeding babies less than two years old. Of the ten mothers who had finished breastfeeding at least one child, only three breastfed for a full two years. Two women who were still breastfeeding their first child said they intended to breastfeed for two years.

The picture of breastfeeding practices gathered from interviews is far from extensive or conclusive, yet it is in accord with general trends in breastfeeding rates in Indonesia. When asked, all of the women I interviewed said breastmilk was better for their babies than formula, and all of the women tried to breastfeed. One woman said she was completely unable to breastfeed, which I will discuss further in the next section. Rates are very high for the number of babies who are breastfed at some point during infancy. The room for improvement falls in the specific recommendations: immediate breastfeeding after birth, exclusive breastfeeding for

six months, and supplemented breastfeeding for two years. This is heavily dependent on a mothers' knowledge of optimal practices.

Ability to breastfeed

A misconception about breastfeeding is that it is common for women to be unable to breastfeed. There are a number of health conditions where mothers should avoid breastfeeding, which I will discuss next. However, the biological inability to breastfeed is extremely rare – less than one in 10,000 women (Palmer, 2016, p. 27). There are also cases where a woman's milk supply is too low, but this is also very rare and does not prevent breastfeeding. A number of factors can make breastfeeding more difficult, including breast shape or pain. There are simple fixes to most of the problems associated with breastfeeding, and yet it is common for women to think that they are incapable.

I encountered this three times during interviews. Of the three, one woman said she was unable to breastfeed her first born but breastfed her second and third children, another breastfed her first child but said she was unable to breastfeed her second after two months, and the third said she was unable to breastfeed her only child. I do not know the specific causes for each woman's belief of her inability to breastfeed, but I know that the odds of all three women actually being unable to breastfeed are very low. Their breastfeeding experiences likely would have been very different with additional information or help.

Health exceptions to breastfeeding

If health is the primary determinant for a woman, this usually translates to deciding to breastfeed. However, there are exceptions. Women with certain preexisting conditions should not breastfeed. While rare, these conditions are important to note. Not only do they affect

breastfeeding practices, but they reinforce both the need for education on breastfeeding and the need for support systems whether a woman is breastfeeding or using formula.

According to the CDC, a woman should not breastfeed if she: has HIV, is taking antiretroviral medications, has active tuberculosis, is infected with human T-cell lymphotropic virus, is using an illicit drug, is taking chemotherapy agents, is undergoing radiation therapies, or if her infant is diagnosed with galactosemia, a rare genetic metabolic disorder. While many are extremely uncommon, the prevalence of both tuberculosis and HIV are increasing in Indonesia. Indonesia is one of only three Asian countries where HIV rates are increasing. Many associate HIV with the LGBT community, but 70% of transmission in Indonesia is through heterosexual intercourse. It is more prevalent in certain groups, but is present throughout the population across all socioeconomic statuses. Tuberculosis follows a similar pattern. Rates have increased in Indonesia in recent years, and Indonesia is considered a “high burden country.” Tuberculosis can also be found across all socioeconomic statuses.

Although these topics are very important, this paper is not the place for a thorough review of HIV or tuberculosis in Indonesia. Rather, it is meant to show that instances where breastfeeding should be avoided are present in Bali. Testing is critical so women are fully informed before deciding to breastfeed. None of these came up during my interviews, so I am unable to include firsthand information. Nevertheless, there are cases when breastfeeding should be avoided that are important to include in breastfeeding education and prenatal testing.

Economic

Price of formula

Kids are not cheap; this is especially true if they are fed using formula instead of breastmilk. While Bali's average income has increased significantly in recent years with the booming of the tourism industry, many Balinese are still working at minimum wage. The Indonesian Government regulates the minimum monthly wage, which varies from province to province. In Bali in 2015, the minimum monthly wage working full time (40 hours a week) was Rp 1.62 million (Ketut, 2014). The price of formula varies, but costs about Rp 400,000 per month. This means that those working at minimum wage and buying formula are spending $\frac{1}{4}$ of their monthly income on infant formula.

Of course, the cost of formula is not always this significant of a fraction of total income. In all of Indonesia, those who buy formula spend an average of 13.7% of their monthly income on formula. The greater the income, the smaller the amount of income spent on formula. While the health benefits of breastfeeding are nearly universal, these benefits are more critical in poorer populations where infants are more susceptible to malnutrition and infection. The upside of this is that the cost of formula is often a significant enough barrier to dissuade mothers from using formula, encouraging breastfeeding in communities with less wealth.

The majority of the mothers I interviewed made their decision of whether or not to breastfeed independent of the cost of formula. Of my respondents, four out of the thirteen said that the cost of formula influenced their decision. There was only one mother who gave the cost of formula as her primary reason to breastfeed. If reasons for breastfeeding are primarily health based, even cheap formula should not persuade mothers to use formula instead.

Although not hard data, I noticed an interesting trend among the women who said the cost of formula was *not* a factor. Overall, these women had more information about breastfeeding than those who said the cost of formula was a factor in their decision. Women who said cost was not a factor were more likely to know specific information about the health benefits and optimal time for breastfeeding. Only one of the four women who said cost was a factor also commented on having information about optimal time. This seems logical – women who have more knowledge about breastfeeding are less likely to be swayed by other factors. While the cost of formula is rarely the sole determinant, it is still a factor nonetheless, especially for women who are less informed about the health benefits of breastfeeding.

Employment

The use of formula by women for whom it is a greater economic burden does not only depend on the cost of formula. While the cost of formula may dissuade women with less money from buying formula, these are also the women who are more dependent on an income after birth. Optimal breastfeeding includes six months of exclusive breastfeeding. However, if women are supporting themselves and their families, they may be unable to live without an income for six months. Informal labor is very common throughout Indonesia, especially for women. There are certain scenarios where a mother may have her children with her during work, but this is not the norm. This creates a contradiction for economically challenged women – the cost of formula is a greater burden, but formula must be used during work when breastfeeding is not possible. Employment does not mean an end to breastfeeding, but it does make optimal breastfeeding unlikely. This is affected by maternity leave as well, which will be discussed later.

Women do not only return to work after birth based on necessity. A study on female labor force participation (FLFP) in Indonesia found that while overall rates have remained relatively stagnant, there has been an increase in formal employment of women. “In Indonesia, younger women in urban areas have increased their labor force participation in recent years, largely through wage employment, while younger women in rural areas have reduced their labor force participation, largely by opting out of informal, unpaid employment.” (Schaner & Das, 2016, p. 1) Formal employment of women is rising and informal employment is falling.

This trend correlates with increases in female education attainment, as well as urbanization trends. According the FLFP study (Schaner & Das, 2016), in 1990, 11% of women had a secondary or postsecondary degree and 30% lived in urban areas, whereas in 2011, 30% of women had a secondary or postsecondary degree and 50% lived in urban areas. This puts more women on a career path with formal employment. Even if women do not feel it is financially necessary to work, they may choose to return to work for a host of other reasons. Regardless of the reason, returning to work often disrupts breastfeeding practices.

This was confirmed by a number of my interviews. The grandmother I interviewed was the primary caregiver of her three-and-a-half year-old grandson in Munduk Pakel. She began watching the child when he was seven months old, at which time the mother (her daughter) moved to Denpasar to work. The child breastfed for seven months, but used only formula after the mother moved. Among my other interviews, one mother switched from breastfeeding to formula at 16 months because she returned to work. Another mother exclusively breastfed for four months, and then began using formula in addition to breastmilk because she started

working. Lastly, one mother began using formula after returning to work when her child was one, but continued to breastfeed as well for two years.

Of the four mothers who changed breastfeeding practices due to work, only one breastfed optimally. This is more likely when returning to work after six months, because supplemental breastfeeding can be done around work hours, but exclusive breastfeeding cannot. However, as I mentioned before, this is not a luxury all women can afford. Even if women are able to continue breastfeeding, it takes time and energy so it may become less likely with work. Whatever the reason, it was clear that among my respondents, a change in employment status also meant a change in breastfeeding practices.

Breastfeeding as an economic investment

Although it seems strange to think of the potential benefits of breastfeeding in terms of economic value, it is helpful to see how widespread the effects are. If every child in Indonesia were optimally breastfed, it would save the lives of 5,377 children under two annually, and 800 mothers. This correlates to over 250 million USD savings on health expenditures. Optimal breastfeeding is also estimated to prevent over one billion USD in annual wage losses in Indonesia by improving the learning abilities of children (Walters et al., 2016). Breastfeeding saves significant amounts at the individual level as well. Not only do families save the cost of formula, but they are less likely to pay for treatments of diseases combatted by breastfeeding, such as diarrhea and pneumonia. From a government expenditure perspective, money spent on breastfeeding support and resources is an economic investment that more than pays for itself.

Social

Formula as status

Breastfeeding is a rare example of no association between better health outcomes and more wealth. Using any alternative to breastfeeding, namely formula, is only possible with money. Because average income and living standards are higher in Bali than other parts of Indonesia, most women in Bali today are in a position where they are able to afford infant formula, but for many it is an economic burden. Infant formula began as a luxury item, so it is associated with a position of status.

This idea was echoed by both of the midwives I interviewed. One shared the opinion that for most women, cost and status are just as important of determinants as health (K. Patra, personal communication, November 21, 2016). The other discussed how she has had patients of higher status who chose not to breastfeed because they did not want it to affect the appearance of their bodies (A. Widari, personal communication, November 25, 2016). None of the mothers I interviewed mentioned status as a factor, but none of them were “high class.” Either way, data supports the theory – a recent study from UNICEF showed women in the highest 20% of wealth are less likely to exclusively breastfeed until six months than women in the lowest 20% (From the first hour, 2016).

Importance of family

While a woman’s social position is important, the role of family in Balinese society is just as influential, if not more. In Bali, families – including extended family – are usually geographically close. This proximity, as well as the strength of family ties, makes them an

important part of decision making processes, and important sources of information. This was evident in a few areas of my interviews.

Families were often mentioned as a source of information about breastfeeding before birth, namely mothers and mothers-in-law. Information from mothers was usually not technical, but rather advice on how to make breastfeeding easier. Having familial support may not be a major determinant of whether or not to breastfeed, but without this support, mothers who face difficulties may be discouraged and switch to formula. A few respondents also said that their mothers helped show them how to breastfeed the first time. This familial advice and assistance reduces the belief of inability to breastfeed, and may elongate the duration of breastfeeding when difficulties arise.

Just as a woman's relationship with her mother is relevant, so is her relationship with her child. Two of my respondents discussed their relationship with the baby as a reason to breastfeed. Breastfeeding creates both a physical and emotional bond between the mother and newborn. While the link between mother and child is not unique to Bali, the emphasis on family structure may make this a more important consideration for Balinese women.

The birth order of the child is another family related consideration. Like most things in the world, breastfeeding becomes easier with practice. One mother told me she was unable to breastfeed her first child, but was able with her second and third. Birth order could also affect duration of feeding. Breastfeeding is a fairly effective form of birth control, so if a mother decides she wants to have another baby before two years of breastfeeding the first, the length of breastfeeding would be cut short.

Language

Language affects not only the way we are able to communicate, but the way we interpret information. In Indonesian, *susu* translates to both milk and breast. While the intended noun can usually be determined from context, this establishes a cognitive link between the two and creates a stronger association. It describes breasts in their functional sense. Biologically, the purpose of the breast is to produce milk to feed infants. That is the reason they exist. By using the same word for breast and milk, it makes it impossible to separate the breast from its biological purpose. Unfortunately, the biological purpose is no longer the only thing that comes to mind when breasts are seen or discussed.

Historical

Sexualization of breasts

In many parts of the world, the role of breasts has gone far beyond that of their functionality. Breasts are overly sexualized and seen as objects of desire. This was not always the case – in the United States, the sexualization of breasts began in the 19th century, around the same time baby formula emerged on the markets. This combination of events led to a decline in rates of breastfeeding, and de-normalized breasts as a tool for feeding.

Today, this problem is even more salient in the United States. There is a huge stigma around breastfeeding. Women are regularly shamed or criticized for breastfeeding in public. Although it is completely legal in 47 out of 50 states, only 43% of adults in the U.S. believe women should be able to breastfeed in public (Barriers to Breastfeeding, 2011). We have grown accustomed to seeing breasts used as a marketing tool to advertise goods or attract customers,

but react negatively when we see breasts used to feed an infant. The greater the sexualization of breasts, the greater the resistance to breastfeeding.

The use of breasts as a tool for marketing did not go unnoticed by the rest of the world, including Bali. Prior to the boom of tourism, which began in the 1920s and escalated in the following decades, it was common for women in Bali to be topless. The breast was not viewed in a sexual manner, so exposed breasts did not have any other connotation. Unfortunately, the Western idea of breasts was not contained to Western breasts. Images of topless women and exposed breasts in Bali were part of the initial marketing of Bali to the rest of the world. “The bare breasts of Bali were used in illustrations as part of this campaign to make Bali (male) paradise of western fantasies.” (Witton, 2007) Thus the idea of bare breasts as sexual openness was introduced to Bali.

The Western influence on breasts in Bali was twofold. Not only were exposed breasts framed in a sexual manner, but Western women came covered, which created the idea of covering the breasts as “modern”. This had been introduced with Dutch colonizers, but was exacerbated with the influx of tourists from around the world. Around the same time, infant formula was emerging in the Indonesian market. The co-occurrence of these events painted a picture of feeding with infant formula, rather than an exposed breast, as modern and civilized.

Today, breastfeeding in Bali has not reached the level of stigmatization that it has in the United States, but it has not gotten away unaffected. Women are rarely seen topless, except for perhaps those of the older generation. The women I interviewed had pretty mixed responses to this topic. When asked if they breastfed in public, there were roughly equal responses of: “yes, I breastfeed in public” (usually along with a funny look, questioning why she would *not*

breastfeed in public), “I will if I have to but I usually try not to,” and “no, I do not breastfeed in public” (usually along with a funny look, questioning why she *would* breastfeed in public). On a related note, two women were breastfeeding during interviews, showing that they were comfortable to breastfeed in the presence of a stranger. It is noteworthy that with the same action in the same societal context, some women feel completely comfortable while others do not even consider it. It seems to be more a matter of individual preference than an overarching societal view. Nevertheless, comfort breastfeeding in public may be greater for all women were it not for the sexualization of breasts.

Role of formula companies

Formula companies started making their way into Indonesian markets in 1950s and 60s, a time when the influence of Western practices was already growing. The sheer population of Indonesia, along with high fertility rates and a relatively young population, made it the perfect target for formula companies. This was during a time before the health benefits of breastmilk and the potential dangers of formula were widely known. For this reason, in the early years formula companies had essentially free reign, securing their lasting position in Indonesian markets.

Tactics of formula companies were detestable. Although they knew formula put the lives of infants at risk, especially in developing nations, they also knew they had a small window of time to make their stake in the industry. Companies advertised formula as a better choice than breastmilk, and put faulty information on labels. This made the financial burden of formula seem worthwhile for mothers who were able to afford it, led to believe it was the best choice for their child.

It did not stop here. Formula companies sought after a voice trusted by mothers: health care professionals. They formed partnerships with hospitals, doctors, and midwives. Formula companies gave workers gifts, prizes, or a portion of the sales of formula in exchange for the promotion of their products. They also gave free samples to be distributed, increasing the odds of immediate brand loyalty. Mothers had no reason to question information from health professionals. Additionally, the training of midwives was often insufficient. This was before widespread knowledge of the downsides of formula, so just as mothers had no reason to doubt health professionals, health professionals had no reason to doubt formula representatives.

This was the way things ran until laws were first passed to regulate formula companies in 1985. Regulations have become stricter and punishments harsher over the years, but it has been an uphill battle. Today, it is difficult to gauge the prevalence of relationships between formula representatives and health professionals, since it is illegal and not open information. Of my respondents who had used formula, three chose the brand of formula based on a recommendation from a doctor, midwife, or hospital. A brand recommendation is not necessarily illegal, as long as there is no relationship between the worker and the brand, and it is not recommended in the place of breastmilk. This is hard to know for certain in individual cases. Either way, it is clear that health professionals have a strong influence on the decision making of mothers, and are important allies in enforcing optimal breastfeeding practices.

Legal

Maternity Leave

Indonesian law requires three months paid maternity leave for mothers, which includes time taken off before birth. Although paid maternity leave is legally required, it is difficult to

implement at the ground level. “The majority of Indonesian women in the work force are in the informal sector as self-employed, casual, or unpaid family workers.” (Schaner & Das, 2016, p. 1) The law requiring paid maternity leave applies to less than 1/3 of women in the work force, and not even all formally employed women receive maternity leave benefits.

For the women who do receive maternity leave, three months is only half the time for optimal exclusive breastfeeding (and this is if all three months are used after birth, which is rarely the case). Newborns typically feed every 2-3 hours. This means that a woman working eight hours a day will no longer be able to exclusively breastfeed unless her baby is with her during work. Mothers can continue to breastfeed outside work hours, which many do. However, breastmilk production depends on regular stimulation of the nipple, so the less a mother is able to breastfeed, the more difficult it becomes.

Breastfeeding at the workplace is possible, but it is another matter of what is required at a legal level, and what is actually true at a working level. In 2003, a law was passed stating “entrepreneurs are under an obligation to provide proper opportunities to female workers/ laborers whose babies still need breastfeeding to breastfeed their babies if that must be performed during work hours.” (Law and Regulations, 2012, p. 2) Yet time for nursing breaks is not paid, and work sites are doubtfully equipped for babies to be present throughout the workday. Additionally, there are still a large number of women in the informal work force, so women seldom benefit from actual implementation of this law.

Not only are employers legally required to provide maternity leave, but they must pay for it. “Indonesia is one of few countries in which maternity benefits are funded by employers rather than social security insurance.” (Schaner & Das, 2016, p. 5) With all these legal

complications and additional costs, it seems easier for employers to avoid the situation altogether, which is what many do. Employers are discouraged from hiring women of a childbearing age. This further reinforces the lack of women in the formal workforce and further removes women from legal benefits.

The right to breastfeed

The benefits of optimal breastfeeding caught the attention of the Indonesian government. In 2009, a law was passed stating “Every child has the right to receive breastmilk exclusively from birth for a minimum of six months, unless there is a medical indication to the contrary.” (Law and Regulations, 2012, p. 2) The law goes on to say that support for breastfeeding women should be given from the government, community, and family, and that anyone who interferes with a woman’s right to breastfeed can receive up to a one year jail sentence and 100 million Rupiah fine. Again, the actual implementation of this law is uncertain; regardless, this is a strong statement of the government’s position on breastfeeding.

According to the lawmakers, this law is not meant to punish women who do not breastfeed, but rather support mothers who do. However, I cannot imagine a mother walking away from this law feeling that she will be equally supported regardless of what she decides is best for herself and her child. While I think government support of breastfeeding is generally a good thing, it is most important to support women in the freedom of decision. There are generally more societal barriers to breastfeeding than to formula, which is what this law attempts to counter. Yet women decide not to breastfeed for completely valid reasons, including, as I mentioned before, a health condition that makes breastfeeding unsafe. I side

with the government's position, but still believe all women should be equally supported in their decision.

Regulations against formula companies

Part of the government's support of breastfeeding came in the form of laws against infant formula companies. This began in 1985 when Indonesia implemented parts of the "Code", a series of international regulations for formula companies created at the World Health Assembly in 1981. The Code has evolved since its introduction in 1985. Today, companies are prohibited from advertising or discounting products for children younger than one year old. Health care systems and health workers are banned from promoting formula, accepting gifts from formula companies, or distributing samples. Information on products must be scientific and accurate. Product labels must advocate breastfeeding as the best choice, and cannot market as a substitute to breastmilk or idealize the use of substitutes.

Once again, implementation of these laws is far from perfect. Relationships between formula companies and health workers greatly improved early successes of the formula industry in Indonesia, and these bonds have not been completely erased. Today, major health systems are cracking down on any influence from formula companies. One of my interviews was with a retired midwife, who worked at a public hospital in Denpasar for 35 years. She described the hospital's breastfeeding policy, which is to urge mothers to give breastmilk. They actively promote breastfeeding as the best choice for babies, and only if a mother is unable to produce breastmilk will they give the baby formula. In the last ten years, they have also started what she called a "breastmilk bank" in the hospital, where mothers can donate breastmilk.

Although the biological mother's breastmilk is best for the baby, this is an alternative to immediate use of formula.

Big, public hospitals are certainly easier to find, and probably easier to regulate than private health providers. Information on private doctors' or midwives' relationships with formula companies is not readily available, because it is illegal. If midwives are not adequately trained, they may not know the full extent of the benefits of breastmilk. Even if they do, financial challenges make it hard to refuse extra support or gifts from formula companies. Although I am not certain, it looks like this is fairly uncommon in Bali today, as government support of breastfeeding grows stronger and punishments harsher, but it does still exist.

Conclusion

Ways to improve breastfeeding rates in Bali

As should be clear by now, the determinants of breastfeeding in Bali are complex and intertwined, embedded in historical and societal contexts. There is no magic bullet or simple fix to make optimal breastfeeding a possibility for every woman. Nevertheless, improvements can be made by targeting the shortcomings addressed throughout this paper. From my research and interviews, the following are the areas I feel have the most potential to improve rates of breastfeeding in Bali.

Because the vast majority of women in Bali give birth in health facilities with the care of a professional, the role of health workers is significant. The potential of workers begins with their education and training. Many midwives in the workforce today are inadequately trained, and education is not standardized across practices, so there is no way of assuring breastfeeding recommendations are consistent across midwives. The retired midwife I interviewed told me

she went to a midwifery school before becoming a midwife, where she learned that breastmilk is better for the baby than formula, and that mothers should give breastmilk right after birth. The hospital where she worked was very supportive of breastfeeding practices, and urged mothers that breastmilk was best for their babies. She did not mention learning more about breastfeeding in school, nor did she mention telling mothers more information. While it is possible that she just left this out of the interview, it seems like her patients did not receive details about positive effects or optimal timing of breastfeeding.

Mothers do not need to know every disease for which breastfeeding reduces the likelihood to experience the benefits. Yet the more a mother knows, the more likely these benefits are to influence her decision. If doctors and midwives supply this information to all women during prenatal check-ups, mothers who were not planning to breastfeed or who had not considered it may be convinced. More importantly, doctors and midwives need to emphasize the importance of optimal breastfeeding practices. Breastfeeding in general is widely supported and advocated, but optimal breastfeeding practices are still unknown by too many mothers. Efforts targeted at ensuring mothers know both optimal practices and the life-saving potential of these practices will reflect strongly in breastfeeding rates.

The belief of inability to breastfeed is another area where improvements can be made. This comes in the form of both knowledge about breastfeeding, and support and resources when difficulties arise. Doctors and midwives are critical here as well. They can assist the mother with initial breastfeeding, which will help ensure immediate breastfeeding after birth. Additionally, they can make suggestions for problems commonly encountered, such as breast

shape and pain. The vast majority of women who think they are unable to breastfeed are simply missing information, so thoroughly trained midwives and doctors can fill these gaps.

Although stigma around breastfeeding is not completely absent in Bali, it does not appear to be a prevalent factor. Many women felt completely comfortable breastfeeding in public, and even for those who did not, it did not stop them from breastfeeding in general. The more critical area of social perception to be combatted is formula as a symbol of status. Programs could be targeted specifically at women considered high status to educate them on breastfeeding. If women of high status breastfeed, not only will this benefit their own child, but it will help disassociate the use of formula with a position of status.

Finally, although government support of breastfeeding is high, the implementation and follow-through of laws is lacking. Unfortunately, I do not have the answer to fix every flaw in Bali's legal system. However, I think there are ways to improve accountability of formula companies. There are still far too many companies bending or breaking the rules and jeopardizing the lives of infants. If formula companies felt the risk of secret partnerships with health providers or faulty labeling was not worth the extra profit, they would not be involved in these activities. Better surveillance and harsher consequences for these companies may be necessary to bridge the gap between law and reality.

Things to be learned from Bali

Optimal breastfeeding rates in Bali are not perfect – nor are they perfect just about anywhere else in the world. However, Bali is a great example for certain aspects of breastfeeding, from which other populations can learn and benefit. The following are a few of

the strengths of the breastfeeding experience in Bali, which strongly support women and the decision to breastfeed.

Support for breastfeeding is abundant at many levels in Bali. Repeatedly during interviews, women mentioned their families either providing information on how to make breastfeeding easier, or assisting in the early stages. Once breastfeeding is established, it becomes much easier, so having guidance right after birth is hugely beneficial to ease the starting process. The closeness of families in Bali, both physically and emotionally, helps many women start on the right path.

On a societal level, while I do not think most women would describe overwhelming social support, the lack of resistance is equally important. In many parts of the world, including most of the Western world, public breastfeeding is often met with negative reactions and disapproval from strangers. Women are discouraged from breastfeeding before they even begin. This may be why rates of any breastfeeding are above 90% in Bali, while in the United States, for example, only 79% of babies are breastfed at any point (Samakow, 2014).

Legal support is another important consideration. Indonesia's government has made its support of optimal breastfeeding practices very clear. While there is room for improvement in the implementation of laws, there is no doubting the intention or stance of the government. Women who are aware of the laws about breastfeeding know that they are supported at a structural level, and should be legally protected from any discrimination. The legal system is flawed, but the knowledge of a larger body of support may make women more confident in their decision.

Finally, all of my respondents believed that breastmilk is better than formula for the baby. Bali is a very unique combination of tradition and modernity. Western medicine and health practices have become a major part of health systems in Bali, but traditional approaches to medicine and treatments are still widely used. Infant formula is a representation of Western influence, and worldwide, people often believe that new and modern automatically means better. This is a definitive example of sticking to tradition as the best practice; there is no better choice for the baby than that which has existed as long as human kind and evolved to give babies the best start in life.

Suggestions for further research

I spent quite a while debating whether or not to include religion in my ISP. I decided against it because I did not have enough information, but I think this holds great potential as a direction for further research. Religion is such an important part of life in Indonesia, and breastfeeding may be very different in predominantly Muslim parts of Indonesia. I am assuming breastfeeding in public is uncommon in Muslim communities. It would be interesting to see if there are significant differences in breastfeeding practices, either on a predominantly Muslim island, or a predominantly Muslim community in Bali.

I limited my research to women with children under five, but I think a lot could be learned from interviewing women across age groups. Bali is a rapidly changing island, and changes in breastfeeding have likely occurred over the course of the lifetimes of older Balinese women. Asking a group of older women and a group of younger women about breastfeeding practices could illuminate these differences.

Bibliography

Adashi, E., & Oey-Gardiner, M. (2013). *Reducing Maternal and Neonatal Mortality in Indonesia: Saving Lives, Saving the Future*. National Academy of Sciences.

Barriers to Breastfeeding in the United States. (2011). *The Surgeon General's Call to Action to Support Breastfeeding*.

From the first hour of life - making the case for improved infant and young child feeding everywhere. (2016, October). *UNICEF*.

Infant and young child feeding. (2016, September). World Health Organization. Retrieved December 02, 2016, from <http://www.who.int/mediacentre/factsheets/fs342/en/>

Ketut. (2014, November 19). *Indonesia and Bali minimum wage*. Bali Store Luggage.

Law and Regulations on Breastfeeding. (2012). *Better Work Indonesia*. Retrieved from Asosiasi Ibu Menyusui Indonesia.

Palmer, G. (2016). *Why the Politics of Breastfeeding Matter*. Pinter & Martin.

Samakow, J. (2014, August). *These are all the states where it's legal to breastfeed in public*. The Huffington Post.

Schaner, S., & Das, S. (2016, February). Female Labor Force Participation in Asia: Indonesia Country Study. *ADB Economics Working Paper Series*. doi:10.2139/ssrn.2737842

Shalley, R. (2011, March). *Women of Bali*. Mind of Leroi.

Walters, D., Horton, S., Siregar, A., Pitriyan, P., Hajeebhoy, N., Mathisen, R., Linh, P., Rudert, C. (2016). *The Cost of Not Breastfeeding in Southeast Asia*.

What is colostrum? How does it benefit my baby? (2016). *La Leche League International*.

Witton, R. (2007, September). *The breasts of Bali*. Inside Indonesia.