"I FEED MY BABY, AS I THINK, IT IS GOOD FOR MY BABY": BELIEFS AND CULTURAL PRACTICES OF INFANT FEEDING AMONG HIV POSITIVE MOTHERS IN MANDALAY, MYANMAR

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Abstract

Background: It was estimated that mother to child HIV transmission was 25% on average and there were 304,800 new child HIV infections due to vertical transmission in high HIV prevalent countries in 2010. WHO and medical professionals have recommended Exclusive Breastfeeding (EBF) or Exclusive Formula Feeding/ Exclusive Replacement Feeding (EFF/ERF) for HIV and infant feeding issue considering "HIV free survival" in HIV exposed babies born to HIV positive mothers. Mixed Feeding (MF) with breastfeeding, was

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strongly associated with increased HIV transmission to the babies while mixed feeding with formula feeding was claimed for increasing infant and under five years old children mortality and morbidity rate. But, infant mixed feeding is still composed of cultural norms, beliefs and practices. This article aimed to explore cultural beliefs and practices of infant mixed feeding practicing HIV positive mothers regarding under six months infant feedings: EFF/ERF, EBF and MF.

Methods: This cross sectional qualitative study applied cultural interpretive medical anthropology. In-depth interviews with HIV positive mothers, peer counselors and medical professionals, focus group discussions with HIV positive mothers, and participant observations on HIV positive mothers' infant feeding practices were conducted from August 2013 to early January 2014 in Mandalay, Myanmar. The data was entered and analyzed using manual data master sheet.

Findings: Of 29 HIV positive mothers, 25 mothers practiced mixed feeding to their under six months babies. A total of 24 cultural infant mixed feeing patterns were found. The mothers had strong beliefs on cultural good mother and cultural seniority concepts related to infant health, growth and development, and on local infant illnesses: etiology, diagnosis, curative and preventive practices.

Conclusions: Cultural infant mixed feeding practices resulted from HIV positive mothers’ dissatisfied perceptions, disagreement and confusion, of modern medical HIV and infant feeding counseling messages. Those infant mixed feeding patterns were a result of cultural forces of ‘good motherhood’ and ‘cultural seniority’ through ‘lay referral’ practices.

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Introduction

World Health Organization [WHO] (2013a) confirmed, in the first 22 prioritized developing countries with high HIV prevalence, mother to child/ vertical HIV transmission rate was 25% on average. There were 304,800 cases of new child HIV infections due to vertical HIV transmission in those countries in 2010. Additionally, National AIDS Programme [NAP] (2012) claimed the trend of mother to child HIV transmission had not been reduced sharply downward as much as

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the husband to wife HIV transmission trend, and the sexual transmission trend.

Mixed feeding: Vertical HIV transmission and infant and under five years children mortality and morbidity rate

United Nations International Children's Emergency Fund [UNICEF] (2013a) confirmed that HIV virus was transmitted to infants from HIV positive mothers with an approximated rate of about 35% during pregnancy, delivery and breastfeeding. Fifteen to 25% percent of transmission accounted for pregnancy and delivery period while breastfeeding was for 15% of vertical HIV infection. UNICEF (2013b) stated other factors that increased HIV transmission to the infant, such as mother's high HIV viral load, window period, breastfeeding duration, and pathologies of breast such as mastitis and sore breasts. Myint, Phyu, and Oo (2009, p.6) reported that there was strong association between mixed feeding [with breastfeeding] and HIV positive results while EBF and EFF showed low HIV positive tests. Furthermore, it was approved that exclusive breastfeeding a child for the first six months of age had 3-4 times lower risk of vertical HIV transmission due to breastfeeding compared with mixed breastfeeding. HIV was transmitted to about 4% of EBF infants between 6 weeks and 6 months, even the mother and infant could not take ARV (Anti retroviral drugs) as treatment or prophylaxis (WHO, 2007 as cited in UNICEF, 2013b). EBF had been proved to be as effective as ERF in preventing vertical HIV transmissions (Coutsoudis et al., 1999, as cited in Thairu, Pelto, Rollins, Bland and Ntshangase, 2005). Mixed feeding mothers had

the higher risk of vertical HIV transmission to their infants. Therefore, it was needed to discourage mixed feeding until the first six months age of infant (UNICEF, 2013b).

Concerning infant feeding and, infant and children mortality and morbidity, Ministry of National Planning and Economic Development [MoNPED] and Ministry of Health [MoH] (2011): UNICEF (2013b) reported that mothers, with or without HIV, could prevent their children from childhood diseases such as pneumonia, diarrhea, malnutrition and those diseases related deaths especially in under one year of age by practicing EBF which provided essential nutrients for infant health. It was stated that MF reduced “chances of survival” of HIV exposed babies (UNICEF, 2013a, HIV and Infant Feeding: Breast-feeding and HIV transmission section, para. 4). By comparing EBF infants between the age of 0 to 5 months with other feeding patterns fed infants, it was found that the mortality rate of mixed feeding and non-breastfeeding children had higher times than exclusively breast-feeding an infant (Black et al., 2008). ‘WHO 2010 HIV and Infant Feeding Guidelines’ recommended ERF/EFF or EBF to reduce vertical HIV transmission considering “HIV free survival” of HIV exposed babies born to HIV positive mothers. But, EBF rate of mothers, HIV negative or positive, in Myanmar was only 23.6% and it was less practiced in urban areas (MoNPED and MoH, 2011) while ERF/EFF data were not available.

HIV and infant mixed feeding: social and cultural issue

Aung San Su Kyi (UNAIDS Global Advocate for Zero Discrimination) and Michel Sidibe (UNAIDS Executive Director) claimed that PLHIVs have been marginalized, stigmatized and excluded in the world, in the World AIDS Day report (UNAIDS, 2012). And, Thin (2003, p. 35) claimed that mixed feeding practices had multidimensional problems, but were mainly driven by the cultural beliefs and practices, and argued, “Water and food besides breast milk are usually introduced due to the influences of socio-cultural condition”.

UNICEF (2013a) confirmed that mixed breastfeeding was being practiced as a cultural and social norm for infants under the age of six months in many high HIV prevalent countries. Thin (2003) stated that Myanmar cultural and social factors were influencing the beliefs and practices of breastfeeding. Breastfeeding mothers had the belief that MF made their baby’s muscle tolerant to insect’s bite. Thairu et al. (2005) argued to provide culturally appropriate support for the infant feeding decision and practices of HIV positive mothers.

Literature review

Infant feedings: good motherhood

Moland (2004) stated that after child birth, the inability of mothers to breastfeed their infants made mothers not achieve respect and recognition as a good mother in the community. Moland (2004) also argued that infant feeding practices must be taken into account

of cultural issue about female body and motherhood cultural concepts. Women had to cope with their own strategies to survive between the two sub cultures: between cultural infant mixed feeding practices and good mothering cultural concepts of her family and neighbors, and medical discourse of professional sector. While fearing of social stigma due to exposing HIV status, resulted from either of practicing EBF or EFF/ERF or refusing cultural infant mixed feeding practices, they were afraid of HIV transmission to their new born infants due to their infant feeding practices (Maru and Haidar, 2009; Desclaux, and Alfieri, 2010).

Cultural seniority

Arnault (2004) argued in his work that in Japanese culture, seniors had traditional responsibilities to lead and to look after their juniors in the family of Japanese culture. Moreover, Maloney, Aziz, and Sarker (1981); Rob and Cernada (1992) claimed in a Bangladeshi family, the patriarch had the responsibilities and power over his family members while his wife was responsible especially for female members of the family such as daughters and daughters-in-law. Myanmar also has the same cultural attitudes towards seniority in a family because of the world's east culture. Additionally, Moland (2004); Horwitz and Thairu (2000) claimed that during the post-natal period, HIV positive mothers, daughters-in-law, were under the influence of their mother-in-law regarding infant feeding and care.

In a socio-cultural context, mothers were assumed to deliver a baby, to look after the baby and absolutely needed to breastfeed the baby. Women’s sexuality and reproductive capacity were under the influence of culture.

Food as medicine: preventive and curative purposes

Davies. A and Anita (1997); Thairu et al. (2005); Maru and Haidar, (2009) had claimed that infants were fed with semisolid foods, teas and other kinds of liquid due to traditional beliefs and practices how mothers and relatives should feed for the infant’s health, before medical professionals’ recommended time to feed complementary food to the infants. Davies. A and Anita (1997); Desclaux, and Alfieri (2010) stated that even during the early days of life of infant, water and herbal teas were given to the infants as a cleaning and preventive liquids as an “indigenous vaccine”, as a preventive measure for infant health. Moreover, Helman (1990) claimed parallel food classification: defining foods into two groups, “hot and cold” based on the traditional medical etiology of balance of the body: “hot and cold”. People diagnosed illness and diseases on the basis of “hot or cold diseases”. They balanced the disturbance of the body using foods origin of “hot and cold” to achieve “hot and cold balance” of the body with the assumption of food as medicine (Helman, 1990; Hardon et al., 2001).

Explanatory model (EM model)

Arthur Kleinman claimed that disease was not essentially natural, but an explanatory model (EM) in cultural medical anthropology (as cited in Baer et al., 2003). Kleinmam's explanatory model concept took a crucial part of cultural medical anthropology field. Hardon et al. (2001) emphasized that EM has two parts:

1. lay explanatory model of illness according to local etiology of illness and

2. practitioner's explanatory model of disease according to professional medical etiology of disease, leading to diagnosis, treatment and management of illness and disease. Culture also served as an essential part in studying diagnostic, curative, palliative and preventive aspect of illnesses and diseases.

The study

Aims: This study aimed to explore what were the cultural norms that influenced the mixed feeding of infants below six months of age among HIV positive mothers in Mandalay, Myanmar, and to identify their cultural beliefs and perceptions related to their infant mixed feedings.

Methodology: This research applied cultural interpretive medical anthropology perspective to fulfill the study's objectives, with qualitative in-depth interviews with 13 HIV positive mothers and 2 HIV positive mother peer counselors, 8 medical professionals from obstetrics and gynecology wards and child wards of public hospitals,

from International Non Government Organizations (INGOs) and from formula milk and substitute business. Focus group discussions were conducted with 16 HIV positive mothers to achieve diverse and detail information about HIV and infant feeding practices. In-depth interviews and focus group discussions were conducted with semi-structured questions. Participant observations, for infant feeding practices, were conducted through in-depth interviews and focus group discussions with HIV positive mothers. HIV positive mothers had at least one child aged up to six months[5] , born after the mother was infected with HIV. Field data collection was conducted between August 2013 and early January 2014, jointly with one community based organization (CBO) which had networking with peer groups of PLHIVs and HIV positive mothers. All field data collections were conducted only after achieving individual informed consent: written or verbal consent from both HIV positive mothers and medical professionals who participated in this study. Field data and facts were translated into English and analyzed by using manual data master sheet.

Ethical matter: Ethical approval was granted by the Institutional Review Board (IRB) committee of Mahidol University, Thailand.

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[5] Twin babies of one HIV positive mother were 12 months old because the researcher recruited her to achieve a government staff informant in in-depth interviewed mother group.

Findings

Among a total of 29 HIV positive mothers (13 mothers from in-depth interview and 16 mothers from focus group discussion), 22 mothers from 25 mothers who had chosen to practice EFF, 2 mothers from 3 mothers who had chosen to practice EBF and one mother who had delivered at home with a trained birth attendant (because she had not known her HIV status until three months after delivery) practiced cultural infant mixed feedings. Only four mothers practiced exclusive feeding (three mothers practiced EFF and one mother practiced EBF) while 25 mothers practiced cultural infant mixed feeding, one of causes that increased vertical HIV transmission as well as increased infant mortality and morbidity rate in HIV exposed babies.

Cultural beliefs, perceptions and cultural infant feeding practices

Self medication and preventive measures: foods, local drugs and western drugs

Among 25 mixed feeding practicing mothers, 16 mothers practiced self medication on their babies. They used traditional or western medicine with curative or preventive purposes for local infant diseases such as *Ta Ngal Nar* [infant local neurological disease syndromes], *Naute Kyawl Tet* [neck nerve pain and tension] and *Shar War* [chewing tongue syndromes], and common infant illnesses such as fever and sneezing. Among all 29 HIV positive mothers, 25 mothers responded about *Ta Ngal Nar* syndrome and *Kyaw Pu Gaung Pu* [Back and Head hotness syndrome] illness in

infant. They fed cultural foods to babies (see in table 1) as foods and drinks for prevention and cure of infant illnesses, by applying [parallel] food classification's two groups: "hot and cold" based on traditional medical etiology of balance of the body: "hot and cold". They diagnosed local diseases considering "hot or cold diseases". They balanced the disturbed state of the body with the use of foods origin of "hot and cold" to achieve "hot and cold balance" of body as food as medicine. Food was also used for preventive purposes with religious beliefs for the baby's health and to prevent infants from being abused and frightened by bad spirits and ghosts, *Nat Soe* and *Ta Yae, Ba Luu.*

Explanatory Model of local infant diseases and treatment

Ta Ngal Nar Yaw Gar [Syndrome]

They explained that *Ta Ngal Nar* was caused by acrid fumes inhaled by mothers during pregnancy or breastfeeding, and then it was transmitted to the infant through breastfeeding or during pregnancy. Infant suffered *Ta Ngal Nar.* Moreover, the baby might suffer *Ta Ngal Tar* if he or she also inhaled acrid fumes. The baby showed *Ta Yay Kya*, salivation, *Shar War*, chewing tongue, *Myat Lone Saung*, upward slanting of eye, A Twin Tet, fits, *Chay Chaung Lat Chaung Cote*, intense flexion of toes and fingers, *Ee Sane Par*, passing greenish stool, and greenish mark between angle of nose and two eyebrows, and *Ee tee*, baby's continuous unpleasant behavior and crying. Although none of the HIV positive mothers' babies had shown any above mentioned signs, if the baby suffered minor signs such

as extension and flexion of fingers and toes, salivation or chewing tongue, mothers fed one kind of Myanmar traditional drugs: *Shar Put Say, Shwe Ta Min, Gaw Mote Ta*, and *Ta Ngal Nar Paung Chote* Say to their babies to prevent the progression of illness. Moreover, *Ta Nat Khar Myit A Nhit* [paste of the root of a plant, used to apply onto the cheek for cosmetic reason] was also fed to the baby: to push out acrid fumes from inside of the baby and to treat when the baby passed greenish stool, and when there was a greenish mark in the angel between two eye browns and the nose on the forehead. Preventive measures for *Ta Ngal Nar* were keeping the baby away from acrid fumes, not inhaling acrid fumes by mothers during pregnancy and breastfeeding, and feeding *Ta Nat Khar Myit A Nhit* to the baby.

Kyaw Pu Gaung Pu

Kyaw Pu Gaung Pu was also one local infant disease. It was caused by imbalance of heat and cold inside the baby's body resulted from improper taking the baby under direct sunlight or wrapping the baby with thin clothes or bathing the baby when the temperature was cooler. If the baby had that disease, the baby suffered warm head, forehead and back, and sweating although other areas of the body had normal or low temperature.

A Aye Meet Nhar See Chaung Soe, Common cold

This disease was also caused by the imbalance of heat and cold inside the body of infant resulted from improper bathing the baby, and loose wrapping the baby with thin clothes. Then, the baby suffered cough, sneezing and tightness of the chest.

Wan Shaw Wan Pyat, Diarrhea

This disease was also assumed as a local disease because mothers assumed that heat and cold inside the baby’s body were changing while the baby was growing. Sometimes, the baby suffered diarrhea and the baby felt better without any treatments. One out of 29 HIV positive mothers fed *Lat Phat Yay Gyan* to her baby to treat her baby’s diarrhea.

After content and thematic analysis, six groups of cultural beliefs and practices related to under six months infant mixed feeding were explored and summarized as in **Table 1.**

Table 1 HIV positive mothers' cultural mixed feeding practices according to cultural beliefs

No.	Of healthier and stronger baby	Of preventive and curative foods	Of cultural and western drugs for self medication	Of Religious food and drinks	Of snacks and drinks	Of baby's satiety and reducing formula milk consumption
1.	*Htamin*[1]	*Yay*	*Shar Put Say,*			*Htamin*
2.	*Yay*[3]		*Gaw Mhote Ta,*			*Yay*
3.	*San Mhote*[4]		*Ta Ngal Nar*			*San Mhote*
4.	*Htamin Yay*[5]	*Htamin Yay*	*Paung Chote Say,*			*Htamin Yay*
5.	*Noe Htamin*[6]		*Shwe Ta Min,Pan Nyo Lay*[2]			*Noe Htamin*
6.		*Ta Nat Khar Myit A Nhit*[7]	*Ta Nat Khar Myit A Nhit*			
7.	*Pyar Yay*[8]	*Pyar Yay*	*Burmeton*[9]	*Pyar Yay*		
8.	*Pae Yar Zar*[10]	*Pae Yar Zar*	*Paracetamol*[11]			
9.	*Nhoe Mhote*[12]		*Metro*[13]			
10.	*Arr Luu Pyote*[14]					*Arr Luu Pyote*
11.	*Phee Gyan Mee Phote*[15]				*Phee Gyan Mee Phote*	
12.	*Ta Nyat Khae*[16]					
13.	*Kyat Ou Ah Nhit*[17]					
14.					*Paung Mote*[18]	
15.					*B Sa Cook*[19]	
16.					*Cake Mote*[20]	
17.					*Ovaltine*[21]	
18.					*Lat Phat Yay*[22]	
19.				*Yay Man*[23]		
20.		*Lat Phat Yay Kyan*[24]				

[1] 21 out 25 mothers who practiced mixed feedings fed *Htamin,* soft steamed rice made by cooking the rice with aluminum pot with fire or rice cooker, first, When it was nearly cooked, some of steamed rice was put out into a clay or steel bowl and then it was crushed with a steel spoon in the bowl or over a small cloth with fine pores on it. Then, crushed and soft steamed rice was obtained. It was mixed with a little amount of warmed boiled water in the bowl. Finally, it was placed in the pot or rice cooker again to be warmed. It was usually introduced to the babies at the age ranged from one and half months to four months and it was fed two to three times a day. Cultural beliefs: -to make the baby’s muscle stronger, to make the baby more resist to diseases and illness, to make the baby resist insect bite, mosquito bite, ant bite and bug bite, to reduce the baby’s hunger, to provide satiety to the baby, to reduce formula milk consumption by the baby.

[2] traditional medicines used to treat local infant diseases such as *Ta Ngal Nar* and *Shar War*. All 16 mothers fed either one of these traditional drugs to the baby by rubbing or putting onto the tongue of the baby whenever they saw that the baby was suffering salivation and extension and flexion of toes and fingers or as preventive measures for those infant’s suffering symptoms.

[3] Yay means water. Feeding water to the baby ranged from feeding *Yay Sane* to feeding *Yay Kyat Aye*. 10 out of 21 HIV positive mothers fed *Yay Kyat Aye* to their babies while 8 mothers fed pure water and the rest of three fed Yay Sane to their babies. *Yay Kyat Aye* was made by boiling water with fire or with hot plate. After being boiled, it was made cool and kept a day. Then, it was fed to the baby whenever the mother thought the baby felt thirsty or just after feeding other kinds of solid foods. Some mothers used *Yay Thant or Yay Sane* to feed the baby. It was usually introduced to the baby during the time ranging from just after the delivery to one to two months of age. Cultural beliefs: to make the internal heat, viscera and liver of the baby cool down, to make the baby’s heat and cold balanced before bathing the baby, to prevent food, fed to the baby, blocking in the baby’s throat, to prevent infantile diarrhea (only for *Yay Kyat Aye*).

[4] *San Mhote* was known as nutritious powder. It was prepared with boiled water in a bowl to make a non-watery or non-sticky paste according to baby’s eating. It was made cool and fed to the baby. 18 out of 25 mothers who practiced mixed feeding fed the babies

with reasons and beliefs mentioned in the above table. It was introduced to the baby at the age of two to four months usually, and mothers fed two times a day. There were local made *San Mhote* in the market which was cheap, but notorious for making the baby suffered tightness of chest and sticky sputum in the throat and expensive foreign made *San Mhote* which HIV positive mothers perceived as a good food to feed the baby. Five mothers mixed *San Mhote* with formula milk and fed the baby to reduce formula milk cost.

[5] *Htamin Yay* was prepared by keeping boiling rice water into the steel bowl from nearly cooked or steamed rice from the pot or rice cooker. Then, it was mixed with some salt, or two mothers, mixed with *Tha Nyant Khae*, toddy juice sweet, and fed the baby. It was also introduced at two to four months of age of infant and fed two to three times a day. Only ten mothers out of 25 mixed feeding practicing HIV positive mothers fed it to their babies. Cultural beliefs: to prevent illnesses and diseases of the baby by nutrients and vitamins from it, to make the baby resist to the hunger and to provide satiety to the baby.

[6] bought from small street vendors by HIV positive mothers. It was also a kind of very soft cooked or steamed rice mixed with cow milk since it was cooked. Only ten mothers out of 25 mixed food feeding mothers fed their infants with above mentioned reasons and beliefs. It was introduced to the baby at the age of two to four months and mothers usually fed one to two times a day to their babies.

[7] a kind of paste made from the root of a plant: its' bark is used for cosmetic purpose to apply on face and body. **It was grinded on the smooth plain of rock called Kyauk Pyin with water to make the paste before every bathing the baby. 10 out of 25 mothers fed it to their babies after bathing the baby. It was usually introduced to the babies at the age of one and half to two months and after every bathing the baby. Cultural beliefs: to push out dangerous acrid fumes from the baby's body, as a preventive drug for baby's illnesses and Ta Ngal Nar disease, to make the baby's inside heat and cold balanced, to make the baby get fair complexion.**

[8] Small amount, three drops of *Pyar Yay* was usually fed to the baby as soon as the baby was delivered because of cultural beliefs about prevention of infant diseases. It was not usual food fed daily to the baby. It was fed in the season when the baby was prone to tightness of chest or as one of religious beliefs. Kay Kay* who was a Chin Buddhist mother said, *"I fed Pyar Yay, just three drops, to my baby as soon as he was delivered*

and at the age of 45 days of infant…by praying to Buddha and saying ‘Phayar, Buddha’, ‘*Tayar*, Dharma’ *and ‘Tangar*, Sangha’,” carrying and luring her baby. Seven out of 25 mothers mixed feeding practicing mothers fed her babies honey. Cultural beliefs: -to prevent infant illnesses, to promote digestion, to prevent and cure indigestion, to clear throat and chest, to prevent the baby suffering from cold, used to feed the baby in name giving ceremony by one Muslim mother.

[9] chlorpheniramine [a kind of western medicine drug used to treat allergy, anaphylaxis and sneezing, rhinitis, etc].Two mothers out of 16 HIV positive mothers fed *Burmeton* to their babies if their babies suffered sneezing. They said that they crushed *Burmeton* tablet first and one third of powder was mixed with *San Mhote*, or formula milk or *Noe Htamin* to feed the baby until the baby did not suffer sneezing.

[10] This type of bean was prepared by boiling in the pot or rice cooker with a little amount of water to be soft and then it was fed to the baby together with *Htamin*, soft steamed rice. It was also introduced to the baby at the age of three to four months of age of infant. It was not usual kind of foods fed to the baby daily, but it was occasionally fed to the baby. Only five out of 25 mothers fed this kind of bean to the babies under six months of age.

[11] a kind of western medicine drug: non-steroidal anti-inflammatory drug used to treat pain and fever. Two mothers among 16 HIV positive mothers fed *Paracetamol* tablet or *Biogesic* syrup [*paracetamol* syrup] to their babies if their babies suffered fever. One mother said that she crushed *Paracetamol* tablet first and half of powder was mixed with breast milk or tea, to feed the baby until recovered from fever. And other mother said, “I fed *Biogesic* with its spoon level, the second line of spoon, three times a day until the baby’s temperature goes away,”

[12] This group included 22 mothers who decided to practice EFF, one mother who delivered at home and practiced cultural breastfeeding with other complementary food feeding, and one mother who decided to practice EBF. Mothers fed formula milk with the quality ranging from high and appropriate quality supplied partially and recommended by medical doctors, to low quality formula milk which cost only about 600 Myanmar kyats to feed the baby a day. Formula milk was prepared with boiled water in the feeding bottle according the baby’s consumption. Mothers who chose to practiced EFF fed formula milk to the baby about 8 times a day while the rest two mothers fed two to three times a day since the baby was two months of age.

[13] metronidazole [a western medicine drug used for anaerobic infections and tract infections, especially for amoebic dysentery] used by one mother out of 16 HIV positive mothers to treat her infant's diarrhea. She said, *"Adult takes metro if they suffer diarrhea and so, I fed my baby metro two to three times if he suffered diarrhea. And metro works well for my baby's diarrhea and the baby feels better."* She said that she crushed Metro tablet into powder and then, one third of powder was mixed with breast milk or tea and fed to the baby two to three times a day until he felt better.

[14] made by boiling *Arr Luu*, potato with a little amount of water in the pot or rice cooker. If it became soft, it was peeled and then, crush with steel spoon or hands to make a paste to mix with *Htamin*. Then *Htamin* and *Ar Luu Pyote* were mixed with some oil and salt and then fed to the baby. It was introduced to the infant at the age of three to four months and two out of 25 mixed feeding mothers was practicing.

[15] made by baking banana, *Phee Gyan*. While baking, if the banana became soft, it was taken out form the fire and was made cool. Then, it was fed to the babies. The banana was baked because mothers thought that feeding banana without being baked would make the baby suffered flatus and indigestion. Sometimes, it was mixed with *Htamin*, oil and salt to feed the baby. It was also introduced to the baby at the age of three to four months of age and it was a kind of occasional snacks to feed small babies. And, two out of 25 mothers practiced.

[16] Myanmar traditional toddy juice sweet and mixed with *Htamin Yay* to feed the baby. And it was introduced to the baby at the age of one to two months and only two mothers among 25 HIV positive mothers fed this food together with Htamin Yay to the baby.

[17] First, *Kyat Ou*, chicken egg, was boiled until *A Nhit*, yolk was fully boiled. Then, the boiled chicken egg, *Kyat Ou Pyote*, was peeled and Kyat Ou A Nhit, boiled or fried egg yolk was kept to feed the baby together with *Htamin*, oil and salt. It was also introduced to the baby at two to four months of age and two mothers among mixed feeding practicing mothers fed their babies.

[18] Small pieces of *Paung Mote*, bread were fed to the baby as a kind of snacks to feed small babies like adult's snack eating behavior to fulfill the baby's satiety. Two out of 25 mixed feeding practicing HIV positive mothers fed their babies since four months of age of infant.

[19] Small pieces of *B Sa Cook*, biscuit were fed to the baby as a kind of snacks to feed small babies like adult’s snack eating behavior to fulfill the baby’s satiety. Two out of 25 mixed feeding practicing HIV positive mothers fed their babies since four months of age of infant.

[20] Small pieces of *Cake Mote*, cake were fed to the baby as a kind of snacks to feed small babies like adult’s snack eating behavior to fulfill the baby’s satiety. Two out of 25 mixed feeding practicing HIV positive mothers fed their babies since four months of age of infant.

[21] Two mothers prepared *Ovaline* with boiled water and fed the baby sometimes since three months of infant age as the adult’s drinking of *Ovaltine* to provide various tastes to the infants.

[22] Two mothers bought *Lat Phat Yay*, tea from nearby tea shops and fed the baby sometimes since four months of infant age as the adult’s drinking of tea to provide various tastes to infants.

[23] *Yay Mann*, holy water was created by venerable Myanmar Buddhist monks by praying Dharma and two mothers fed *Yay Man* to their babies sometimes when they went outside with their small babies, especially at night since the age of two months, to protect and prevent their babies from being harmed and being abused by ghosts, *Ta Yae*, *Ba Luu* or bad spirits, *Nat Soe.*

[24] *Lat Phat Yay Gyan*, boiled water mixed with pickled dried green tea was made by putting dried and pickled green tea into the boiled water. One mother out of 25 HIV positive mothers had fed *Lat Phat Yay Gyan* to her baby to cure infantile diarrhea since two months of age.

Cultural seniority

All 25 mothers practicing MF and one mother practicing EFF (among three mothers practicing EFF), had strong beliefs in their family members and neighbors who delivered and cared for many children. Tae Tae*, a 20 years old MF practicing mother, said, *"when I hear local infant feedings and see other mother's infant feeding practices such as feeding Htamin or San Mhote,…I ask my mother and other senior women. If they reply to me that it is good for my baby, I feed my baby those food". Moreover, a 28 year old mother, Pan Pan* said, "I believe my mother more than medical professionals because she delivered and has cared me, I have no other diseases except this disease [HIV]. I have not suffered any diseases during my childhood. So, I trust my mother, I discuss with her everything regarding infant feeding practices. I follow her suggestions".* On the contrary, most mothers practicing infant feeding exclusively believed in modern medicine and medical professional's advice more than advice and knowledge of their senior mothers.

Motherhood: Good mother, Mother role and status

The 'Motherhood and good mother' metaphor can be defined as mother's love and action doing the best for their baby's health and development and, mother's love and action doing the best for the baby's future. All mothers, in this study, practicing exclusive feeding or mixed feeding perceived that a good mother must care and feed the baby for the infant's health and development. Mothers who could not afford the cost of branded quality formula milk, fed

their babies according to their cultural infant feeding beliefs for the optimal health and development of their babies. Te Te*, a mother practicing MF, said *"I feed other foods such as Htamin or Noe Htamin to make my baby healthier and more developed…I practice mixed feeding as a good mother. I perceive a Myanmar good mother must feed the baby for the baby's health and growth. I am happy if I see my baby becoming fat."*

On the side of mothers practicing cultural mixed feeding although they could afford to buy formula milk, Pan Pan* said, *"I feed other foods to my baby to make him stronger and healthier, as a good mother for my baby, I think I should feed my baby this way although medical doctors asked me to feed my baby exclusively up to six months of age. This is one that a good mother should do to make her baby healthier in addition to a medical doctors' suggestion. I feed my baby only after discussing with my mother."* Mothers practiced cultural mixed feeding according to their explanatory model regarding to infant health, growth and development, within cultural seniority through lay referral practices while they were not satisfied with HIV and infant feeding health care delivery services and medical professional-client relationship.

But, mothers practicing medical professionals' suggested infant feeding perceived that a good mother must feed and care for the baby according to the doctors' suggestion. Khine*, practicing EFF, said *"My baby was born to a HIV positive mother and so, as a good mother for my baby, it is the best to feed him according to*

medical doctors' advice if the mother really loves her baby". The mother's infant feeding practice against cultural norms could reflect her autonomy and her ultimate love for her child.

Breast milk, breastfeeding, HIV and mother:

All 25 HIV positive mothers who had chosen to practice EFF had the desire to breastfeed their babies. They perceived that breastfeeding was one part of the life of a mother in Myanmar. They assumed that breast milk was the best for babies and better than formula milk for the baby's immunity. Breastfeeding could increase attachment between mother and baby. But, they perceived that EBF was not good for the baby. Ka Yay*, a mother practicing MF although she chose to practice EFF said, *"I wanted to breastfeed my baby, but I couldn't… because of HIV. I don't want my baby to be infected with HIV. I think my breast milk is dangerous for my baby because of virus in it"*.

Two mothers chose to practice EBF because of financial problems as well as their wish to breastfeed their babies. They assumed that breast milk was the most appropriate for them and their baby. But, they perceived feeding breast milk only could not provide satiety to their babies and so, they fed other foods such as water or *Htamin or San Mhote* to the baby. One mother who chose cultural mixed breastfeeding due to home delivery assumed breast milk was the best and the most nutritious for the baby. The last mother, Phyu Phyu*, who chose and was practicing exclusive breastfeeding said, *"Mother's breast milk must be for her baby… I love*

him. I believe my breast milk cannot transmit HIV to my baby because of my love to him and I pray to Buddha, I assume my breast milk is the best for him".

Animal milk, animal milk feeding, HIV and mother:

Although 18 mothers perceived that animal milk, especially cow milk and goat milk, is suitable for their HIV exposed baby as a substitute, the rest assumed that feeding animal milk to the baby would make the baby receive wild characters from animals.

Formula milk, formula milk feeding, HIV and mother:

All HIV positive mothers did not want to feed formula milk to their babies as the main food. 25 mothers had to choose EFF to prevent HIV transmission to their baby through breastfeeding while three mothers chose to practice EBF. They perceived formula milk was not as good as breast milk. But, 28 mothers did not have any serious beliefs on formula milk while Phyu Phyu*, the only mother practicing EBF, said, *"I don't want to feed formula milk because it was made with chemicals. It contains bad things that can harm my baby".*

Baby's gender

Although 28 out of total 29 mothers did not perceive anything about the baby's gender related to infant feeding, Phyu Phyu* said, *"My second baby is a son and I love him more than my elder daughter. I give more value to my son because I want to novitiate* [to become a Myanmar Buddhist young monk] *him when he is grown*

up. So, I need to feed and care for him more carefully. I chose and I was practicing exclusive breastfeeding".

Discussion

Moland (2004) argued that not following a medical professional's recommendation for infant feeding was not resistance to medicalization concerned with western medicine advice. It was due to power relationship and problem being afraid of losing social status and afraid of punishment by the family and society due to individual women's lack of agency and power. Additionally, this research found out that HIV positive mothers' infant mixed feeding was also due to the dissatisfaction of HIV positive mothers, their family members and community on exclusive feeding practices to the babies, suggested by medical professionals, because of their local explanatory model of local infant diseases: diagnosis, treatment and prevention, and local foods for infant health and growth, for local disease preventive purposes.

According to this research findings, the eldest or the most senior mothers such as mothers or mothers-in-law or aunties or sisters in the family shared and suggested their cultural beliefs and practices on local infant diseases: diagnosis, treatment and prevention, foods as preventive drugs and curative drugs for infant illnesses, cultural foods for infant health and development, and good motherhood concepts related to small baby feeding and care.

The cultural beliefs and practices, including cultural good motherhood concepts, related to infant feeding were being diffused within the community and family level with cultural seniority’s knowledge sharing and learning practices within lay referral system. When infant feeding was suggested by other senior mothers to HIV positive mothers, they discussed and asked their mothers or mothers who cared many children, about those feeding practices. They learned from well-experienced mothers in the family or neighborhood. They assessed their senior mother’s advices with the senior mothers’ children’s health and development status. Then, they analyzed and perceived themselves whether to practice those mixed feedings or not.

In conclusion, cultural infant mixed feeding practices were resulted from HIV positive mothers’ dissatisfied perceptions on modern medical HIV and infant feeding counseling, and resulted due to cultural forces of ‘good motherhood’ and ‘cultural seniority’ through ‘lay referral’ practices related to local infant illnesses and diseases explanatory model including disease etiology, prevention and treatment, and baby’s growth and development. Finally, cultural beliefs and perceptions led HIV positive mothers to practice cultural infant mixed feeding which was defined by WHO as one of causes which increased vertical HIV transmission and increased infant and under five years of age children mortality and morbidity rates.

Recommendation

This research article recommends medical and public health professionals to provide culturally appropriate two way interactive HIV and infant feeding counseling with family participation approach. Moreover, it is also recommended to provide more concise and clearer health education messages about EFF/ERF and EBF through mass media, instead of “Breast milk is the best” and “Exclusive Breastfeeding” promotion only, to general population.

Limitation

The scope of validity of this research depended upon HIV positive mothers’ memory recall and perception about their infant feeding practices. The conventional style of ethnographic interviewing such as living with informants together and feeding the baby like HIV positive mothers, interviewing with community members and family members could not be performed because of the researcher’s different gender and disclosure of HIV status to family members and community members by HIV positive mothers due to being afraid of stigma and discrimination. More in-depth data may be gained on the subject if such limitations did not form hurdles.

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