Comparative Analysis of Media Exposure and Family Support Complementary to Feeding for Infants Zero to Six Months of Age Between Working Mothers and Stay at Home Mothers with Hotelling Test T2 Approach in Kolaka Regency

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Abstract: The vigorous campaign of complementary feeding in both society and in the hospital, as well as through electronic media (radio and TV) and newspapers, makes many mothers interested in providing their children with early complementary feeding. In addition, stay-at-home mothers' duties and the customs and traditions of the community are also driving factors in giving children early complementary feeding. In 2008, Azrul Azwar stated that complementary feeding should be granted gradually to infants to suit their digestive development. This study aims to assess the differences in media exposure and family support regarding the provision of appropriate complementary feeding in a group of working and stay-at-home mothers. Our cross-sectional study used a sample size of 121 women, divided into groups of 76 working mothers and 45 mothers who do not work outside the home. Based on the results of multivariate statistical tests using Hotelling’s T2 test, we obtained F values of 5.813 and p values of 0.004 (p<0.05). This means that there are significant differences in family support and media exposure regarding the provision of appropriate complementary feeding in infants zero to six months of age between working mothers and stay-at-home mothers. It was recommended that the government, in this case, the Center of Health, appeal to the media to provide proper information to the public, primarily to working mothers who did not give complementary feeding early. Families also need an explanation about the right time to provide complementary feeding so as not to risk infant health.

Key words: Media exposure, family support, complementary feeding, working mother, stay-at-home mothers

INTRODUCTION

Complementary feeding in babies includes food other than breast milk or formula given to fill the gap in nutritional needs that may arise from exclusively breast-feeding (Rosidah, 2004). According to the WHO (2004), complementary feeding is giving foods other than breast milk and this other food is called food additives. During the period of supplementary feeding, the child will slowly get used to eating food that the rest of the family eats (WHO, 2004). Furthermore, complementary feeding in infants is defined as giving food or beverages containing nutrients to infants 6-24 months old to meet their nutritional needs after exclusively breast feeding (Ministry of Health, 2007). Complementary feeding in infants should be considered after the baby is older than six months or after exclusive breast-feeding because before that age, nutritional needs are still met by breast milk alone. Additionally, breast-feeding reduces the risk of short-term factors such as diarrhea. Babies given additional food faster will be more vulnerable to infectious diseases, such as ear and respiratory infections, diarrhea, risk of allergies and impaired growth and development (Arisman, 2010).

According to the UNICEF-WHO, the joint World Bank estimates of child malnutrition in 2012 estimated 165 million children worldwide under five years old were stunted (short stature), decreased compared to approximately 253 million in 1990. The higher prevalence rate of stunted children under the age of five occurs in Africa (36%) and Asia (27%) and it was often not recognized as a public health problem. In Indonesia, one public health problem we are facing today is the double burden of nutritional problems. In 1990, the prevalence of undernourished and malnourished was 31%, while in 2010, it decreased to 17.9% (UNICEF, WHO, 2012).

According to the framework prepared by the WHO, factors that affect the nutritional status of infants are due to the inadequacy of public health services, where foods contain less than 70% of the number the recommended dietary allowance of nutrients (2,200 Kcal/capita/day; 48 g protein/capita/day). Poverty and education level were also influential in almost 50% of cases of undernourished infants. In 2000, the Human Development Index reported that Indonesia’s position was 109 in terms of adequate child nutrition; far behind other ASEAN countries. These persistently high nutritional...
problems significantly affect the level of education and income per capita. The low nutrient conditions will result in infectious disease susceptibility and higher health spending (UNICEF/WHO, 2012).

According to Risikodas (Health Research Association) by Balitbangkes (Board of Health Research and Development) Ministry of Health, the national prevalence of (malnutrition) in children under five was 5.4% and malnutri 2007. Both became targets of the RPJM’s plan (the planning medium plan development) in 2015 to improve nutrition (a goal of 20% improvement), as well as of the MDGs (Millennium Development Goals) in 2015. As of 2007, an 18.5% improvement was are still 19 provinces with a prevalence of malnutrition and whose children are undernourished above national prevalence targets. Three of the worst provinces were Nangro Aceh Darussalam (10.7%), West Sulawesi (10.0%) and East Nusa Tenggara (9.4%). Nationally, three districts in the NTT were in the top 10 in prevalence of malnutrition and undernourishment among children under five, with indicators including weight by age (W/A): Rote Ndao (40.8%), TTS (40.2%) and Kupang (38.0%) (Health Department, RI, 2008).

According to the profile of Southeast Sulawesi Health Department in 2012, the highest number of malnourished children was in Kendari City (129 cases), followed Buton Regency (94 cases), while the lowest numbers of malnutrition were found in the Regency of North Konawe (one case) and North Buton regency (five cases). Malnutrition in Southeast Sulawesi is directly caused by two things: low consumption and incidence of infectious diseases. Indirectly, the rates of malnutrition are raised because of poverty, poor educati sanitation conditions, parenting practices (including feeding patterns) and inadequate access to health services (Health Department Sulawesi Tenggara, 2013).

According to a study by the Department of Health, in 2012 in Kolaka Regency, there was a decline in nutritional status for a five-year period, though it fluctuates. In 2008, approximately 107 of 18,821 (0.84%) children under five were malnourished. In 2009, 97 (0.96%) of 10,243 children under five were malnourished. In 2010, cases decreased to 32 cases of malnutrition in 11,092 (0.3%) children under five and in 2011, 66 (0.4%) of 17,434 children under five were malnourished, while in 2012, there were 22 cases of malnourishment, or approximately 0.11%. This achievement is quite good compared to the national target (<1.5%) Health Department Kolaka (2013).

Complementary feeding is not considered a main factor contributing to increased morbidity and mortality in children; however, introducing complementary feeding before the age of six months could lead to an increased risk of infections such as diarrhea, weight loss and shortage of nutrients. According to Wargiana (2013), most infants (16 or 69.6%) had good nutritional status because infants were given little extra food early and had more breast-feeding. Early supplementary feeding can increase risk of health problems. This risk indirectly occurs when infants are given extra food early. Risk is increased after provision of complimentary food and considered a long-term risk (Wargiana, 2013; Mallongi, 2015).

Long-term risks of early complementary feeding include obesity, hypertension, atherosclerosis and food allergies. In this research, 13 (48.1%) infants often given extra food early were malnourished, seven (25.9%) infants often given extra food early showed good nutritional status, and only one (3.7%) infant and 22.2% infants often given extra food early showed good nutritional status (Wargiana, 2013).

The Health Centre of Kolaka Sub District reported in 2013 that of the target number infants in the village of Lalomba, there were 65 zero-six-month-old infants complemen and there were 13 (22.7%) infants aged more than six months who were given shows that there were still many mothers in Village Lalomba who provided complementary feeding (MP-ASI) in infants less than six months old (Rahman et al., 2015).

Provision of complementary feeding to infants can be influenced by the knowledge level of mother. According to Novina (2013), there is a significant relationship between a mother’s knowledge and giving complementary feeding to infants zero to six months of age. There is also a relationship between socio-cultural status of the mother with giving complementary feeding to infants zero to six months of age, as well as a relationship between the mother’s occupation and giving breast milk to infants zero to six months of age (Novina, 2013).

According to Lawrence Green (1980), human behavior is determined by three main factors: predisposing factors (level of knowledge, work), reinforcing factors (family support) and enabling factors (exposure to the media and the education of health personnel) (Lawrence, 1980). The research of Rahman et al. (2015) regarding the determinants associated with the provision of complementary feeding in infants zero to six months of age in the Village Lalomba Kolaka results show that there is an effect of media exposure and family support on the provision of complementary feeding to infants zero to six month of age (Rahman et al., 2015). The mother’s exposure to mass media (e.g., advertising), whether heard or seen directly, was a factor related to the promotion of complementary feeding. Good advertising was a can attract viewers or listeners to perform in accordance with its recommendations. For example, ads that sell milk formula convince mothers that it is good for their infants. Advertising was not only through television but also radio and private practices.
and public health centers in Indonesia already provided free handouts of milk products that could be given to infants less than six months old. The media present a variety of information, but the public is also able to adjust the meaning of the media’s message based on individual factors, such as the personal needs, family and cultural background, moral stance and so forth. Working mothers have less time to take care of their children; information obtained through the media shows complementary feeding can be a solution when used as a substitute for breast-feeding (Rahman et al., 2015). In addition to media exposure, according to Sudiharto (2007) in Nuzulia (2013), family support is also related to supplementary feeding in infants ages zero to six months. Family support is support that motivates mothers to give complementary feeding to infants zero to six months of age and it also provides psychological support to the mother. Family support is the motivation for providing complementary feeding. Family support is a process that occurs throughout life in which the nature and type of support vary in different phases of life Nuzulia (2013).

One key to the success of a right time in the provision of complementary feeding (MP-ASI) was family support or encouragement. This was highly related because those around us are among the social components that influence us in the appropriate provision of complementary feeding (MP-ASI). In other words, support or encouragement from family can affect the behavior of mothers to give breast milk at the appropriate time (Rahman et al., 2015). According to Ariani (2008), providing supplementary food to a baby before the right age poses a risk that the child will be breast-fed less and, therefore, the mother will produce less breast milk, making it more difficult to meet the nutritional needs of the child, reducing the protective factors of breast milk and increasing risk of infection and diarrhea. Food given as a substitute for breast milk was often thin, soupy porridge or soups that are easier to feed an infant. Although this type of food can be filling, it contains few nutrients (Ariani, 2016).

One provision of early complementary feeding was making the frequency of breast-feeding in infants decline, which may increase the likelihood of diarrhea two- to three-fold. Popkin et al. (1990) showed that the provision of complementary feeding significantly increased the risk of diarrhea. The state of infants zero to six month of age who received complementary feeding is especially concerning. Media exposure and family support influence a mother’s behavior regarding providing complementary food at an early age—especially the behavior of working mothers. Providing complementary feeding to infants less than six months old increases the chances of impaired growth, as well as of development and another health issues (Rahman et al., 2015).

MATERIALS AND METHODS

We used an analytic observational research method with cross-sectional study design, using a sample size of 121 people divided into groups of 76 working mothers and 45 stay-at-home mothers. Multivariate analysis used was Hotelling’s T2 test to assess differences in family support and media exposure regarding the provision of complementary feeding in infants from working and stay-at-home mothers. After the Hotelling’s T2 Test, we conducted a study of the differences in media exposure and family support for the provision of complementary feeding of infants zero to six months of age in working and stay-at-home mothers.

RESULTS

Descriptive data: The study occurs for approximately one month, starting from August 5 until September 5, 2014 implemented in the Regency of Koiaka.

Distribution of respondents according to age group and education: Table 1 shows there were more working mothers aged 25-29 years, with 37 respondents (48.7%), while there were more stay-at-home women aged 25-29 years, with 18 respondents (40.0%). Working mothers with a high school education level were the most common (36 respondents, or 47.4%) and the least-educated (elementary school only) working mothers had the fewest number of respondents (5, or 6.6%). There were 17 (48.1%) stay-at-home mothers with a high school education and three (37.8%) with at least an elementary education.

Distribution of respondents according to family support: Table 2 shows that working mothers have more family support for the provision of complementary feeding (53 respondents, or 69.7%), while stay-at-home mothers have less family support regarding complementary feeding (26 respondents, or 57.8%).

Distribution of respondents according to media exposure: Table 3 shows that working mothers are more exposed to the media (58 respondents, or 76.3%), while non-working mothers exposed to the media were fewer (27 respondents, or 60.0%).

Multivariate analysis: Multivariate statistics were used when study variables study consisted of two variates or more and between these variables we examined correlations, differences and influence between two or more variables. One multivariate statistical test we used is Hotelling’s T2 test function to see the difference between the two experimental groups, each group consisting of two or more variates and statistical analysis was conducted on variate with "serempak".
Table 1: Distribution of respondents according to age group and education

<table>
<thead>
<tr>
<th>Respondent characteristics</th>
<th>Working</th>
<th>Stay-at-home</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Age group (age)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;20</td>
<td>2</td>
<td>2.6</td>
<td>5</td>
</tr>
<tr>
<td>20-24</td>
<td>18</td>
<td>23.7</td>
<td>15</td>
</tr>
<tr>
<td>25-29</td>
<td>37</td>
<td>48.7</td>
<td>18</td>
</tr>
<tr>
<td>30-34</td>
<td>19</td>
<td>25.0</td>
<td>3</td>
</tr>
<tr>
<td>&gt;34</td>
<td>0</td>
<td>0.0</td>
<td>4</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary School</td>
<td>5</td>
<td>6.6</td>
<td>7</td>
</tr>
<tr>
<td>Junior High School</td>
<td>10</td>
<td>13.2</td>
<td>11</td>
</tr>
<tr>
<td>Senior High School</td>
<td>36</td>
<td>47.4</td>
<td>17</td>
</tr>
<tr>
<td>University</td>
<td>25</td>
<td>32.9</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>76</td>
<td>100.0</td>
<td>45</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2015

Table 2: Distribution of respondents according to family support

<table>
<thead>
<tr>
<th>Family support</th>
<th>Working</th>
<th>Stay-at-home</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>With support</td>
<td>53</td>
<td>68.7</td>
<td>19</td>
</tr>
<tr>
<td>No support</td>
<td>23</td>
<td>30.3</td>
<td>26</td>
</tr>
<tr>
<td>total</td>
<td>76</td>
<td>100.0</td>
<td>45</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2015

Table 3: Distribution of respondents according to media exposure

<table>
<thead>
<tr>
<th>Media exposure</th>
<th>Working</th>
<th>Stay-at-home</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure</td>
<td>58</td>
<td>76.3</td>
<td>27</td>
</tr>
<tr>
<td>Not exposure</td>
<td>18</td>
<td>23.7</td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td>76</td>
<td>100.0</td>
<td>45</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2015

Table 4: Difference between knowledge, family support and media exposure in complementary feeding provision of infants zero to six months of age in working and stay-at-home mothers

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Value</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotelling's trace</td>
<td>0.099</td>
<td>5.813</td>
<td>0.004</td>
</tr>
</tbody>
</table>

The Hotelling's T2 test was used with normally distributed and homogeneous data. The hypotheses based on the Kolmogorov-Smirnov statistic are as follows:

H₀: Data about family support and media exposure to complementary feeding of infants zero to six months of age in working and stay-at-home mothers with normal distribution

H₁: Data about family support and media exposure to complementary feeding of infants zero to six months of age in working and stay-at-home mothers with normal distribution

After testing with the Kolmogorov-Smirnov Two-sample test, if the value of family support was 1,463, with p = 0.028 and the value of media exposure was 1,708, with p = 0.006, then H₀ rejected because the p-value of family support and media exposure was >0.05 (p<α). The data support the hypothesis that family support and media exposure influence complementary feeding in infants in both working and stay-at-home mothers.

The homogeneity of the sample can be determined using the multivariate homogeneity test. The statistical hypothesis are as follows:

H₀: Data support that family and media exposure regarding complementary feeding of infants zero to six months of age in working and stay-at-home mothers have a homogenous covariance

H₁: Data support that family and media exposure regarding complementary feeding of infants zero to six months of ages in working and stay-at-home mothers have a heterogeneous covariance

The results of Levene's Test p-value of family support were 0.855 and 0.485 for the p-value of media exposure, which means the value of p>0.05 showed H₀ accepted
or family support and media exposure on granting complementary feeding infants zero to six months of age in the group of working and stay-at-home mothers has covariance homogeneous.

Although the covariance matrix is homogeneous, the data are not normally distributed. After transformation with the transformation of form 1/X (inverse X) and various other forms of transformation, the data are still not normalized. The sample size in this study includes a large (i.e., >30); therefore, the distribution is not normal, but this issue is not a factor when using the Hotelling’s T2 test.

**Use of Hotelling’s T2 test:** The Hotelling’s T2 test was used to compare family support and media exposure in complementary feeding provision of infants zero to six months of age in working and stay-at-home mothers with the following hypothesis:

H<sub>0</sub>: There are no differences in family support and media exposure in complementary feeding provision of infants zero to six months of age in working and stay-at-home mothers

H<sub>1</sub>: There are differences in family support and media exposure in complementary feeding provision of infants zero to six months of age in working and stay-at-home mothers

After testing with significance of (α) 0.05, we obtained the statistical result shown in Table 4. Based on the results of the statistic test with Hotelling’s T2, F-values obtained were 5.813 and p = 0.004 (p<0.05), meaning there are differences family support and media exposure in complementary feeding provision of infants zero to six months of age in working and stay-at-home mothers.

**DISCUSSION**

**Characteristics of respondents based on age and education:** Age is related to the magnitude of health risks (Mariz, 2014). Age was often associated with the level of knowledge and ability to think independently, as maturity tends to strengthen these attributes as one ages (Ifada, 2010). In this case, a mature age affected the mind set and actions of participants, including whether they provide complementary feeding.

Table 1 shows that there were more working mothers aged 25-29 years, with 37 respondents (48.7%), while there were 18 (40.0%) stay-at-home mothers aged 25-29 years. Both groups had their highest number of respondents in the age category 25-29 years, implying this is a relatively safe and productive age (Kinyanji, 2013). Agedew et al. (2014) mentioned that there was a relationship between the age of the mother and the provision of complementary feeding to infants less than six months old.

Education is a process to cultivate human behavior through teaching, client’s age (process development) and relationship with the learning process need to be considered. Education leads people to strive to attain happiness. Education was needed to obtain information, for example, the things that support health, thus improving quality of life. The higher the level of education a person had, the easier it was for that person to obtain information. Less education hindered the development of a person’s values.

Nursalam (2005) theory states that the higher the level of education, the more easily a person can obtain information and the more knowledge that person has; less education would hinder the development of attitudes towards new information (Nursalam, 2001). On the other hand, less education causes limited intellectual power, though intellect is still influenced by the surrounding circumstances (Ifada, 2010).

Local culture and environment influence people in the formation of knowledge. It can be concluded that the knowledge received by respondents with low education as well as with the possibility to be highly educated comes from their surrounding circumstances (Ifada, 2010). The results of this study show working mothers generally had a high school education (36 respondents, 47.4%) and the least educated mothers who had only primary school totaled five respondents (6.6%); stay-at-home mothers generally had a high school education (17 respondents, or 48.1%) and the least-educated SD was three respondents (37.8%). Rao et al (2011) mentioned that there is a relationship between a mother’s education and the provision of complementary feeding in infants below six months.

Tamiru et al. (2013) showed that mothers with a good education administer appropriate and gradual complementary feeding (Tamiru et al., 2015). Facts prove that the increase in a mother’s education increases knowledge, attitudes and practices of the mother (Agedew et al., 2014).

**Family support of working and stay-at-home mothers and media exposure about complementary feeding:** There are four types of family support: informational support, appraisal support, instrumental support and emotional support. A higher level of family support regarding complementary feeding has a negative effect on the health of the infant. It is clear that if the family provides a good supportive role, mothers will be encouraged to not give complementary foods to their infants at the age of zero to six months. Provision of complementary feeding at the right time depends on accurate information and on family, community and health services support (Rao et al., 2011).

Better family support for nursing mothers will influence the mother not to provide complementary feeding too early. Worse family support given to nursing mothers will encourage them to provide complementary feeding too early. Of the several factors that encourage provision of
early complementary feeding, family support is the most influential compared with other factors (Setyawati et al., 2015). The results of this study showed that 53 (69.7%) working mothers had more family support regarding provision of complementary feeding, while 26 (57.8%) stay-at-home mothers did not have family support regarding provision of complementary feeding to the infants. The number of working mothers whose family supported them in providing early complementary feeding to infants below six months old said they breast-fed less because of work reasons; inevitably, the family supported early complementary feeding. Family support is the support to motivate mothers to give complementary foods after six months of age. It provides a psychological support to mothers and results in a more nutritionally balanced diet for infants. However, for working mothers, family support negatively affects working mothers who provide complementary feeding to infants below six months old (Parra et al., 2014).

Media exposure, whether electronic or print, can provide positive and negative effects. The media becomes the source of a mother’s information. According to the findings of AC Nielsen in August 2003, there were 2,688 events on private television stations; 48% of the events educate audiences with cultural events, religion, documentaries and information that appear every week. This shows exposure to the media can influence personal knowledge and behavior (Nielsen, 1990).

In this study, the working mothers were more exposed to the media (58 respondents, or 76.3%) and stay-at-home mothers were also more exposed to the media (27 respondents, or 60.0%). Results of research conducted by Asdan (2011) showed that the media exposure is associated with provision of complementary feeding (MPAS). This implies that to improve complementary feeding to infants > six months old, the frequency of a mother’s exposure to media should be improved (Asdan, 2011).

Results of research by Rahman et al. (2015) regarding the determinants associated with providing complementary feeding in infants aged zero to six months shows that chi-square test media exposure variables are related to provision of complementary feeding, with p = 0.000. The results were obtained from mothers providing complementary feeding. Because a mother often gets information from the media related to complementary feeding, media exposure has negative effects on the provision of complementary feeding; the higher the respondents are exposed to media, the higher the level of giving complementary feeding in infants zero to six months of age (Rahman et al., 2015).

Differences between family support and media exposure in providing complementary feeding to working and stay-at-home mothers: The Hotelling's T2 test results differences in family support and media exposure in providing complementary feeding to working and stay-at-home mother. There are differences in family support and media exposure regarding the provision of complementary feeding between working and stay-at-home mothers due to several factors. The number of working mothers getting family support regarding complementary feeding in infants was 53 (69.7%); of the stay-at-home mothers, 19 (42.2%) received family support regarding complementary feeding. The percentage of family support on the provision of complementary feeding in infants caused by a mother who worked to have a solid rushing and less time to meet the nutritional needs of infants in this case milk, so that complementary feeding was considered to be an alternative to the infants' needs. Although some of the stay-at-home mothers have family support to give complementary feeding to infants, if the breast-feeding mothers were not productive, giving complementary feeding was considered necessary to help meet the nutritional needs of infants.

The study by Setyawati et al. (2015) on the relationship of family support with the provision of early complementary feeding in Beji village of Andong Regency of Boyolali revealed that there was a relationship between the provision of early complementary feeding with family support (Setyawati et al., 2015).

The results of this study showed there are differences in media exposure regarding the provision of complementary feeding in working and stay-at-home mothers based on the results of cross-tabulation. Table 3 shows 58 (76.3%) working mothers are exposed to the media regarding the provision of complementary feeding in infants and 27 (60.0%) of stay-at-home mothers are exposed to the media. These percentages showed that working mothers were more exposed to the media than stay-at-home mothers. Mothers who work are most likely to be exposed to mass and electronic media because working mothers have a good education and easier time getting information, though media ads often do not provide complete information about the provision of complementary feeding to infants below six months given gradually. Haryani (2014) reported that employment, education and media influence breast-feeding and can convince mothers that providing complementary feeding will overcome hunger in infants.

An IBFAN report in 2014 showed that since 1990, there were no promotion strategies optimized through the media for mothers, care givers, or the public that focused on infant feeding practices. Complementary feeding, consistency and daily frequency help direct nutrition education to promote a healthy lifestyle (Parra et al., 2011).

Factors that affect provision of complementary food addition of infants aged zero to six months, Sahusilawane et al. (2013) mentioned that there is an influence of family
support and media exposure in providing complementary food. It may lead to the increase the provision of complementary food; complementary food is considered a viable alternative to meet infants’ nutritional needs. Working and stay-at-home mothers have different family support and media exposure regarding the provision of complementary feeding in infants. Regarding the factors that influence complementary feeding in infants aged 5-36 months old, Kristianto and Sulistyarini (2013) stated there was no relationship between employment status and providing complementary feeding because most respondents were stay-at-home moms and they are influenced by the misconception that babies will be fussy if they are exclusively breast-fed for the first six months. Work factors are associated with a mother’s daily duties to earn a living. A mother’s job can sometimes be done at home or must be done in a workplace outside the home, or a combination of both. If the mother works away from the home, the length of a mother being away from her baby to work every day may be a reason for supplementary feeding of infants less than six months old. This is supported by Agedew et al. (2014), who stated that the factors that make most working mothers (98.22%) choose to provide complementary feeding to infants less than six months old to meet their need for water and avoid hunger.

According to Soraya (2005), a lack of knowledge of mothers regarding appropriate complementary feeding and job status become the reasons which encourage the mothers to give complementary feeding early because they have less time for their children as well as a higher family socioeconomic status. A family with higher socioeconomic status can more easily purchase supplementary food. Working mothers have economic stability, increasing their likelihood of giving complementary feeding early.

The behavior of babies plays an important role in the provision of appropriate complementary feeding. A mother giving complementary foods before six months can negatively impact on the health of the baby, making the baby more susceptible to illnesses such as diarrhea and may even increase baby mortality (Sahusilawane et al., 2013). Diarrhea contributes to weight loss and malnutrition in infants. It is not recommended that infants less than six months old receive complementary feeding because the development of their digestive systems, neural systems and kidneys are not complete (Rao et al., 2011).

The Institutes of Pediatrics in some countries, such as Canada, the United States and Australia and the European Society of Paediatrics, found that breast-feeding is sufficient for infants up to six months old and only and after six months should they be provided complementary feeding in addition to breast-feeding, which can be continued until the child is two years old (Lee et al., 2012). However, in contrast to the opinion of Agostoni et al. (2006) who stated that European countries have adopted the WHO recommendation for the duration of exclusive breastfeeding (six months), other countries recommend the introduction of complementary foods between four and six months. This study focused on developed countries and concluded that the introduction of complementary foods in healthy, term infants in the European Union between four and six months old was safe and does not pose a risk for adverse health effects (both in the short term, including infections and weight retardation or excess and long term, such as allergies and obesity) (Agostoni et al., 2009).

The introduction of complementary foods at certain ages does not seem have a strong impact on the speed of growth (both weight and length). However, some data suggest that complementary feeding after six months can result in decreased length and weight and that the initial introduction of supplemental foods at three to four months can produce weight gain that could have long-term negative consequences associated with an increased risk of obesity, type 2 diabetes and cardiovascular disease in adulthood (Agostoni et al., 2009).

Conclusion: There are significant differences in media exposure and family support regarding complementary feeding of infants zero to six months old in working and stay-at-home mothers.

Suggestion: It was recommended that the government, in this case, the center of health, appeal to the media to give the public (especially to working mothers) accurate information regarding the risks of giving complementary feeding before the appropriate time.

Family’s should get an explanation about the right time to provide complementary feeding to avoid risks to infants’ health.

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