A comparative study to assess the level of knowledge on human milk bank among antenatal mothers at selected urban and rural areas

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ABSTRACT

The present aim was to assess the current level of knowledge on human milk bank among antenatal mothers in both rural and urban areas. A quantitative approach with comparative research design was used for the present study. 60 antenatal mothers among which in an urban group (n=30) and rural group (n=30) were selected by using a non-probability convenience sampling technique. Self-structured questionnaire method was used to collect both the demographic data and the existing level of knowledge on human milk bank among antenatal mothers. Among 60 study participants, the mean score of the existing level of knowledge among antenatal mothers in the rural area was 9.57 with standard deviation 3.25 and the mean score of the existing level of knowledge in the urban area was 6.60 with standard deviation 2.79. The mean knowledge difference score was 2.97. The comparison of the existing level of knowledge score on human milk bank was calculated using unpaired 't' test, the value of \( t = 3.785 \) was found to be statistically highly significant at \( p<0.001 \) level. The study concluded that there is a significant difference in the existing level of knowledge on human milk bank among antenatal mothers between the rural and urban area.

INTRODUCTION

Wellbeing is riches. For the great wellbeing, one needs great nourishment. Nutrition for babies is from moms milk. Bosom milk is the most secure and best defensive nourishment for newborn and the best decision to sustain untimely and sick infants. Prevalence of human milk is expected over its prevalent nutritive and defensive worth. It gives absolute nourishment necessity to the initial a half year of life (Klossner, 2006). It additionally forestalls a lack of healthy nutrition and enables the youngster to create fully. But when there aren’t sufficient moms milk accessible because of specific reasons like a mother has deficient milk organs, has had a past bosom medical procedure or is talking medications (e.g. chemotherapy for malignant growth) and has a disease that could spread to her infant bosom bolstering (Rebeiro, 2005).

Even though wet nursing had been by and by since fanciful ages, present-day human milk banking is in its earliest stages in India. Absence of mindfulness, authority deficiency, infrastructural and some upkeep costs, and less neonatal arrangements are a few explanations behind the equivalent. The first milk bank in Asia under the name of Sneha, established by Dr. Armada Fernandez, was begun in Dhavari, Mumbai on November 27, 1989. Presently, the quantity of human milk banks (HMB) has developed milk banks has been extremely delayed when contrasted with the development of severe neonatal...
consideration units. One of the significant purposes behind loss of enthusiasm for human milk banking was the advancement of equation milk by industry (Bharati et al., 2011).

Milk bank incorporates pooling and putting away bosom milk gathered from various contributors for sometime later. Human milk is a physical unit where gathered human milk is screened, prepared, put away and disseminated upon the specialist’s remedy for use. Banking of gave bosom milk has been in presence for a long time in created nations and has been “recommended” to help in the treatment of numerous illnesses in the neonatal period (Mackenzie et al., 2013).

A human milk bank or bosom milk bank is the assistance which gathers, screens, forms, and apportions by remedy human milk gave by nursing moms who are not organically identified with the beneficiary baby. The ideal nourishment for babies is breastfeeding, if conceivable, for the first year (Mothers Milk Bank, 2015).

Human milk banks offer an answer for the moms that can’t supply their very own bosom milk to their youngster, for reasons, for example, an infant being in danger of getting illnesses and contaminations from a mother with specific sicknesses, or when a kid has a condition, for instance, necrotising enterocolitis (Nisi et al., 2015).

There is substantial and steady proof that encouraging moms to claim milk to pre-term newborn children of any incubation is related with a lower rate of contaminations, necrotising enterocolitis, and improved neuro formative result as contrasted and equation sustaining. Long haul gainful impacts have additionally been accounted for pre-term babies. Accessible information shows that encouraging with contributor human milk as opposed to standard pre-term newborn children recipe to low-birth-weight babies of under 32 weeks incubation decreases the rates of necrotising enterocolitis (Torres et al., 2010).

Milk gave by other ladies (contributor milk) should then fill the hole. Untimely newborn children constitute the biggest and most significant gathering of babies where milk from other lady is required because their very own moms milk isn’t accessible or isn’t available in adequate amount. Human milk banks gather, screen, sanitise, and disseminate bosom milk to emergency clinics or outpatient beneficiaries. Generally, the assortment, stockpiling and preparing in a human milk bank follow to set up rules. Milk banks are by a wide margin the most significant suppliers of giver milk, the reality notwithstanding those different settings of milk gift are likewise utilised (Arnold, 2010).

The purpose of the study is,

1. To assess the current level of knowledge on human milk bank among antenatal mothers in both rural and urban areas.
2. To compare the current level of expertise on human milk bank among antenatal mothers in both rural and urban areas.
3. To associate the current level of knowledge on human milk bank among antenatal mothers in both rural and urban areas with their selected demographic variables.

MATERIALS AND METHODS

The quantitative approach with comparative research design was used for the present study. After obtaining ethical clearance from the Institutional Ethical Committee (IEC) of Saveetha Institute Of Medical And Technical Sciences and formal permission from the rural and urban health authorities, the study was conducted. A total of 60 antenatal mothers, among which is an urban area (n=30) and rural area (n=30) who meet the inclusion criteria was selected by using non-probability convenience sampling technique as the study participants. The inclusion criteria for the study participants was the antenatal mothers between the age group of 20-35 years who are available during the study period who were willing to participate and can read, write and understand Tamil and English. The exclusion criteria for the study participants were antenatal mothers who are critically ill and with the previous history of psychiatric disorders. The purpose of the study was explained by the investigator to each of the study participants, and written informed consent was obtained from them. The demographic data and the existing level of knowledge were collected by using the self-structured questionnaire, and the collected data were tabulated and analysed by using descriptive and inferential statistics.

RESULTS AND DISCUSSION

Section-A: Demographic characteristics

Among 60 study participants, 30 belongs to the rural area. With regards to age at 17 (56.7%) were in the age group of 20 – 25 years. With regards to educational qualification, 22(73.3%) belongs to primary education. With regards to occupation 27 (90%) were housewives, With regards to the type of family, 29(96.7%) were belong to a nuclear family. With regards to the kind of marriage, 25(83.3%)

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Table 1: Frequency and percentage distribution of existing level of knowledge on human milk bank among antenatal mothers in both rural and urban areas. N =60 (30 +30)

<table>
<thead>
<tr>
<th>Existing Level of Knowledge</th>
<th>Rural Area</th>
<th>Urban Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency (F)</td>
<td>Percentage (%)</td>
<td>Frequency (F)</td>
</tr>
<tr>
<td>Poor (0 – 4)</td>
<td>6</td>
<td>20.0</td>
</tr>
<tr>
<td>Average (5 – 10)</td>
<td>20</td>
<td>66.7</td>
</tr>
<tr>
<td>Good (11 -15)</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td>Excellent (16 – 20)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 2: Comparison of existing level of knowledge scores on human milk bank among antenatal mothers in both rural and urban areas. N = 60(30+30)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>Mean Difference Score</th>
<th>Student Independent T-Test Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Area</td>
<td>9.57</td>
<td>3.25</td>
<td>2.97</td>
<td>t = 3.785</td>
</tr>
<tr>
<td>Urban Area</td>
<td>6.60</td>
<td>2.79</td>
<td></td>
<td>p = 0.0001, S***</td>
</tr>
</tbody>
</table>

***p<0.001, S – Significant

Figure 1: Percentage distribution of existing level of knowledge on human milk bank among antenatal mothers in rural and urban areas

were non-consanguineous marriage, With regards to gravida, 26 (86.7%) belongs to multigravida. With regards to the number of children, 21(70%) had only one child.

Remaining 30 study participants belongs to the urban area. With regards to age 18 (60%) were in the age group of 20 – 25 years. With regards to educational qualification, 19 (63.3%) belongs to primary education. With regards to occupation, 25 (83.3 %) were housewives. With regards to the type of family, 21 (70%) belonged to a nuclear family. With regards to the kind of marriage, 16 (53.3%) belongs to consanguineous marriage, With regards to gravida state, 22 (73.3%) belongs to primigravida. With regards to the number of and 9 (30%) had only one child.

Section- B: Existing level of knowledge on human milk bank among antenatal mothers in both rural and urban areas

The current level of knowledge shows that in
the rural area, 20(66.7%) had average knowledge, 6(20%) had poor knowledge and 4(13.3%) had good knowledge. In contrast, in the urban area, 15(50%) had average knowledge, 11(36.7%) had a good understanding, and 2(6.7%) had poor and excellent knowledge respectively [Table 1 & Figure 1].

Ghuge (2018) supports the present study findings, conducted a study to assess the existing level of knowledge on human milk bank in the rural area. The study results determined, out of 60 samples in the descriptive group 33.33% had a poor level of knowledge, 50% had an average level of knowledge, 16.6% had the right level of knowledge, and none had an excellent level of knowledge (Ghuge, 2018).

Mankar (2018) supported this finding, conducted a study to assess the current level of knowledge in the urban area, the results of this study reveals that out of 100 study participants in the descriptive group 6% had poor knowledge, 16% had average knowledge, 48% study participants good knowledge, 30% had excellent knowledge. Hence, it was concluded from the above studies that, the majority of the antenatal mothers had an average level of knowledge both in the rural and urban areas. Hence, there is a need to improve their understanding of the human milk bank among antenatal mothers in both rural and urban areas.

Section- C: Comparison of the existing level of knowledge scores on human milk bank among antenatal mothers in both rural and urban areas

In the present study, the mean score of the existing level of knowledge among antenatal mothers in the rural area was 9.57 with standard deviation 3.25 and mean score of the existing level of knowledge in the urban area was 6.60 with standard deviation 2.79. The mean existing knowledge difference score was 2.97. The mean existing level of knowledge difference score was 2.97. The calculated unpaired ‘t’ test value of t = 3.785 was found to be statistically highly significant at p<0.001 level. This infers, there is a considerable difference in the existing level of knowledge on human milk bank, and none of the demographic variables had shown statistically significant association with the current level of knowledge on human milk bank, and none of the demographic variables had shown statistically significant association with the current level of knowledge on human milk bank among antenatal mothers in both rural and urban area. [Table 2].

Melwani et al. (2018) supported this finding, conducted a descriptive cross-sectional study to assess the acceptance to voluntarily participate in breast milk bank activities among 350 women including both the antenatal and postnatal mothers. Data was collected by using a pre-designed semi-structured questionnaire. The findings of the study revealed that out of 246 postnatal women who were interviewed, the knowledge about the existence of breast milk bank was 10%. Hence there is a need for improved understanding and awareness about the human milk bank among antenatal mothers in both rural and urban areas. (Melwani et al., 2018)

Section D: Association of pre-test level of knowledge on human milk bank among antenatal mothers in the rural areas with their selected demographic variables

None of the demographic variables had shown statistically significant association with the level of knowledge on human milk bank among antenatal mothers in the rural area.

Section E: Association of pre-test level of knowledge on human milk bank among antenatal mothers in the urban areas with their selected demographic variables

None of the demographic variables had shown statistically significant association with the level of knowledge on human milk bank among antenatal mothers in the urban area.

CONCLUSION

The findings revealed that the existing level of knowledge on human milk bank among antenatal mothers was average and there is a need to improve the knowledge about human milk bank through pamphlet distribution and create awareness by conducting health education programmes.

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Conflict of Interest

Author’s declare No Conflict of Interest

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None

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Ghuge, S. 2018. A study to assess the existing level of knowledge on Human Milk Bank among postnatal


