Genital Hygiene Behaviors of Midwives and Nurses Working in Primary Healthcare Services and the Associated Factors

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ABSTRACT

Purpose: The purpose of this study is to determine the genital hygiene behaviors of midwives and nurses working in primary care services and the associated factors.

Patients and Methods: This cross-sectional study was conducted in 16 Family Health Centers (FHCs) and 1 Community Health Center in Bingöl and the population of the study consisted of 61 midwives and 65 nurses. The questionnaire prepared by the researchers based on the literature has two parts. The first part of the questionnaire is composed of descriptive questions questioning socio-demographic characteristics and the second part is composed of Genital Hygiene Behaviors Inventory (GHBI).

Results: When the comparison of Genital Hygiene Behaviors of the midwives and nurses in terms of their descriptive characteristics was examined, it was determined that there was no significant difference between GHBI scores of the midwives and nurses except for educational level (midwife: 85.4±10.9, nurses: 83.9±9.0 points) (p>0.05).

Conclusion: As a result of the study, the deficiencies about the genital hygiene behaviors of midwives and nurses were determined, and it was suggested to support these deficiencies through education. It is recommended to make in-service trainings regular and functional in primary healthcare services and for the specialists who are an expert in their areas to provide these trainings.

Keywords: Genital hygiene, primary health care, nurses, midwives
Woman is a bio-psycho-social being. Therefore, for her happiness and well-being, her physical, social and mental health are equally important (1). Being healthy for a woman is important not only for herself but also for her children, her family and the community health. However, women who have such important tasks in the community experience different health problems depending on their life period (2).

A significant part of women’s health problems are reproductive health problems. Therefore, reproductive health needs to be addressed primarily in the interventions for protecting and promoting women’s health. Because genital infections in the female reproductive system disrupt the physical, communal, and social balance (1). Inadequate healthcare services, lack of health insurance, inadequate social status and educational level of women, excessive fertility, early marriages and associated gynecological problems, false beliefs and practices about genital health, and genital infections involve in basis of reproductive health problems (3).

One of these care practices is genital hygiene care. Genital hygiene care behavior is necessary for the health and well-being of the individual and for him/her to feel socially well (4). Genital hygiene behavior is the care practices developed by the individual in accordance with his/her knowledge, beliefs and habits. These practices vary among individuals. This difference can be observed in the frequency and method of genital hygiene practices. The important thing is to carry out these hygiene practices in the quality and frequency to protect the health of the individual (5).

Genital hygiene is one of the most important elements in protecting women’s health. In addition to many factors in the formation of vaginal infection, the importance of the care shown by women towards genital hygiene is well known (6). Genital infections can impair the quality of life and result in social isolation by affecting sexual life and family life of women negatively (7).

In the whole world, the training and counseling roles of midwives/nurses have become increasingly important along with extension of the understanding focusing on the protection and promotion of health rather than the treatment of diseases (8). Many women abstain from discussing their problems about their reproductive organs or asking questions to healthcare professionals. The midwife and the nurse should encourage the woman to ask questions and discuss her ideas and provide information about her care needs (9). Midwives/nurses communicate with healthy or sick individual more than other healthcare personnel in their institutions and they communicate especially with the pregnant women, who came to the examination, before and during the examination. In this period, they have the opportunity to determine the deficiencies or malpractices of people and take interventions for them (8).

Regarding genital hygiene, midwives and nurses have a major role in the education of women. For this reason, it is important to determine the knowledge levels of midwives and nurses and, if necessary, to raise their knowledge levels. The purpose of this study is to determine the genital hygiene behaviors of midwives and nurses working in primary care services and the associated factors.

Material and method
This cross-sectional study was conducted in 16 Family Health Centers (FHCs) and 1 Community Health Center in Bingöl and the population of the study consisted of 61 midwives and 65 nurses. The study protocol was approved by Bingöl University Local Ethics Committee. The study was conducted between 01–15 May 2018 in accordance with the principles of Declaration of Helsinki. All participants gave written and verbal permission to participate in this study. The following criteria were sought for the sample:
- Being aged between 15–49 years,
- Being married,
- Being voluntary to participate in the study for midwives and nurses.

The questionnaire prepared by the researchers based on the literature has two parts. The first part of the questionnaire is composed of descriptive questions questioning socio-demographic characteristics and the second part is composed of Genital Hygiene Behaviors Inventory (GHBI).

Genital Hygiene Behaviors Inventory (GHBI)
Genital Hygiene Behavior Inventory (GHBI) is a measuring tool developed by Ege and Eryılmaz in 2002 in the form of a 4-point Likert type in order to measure general hygiene, menstrual hygiene, toilet hygiene and sexual hygiene practices of sexually active women from the age group of 15–49 years. GHBI is composed of a single dimension and a total of 27 items including 24 positive, 3 negative (items 17, 26, and 27). For each item, one of the options is asked to be selected and marked. The items containing positive expressions in entering the database are scored as “1” for “never”, “2” for “sometimes”, “3” for “often”, and “4” for “always”. The items containing negative expressions are reversely scored.
as “4” for “never”, “3” for “sometimes”, “2” for “often” and “1” for “always”. While the lowest score to be obtained from the inventory is 27, the highest score is 108. Higher total score signifies that the genital hygiene behavior is at desired level (10). In the study by Ege and Eryılmaz, the Cronbach's alpha reliability coefficient of GHBI was found as 0.86.

The limitation of the study is that the study was conducted on the midwives and nurses working in primary healthcare institutions in city center of Bingöl. The data were evaluated in the statistical package program. The mean scores were given with standard deviation and the value of p<0.05 was accepted as the significance level. In the statistical evaluation of the mean values of the data, “Mann-Whitney U test” for two groups and “Kruskal-Wallis Test” for comparing 3 and more groups were used in independent groups. The data were given in the form of descriptive statistics (number and percentage).

**Results**

In the study where questions were asked about the genital hygiene behaviors of midwives and nurses working in primary healthcare services, Table 1 shows the distribution of the descriptive characteristics of midwives and nurses. Accordingly, 51.6% of the women participating in the study were nurses and 48.4% were midwives. The average age of the participants was 32.5±6.7 years. When the family type, educational background and income levels were examined, it was found that 91.3% were living in nuclear families, 41.3% had a bachelor's degree, and 55.6% had incomes higher than their expenses. Considering the continuation of menstrual cycle, it was determined that 83.3% of the participants were still continuing and 66.7% had incomes higher than their expenses.

When the comparison of Genital Hygiene Behaviors of the midwives and nurses in terms of their descriptive characteristics was examined, it was determined that there was no significant difference between GHBI scores of the midwives and nurses except for educational level (midwife: 85.4±10.9, nurses: 83.9±9.0 points) (p>0.05). It was also determined that there was no significant difference between GHBI scores according to their family type, income level, the status of continuing menstrual cycle and the status of breastfeeding (p>0.05). When GHBI scores were examined in terms of educational levels, GHBI scores of associate degree graduates were determined to be significantly higher than the others (p<0.05) (Table 2).

![Table 1. Distribution of midwives and nurses according to their descriptive characteristics](image)

| Descriptional Characteristics | Number (N=126) | Percentage (%) |
|-------------------------------|----------------|----------------|
| **Profession**                |                |                |
| Midwife                       | 61             | 48.4           |
| Nurse                         | 65             | 51.6           |
| **Family Type**               |                |                |
| Nuclear Family                | 115            | 91.3           |
| Extended Family               | 11             | 8.7            |
| **Educational Level**         |                |                |
| Health vocational high School| 42             | 33.3           |
| Associate Degree              | 32             | 25.4           |
| Bachelor's Degree             | 52             | 41.3           |
| **Income Level Perception**   |                |                |
| Income is lower than expenses | 38             | 30.1           |
| Income is equal to the expenses| 18             | 14.3           |
| Income is higher than expenses| 70             | 55.6           |
| **Continuation of menstrual cycle** |            |                |
| Yes                           | 105            | 83.3           |
| No                            | 21             | 16.7           |

|Reasons for not continuing menstrual cycle| Number (N=126) | Percentage (%) |
|-----------------------------------------|----------------|----------------|
|Menopause                                | 14             | 66.7           |
|Surgical                                 | 4              | 19.0           |
|Hormonal disorder                        | 3              | 14.3           |

|Breastfeeding                          |                |                |
|Yes                                     | 96             | 76.2           |
|No                                      | 30             | 23.8           |

|Age (min: 21, max: 49) | Number (N=126) | Percentage (%) |
|-----------------------|----------------|----------------|
|32.5±6.7               |                |                |

|Age of Menarche (x ± S) | Number (N=126) | Percentage (%) |
|------------------------|----------------|----------------|
|12.7±2.5                |                |                |

|Breastfeeding duration (x ± S) (month) | Number (N=126) | Percentage (%) |
|--------------------------------------|----------------|----------------|
|13.4±10.3                            |                |                |

|First pregnancy age (x ± S) | Number (N=126) | Percentage (%) |
|----------------------------|----------------|----------------|
|36.9±6.7                   |                |                |

|Total number of pregnancies (x ± S) | Number (N=126) | Percentage (%) |
|-----------------------------------|----------------|----------------|
|1.7±1.2                            |                |                |

* Descriptive statistics were conducted.

![Table 2. Comparison of genital hygiene behaviors of midwives and nurses according to their descriptive characteristics](image)

|Descriptional Characteristics | GHBI | Mean (N=126) | Std. Deviation | Test value | P value |
|-------------------------------|------|--------------|----------------|------------|---------|
|Profession                     |      |              |                |            |         |
|Midwife                        |      | 85.4         | 10.9           | U: 1865.5  | 0.567   |
|Nurse                          |      | 83.9         | 9.0            |            |         |
|Family Type                    |      |              |                |            |         |
|Nuclear Family                 |      | 84.5         | 10.3           | U: 516.0   | 0.563   |
|Extended Family                |      | 86.2         | 5.1            |            |         |
|Educational Level              |      |              |                |            |         |
|Health vocational high School  |      | 84.5         | 6.4            | Chi-square:| 0.045*  |
|Associate Degree               |      | 88.6         | 14.7           |            | 6.216   |
|Bachelor’s Degree              |      | 82.3         | 7.9            |            |         |
|Income Level                   |      |              |                |            |         |
|Income is lower than expenses  |      | 82.4         | 8.8            | Chi-square:| 0.393   |
|Income is equal to the expenses|      | 85.0         | 9.8            |            | 1.867   |
|Income is higher than expenses |      | 85.7         | 10.5           |            |         |
|Continuation of menstrual cycle|      |              |                |            |         |
|Yes                            |      | 85.1         | 10.3           | U: 915.5   | 0.220   |
|No                             |      | 82.3         | 8.0            |            |         |
|Breastfeeding                  |      |              |                |            |         |
|Yes                            |      | 84.7         | 10.3           | U: 1394.0  | 0.792   |
|No                             |      | 84.3         | 9.0            |            |         |

* for comparing two groups Mann-Whitney U test, and for comparing three and more, Kruskal-Wallis test were used (p<0.05).
Table 3 shows the distribution of perceptions of midwives and nurses on genital hygiene behaviors and responses given for GHBI.

**Discussion**

This descriptive study was conducted in 16 family health centers (ASM) and 1 Community Health Center in Bingöl between 01–15 May 2018 in order to determine the genital hygiene behaviors of midwives and nurses working in primary healthcare services and the associated factors.

It was found that 51.6% of the women participating in the study were nurses and 48.4% were midwives. The average age of the participants was 32.5±6.7 years. When the family type, educational background and income levels were examined, it was found that 91.3% of them were living in nuclear families, 41.3% had a bachelor’s degree, and 55.6% had incomes higher than their expenses.

When the comparison of Genital Hygiene Behaviors of the midwives and the nurses in terms of occupation, family type and income level was examined; it was determined that there was no significant difference between GHBI scores of the midwives and nurses except for educational level (midwife: 85.4±10.9, nurses: 83.9±9.0 points) (p>0.05). In the comparison of Genital Hygiene Behaviors, the studies about midwives and nurses working in Primary Healthcare Services in Turkey have not been yet at the desired level. In this context, I think that this study would make contributions to the literature.

When examining the Genital Hygiene Behaviors of the participants and the family types from the descriptive characteristics, no significant difference was determined between the groups (p>0.05). In the studies by Yıldırım (11) and Ege and Eryılmaz (5), GHBI mean scores of women living in nuclear families were found to be high. In the

| Statements about sexual health perceptions | Never (n) | Percentage | Sometimes (n) | Percentage | Often (n) | Percentage | Always (n) | Percentage |
|--------------------------------------------|----------|------------|--------------|------------|----------|------------|-----------|------------|
| I participate in the training meetings on subjects concerning my sexual health. | 10       | 7.9        | 52           | 41.3       | 34       | 27.0       | 30        | 23.8       |
| I follow news about sexual life on written and visual media | 8        | 6.3        | 36           | 28.6       | 60       | 47.6       | 22        | 17.5       |
| I get information about cleaning of genital area from healthcare professionals. | 6        | 4.8        | 18           | 14.3       | 46       | 36.5       | 56        | 44.4       |
| I go to regularly to a gynecologist | 10       | 7.9        | 78           | 61.9       | 18       | 14.3       | 2         | 1.6        |

| Statements about menstrual hygiene behaviors and the use of underwear | Never (n) | Percentage | Sometimes (n) | Percentage | Often (n) | Percentage | Always (n) | Percentage |
|-------------------------------------------------------|-----------|------------|--------------|------------|----------|------------|-----------|------------|
| I use sanitary pad during menstrual cycles | 2         | 1.6        | 6            | 4.8        | 26       | 20.6       | 92        | 73.0       |
| I take a shower during menstrual cycles | 0         | 0          | 28           | 22.2       | 36       | 28.6       | 62        | 49.2       |
| I use a piece of cloth during menstrual cycles | 76       | 60.3       | 22           | 17.5       | 16       | 12.7       | 12        | 9.5        |
| I change my underwear everyday | 4         | 3.2        | 0            | 0          | 28       | 22.2       | 94        | 74.6       |
| I iron my underwear | 14       | 11.1       | 64           | 50.8       | 34       | 27.0       | 14        | 11.1       |
| my underwear is made of cotton fabric | 0         | 0          | 24           | 19.0       | 50       | 39.7       | 52        | 41.3       |
| I constantly use pad | 24       | 19.0       | 34           | 27.0       | 52       | 41.3       | 16        | 12.7       |

| Statements about hand washing behaviors | Never (n) | Percentage | Sometimes (n) | Percentage | Often (n) | Percentage | Always (n) | Percentage |
|----------------------------------------|-----------|------------|--------------|------------|----------|------------|-----------|------------|
| I wash my hands before changing my pad | 10        | 7.9        | 36           | 28.6       | 34       | 27.0       | 46        | 36.5       |
| I wash my hands after changing my pad | 2         | 1.6        | 8            | 6.3        | 20       | 15.9       | 96        | 76.2       |
| I wash my hands before sexual intercourse | 6       | 4.8        | 50           | 39.7       | 28       | 22.2       | 42        | 33.3       |
| I wash my hands after sexual intercourse | 0       | 0          | 18           | 14.3       | 24       | 19.0       | 84        | 66.7       |
| I wash my hands before going to the toilet | 8       | 6.3        | 48           | 38.1       | 26       | 20.6       | 44        | 34.9       |
| I wash my hands after going to the toilet | 14      | 11.1       | 8            | 6.3        | 12       | 9.5        | 92        | 73.0       |
study by Kavlak et al. (12), supporting this study, no statistically significant difference was determined between the family type and GHBI mean scores of the participants.

No significant difference was found between the income level and GHBI scores of the midwives and nurses participating in the present study (p>0.05). It was reported in the studies that there was no significant correlation between the monthly income and GHBI mean scores of the women (10–12). Additionally, there are studies indicating a correlation between monthly income and GHBI mean score of the women (13). The fact that women with high income level had high GHBI score in the present study can be associated with the better living conditions as a result of increased economic level, better access to health services and increasing hygienic practices.

When GHBI scores were examined in terms of educational level, GHBI scores of the associate degree graduates were determined to be significantly higher than the others (p<0.05) (Table 2). It was determined that genital hygiene behaviors of those with high school and higher education level in the study of Kavlak et al., conducted with pregnant women (12) and those of women with higher educational level in the study of Ege and Eryılmaz were better and the trainings given in this respect further improved these behaviors (5). In the study by Demirbağ et al., it was determined that the trainings conducted about genital hygiene was effective in improving the genital hygiene behavior of women (14). As a result of the studies, it can be asserted that people had more knowledge about hygiene along with the increased educational level, it increased their look after themselves positively and the working women accessed to the hygiene-related materials more easily since they were economically independent. As in all areas, education factor is also an important factor affecting the women’s health. As the educational level of women increases, their tendency to apply positive health-related behaviors also increases.

In addition, it was also determined in the present study that there was no significant difference between GHBI scores of the participants in terms of the status of breastfeeding and continuing to menstrual cycle (p>0.05).

**Conclusion**

In the practice of genital hygiene behaviors of the women included in the present study, it was determined that there was no difference according to their occupation, family type and income levels (p>0.05). When the GHBI scores were examined in terms of their educational level, GHBI scores of those having an associate’s degree were determined to be significantly higher than the others (p<0.05). It is recommended to support studies about increasing the educational level of the women.

As a result of the study, the deficiencies about the genital hygiene behaviors of midwives and nurses were determined and it was suggested to support these deficiencies through education. It should also be noted that positive genital hygiene behavior rates determined in the studies conducted about genital hygiene behaviors in Turkey are generally low (4, 15–17).

It is recommended to make in-service trainings regular and functional in primary healthcare services and for the specialists who are an expert in their areas to provide these trainings. In addition, before and after each training activities, knowledge, attitude and behavior levels should be measured and the effectiveness of the trainings should be assessed.

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