



# Use of Cosmetics and Adverse Cosmetic Events Among Female Nurses: Need for a Cosmetovigilance System

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## ABSTRACT

**Objectives:** Cosmetics are known to cause adverse events in users, and there is limited information on this topic both globally and in Türkiye. This study was conducted to assess the use of cosmetics, patterns, and characteristics of adverse cosmetic events (ACEs) among female nurses.

**Materials and Methods:** This cross-sectional study was conducted from February to April 2022 among registered female nurses with at least 1 year of work experience in a tertiary care hospital in Adana, Türkiye. A validated questionnaire was used for data collection, which included 13 questions with three main sections. The first part comprised demographic variables and cosmetic uses, the second part addressed ACE, and the final section consisted of consultation types and reporting methods for adverse events adopted after experiencing ACE.

**Results:** Of the total 158 participants, 144 were included in this study, resulting in a response rate of 91.1%. All female nurses reported using cosmetics, and 26.4% (n= 38) reported experiencing one or more cosmetic ACEs. Itching, burning, and eczema were the most frequently observed ACEs. A higher proportion of ACEs were associated with face care products (18.4%) and deodorants (13.1%). More than half (57.9%) of the nurses did not consult with healthcare professionals after experiencing ACE. Moreover, most participants (47.4%) did not report ACE to healthcare authorities.

**Conclusion:** A considerable proportion of the participants reported ACEs. The underreporting of ACE was also highlighted in this study. The results also emphasize the need for a robust cosmetovigilance system.

**Keywords:** Cosmetics, adverse event, cosmetovigilance, safety

## INTRODUCTION

Cosmetics are major components of daily life for people of all ages and are used for a variety of purposes.<sup>1</sup> The United States Food and Drug Administration defines a cosmetic as "a substance that is applied to the body of a person with the intention of cleansing, beautifying, enhancing attractiveness, or changing appearance".<sup>2</sup> However, in terms of the legal definitions of drugs and cosmetics, the use of color additives and other ingredient restrictions as well as registration procedures are different for cosmetics in the United States and other

countries.<sup>3</sup> According to the Turkish Medicines and Medical Devices Agency and the European Union (EU), a cosmetic is any substance or mixture that is applied to the skin, hair, external genital organs, lips, teeth, and mucous membranes of the oral cavity with the sole or primary intention of cleaning, perfuming, altering appearance, protecting, maintaining good condition, or removing body odors.<sup>4</sup>

According to the World Health Organization, an adverse cosmetic drug reaction is an unintended and harmful reaction

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Received: 03.05.2023, Accepted: 07.08.2023



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to a cosmetic that normally occurs following a proper application of a cosmetic, whereas an adverse cosmetic event (ACE) is a hypothetically anticipated noxious injury linked to the use of cosmetics.<sup>5,6</sup> The global cosmetic market has grown in recent years, which is driven by consumer demands that are increasingly concerned about their appearance.<sup>6</sup> Most cosmetic users are more concerned regarding the immediate effects on appearance than the long-term effects on the entire body.<sup>1,5</sup> Cosmetic products are thought to be reasonably safe and tolerable.<sup>1,3</sup> However, it is well known that cosmetic use can sometimes cause adverse reactions.<sup>3,5,6</sup> Numerous studies have documented severe ACEs, including eczema, blistering, breathing difficulties, hair loss, unconsciousness, dizziness, skin burns, nausea, and vomiting.<sup>5</sup> Similarly, the most frequently reported adverse effects linked to prolonged exposure to heavy makeup were headache, fatigue, dizziness, and nausea.<sup>7</sup> Previous studies reported a range of reactions to cosmetics, from mild hypersensitivity to severe anaphylactic reactions or even lethal intoxication. These reactions may occur immediately or after the use of cosmetics for an extended period.<sup>1,8,9</sup> It is suggested that more emphasis should be placed on testing and monitoring the potentially harmful effects of cosmetics.<sup>8,9</sup> Cosmetovigilance is a term used to describe the processes involved in gathering, analyzing, and monitoring spontaneous reports related to unfavorable events noticed during, or after usual or reasonably anticipated usage of cosmetics.<sup>3,10</sup> Cosmetovigilance is crucial for better health surveillance of cosmetic products.<sup>10</sup> The French health products safety agency established cosmetovigilance as a component of the pharmacovigilance system for cosmetics.<sup>11</sup> Nowadays, the safety of cosmetic products is considered as public health issue at a global level. Türkiye started a cosmetovigilance regulation system in 2012.<sup>12,13</sup> These guidelines recommend reporting undesirable effects related to cosmetics.<sup>14</sup> In Türkiye, although implementation may be poor, but regulations are harmonized with the EU regulations. Consumers may still experience ACE with cosmetic products.<sup>1,3,14</sup> The number of reported ACEs is relatively low due to self-diagnosis, self-medication, and lack of consultation by the consumers.<sup>1,5,7</sup> Moreover, ACEs are still underreported and miscalculated.<sup>5</sup>

Nurses fulfill many important roles in the provision of cosmetic services.<sup>15</sup> They play a critical role in pharmacovigilance activities and adverse drug events reporting.<sup>16</sup> Cosmetic use and its adverse effects may vary and depend on an employee's background characteristics, including income level, education, informational access, and other factors.<sup>6</sup> Additionally, females are more likely affected due to more use of cosmetics than males.<sup>17,18</sup> It is important to understand the patterns and characteristics of ACEs among all stakeholders, including health professionals. Only one review article highlighted cosmetic safety in the context of the Turkish cosmetovigilance regulation.<sup>14</sup> However, no research on cosmetic use and ACEs has been conducted among the Turkish population or among any group of healthcare professionals (HCPs). Therefore, this study was conducted to assess the use of cosmetics, patterns, and characteristics of ACEs among female nurses in Türkiye.

## MATERIALS AND METHODS

### *Study design and population*

A cross-sectional descriptive study was conducted among registered female nurses working in a tertiary care hospital in the Adana Province of Türkiye between February and April 2022. Full-time registered female nurses with at least 1 year of work experience were included in this study. Nursing students on a traineeship and part-time registered nurses who had less than < 1 year of work experience and were unwilling to participate were excluded.

### *Sample size*

According to hospital data, 326 nurses (both male and female) worked in a selected healthcare setting, and 218 of them were female nurses. To determine the appropriate sample size for a proportional or descriptive study, we entered this data into Epi Info™ software (Centers for Disease Control and Prevention, Epi Info™). A minimum of 140 participants were required, taking into account a 50% predicted frequency of the outcome factor ACE in the population, a 95% confidence interval, and a design effect of 1 [<https://www.openepi.com/SampleSize/SSPropor.htm>]. A convenient sampling technique was used, and the sample size was increased to 158 participants to ensure reliability and compensate for any missing data or non-response rate.

### *Data collection methods and tools*

The authors chose some sections of a previously used questionnaire among the general public by Malaysian researchers with their permission.<sup>5</sup> The questionnaire was also adapted and modified from earlier studies on cosmetic usage patterns and adverse events.<sup>1,6,7</sup> The developed questionnaire was translated from English into Turkish (Türkiye's official language) using one-way direct translation rather than back-translation. This approach was used because it reduces time and cost.<sup>5,19</sup> The translations were performed by two competent and experienced researchers who were fluent in both Turkish and English. Minor changes were suggested after the instrument underwent face and content validity testing. The final instrument was then modified as recommended by the experts. A pilot study was conducted with a sample of 20 nurses. The purpose of the pilot study was to assess the study tool's applicability and clarity as well as detect potential issues that might arise during data collection. Minor modifications were made. Following the pilot, the reliability coefficient (Cronbach alpha value: 0.800 and Cronbach alpha based on standardized items: 0.896) was also determined. The pilot sample was excluded from the final study sample. Respondents were able to finish the questionnaire on an average of 5 minutes.

The final questionnaire had 13 questions and three main sections (Supplementary File 1): the first section asked about general demographic data and cosmetic use; the second section addressed ACEs. The final section outlines the consultation types and reporting methods adopted after experiencing ACE. The first section consisted of 5 questions and the

participants' age, working experience, cosmetic use (yes/no), factors considered while purchasing/using cosmetics, and recommendations/advice sources were collected. The second part included 6 questions regarding ACEs (yes/no), frequency, types, symptoms, affected body area, and type of cosmetic product. The final section consisted of 2 questions about the type of consultation adopted (such as medical specialists, pharmacists, general practitioners, beauticians, and others) and the reporting method for ACE. Two trained researchers collected the data prospectively by distributing a Turkish version of the questionnaire. The respondents were informed about the purpose of the study and data confidentiality and informed consent (oral and written) was obtained.

#### *Ethical consideration*

The study was approved by the Çukurova University Non-Invasive Clinical Research Ethics Committee (approval number: 119, date: 04.02.2022).

#### *Statistical analysis*

The Statistical Package for the Social Sciences (SPSS) version 25 was used to tabulate and analyze the data gathered for this study. Descriptive statistics were used to determine the frequency and percentage of all sections.

## RESULTS

In the current study, a total of 158 female nurses were invited to participate. Sixteen ( $n=14$ ; 8.8%) were excluded due to less than 1 year of working experience ( $n=9$ ; 5.7%) and lack of time ( $n=5$ ; 3.1%). A total of 144 nurses were included (response rate of 91.1%). The mean age of nurses was 33.99 years (range 20–64 years), with a standard deviation of 7,870. We found that most younger age participants (20–30 years) reported using cosmetics. Most participants had working experience of 1–5 years ( $n=56$ ; 38.9%) followed by 11–15 years ( $n=15$ ; 35.4%) (Table 1).

All female nurses reported their use of cosmetics. Most of the participants considered safety and quality (27.1%), expiry date (11.8%), and manufacturer/brand (11.1%) before purchasing or applying cosmetics. Thirty-one (21.5%) respondents also reported a combination of factors, whereas 17.4% of the participants considered nothing before purchasing or using cosmetics. The participants reported that they give importance to advice from friends/relatives (31.3%), cosmetologists (26.4%), and pharmacists (11.8%) when selecting cosmetics (Table 1).

Of the 144 respondents, 26.4% ( $n=38$ ) reported having experienced one or more ACEs. Most ACEs were cutaneous ( $n=35$ ; 92.1%), followed by systemic and cutaneous ( $n=2$ ; 5.3%) and systemic ( $n=1$ ; 2.6%). Itching, burning, and eczema were the most frequently observed cutaneous adverse drug reactions (ADRs). Headache was the most common systemic ACE (Table 2).

In this study, messy faces, armpits, hands, neck, scalp, and eye (ocular mucosa) were the most commonly affected body sites by ACEs (Figure 1).

A higher proportion of ACEs were associated with face care products (18.4%), deodorants (13.1%), body care products (10.5%), eye makeup (7.9%), and face makeup (5.2%) (Table 3).

In the current study, more than half ( $n=22$ ; 57.9%) of the nurses did not consult with a medical specialist, pharmacist, general practitioner, or beautician. However, 42.1% ( $n=16$ ) consulted with professionals regarding ACEs. Medical specialists (15.8%) followed by the pharmacist (7.9%), general practitioners (5.2%), and beauticians (2.6%), were the commonly chosen consultations by participants. A combination of medical specialists and general practitioners (7.9%) and medical specialists and general practitioners and beauticians (2.6%) were also sought for consultation by the participants (Figure 2).

Of them, 38 participants, nearly half ( $n=18$ ; 47.4%) did not report the ACEs to the concerned authority. However, 28.9% ( $n=11$ ) reported ADR to a hospital, and only 10.5% and 7.9% forwarded the ACE report to the Turkish Pharmacovigilance Centre (TUFAM) and beauty center, respectively (Figure 3).

## DISCUSSION

Cosmetovigilance is a developing pharmacovigilance field both globally and in Türkiye. This is the first study in Türkiye to use a self-reported survey to analyze cosmetic use patterns and associated ACEs among female nurses. In this study, all participants reported their cosmetic use (100%). A study conducted in Ethiopia reported that a higher proportion (80.1%) of participants utilized at least one cosmetic item.<sup>6</sup> Additionally, we found that most younger participants reported using cosmetics, which could be attributed to the younger age group's high consumption rate. A similar pattern has also been reported in previous studies.<sup>16</sup>

In our study, more than one-fourth of the patients (26.4%) reported the occurrence of ACEs. The proportion was higher than that in a study conducted in Ethiopia (19%).<sup>6</sup> However, a higher rate of ACEs was reported in Malaysia (29.0%),<sup>5</sup> Brazil (38%),<sup>20</sup> and Saudi Arabia (50.6%).<sup>1</sup> The variation may result from differences in the frequency, cosmetic type, duration of the study, and sample, as well as cultural and methodological differences between the study population.

The findings revealed that the skin was the most affected region due to ACEs. These findings were consistent with those of previously published studies conducted in different countries.<sup>3,5,21</sup> In the current study, itching followed by burning, eczema, and redness were the most commonly observed cutaneous ACEs. A similar finding was reported by Lucca et al.<sup>1</sup> and Hadi et al.<sup>5</sup> However, the frequency of redness and eczema were frequently reported in the studies by Lucca et al.<sup>1</sup> and Hadi et al.<sup>5</sup> studies, respectively. Similarly, headache, dizziness, and dyspnea were also observed in our study. These findings also align with previous studies.<sup>15</sup> Therefore, climatic differences did not play a role in this matter, as the manifestations of similarities in Türkiye were nearly identical to those found in previous studies conducted in various countries.

The face was the body site most affected by ACEs in this study. Previous studies have documented similar findings.<sup>5,6</sup>

**Table 1. Socio-demographic characteristics, cosmetic use, factors, and advice considered by the participants (n= 144)**

Variables	Frequency	Percentage
<b>Age</b>		
20-30	60	41.7
31-40	51	35.4
41-50	31	21.5
51-60	1	0.7
More than 61 years	1	0.7
<b>Experience</b>		
1-5 years	56	38.9
6-10 years	13	9
11-15 years	51	35.4
16-20 years	7	4.9
More than 20 years	17	11.8
<b>Cosmetic use</b>		
Yes	144	100
No	0	0
<b>Factors to be considered when purchasing/applying cosmetics</b>		
Safety and quality	39	27.1
Expiration date	17	11.8
Manufacturer/brand	16	11.1
Price	15	10.4
Packaging	1	0.7
Expiration date + manufacturer/brand	4	2.8
Expiration date + safety and quality	3	2.1
Expiration date + price	3	2.1
Manufacturer/brand + packaging	2	1.4
Expiration date + safety and quality + manufacturer/brand	5	3.5
Safety and quality + manufacturer/brand + price	1	0.7
Expiration date + safety and quality + price	1	0.7
Expiration date + safety and quality + manufacturer/brand + price + packaging	12	8.3
None	25	17.4
<b>To whom do you give importance when selecting cosmetics?</b>		
Friends/relatives	45	31.3
Cosmetologist	38	26.4
Pharmacist	17	11.8
Beauty center/beautician	16	11.1
Doctor	14	9.7
Pharmacy/pharmacist + doctor	2	1.4

**Table 1. Continued**

Variables	Frequency	Percentage
<b>To whom do you give importance when selecting cosmetics?</b>		
Cosmetologist + pharmacist	2	1.4
Cosmetologist + doctor	1	0.7
Cosmetologist + beauty center/beautician	1	0.7
Pharmacist + friends/relatives	1	0.7
Pharmacist + friends/relatives + beauty center/beautician	1	0.7
Cosmetologist + pharmacist + doctor	1	0.7
Cosmetologist + pharmacist + friends/relatives + beauty center/beautician + doctor	1	0.7
None	4	2.8

**Table 2. ACEs and types (n= 38)**

Questions	Frequency	Percentage
<b>ACEs experienced</b>		
Yes	38	26.4
No	106	73.6
<b>Number of ACEs (n= 38)</b>		
1	20	52.6
2	14	36.8
3	3	7.9
4	0	0
More than 4	1	2.6
<b>ACE types</b>		
<b>Cutaneous (skin)</b>		
Itching	8	21
Burning	7	18.4
Eczema	2	5.2
Redness	2	5.2
Itching + eczema	6	15.8
Itching + burning	8	21
Itching + burning + eczema	2	5.2
<b>Systemics</b>		
Headache	1	2.6
<b>Cutaneous + systemics</b>		
Itching + burning + nausea + dizziness + shortness of breath	1	2.6
Itching + burning + headache	1	2.6
<b>Total</b>	<b>38</b>	<b>100</b>

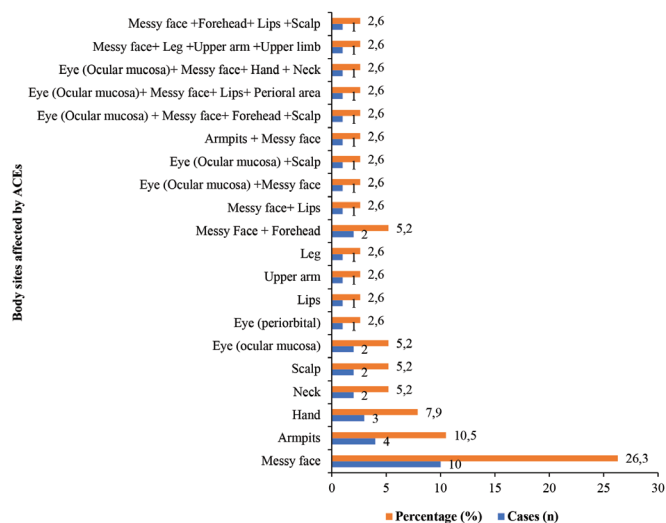
ACEs: Adverse cosmetic events

**Table 3. ACEs observed in the cosmetic class (n= 38)**

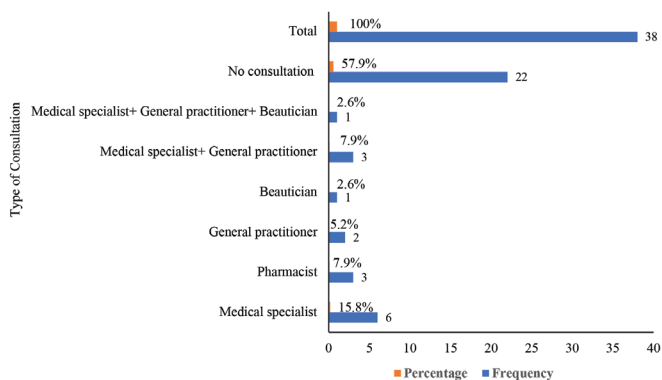
Cosmetic class	Number of observed ACEs	Percentage
Face care products	7	18.4
Deodorants	5	13.1
Body care products	4	10.5
Eye makeup	3	7.9
Face makeup	2	5.2
Hair care products	2	5.2
Cleaning product	2	5.2
Depilatory (hair removal) product	2	5.2
Face care products + face makeup	2	5.2
Face care products + body care products	1	2.6
Face care products + cleaning products	1	2.6
Eye makeup + cleaning product	1	2.6
Hair care products + eye care products	1	2.6
Cleaning product + depilatory (hair removal) product	1	2.6
Body care products + eye makeup + face makeup	1	2.6
Body care products + cleaning products + eye care products	1	2.6
Eye makeup + face makeup depilatory (hair removal) product + after sun products	1	2.6
Face care products + body care products + eye makeup + face makeup + hair care products + cleaning products	1	2.6
<b>Total</b>	<b>38</b>	<b>100</b>

ACEs: Adverse cosmetic events

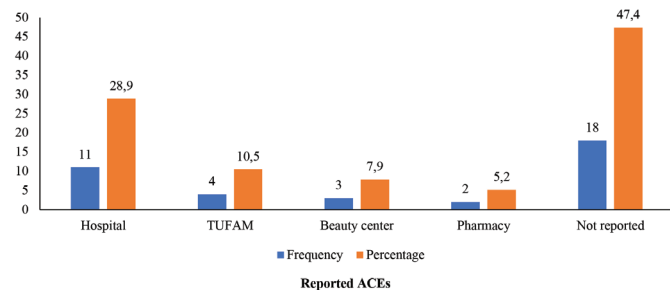
Furthermore, the findings of this study revealed that a higher proportion of ACEs were related to face care products and deodorants. Similarly, previous studies also reported that the majority of ACEs occur as a result of products intended for use on the face.<sup>1,3,5</sup> According to a Brazilian study, the most common cause of ACEs was soap, shampoo, and deodorants.<sup>20</sup> Another study found that face lotion and hair cosmetics were the most commonly reported causes of ACEs.<sup>6</sup> Additionally, the type of cosmetic product may also have an impact on the adjacent site.<sup>5</sup> It is widely known that these products contain a variety of chemical additives to enhance the functionality, potency, and sustainability of cosmetics.<sup>1,8,22</sup> Exposure to the different chemicals found in cosmetics poses a health risk that can range from a mild hypersensitivity reaction to a lethal

**Figure 1. Body sites affected by ACEs (n= 38)**

ACEs: Adverse cosmetic events

**Figure 2. Type of consultation adopted after experiencing ACEs (n= 38)**

ACEs: Adverse cosmetic events

**Figure 3. Reporting of ACEs (n= 38)**

ACEs: Adverse cosmetic events, TUFAM: Turkish Pharmacovigilance Centre

intoxication.<sup>23</sup> Moreover, misbranded and spurious cosmetics are common.<sup>1,23</sup>

In the current study, > 50% (57.9%) of the respondents did not receive any consultation after experiencing ACEs. A similar finding was also reported in a Malaysian study.<sup>5</sup> The number of nurses who attempted to consult HCPs: medical

practitioners, pharmacists, and general practitioners) was 29.9% in our study. The small number of respondents who sought consultation indicated that they were misjudging the occurrence of ACEs. Studies have revealed that consumers underreported ACEs even though they may have suffered severe harm in some cases.<sup>3,5,21,24</sup> Prior studies have highlighted the possibility of more serious reactions involving internal body systems, such as cancer.<sup>25,26</sup> Previous studies have also recommended the identification of cosmetics' harmful ingredients to avoid harmful effects and protect consumers.<sup>26,27</sup> Therefore, it is suggested that manufacturers conduct a safety evaluation of their products before they are marketed.<sup>3,5,28,29</sup> Furthermore, dermatologists and primary care physicians are reported to be the first points of contact for the general public with skin complaints.<sup>1</sup> A pharmacist's role in public engagement is well documented.<sup>30</sup> Therefore, there is a need for effective communication, counseling sessions, and education among cosmetic consumers and HCPs to avoid the potential risk of ACEs.

In this study, we also observed that despite experiencing ACEs due to cosmetic use, most participants (47.4%) did not report such events to the healthcare authority. Globally, the reported number of ACEs is extremely low.<sup>31,32</sup> The under-reporting of ACEs has also been highlighted in the literature.<sup>3,5,33,34</sup> Additionally, the absence of formal and trustworthy monitoring systems (referred to as "cosmetovigilance") may also contribute to the underestimation of such harmful effects and under-reporting.<sup>34</sup> The US Food and Drug Administration launched a "MedWatch Online Voluntary Reporting Form" for cosmetic-related complaints and adverse reactions.<sup>35</sup> Türkiye initiated the cosmetovigilance program under the pharmacovigilance system in 2012.<sup>12,13</sup> The Turkish Medicines and Medical Devices Agency developed an online form for consumers, patients, and HCPs to report cosmetic-related undesirable effects.<sup>36</sup> However, our study reported low reporting rates of cosmetic ADRs in Türkiye as well as previously reported in a global context.<sup>3,10,25,34</sup> Therefore, to address a lower reporting rate, awareness-raising campaigns and the promotion of cosmetovigilance among cosmetic users, retailers, HCPs, and other stakeholders are needed.

#### *Study limitations*

This study has some limitations. First, the current study utilized a self-reported questionnaire to gather information on cosmetic use and associated ACEs. As a result, there is a chance of recall bias, which may lead to underestimation. Second, this study did not include participants' medical illness or medication history. Similarly, some of the ACEs reported by the participants may not have been caused by cosmetics. It could have been evaluated using proper further causality analysis studies, which were not possible in our study scope. Third, the current findings may not be generalizable, especially because our study was based on a sample of female nurses recruited from a single hospital in Türkiye. Further research with larger samples and validated scales is required to confirm our findings, as the findings among female nurses may not be representative of all practices

across the country.

Despite these limitations, this study has some strengths. This is the first study to assess the cosmetic use, pattern, and characteristics of ACEs among female nurses in our healthcare setting as well as in Türkiye. Socio-cultural factors also have a significant impact, which varies from country to country. Furthermore, this study provides baseline local data, and the findings may be useful for cosmetic users, clinical practitioners, HCPs, and policymakers.

## CONCLUSION

A considerable proportion of the participants reported ACEs. The most commonly affected skin area was the face, and itching, followed by burning, and eczema were frequently reported ACEs. Most respondents did not receive any consultation from qualified HCPs after experiencing ACEs. The underreporting of ACEs was also highlighted in this study. Cosmetovigilance is a new model of cosmetic safety monitoring that can be considered a major component of public health activities. Therefore, some measures to strengthen the implementation of cosmetovigilance include the distribution of informational leaflets, awareness sessions, media campaigns, and the offering of direct information facilities to consumers and HCPs. Similarly, prompt detection and management of ACEs may enhance the financial aspects of therapeutic efficacy. Furthermore, in the future, a nationwide prospective prevalence study based on causality analyses should be conducted in different populations to further validate existing data and strengthen the cosmetovigilance system in Türkiye as well as globally.

#### *Ethics*

**Ethics Committee Approval:** The study was approved by the Çukurova University Non-Invasive Clinical Research Ethics Committee (approval number: 119, date: 04.02.2022).

**Informed Consent:** The respondents were informed about the purpose of the study and data confidentiality, and informed consent (oral and written) on their willingness to participate in the study was obtained.

#### *Authorship Contributions*

Concept: Z.K., Y.K., G.P., Design: Z.K., Y.K., G.P., Data Collection or Processing: Z.K., Y.K., G.P., Analysis or Interpretation: Z.K., Y.K., G.P., A.N.Ç.G., H.R., F.U.K., O.K., Literature Search: Z.K., Y.K., G.P., A.N.Ç.G., H.R., F.U.K., O.K., Writing: Z.K., Y.K., G.P.

**Conflict of Interest:** No conflict of interest was declared by the authors.

**Financial Disclosure:** The authors declared that this study received no financial support.

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**Supplementary File 1. English and Turkish version questionnaires****The usage of cosmetics and adverse drug reactions among female nurses in a tertiary care hospital**

We want to conduct a survey to evaluate female nurses' knowledge of the adverse effects of cosmetics. Identity information of the participants of the study is not required. The results will only be used in the scientific field.

**Do you want to participate in the study?**

- Yes  
 No

**Section 1: General demographic information and cosmetic use.**

**Age:** .....

**Work experience**

- 1-5 years  
 6-10 years  
 11-15 years  
 15-20 years  
 20+

**Have you used cosmetics?**

- Yes  
 No

**What factors do you consider when purchasing/applying cosmetics?**

- Safety and Quality  
 Expiration date  
 Packaging  
 Manufacturer/brand  
 Price  
 None  
 Others: .....

**Whose advice do you give importance when selecting a cosmetic product?**

- Cosmetologist  
 Friend-relative  
 Pharmacy/Pharmacist  
 Beauty Center/Beautician  
 Doctor  
 None  
 Others: .....



**Section 2: Adverse cosmetic reactions.**

**Have you experienced adverse effects due to cosmetics use?**

- Yes  
 No

**If the answer is yes, how many cosmetic adverse events have you experienced?**

- 1  
 2  
 3  
 4  
 4+

**What type of cosmetic adverse events have you encountered?**

- Skin  
 Systemic  
 Others: .....

**What were the symptoms of the adverse cosmetic events you experienced?**

- Itching  
 Burning  
 Eczema  
 Headache  
 Nausea  
 Dizziness  
 Shortness of breath  
 Others: .....

**Which body area was affected by adverse cosmetic events?**

- Armpits  
 Eye (ocular mucosa)  
 Eye (periorbital)  
 Messy face  
 The front part of the arm  
 Forehead  
 Groin  
 Hand  
 Heart  
 Leg  
 Lips  
 Mammary gland  
 Neck  
 Perioral area  
 Scalp diffuse

- Thigh
- Thorax
- Upper arm
- Upper limb
- Others: .....

**Section 3: Type of consultation and reporting method adopted after experiencing adverse drug reaction.**

**What type of counseling did you receive after adverse cosmetic events?**

- Medical specialist
- General practitioner
- Pharmacist
- General practitioner and medical specialist
- Pharmacist and medical specialist
- Beautician
- None
- Other: .....

**Where do you report the cosmetic adverse event?**

- TUFAM (Turkish Pharmacovigilance Centre)
- Hospital
- Pharmacy
- Beauty center
- Not reported
- Others: .....

**Thank you so much for your time and participation.**

**Üçüncü basamak bir hastanede kadın hemşirelerin kozmetik kullanımı ve advers ilaç reaksiyonları**

Kadın hemşirelerin, kozmetiklerin advers etkileri konusunda bilgilerini değerlendirmek amacıyla bir anket yapıyoruz. Çalışmaya katılanların kimlik bilgisi istenmemektedir. Sonuçlar sadece bilimsel alanda kullanılacaktır.

**Çalışmaya katılmak istiyor musunuz?**

- Evet  
 Hayır

**Bölüm 1: Genel demografik bilgiler ve kozmetik kullanımı.**

**Yaşınız:** .....

**Çalışma deneyimi**

- 1-5 yıl  
 6-10 yıl  
 11-15 yıl  
 15-20 yıl  
 20+

**Kozmetik kullandınız mı?**

- Evet  
 Hayır

**Kozmetik alırken/yaptırırken hangi faktörlere dikkat edersiniz?**

- Güvenlik ve Kalite  
 Son kullanma tarihi  
 Ambalaj  
 Üretici/marka  
 Fiyat  
 Hiçbiri  
 Diğer: .....

**Kozmetik ürün seçerken kimin tavsiyesine önem verirsiniz?**

- Kozmetik Uzmanı  
 Arkadaş-akraba  
 Eczane/Eczacı  
 Güzellik Merkezi/Güzellik Uzmanı  
 Doktor  
 Hiçbiri  
 Diğer: .....

**Bölüm 2: Advers kozmetik reaksiyonlar.****Kozmetik kullanırken advers etkiye maruz kaldınız mı?**

- Evet  
 Hayır

**Cevap evet ise, kaç tane kozmetik advers olay yaşadınız?**

- 1  
 2  
 3  
 4  
 4>

**Hangi tip kozmetik advers olayla karşılaştınız?**

- Deri  
 Sistemik  
 Diğer: .....

**Yaşadığınız Adverse kozmetik olayların belirtileri nelerdi?**

- Kaşıntı  
 Yanma  
 Egzema  
 Baş ağrısı  
 Mide bulantısı  
 Baş dönmesi  
 Nefes darlığı  
 Diğer: .....

**Advers kozmetik olaylardan hangi vücut bölgesi etkilendi?**

- Koltuk altı  
 Göz (oküler mukoza)  
 Göz (periorbital)  
 Yüz dağınık  
 Kolun ön kısmı  
 Alın  
 Kasık  
 El  
 Kalp  
 Bacak  
 Dudaklar  
 Meme bezi  
 Boyun  
 Perioral alan  
 Saç derisi diffüz

- Uyluk
- Toraks
- Üst kol
- Üst uzuv
- Diğer: .....

**Advers kozmetik olaylara hangi kozmetik sınıfı neden olmuştur?**

- Güneş sonrası ürünler
- Vücut bakım ürünleri
- Temizlik ürünleri
- Deodorantlar
- Tüy dökücü ürünler
- Göz bakım ürünleri (göz çevresi krem)
- Göz makyajı
- Yüz bakım ürünleri
- Yüz makyajı
- Saç bakım ürünleri
- Parfüm ve kokular
- Güneş kremleri
- Diş macunları
- Diğer: .....

**Bölüm 3: Advers kozmetik olaylar deneyiminden sonra danışma türü ve raporlama yöntemi.**

**Advers kozmetik olaylardan sonra kime danışırsınız?**

- Tıbbi uzman
- Pratisyen
- Eczacı
- Genel pratisyen ve Tıbbi uzman
- Eczacı ve tıp uzmanı
- Güzellik uzmanı
- Hiçbiri
- Diğer: .....

**Advers kozmetik olayı nereye bildirirsiniz?**

- TUFAM (Türk Farmakovijilans Merkezi)
- Hastane
- Eczane
- Güzellik merkezi
- Bildirmem
- Diğer: .....

**İlginize teşekkür ederiz.**