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Research Article

ASSESSMENT OF MEDICATIONS USE FOR COSMETIC PURPOSES IN FEMALES FROM 18 TO 25 YEARS OLD IN SUDAIR AREA, SAUDI ARABIA, 2017.

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Abstract:

Background: *Cosmetic can defined as superficial measures to make something appear better, more attractive, or more impressive. these measures include products, medication and surgeries,etc. Medication use cosmetically is one of the prevalent practice especially among female and may lead to several health problems ranging from minor to major that may lead a significant impact medically, psychologically, economically and socially on the patient, family , society and the country. lack of knowledge about the potential risk and complication of this practice was one of the main reasons for us to start this project.*

Objective: *To Assess medications use for cosmetic purposes in females from 18 to 25 years old in Sudair Area 2017*

Methods: *Cross sectional study to Assess medications use for cosmetic purposes in females from 18 to 25 years old in Sudair Area 2017.*

Setting *This study was conducted Sudair Area , 2017*

Participants *A population-based sample size of 300 female in the age group of 18 -25 years was selected by systematic sampling method*

Results: *Result shows that the majority of participants (54%) were using some medication for cosmetic purpose. Where (41.3%) of participants who are using medication for cosmetic purpose were in 21-23 years age group. (53.3%) of participant were using Isoretinoin for cosmetic purpose while (22%) of them were using corticosteroid.*

Conclusion: *High prevalence Of medication use for cosmetic purpose as a common practice especially among female. Highlights a measure need to be taken to increase awareness of the population about these prevalent practices.*

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INTRODUCTION:

Psychologically, self-make up is an innate human need that must be respected. Today, people of various social classes show increasing attention to their bodies and appearances; so that everyone, especially women consistent their li appearances with the promoted and accepted patterns of beauty by society.[1] It has been found that women are more sensitive to body image compared to men.[2] Cosmetic can defined as superficial measures to make something appear better, more attractive, or more impressive . these measures include products, medication and surgeries ,etc. [3] A "cosmetic product" means any substance or mixture intended to be placed in contact with the various external parts of the human body (epidermis, hair system, nails, lips and external genital organs) changing their appearance and/or correcting body odours and/or protecting them or keeping them in good condition [4]. Cosmetics use among women is highly prevalent and may lead to several health problems [5]. The cosmetic use of skin bleaching product found as common practice, almost 25-96 % of women from sub-Saharan Africa use skin skin bleaching product. Level of education have reverse relationship with use of artificial depigmentation products.

Frequently used skin bleaching product are : topical corticosteroids , hydroquinone , products based on vegetable extracts ,caustic products , and products of unknown composition with 78% ,56%, 31.7%, 8.5%, 41.4% respectively .[6] Most frequently misused products are hydroquinone and corticosteroids [7]. This use of bleaching product is a common practice in Africa. 57% of used topical corticosteroid were for aesthetic propose.[8]. Skin depigmentation is a phenomenon with a strong social aspect [9]. a study shows that 62.2% of patient used skin bleaching agent develop adverse effect [10]. Nowadays, topical corticosteroid commonly used for cosmetic purposes as an ingredient mixed with other products to reduce their inflammatory effect, Misuse of topical corticosteroid became a great issue due to unregulated sold and easily available of TC compared their dramatic clinical effect , aesthetic use of TC due to peer pressure , less knowledge of individual about potential hazard that may encountered. [11]. Mercury can be found in many cosmetic products for lightning and cleansing purpose. these mercury containing product commonly used in certain African and Asian nations and among dark-skinned populations in Europe and North America.[12]. fatigue , nervousness and/or irritability ,severe headaches ,insomnia , memory loss , loss of strength in legs , tingling or burning sensations , tremors or shaking of the hands ,

depression ,and a metallic taste in the mouth was reported by user of mercury containing creams which is associated with mercury poisoning. Furthermore, only 46% of these have seen a doctor regarding symptoms of mercury poisoning. continued international standards for the use of mercury in skin preparations is recommended [13]. Isotretinoin, oral retinoid or 13 -cis -retinoic acid is an orally administered retinoic acid licensed in September 1982 for treating severe, intractable cystic acne. [14] Isotretinoin considered as the most effective treatment in severe forms of acne based on its clinical effectiveness by European evidence-based guidelines which is must be considered the first-choice treatment for severe forms of acne such as papulopustular and nodular/conglobate. It also prevent the scarring and improve patient's quality of life [15]. in the case of in mild-to-moderate acne in females over 20 years dose of 0.5mg\Kg considered as effective and well tolerated dose and shows result similar to those of teenagers and men [16]. A 18 years study in US shows that pharmacies dispensed 19.8 million outpatient prescriptions for isotretinoin from marketing [17]. Most commonly reported side effect of oral isotretinoin is Mucocutaneous toxicity [18].

Isotretinoin may result in psychosis, depression and rarely, suicidal ideation, suicide attempts, suicide, and aggressive and/or violent behaviors, but no mechanism of action has been found for these events [19]. Another study shows that out of 431 patients treated with isotretinoin, 37 patient committed suicide, 394 has depression and only 110 of them were hospitalized. These result suggest relationship between the use of this drug and depression.[20].

A Pregnancy Prevention Program (PPP) is one of the regulatory program which include control of drug, management and education. patient using this medication must be aware of its potential side effect such as teratogenicity, almost about 50% Fifty percent of pregnancies spontaneously abort, and of the rest about half of the infants are born with cardiovascular or skeletal deformities. all females of childbearing potential are included in PPP . in 2005 FDA announced that all users of 'Accutane' (oral isotretinoin) must enroll into the National Registry 'iPLEDGE' [13].

A study done on 433 women with isotretinoin exposed pregnancy,33% started to use isotretinoin when they already pregnant ; 16% became pregnant within first 3 weeks of using isotretinoin . 7% spontaneous or missed abortion and 54% of them ended with elective abortion. 151 birth of isotretinoin exposed pregnancy

48 % normal; 47 % with congenital malformations and 5% had abnormalities other than malformations. This emphasize the significance of pregnancy test before beginning with isotretinoin therapy and usage of reliable contraceptive methods in female with childbearing potentials [21]. A study was done on acne patients in Al Qassiem Region shows that 76.7% of them knew about isotretinoin and its indication, most of them get these information from their physician then by other patients suffer from acne. 63 % of acne patents knows about teratogenicity and other adverse effects and and 85.9% not having any objection in using the drug [22]. Another study was done in one the national conference in Riyadh city shows that the incidence rate of pregnancy while using isotretinoin is 8.8/1000 and the percentage of elective abortions is 42.7%. 98% of dermatologists discussed teratogenic risks of this drug , 97% always obtained written consent ; 44% of dermatologists give the female patient with childbearing potential a written information about potential isotretinoin teratogenicity .62.4% of dermatologist avoid prescribing this drug to female with childbearing potential. nevertheless, some physician do not follow the recommendations for prescription of isotretinoin to female with childbearing potential which needs to be corrected, especially in countries with restricted elective abortion [23]. a study was done on community pharmacists in KSA to Assess knowledge isotretinoin safety which shows that about one fifth of them dispense isotretinoin without prescription and only 11% ask about pregnancy test before dispensing oral isotretinoin. Out of 116 pharmacist,78% knew about the most serious risk associated with the use of oral isotretinoin which is teratogenicity; 56% only knew the right pregnancy risk classification category for oral isotretinoin.

Whilst only 6.2% of the pharmacists recommended using 2 methods of contraception. Almost one-fifth of the pharmacists dispensed isotretinoin without a prescription. Finally, 11% of the pharmacists did not ask whether the patient performed a pregnancy test prior to dispensing oral isotretinoin. Based on previous statistic, community pharmacist are not adequately aware of the potential risks for female patients using isotretinoin [24].

MATERIALS AND METHODS:

Pre-tested, pre-coded, self-administered questionnaire was used to collect data. The questionnaire contained socio demographic data and data concern about medication use for cosmetic purpose among female. 278 females 18 -25 years old from Sudair area were included in the study Sudair is a historical region in Najd in the central of Saudi Arabia, and is located approximately 150 km north of the Saudi capital, Riyadh. The region lies in a valley directly to the east of the Tweig escarpment, which runs across Najd starting from Sudair in the north and ending near Wadi ad-Dawasir in the south.

Sudair's famous towns ,provinces and villages: Al-Majmaa, Zulfi, Al-Ghat, Jalajel, Al-Twim, Al-Daakhla, the Park, Al-Hasoun, Al-hota, Al-Janoubiya, Al-Attar, Al-Ouda, Achira, Al-Khtama, Tamir, Horma and Al-artawiyah.

Al Majma'ah is a city and a governorate in Ar Riyad Province, Saudi Arabia. It is the capital of the Sudiar reigon and has an area of 30 000 square kilometers.[25]. The population of majma'ah town is around 45,000, while the population of the governorate as a whole is approximately 97,349. [26].

RESULTS:

Table 1-6: Medications Usage For Cosmetic Purposes In Sudair Area, 2017

Usage	frequency	%
Using	150	54%
Not using	128	46%

Table 2-6: Age Of Participants Who Are Using Medications For Cosmetic Purposes Sudair Area, 2017

Age	Frequency	%
Age 18 - 20 yrs	47	31.3%
Age 21 - 23 yrs	62	41.3%
Age 24- 25 yrs	41	27.3%

Table 3-6: Medications That Used For Cosmetic Purposes. Sudair Area, 2017

Corticosteroid	33	22%
Isoretinion "Roacctuane"	80	53.3%
Other	28	18.7%
NA	9	6%

Table 4-6: Reasons Behind Use Of Medications For Cosmetic Purposes Sudair Area, 2017

Reasons for use	Frequency	%
Bleaching	15	10%
Smoothing	7	4.7%
Skin Fairness	105	70%
other reason	16	10.7%
NA	7	4.7%

Table 5-6: Reasons Encourage Them To Use Medication For Cosmetic Purpose Sudair Area, 2017

Reasons encouraged use	Frequency	%
Friends experiences	110	39.6%
read about and buy it by myself	29	10.4%
Doctor prescribe it to me	70	25.2%
Pharmacist advise me to use	60	2.2%
Others	11	4%
NA	52	18.7%

Table 6-6: The Specialty Of Participants Who Involved In "The Assessment Of Knowledge Regarding The Risk Of Medications Use Without Prescription", Sudair Area, 2017

	It won't lead to serious problem	It's risky and lead to serious health problem	I have no idea	Total
Medical fields	N= 14	N= 75	N= 12	101
Percent (100%)	13.9%	37.7%	23.5%	36.3%
non-medical fields	N= 14	N= 124	N= 39	177
Percent (100%)	7.9%	70.1%	22%	63.7%

DISCUSSION:

As The usage of cosmetic products became highly prevalent among females especially in the last few years. a lot of these products contain ingredients that known to be harmful to human health such as lead, mercury and other highly toxic metals. This in turn may lead to serious health problems if it used without prescription or for long period without regular follow up, in which ultimately will result in economical burden and psychological impact on the patient, family, society and the country.

This study concerns the medication use for cosmetic purpose in female from 18 to 25 years old in Sudair Area 2017, the sample size was 278, the actual number of participants were 400 but 122 were excluded as they did not meet the criteria of the study (gender, age, area difference).

The prevalence of medication usage for cosmetic purpose among female in sudair area was 54% , which is in lie within the range of prevalence of cosmetic usage of skin bleaching product reported in female population of sub-Saharan Africa within age group of 16-49 years old was almost 25-96 % , our finding reported that 21-23 years old is the most prevalent age of participants who are using medication for cosmetic

purpose 41.3% ,where the prevalence among 18-20 and 24-25 age group was 31.3% ,27.3% respectively . [6]

Topical steroids were utilized by 57.2% patients as depigmenting agents for cosmetic purposes with age mean of 29.0 i 11.8 years, the majority of theses participant where female 75.7%. [8]

The trendy medication that used for cosmetic purposes among female in sudair area was Isoretinoin - Roactuane- 53.3% followed by corticosteroid 22% and other products 18.7%. This is partially inconsistent with other study has done in Africa which showed that : topical corticosteroids, hydroquinone, products based on vegetable extracts,caustic products , and products of unknown composition 78% , 56%, 31.7%, 8.5%, 41.4% respectively as the most frequent products used for bleaching in that region. The Same study found that "Women apply a topical steroid as bleaching product even during pregnancy and lactation".

There were many reasons behind the use of medication for cosmetic purposes in sudair area, but the majority used them for skin fairness 70%, while 10% of participants using them for bleaching & 4.7% for

smoothing and the remaining of participants for other purposes 10.7%.

As compared to A Senegalese study of 147 women which showed that all of the participants were using the cosmetic products for skin bleaching rather than other purposes such as smoothing or fairness.

The most common reason that encourage females in sudair area to use these medications is others experiences 39.6%, while 25.2% mentioned that "Doctor prescribes it for them" and 10.4% of participants using medications after they read about them, in contrast, only 2.2% Pharmacist advises them to use it and other reasons 4% of the remaining participants.

Our study shows that there is an association between specialty and usage of medication for aesthetic purpose , the majority of participants who are using these medications for cosmetic purpose were from non-medical fields 65.3% . This is related to another study among 86 female where the level of education has a reverse relationship with the use of artificial depigmentation products. [6]

Also, we assess the participant's knowledge regarding the risk of medications use without prescription, the majority of them knew that It's dangerous and can lead to serious health problem 71.6% , 10.1% of them thought that It's not a serious problem and the remaining 18.3% had no idea ,Our finding show that the participants have excellent knowledge about this issue ,this is partially consistent with other studies, one study has done on" community pharmacists "in KSA to Assess the knowledge about isotretinoin safety and it reported that about 56% knew the right pregnancy risk classification category for oral isotretinoin, one fifth of them dispense isotretinoin without prescription and only 11% ask about pregnancy test before dispensing oral isotretinoin.[25]

The other study has done on acne patients in Qassim Region showed that 76.7% of them knew about isotretinoin and its indication, most of them get these informations from their physician then by other patients suffer from acne.[26]

In comparing to the finding of another study. a previous study conducted in Nigeria shows that only 1.3 % believe that their problem caused by their cosmetic practice by the use of topical steroids as a body cream [8].

CONCLUSION:

Assessment of the prevalence of medications use for cosmetic purposes in sudair area reflect that the majority of participants were using medication for cosmetic purposes and the most prevalent age was 21-23 years old, also, most of the participants who are using medication were students or workers in non-medical fields.

Isotretinoin was the commonest medication that used for cosmetic purposes in sudair area followed by corticosteroid with huge variation in the percentage use between them.

Skin-fairness was the most common reason to use these medications in this area in addition to skin-bleaching and smoothing.

Despite that the majority of participants who using these medications were from non-medical fields, almost all of them were aware of the risk of using medication without prescription and admitted that "It's risky and lead to serious health problem"

As anticipated, Cosmetics use among females in sudair area was common. this in turn can affect the health of its users resulting in economical burden and psychological impact on the patient, family, society and ultimately on the country.

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