



## **A Study on Prevalence of Factors Affecting and Drug Utilization in Skin Diseases in Common Dermatology OPD at A Tertiary Care Hospital**

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### **ABSTRACT**

*Skin diseases are the major contributors of disease burden in society. It affects individuals of all ages, neonates to elderly. Owing to its chronic nature, it causes serious impact on quality of life and financial status of the sufferer and his family. This study aims to determine prevalence of various skin diseases and the drug utilization pattern in dermatology OPD at tertiary care hospitals. The study was a prospective observational conducted over a period of 6 months from September 2020 to February 2021 with sample size of 304 participants. Skin diseases are seen all age groups and in both genders. Prevalence of skin diseases were mostly due to environmental exposure and autoimmune. Most common disease in the study population was tinea followed by psoriasis. Antifungal and antihistamines were the most prescribed drugs. Use of antibiotics were found to be within in the limits as specifies by WHO. Topical agents constituted almost 54.7 % of the total prescription and average number of drugs per prescription was 3.34, irrespective of the dosage forms prescribed. Percentage of drugs prescribed in this study from WHO EDL was satisfactory. Drug utilization studies can be used as further basis for the prescribers.*

**Key words:** Anti fungal, Antihistamines, Drug Utilization, Essential drug list, Psoriasis, Tinea, Skin Diseases.

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### **INTRODUCTION**

Skin is the part of integumentary system that constitutes the largest organ of human body and is exposed to injury by various extrinsic factors such as environmental, chemical, infectious agents as well as intrinsic factors such as metabolic, genetic and immunological. In addition to this, many systemic diseases are also identified by their dermatological manifestations thus it is said metaphorically as a mirror to various internal diseases [1,2]. The skin disorders constitute 2% of total Out Patient Department (OPD) consultations worldwide [3]. However no such data is available from India but still skin disorders in India are common and include pyoderma, acne, urticaria, dermatitis, scabies fungal skin infections and alopecia etc [4]. Skin diseases affect all age groups from neonates to the elderly and both genders [5]. The skin disorders have serious detrimental effect on quality of life of the general population by increasing the suffering in terms of physical, social, psychological as well as it increases financial burden as most of the skin diseases are chronic and requires longer duration of treatment [6].

In developing countries like India other than hot and humid conditions, low hygiene, poor access to water, over-crowding, high interpersonal contact also plays significant etiological role for certain skin diseases [7-11].

Many a times cutaneous manifestations are the sole representation of a person's internal disease prompting him to see a doctor thus leading to diagnosis and treatment of the original cause. Improvements in the overall hygienic standards, public awareness and a balanced diet can help in reducing the incidence of skin diseases in an area.[12-15]

Drug utilization studies helps in the understanding of prescription pattern as well as the quality of prescription in terms of rationality, drug interactions and financial burden of disease to the individual.[16,17].

This study aims to assess the drug prescribing patterns by obtaining information on demographic characteristics of the patients in dermatology OPD in a tertiary care hospital. Also, the patterns of

prescribing practices were described using the World Health Organization/ International Network of Rational Use of Drugs (WHO/ INRUD) drug use core indicators like the following as a part of the study:

- Average number of drugs per encounter
- Percentage of antibiotics prescribed
- Percentage of drugs prescribed from WHO EDL

Therefore, periodic auditing of prescriptions is essential to improve the benefit to risk ratio and at the same time to provide feedback to the prescribers [18].

## MATERIAL AND METHODS

This was a prospective observational study conducted over a period of 6 months from September 2020 to February 2021 in dermatology OPD at tertiary care hospitals after taking permission from Institutional Ethical Review Committee with a sample size of 304 patients. The patients were randomly selected based on inclusion criteria. Inclusion criteria includes both genders of all age from pediatric to geriatrics. Exclusion criteria include, patients whose medical records do not have relevant data and Patients who were not willing to participate in the study. A specially designed Annexure-I (Patient standard data collection form) is used to obtain the data required for the study. All the patients presenting for their skin problems during this period were included in the study. A detailed medical history along with a thorough cutaneous examination was performed on every patient. Various investigations and skin biopsies were performed, where required, for confirmation of diagnosis and any co-morbidity. A written consent was obtained from the participants in the study after explaining them the purpose of the study. Prevalence of various skin diseases and prescription patterns was reported from the study. Descriptive data analysis was performed in the form of percentage of demographic variables.

## RESULTS

A prospective observational study was conducted in a tertiary care hospital in Khammam for a period of 6 months from September 2020 to February 2021. Total 304 dermatological patient profiles were collected and analysed under inclusion.

### PREVALENCE FACTOR

#### STUDY PARTICIPANTS CLASSIFIED BASED ON AGE

A total 304 patients enrolled in dermatology department, the adults were highly affected with tinea (36), melasma (25), psoriasis (24) and dermatitis (24) in 203(66.7%) cases. Scabies (20) and atopic dermatitis (18) are commonly observed in infants and children's in 71(23.3%) cases and followed by geriatrics with psoriasis (14) and acanthosis nigricans (10) in 30(9.8%) cases, the results show in below table 1.

**Table 1: Study participants classified based on Age**

Parameters	Number		Usual diseases	Percentage
Age	Infants and children's	71	1.Scabies (20) 2.Atopic dermatitis (18)	23.35
	Adults	203	1.Tinea (36) 2.Melasma (25) 3.Psoriasis (24), Dermatitis (24)	66.77
	Geriatrics	30	1.Psoriasis (14) 2.Acanthosis nigricans (10)	9.86

#### STUDY PARTICIPANTS CLASSIFIED BASED ON GENDER

Out of 304 patients, 161 (52.9%) females were majorly prone to acne vulgaris (28), melasma (25) in other hand 143 (47%) males are highly attacked to tinea (28), psoriasis (25). The results were given in table 2.

**Table 2: Study participants classified based on Gender**

Parameters	Number	Usual diseases	Percentage	
Gender	Females	161	1.acne vulgaris (28) 2.Melasma (25)	52.96
	Males	143	1.Tinea (28) 2.Psoriasis (25)	47.03

### STUDY PARTICIPANTS CLASSIFIED BASED ON CIVIL STATUS

In total 304 patients, the high strike of 193 (63.4%) urban cases were majorly spotted in atopic dermatitis (29) and acne vulgarise (28) compared to number of cases affected in rural areas. The results were given in table 3.

**Table 3: Study participants classified based on civil status**

Parameters	Number	Usual diseases	Percentage
Civil status	Rural	111	Tinea (34)
	Urban	193	1.Atopic dermatitis (29) 2.Acne vulgarize (28)

### ETIOLOGICAL FACTORS SPOTTED IN STUDY PARTICIPANTS

Among 304 patients, maximum 138 (45.3%) number of cases are observed in environmental exposure followed by 96 (31.57%) cases due to autoimmune problems. tinea (41) was highest in environmental exposure and psoriasis was seen due to autoimmune problem, shown in table 4.

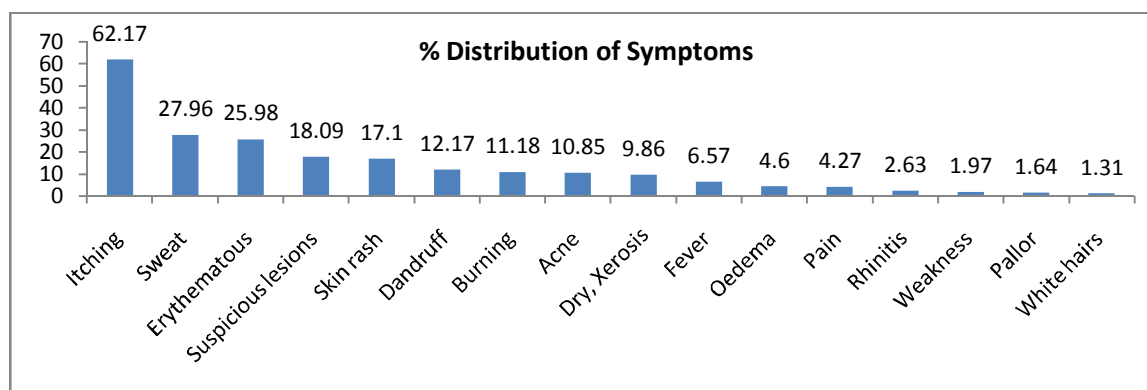
- EE> AI > EE+AI > I > I+AI > EE+I

**Table 4: Etiological factors spotted in study participants**

Etiology	Number	Diseases	Percentage
Environmental exposure	138	Tinea (41)	45.39
Inherited	14	Vitiligo (10)	4.60
Autoimmune	96	Psoriasis (35)	31.57
EE + I	7	Acanthosis nigricans (3), Atopic dermatitis (3)	2.30
EE + AI	38	Other dermatitis (2), Acanthosis nigricans (2)	12.5
I + AI	11	Psoriasis (4)	3.61

### STUDY PARTICIPANTS CLASSIFIED BASED ON GENERAL EXAMINATION

Out of 304 patients, 189 (62.1%) itching and 85 (27.9%) sweat, 79 (25.9%) erythema, are wildly observed, followed by 52 (17.1%) skin rash, 55 (18%) suspicious lesions, 37 (12.1%) dandruff, 34 (11.1%) burning, 33 (10.8%) acne, 30 (9.8%) dry and xerosis, 20 (6.5%) fever, 14 (4.6%) oedema, 13 (4.2%) pain, 8 (2.6%) rhinitis, 6 (1.9%) weakness, 5 (1.6%) pallor, 4 (1.3%) white hairs, shown in figure 1.



**Figure 1: General examinations seen in study participants:**

### STUDY PARTICIPANTS CLASSIFIED BASED ON REPORTED HISTORY OF PAST ILLNESS

Among 304 cases highly reported history of past illnesses are irregular periods 37 (12.1%), obesity 22 (7.2%) and thyroid 15 (4.9%) problems. The past illness of irregular periods and thyroid are commonly observed had acne vulgaris and melasma on other hand vitiligo patients are commonly noticed in the patients who had past illness of autoimmune diseases such as thyroid, hypersensitivity, shown in figure 2.

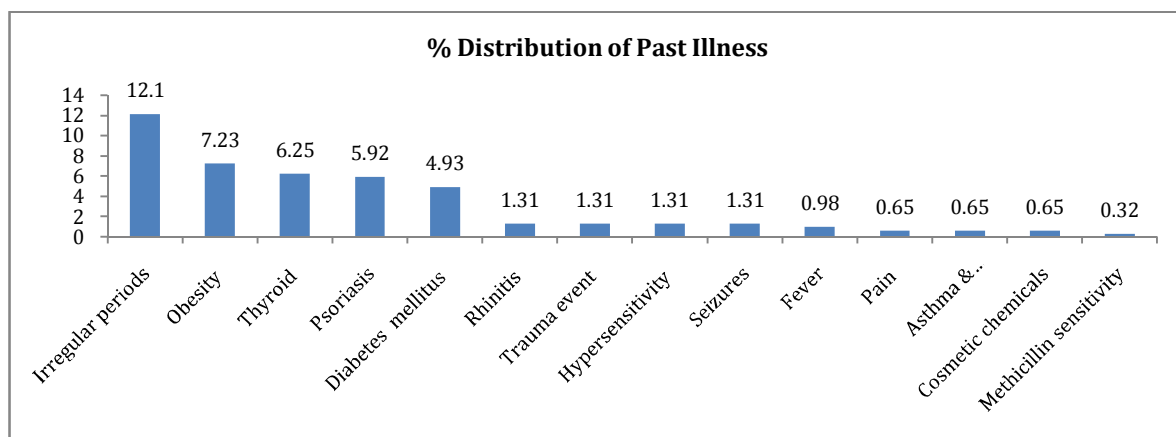


Figure 2: Reported History of past illness in study participants

**SHAPE**

Among 304 cases usually presents shapes were irregular 39.8%, round 35.8% and annular 12.5%. In melasma, psoriasis, atopic dermatitis is frequently observed in irregular shape. Round shaped lesion types were commonly noticed in acne vulgaris, scabies, other dermatitis. In tinea and urticaria are regularly spotted in annular shape, shown in figure 3.

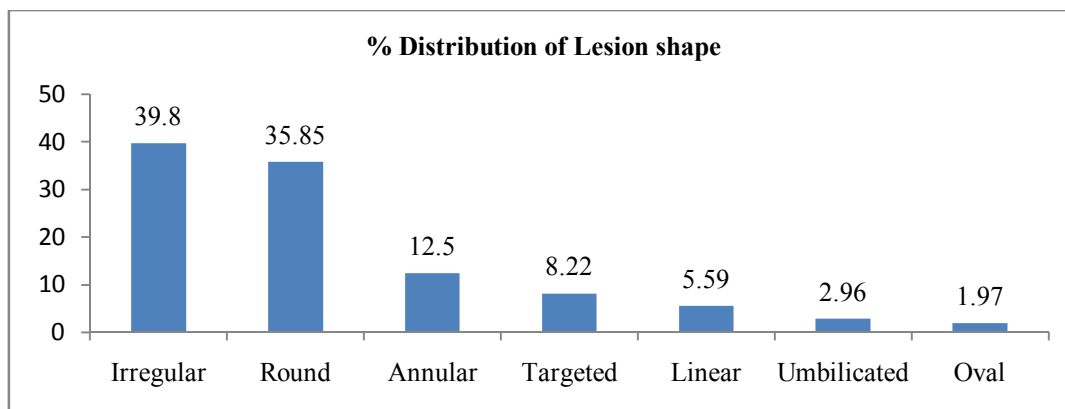


Figure 3: Percentage distribution of lesion shape

**LESION SURFACE**

Out of 304 patients Tinea, Melasma, other dermatitis are commonly noticed as rough in texture 102 (33.55%) and maximum scaly 58 (19.07%), flaky 36 (11.94%), peeling lesion 17 (5.59 %) surface were seen in psoriasis and dermatitis on other hand Crust 35 (11.51%) and Vesicular type 49 (16.11%) of lesion surface were noticed in scabies and dermatitis. Vitiligo and acanthosis nigricans have smooth texture type 35 (11.51%). Punctate 25 (8.22 %) surface type of lesion is only detected in melasma, figure 4.

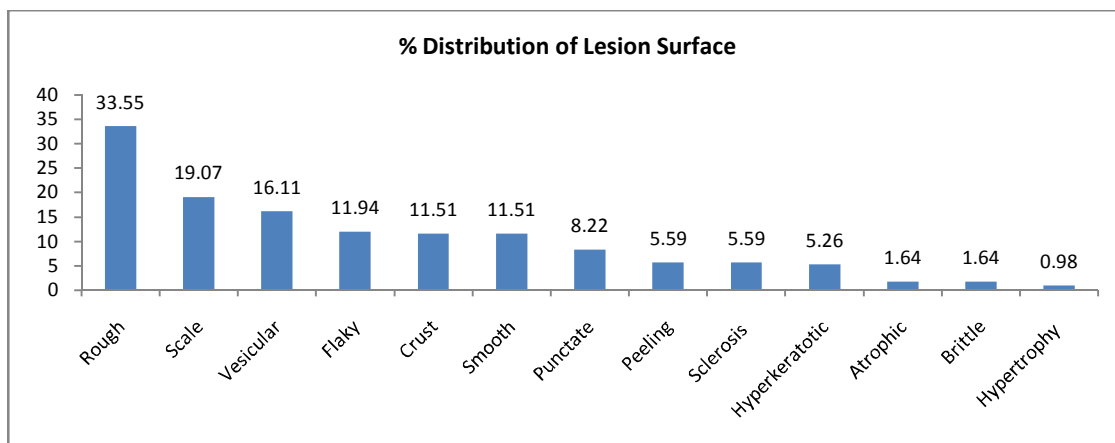
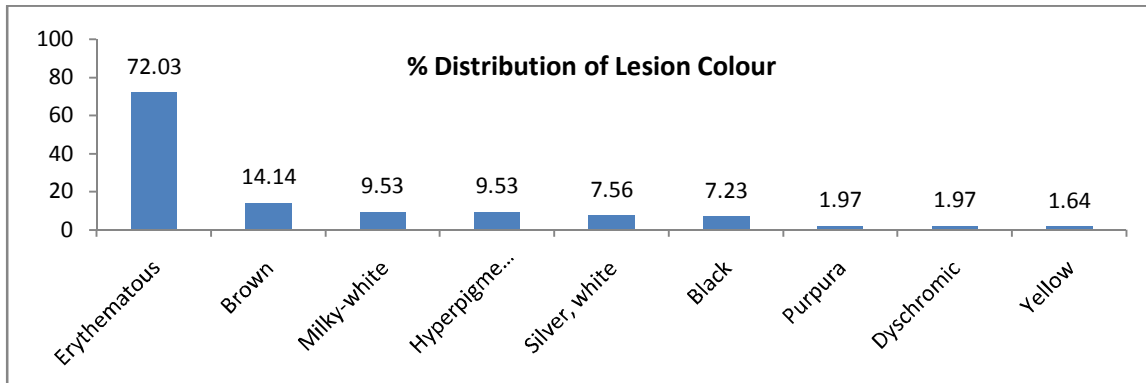


Figure 4: Percent distribution of lesion surface

**LESION COLOUR**

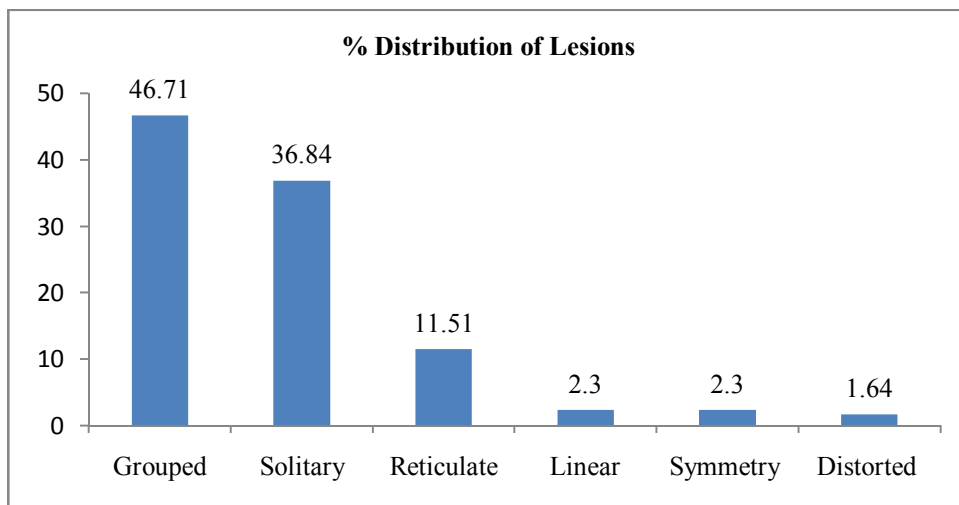
Among 304 patients, erythema 219 (72%) is commonly reported in all type of diseases except vitiligo, melasma and acanthosis nigricans. Brown colour 43 (14.14%) lesion type were mainly analysed in melasma and acanthosis nigricans as well as milky white patches 29 (9.53%) accurately marked in vitiligo patients. Silvery white patches 23 (7.56%) are highly noted in psoriasis and tinea capitis, shown in figure 5.



**Figure 5: Percentage distribution of lesion colour**

**LESION ARRANGEMENT**

The grouped lesions 142 (46.71%) is mainly observed in all type of diseases among 304 patients. The solitary lesion 112 (36.84%) arrangement is second most common type were observed in tinea, acanthosis nigricans, vitiligo. Reticulate arrangement were 35(11.51%) generally detected in Melasma and psoriasis, shown in figure 6.



**Figure 6: Percentage distribution of lesion arrangement**

**LESION TYPE:**

Patch 93 (30.59%) is most common primary lesion were detected in tinea and Atopic dermatitis on other hand second most common type primary lesion is papule 71 (23.35%)and they are reported in acne vulgaris, scabies, drug induced skin diseases. There by the third most common type of primary lesion is macule 63 (20.72%)were analysed in melasma, acanthosis nigricans and focal vitiligo. In plaque psoriasis, plaque 57 (18.75%) type of primary lesions are recorded, shown in figure 7.

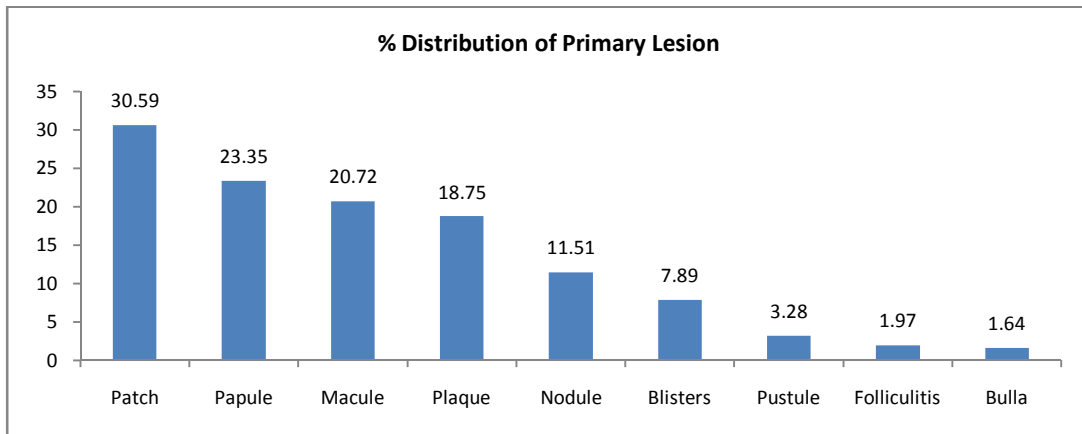


Figure 7:Types of Primary lesions noticed in study participants

**TYPES OF SECONDARY LESIONS NOTICED IN STUDY PARTICIPANTS**

Among 304 cases, the secondary lesion was not reported in 187 cases. Maximum scaly type 52(17.1%) of lesion were detected in psoriasis and dermatitis. Lichenification 17 (5.59%) and ulcer 10 (3.28%) type of secondary lesion are usually seen in dermatitis and erosion is the main type of lesion observed in tinea pedis. However, depigmented 19(6.25%) secondary patches were only noted in vitiligo, shown in figure 8.

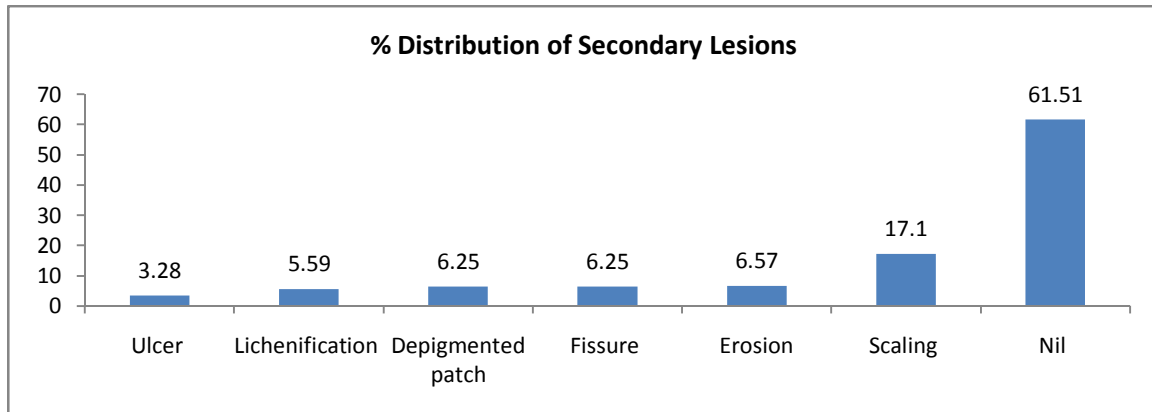


Figure 8: Types of Secondary lesions noticed in study participants:

**PREVALENCE OF SKIN DISEASES IN STUDY PARTICIPANTS**

Entire 304 patients, the familiar skin diseases spotted in study subjects were Tinea 43 (14.1%), psoriasis 38 (12.5%), atopic dermatitis 37 (12.1%), other dermatitis 32 (10.5%), scabies 31 (10.1%),acne vulgaris 29 (9.5%), melasma 25 (8.2%), vitiligo 23 (7.5%), acanthosis nigricans 17 (5.5%), urticaria 12 (3.9%), drug induced diseases 7 (2.3%), hidradenitis 4 (1.3%), leprosy 4 (1.3%), pemphigus vulgaris 2 (0.6%), shown in figure 9.

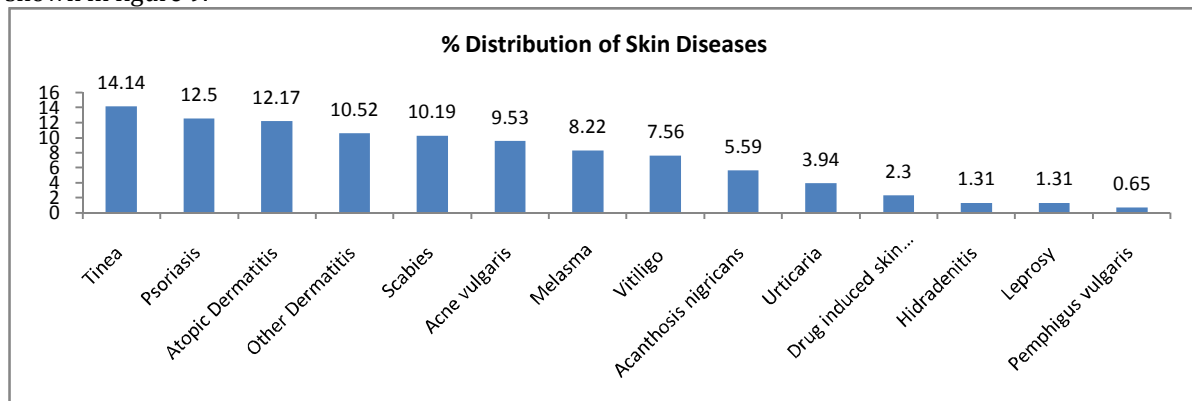


Figure 9: Familiar diseases spotted in study participants

**GENERIC DRUGS PRESCRIBED IN STUDY PARTICIPANTS**

Based on clinical diagnosis as revealed by the medical records, the patterns of drug utilization observed in these study individuals comprised.

Among 1015 drugs prescribed, ciclopirox 30 (2.9%) were highly prescribed Antifungal agent followed by terbinafine 23 (2.2%), itraconazole 19 (1.8%), griseofulvin 16 (1.5%), fluconazole 14 (1.3%), ketoconazole 12 (1.1%), miconazole 11 (1%), butenafine 9 (0.8%) so on as shown in table 5.

Among 1015 drugs prescribed, the second most common drug is hydroxyzine 65 (6.4%) were highly prescribed Antihistamine followed by fexofenadine 16 (1.55%), levocetirizine 7 (0.6%) shown in table 6. Doxycycline and clindamycin were most prescribed antibiotics in our study shown in table 7.

Among 1015 drugs prescribed, Betamethasone 35 (3.4%) were highly prescribed. Topical corticosteroid followed by mometasone furoate 19 (1.8%), hydrocortisone 18 (1.7%), clobetasol 12 (1.1%), fluocinolone 3 (0.2%) and sum of all generic drugs prescribed per prescription in study participants is shown in below table 8. Other classes of drug prescribed in our study were given in table 9 and 10.

**Table 5: Antifungal drugs prescribed in study participants**

Class of drug	Generic drugs	Number	Percentage
Antifungals(150)	Ciclopirox	30	2.95
	Terbinafine	23	2.26
	Itraconazole	19	1.87
	Griseofulvin	16	1.57
	Fluconazole	14	1.37
	Ketoconazole	12	1.18
	Miconazole	11	1.08
	Butenafine	9	0.88
	Clotrimazole	8	0.78
	Luliconazole	6	0.59
Amorolfine	2	1.19	

**Table 6: Antihistamines prescribed in study participants**

Class of drug	Generic drugs	Number	Percentage
Antihistamines	Diphenhydramine hydrochloride	12	1.18
	Fexofenadine	16	1.57
	Hydroxyzine	65	6.40
	Levocetirizine	7	0.68
	Pheniramine maleate	7	0.68

**Table 7: Antibiotics prescribed in study participants:**

Class of drug	Generic drugs	Number	Percentage
Antibiotics (88)	Doxycycline	31	3.05
	Clindamycin	18	1.77
	Roxithromycin	12	1.18
	Cephalexin	11	1.08
	Ciprofloxacin	8	0.78
	Amoxycillin,	3	0.29
	Trimethoprim, sulfamethoxazole	3	0.29
	Ceftriaxone	2	0.19
Topical antibiotics (28)	Clindamycin	20	1.97
	Sulfacetamide sodium	4	0.39
	Erythromycin	2	0.19
	Mupirocin	2	0.19

**Table 8: Corticosteroids and Gluco corticosteroids prescribed in study participants**

Class of drug	Generic drugs	Number	Percentage
Corticosteroids (91)	Beclomethasone, salicylic acid	4	0.39
	Betamethasone	35	3.44
	Clobetasol	12	1.18
	Fluocinolone	3	0.29
	Mometasone furoate	19	1.87
	Hydrocortisone	18	1.77
Glucocorticosteroids (58)	Dexamethasone	2	0.19
	Hydrocortisone	9	0.88
	Methylprednisolone	5	0.49
	Prednisolone	35	3.44
	Triamcinolone acetonide	7	0.68

**Table 9: Emollients prescribed in study participants**

Class of drug	Generic drugs	Number	Percentage
Emollient (74)	Ceramide	14	1.37
	Cetaphil	19	1.87
	liquid paraffin	13	1.28
	Maltodextrin	5	0.49
	Petroleum jelly	7	0.68
	propylene glycol	16	1.57

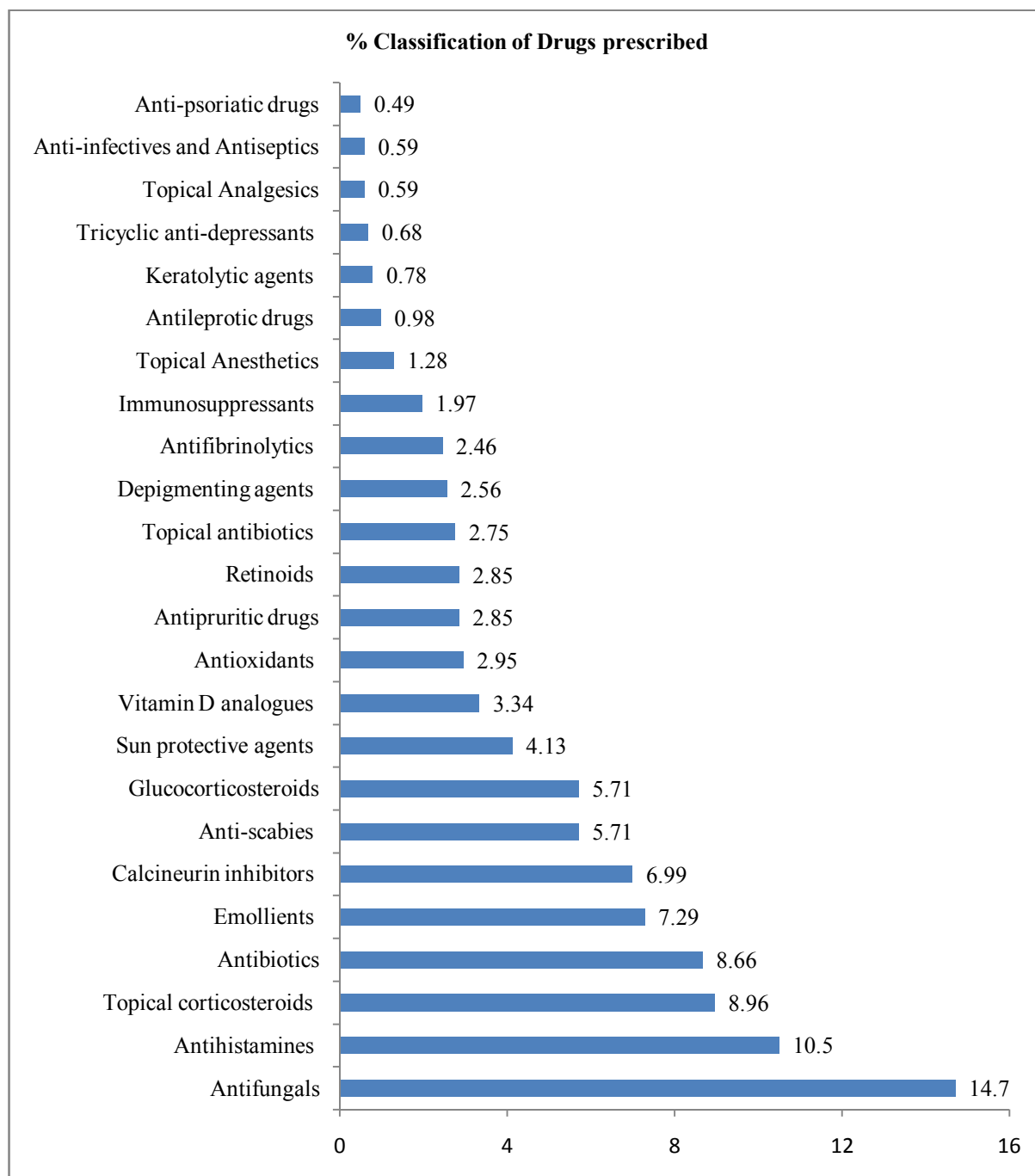
**Table 10: Different categories of drugs prescribed in study participants:**

Generic drugs	Class of drug	Number	Percentage
Antioxidant (30)	Astaxanthin, resveratrol	14	1.37
	Carotenoids	3	0.29
	Coenzyme Ubiquinone	13	1.28
Antileprotic agents (10)	Clofazimine	2	0.19
	Dapsone	2	0.19
	Rifampicin	6	0.59
Anti infectives & antiseptics(6)	Gentian violet	3	0.29
	Povidone-iodine	3	0.29
Antiscabies (58)	Crotamiton	14	1.37
	Ivermectin	17	1.67
	Permethrin	27	2.66
Calcineurin inhibitors (71)	Cyclosporine	22	2.16
	Pimecrolimus	24	2.36
	Tacrolimus	25	2.46
Keratolytic agent (8)	Monosulfiram	6	0.59
	salicylic acid + coal tar	2	0.19
Vitamin d analogue (34)	calcipotriol + betamethasone	4	0.39
	Calcipotriol	30	2.95
Topical analgesics	Pramoxine	6	0.59
Retinoids	Isotretinoin	29	2.85
Topical anesthetics	Benzocaine	13	1.28
Anti depressants	Doxepin	7	0.68
Anti depigmenting agent	Hydroquinone	26	2.56
Anti-psoriatics	dithranol + salicylic acid	5	0.49
Antipruritics	Calamine + diphenhydramine hydrochloride	29	2.85
Immunosuppressants	Methotrexate	20	1.97
Antifibrotic agent	Tranexamic acid	25	2.46
Sun protective agent	Titanium dioxide + zinc oxide	42	4.13

**CLASS OF DRUGS PRESCRIBED FOR THE STUDY PARTICIPANTS**

Antifungal 150 (14.77%) were the most common class drugs prescribed per prescriptions and second most commonly prescribed class is Antihistamines 107 (10.5%) followed by Topical corticosteroids 91 (8.9%), Antibiotics 88 (8.6%), Emollient 74 (7.2%), Calcineurin inhibitors 71 (6.9%), glucocorticosteroids 58 (5.7%), Anti scabies 58 (5.7%), Sun protective agents 42 (4.1%), Vitamin D analogues 34 (3.3%), antioxidants 30 (2.9%), anti pruritus 29 (2.8%), Retinoids 29 (2.8%), topical antibiotics 28 (2.7%), Depigmenting agents 26 (2.5%), Antifibrinolytics 25 (2.4%), Immunosuppressants 20 (1.9%), Topical anesthetics 13 (1.2%), and very less commonly used class of drugs were Antileprotic drugs 10 (0.9%), keratolytic agents 8 (0.7%), Tricyclic anti-depressants 7 (0.6%), Topical analgesics 6 (0.5%), Anti-infectives and Antiseptics 6 (0.5%), Anti-psoriatic drugs 5 (0.4%) shown in figure 10.

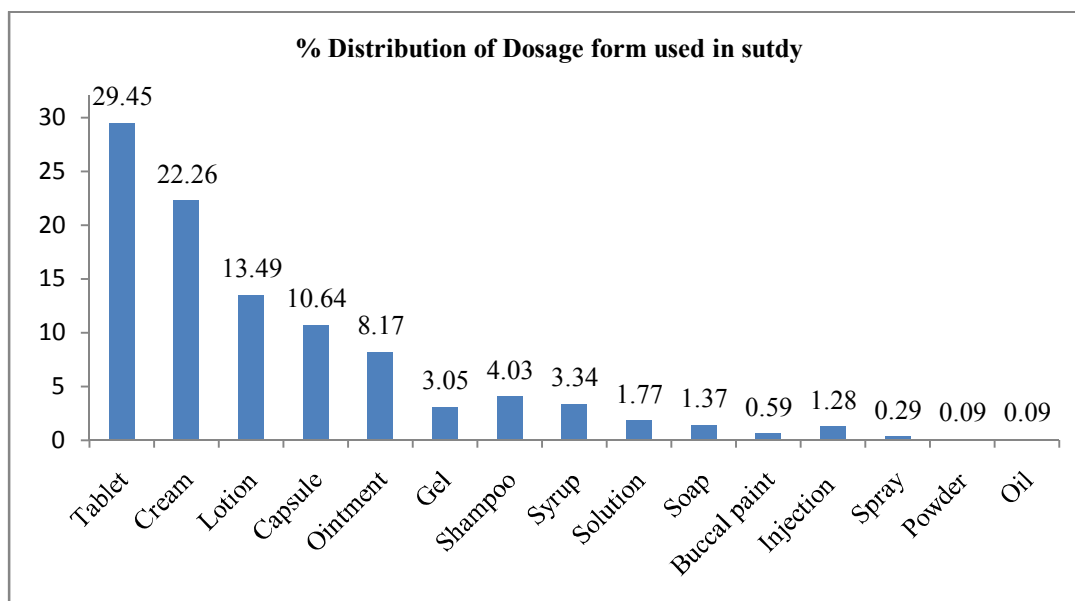




**Figure 10: Distribution of various drug classifications**

#### **ANALYSIS OF VARIOUS DOSAGE FORMS IN THE PRESCRIBED DRUGS**

In our study, total 1,015 drugs were prescribed in 15 different dosage forms for treatment of skin diseases. The most common dosage form prescribed was a tablet 299 (29.4%) followed by creams 226 (22.2%), lotions 137 (13.4%), capsules 108 (10.6%), ointments 83 (8.1%), shampoos 41 (4%), syrups 34 (3.4%), gels 31 (3%), solutions 18 (1.7%), soaps 14 (1.3%) and other dosage forms were very less prescribed, given in below figure 11.



**Figure 11: Analysis of various dosage forms in the prescribed drugs**

#### “CORE DRUG PRESCRIBING INDICATORS OF WHO GUIDELINES” IN STUDY PARTICIPANTS

In this study total prescribed drugs were 1,015. The minimum and maximum number of drugs per prescription is 2 & 8 respectively. Average number of drugs per encounter was 3.349. Antibiotics prescribed was (11.42%) and injections prescribed was (1.2%). Among the drugs listed in the WHO’s list of essential drugs (EDL) for skin conditions was used in this study was 441 drugs with percentage of 43.4%, given in table 11.

**Table 11: Core drug prescribing indicators of WHO guidelines**

OBSERVATIONS	RESULTS
Total number of drugs were prescribed for OPD patients.	1,015
Total average drugs were prescribed per prescription	3.349
Total number of prescriptions	304
Percentage of Antibiotics prescribed	11.42%
Percentage of injections prescribed	1.28%
Prescribed drug from WHO EDL	441(43.4%)

#### Evaluation of number of drugs per prescription

Table 12 shows the evaluation of number of drugs prescribed per prescription. The majority of study participants is 150 (49.3%) received three drugs followed by four (27.3%), two (14.4%), five (6.5%).

**Table 12: Evaluation of number of drugs per prescription**

Number of drugs per prescription	Number	Percentage
Two	44	14.47
Three	150	49.34
Four	83	27.30
Five	20	6.57
Six	5	1.64
Seven	1	0.32
Eight	1	0.32

#### DISCUSSION

Prescription is challenging for good remedy, so it has a valuable data to analyse the attitude and knowledge of the prescribers in treating diseases condition rationally.

In entire study of 304 OPD prescriptions during the duration of 6months at a tertiary care hospital, female patients were 52.9% and males were 47%. Skin diseases were mostly spotted in adults age group (66.7%), then compared to the people in other age groups followed by infants and children’s (23.3%), geriatrics (9.8%). In this study, more than 50% of skin problems caused by environmental exposure.

In addition, the past illness of irregular periods (12.1%), obesity (7.2%) and thyroid (6.2) were commonly noticed. Here by the final diagnosis of skin problems is mainly based on shape, surface, color,

arrangement of lesion and dividing the diseases accordance to its lesion type (primary lesion or secondary lesion).

In addition to this, the majorly prescribed class of drug was found to be antifungals (14.7%) and Antihistamines (10.5%) on other hand less prescribed drug classification are anti-psoriatic (0.4%) drugs and anti-infectives (0.5%). The results were similar to the previous literature obtained by Narwane SP et al., [19]. Highly sedative antihistaminics like hydroxyzine (6.4%) was prescribed for severe cases of urticaria, intractable pruritus, eczema etc and patients were usually prescribed to take them at bedtime [20]. Doxycycline and clindamycin were the most used antibiotics . Betamethasone (3.4%) and prednisolone (3.4%) were most used corticosteroids in our study.

In our study prevalence of skin diseases are categorized below:

➤ **Disorders of pigmentation:**

Among 65 pigmentary skin diseases, Melasma 25 (8.2) was found to be most common skin disease followed by Vitiligo 23 (7.5%), Acanthosis nigricans 17 (5.5%).

➤ **Inflammatory skin diseases:**

Out of 42 inflammatory skin problems, the high proportion of psoriasis 38 (12.5%) is noticed followed by atopic dermatitis 37 (12.1%), other dermatitis 32 (10.5%), Acne vulgaris 29 (9.5%),hidradenitis 4 (1.3%), leprosy 4 (1.3%), pemphigus vulgaris 2 (0.6%).

➤ **Reactive disorders:**

In whole 19 reactive disorder cases, urticaria 12 (3.9%) was found to be most familiar skin disease followed by 7 (2.3%) drug induced diseases like SJS, drug eruption.

➤ **Infectious diseases:**

Out of 78 infectious diseases, high proportion of Tinea 43 (14.1%) [21] is noticed followed by scabies 31 (10.1%), leprosy 4 (1.3%).

Based on the skin problems, the most familiarly used drugs are terbinafine (2.2%), Hydroxyzine (6.4%), Betamethasone (3.4%) as well as ceftriaxone (0.1), carotenoids (0.2), mupirocin (0.1), are not much prescribed in study participants.

Among total number of drugs prescribed, most of the dosage form were topicals (54.7%) followed by oral routes (55.2%). In our study frequently used topical routes were creams (n=226) and lotions (n=137) and ointments (n=83), The reason for the high percentage of topicals routes has minimum side effects, site specific action and suitable for patient use.

Prescription assessment based on WHO recommended prescribing core indicators. The average drugs per prescription was 3.34 which is higher than 2 according to WHO recommended limit, this indicates incidences of polypharmacy due to multiple diagnosis.

The percentage of prescription with an antibiotic prescribed was 11.42% which is within a limit, <30% specified by the WHO. [22]

The magnitude of injections use was 1.28% which is within the ideal value <10% specified By WHO standards. It was declared that the measure of drugs prescribes from WHO EDL was 43.4% out of 100% ideal value, so it has almost near to 50% of WHO essential drug list. Use of essential drugs prescribed by physician is bean emphasized by the WHO guidelines so, this kind of analysis is helps to increase the health system standards and the drug related issues.

## CONCLUSION

We concluded from the present study that the age, gender, civil status and etiological factors of the patient were associated in the occurrence of skin diseases. From the study the most reported skin disease was tenia followed by psoriasis and dermatitis. Antifungal and anti histamines were the most prescribed drugs. In present study percentage of drugs prescribed from national essential medicines list (WHO EDL) was found to be satisfactory. Early diagnosis and treatment measures are need to be taken to prevent and control the outbreak of skin diseases.

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## CONFLICT OF INTEREST

None declared

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