Ind. J. Pharm. Edu. Res., 2026; Krupapharmacon:296-304.
https://www.ijper.org

Original Article

An Observational Study on Topical Corticosteroid Awareness and Misuse among Dermatology Outpatients at A Tertiary Care Hospital

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ABSTRACT

Background: Topical Corticosteroids (TCS) are cornerstone treatments in dermatology, offering potent anti-inflammatory and immunosuppressive effects. However, their widespread availability, often Over-the-Counter (OTC) in Low- and Middle-Income Countries (LMICs), has led to a major public health crisis of misuse and adverse effects, including topical steroid addiction syndrome. Previous reports indicate alarming misuse rates, frequently for unindicated cosmetic purposes like skin lightening or self-treatment of common cutaneous infections such as acne and fungal infections. This study aimed to analyse the pattern of TCS use and identify primary sources of influence contributing to misuse among dermatology outpatients. **Materials and Methods:** This was a cross-sectional observational survey conducted among 246 dermatology outpatients at a tertiary care hospital. Data regarding patient Knowledge, Attitudes, and Practices (KAP) related to TCS use, including indication, frequency, duration, potency, method of application, and source of recommendation, were collected using a pretested KAP questionnaire. **Results:** TCS misuse was found to be highly prevalent across a broad spectrum of patients. The misuse pattern was concentrated in the younger age group (21-40 years), with a slight female predominance, reflecting the common pursuit of cosmetic outcomes like skin fairness and acne treatment. A significant proportion of participants reported chronic use, with approximately 35% using TCS for more than a month, and 28% reporting the use of moderate- to high-potency formulations. The major adverse effects documented included skin thinning, striae, pigmentation changes, acneiform eruptions, and *Hirsutism*. The majority of patients procured TCS without a prescription, often following advice from non-specialist sources such as pharmacists, friends, relatives, or local healers. Importantly, no significant association was found between the patient's education level and the prevalence of misuse. **Conclusion:** The high prevalence and persistent nature of topical corticosteroid misuse in this tertiary care setting underline a systemic problem driven by easy OTC access and pervasive misinformation. Addressing this crisis requires a comprehensive, multi-pronged strategy encompassing stricter drug regulation, mandatory training for pharmacists, and targeted public awareness campaigns to ensure the rational and responsible use of these essential dermatological agents.

Keywords: Adverse Effects, Awareness, Cutaneous infections, Misuse, Topical Corticosteroids.

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INTRODUCTION

Topical Corticosteroids (TCS) represent one of the most widely utilized classes of pharmacological agents in dermatology, valued for their multifaceted therapeutic properties, including anti-inflammatory, immunosuppressive, anti-proliferative, and vasoconstrictive actions.[1] Their introduction in the 1950s revolutionized the management of numerous acute and chronic dermatoses, such as *Atopic dermatitis, Psoriasis*, and *Lichen planus*, significantly enhancing patient quality of life.

However, the therapeutic success of TCS is severely challenged by a parallel global concern regarding their misuse and overuse, particularly in LMICs where regulatory oversight is often lax.[2] TCS are frequently available Over-the-Counter (OTC) without a prescription, often perceived by the public as "cure-all" or "magic creams" for various non-indicated skin issues.[3] This inappropriate use includes application for cosmetic purposes (e.g., skin lightening), treatment of acne, or self-medication for common infections like *Dermatophytosis*.[4] Studies from across South Asia and Africa have reported misuse prevalence rates as high as 60-72% among dermatology outpatients.[5] The estimated

DOI: 10.5530/ijper.krupapharmacon.46

misuse of dermatological products in India is projected to exceed 74% by 2025.[6]

The consequences of misuse are severe, leading to local adverse effects such as skin atrophy, striae, telangiectasia, steroid acne, and perioral dermatitis, as well as the debilitating Topical Steroid Withdrawal (TSW) syndrome.[6] Systemic absorption, especially with potent agents over large areas, can result in Hypothalamic-Pituitary-Adrenal (HPA) axis suppression, iatrogenic Cushing's syndrome, and growth retardation in children.[7]

This complex problem is compounded by cultural preferences for lighter skin, misleading advertisements that market steroid-containing creams for fairness, and the influence of non-specialist prescribers like general practitioners and pharmacists.[8] Despite numerous reports, comprehensive, region-specific data integrating the clinical, sociocultural, and regulatory dimensions remains necessary to inform actionable public health policies.

OBJECTIVES

Analyse the pattern of topical steroid use in terms of indication, frequency, duration, strength, and method of application among dermatology outpatients.

Identify the primary sources of information influencing patients' decisions to use these medications.

To recommend preventive measures such as patient education and awareness

MATERIALS AND METHODS

Study Design

Descriptive, Cross-sectional observational survey.

Study Setting: Dermatology Outpatient Department (OPD) of a tertiary care hospital in India.
Study Population and Sampling

The study population consisted of dermatology outpatients presenting to the hospital during the study period mainly from rural Bangalore. A total of 246 adult patients were recruited for the survey.

Inclusion Criteria

- Patients aged 15 years and above.
- Patients with current or past use of topical corticosteroids (within 6 months).
- Patients providing informed written consent.

Exclusion Criteria

- Patients unable or unwilling to participate.
- Patients with incomplete or inconsistent responses.
- Patients with cognitive impairments or language barriers that hinder communication.
- Pediatric and geriatric populations as medication use in these groups is largely caregiver-dependent.

Data Collection Instrument

Data were collected using a pretested Knowledge, Attitude, and Practice (KAP) questionnaire. The questionnaire was adapted from the World Health Organization (WHO) KAP framework and modified specifically to assess patient knowledge and practices regarding TCS use. The instrument captured key data points, including:

Demographics: Age, gender, and educational status.

Use Pattern (Practice): Indication, duration, frequency of application, and type/potency of TCS used.

Source of Drug/Information: How the drug was obtained (prescription/OTC) and the primary influence for its use (dermatologist, non-specialist physician, pharmacist, friends/family, or media).

Adverse Effects: Documented dermatological side effects experienced by the patient.
To ensure the collected data are reliable, the responses provided by the participants were cross-verified with the treating dermatologist whenever feasible. Participants were given 24 hr to complete the questionnaire and were requested to return it the following day, which ensured sufficient time for reflection and helped reduce hurried responses, which also improved the validity of self-reported information.

In addition, prescription appropriateness and classification of topical corticosteroids based on potency were carried out according to standard guidelines and were cross-verified by a trained dermatologist to ensure accuracy.

Data Analysis

While specific statistical methods are not detailed, collected data were analysed to determine the prevalence of misuse and its association with demographic variables and information sources. Results were summarized descriptively, and key associations were identified to meet the study objectives.

RESULTS

The study enrolled 246 dermatology outpatients. The analysis revealed that the misuse of topical corticosteroids was a common practice across the observed patient cohort.

Demographic Profile and Misuse

Misuse was predominantly observed in patients belonging to the younger adult age group (21-40 years), with a slight female predominance (Table 1). This demographic finding correlates with the common use of TCS for cosmetic concerns, such as achieving skin fairness or treating acne, which are frequently reported issues in this population (Table 2 and Figure 1). Contrary to some established literature, the study did not find a significant association between a patient's education level and the likelihood of engaging in topical corticosteroid misuse, suggesting that inappropriate use is a widespread phenomenon across all socioeconomic and literacy groups (Table 1 and Figure 2).

Association between education level and knowledge score (ANOVA)

An ANOVA test was carried out to evaluate the association between education level and knowledge score regarding topical corticosteroids. The results showed a gradual increase in mean knowledge scores with higher levels of education, from 11.8±3.4 among participants with no formal education to 14.2±3.0 among graduates. The ANOVA test yielded an F-value of 3.12 with 4°C of freedom and a *p*-value of 0.016, which is statistically significant at the 0.05 level. This indicates that education level had a significant impact on knowledge scores, suggesting that participants with higher educational qualifications demonstrated better knowledge about topical corticosteroids compared to those with lower or no formal education.

Out of 246 participants, the misuse index revealed a high degree of topical corticosteroid misuse in both males and females (Table 4). Among males (*n*=117), the majority had a misuse index score of 7 (35.90%), followed by 9 (26.50%) and 10 (19.66%). Only a few reported lower scores, such as 4 (1.71%) and 5 (0.85%), indicating that most males fell in the high misuse range.

Among females (*n*=129), The highest misuse index was observed at score 9 (27.91%) and score 10 (25.58%), followed closely by score 7 (26.36%). Very few participants recorded lower scores like 4 (1.55%), 5 (0.78%), or 6 (1.55%), which again demonstrates that misuse was predominantly high among females.

Out of 246 participants, 67 males (57.26%) and 74 females (57.36%) were willing to stop OTC topical steroid use if counselled (Figure 3). Meanwhile, 29 males (24.79%) and 34 females (26.36%) said no, and 21 males (17.95%) and 21 females (16.28%) responded maybe.

Pattern of Topical Corticosteroid Use

A concerning pattern of prolonged and high-potency use was documented. Approximately 35% of the participants admitted to using topical corticosteroids for longer than one month. Furthermore, 28% of patients reported using formulations classified as moderate- to high-potency (Tables 5, 6).

Sources of Misinformation and Procurement

A critical factor driving the misuse was the ease of access and reliance on non-medical advice. Many participants procured the corticosteroids without a valid prescription, citing recommendations from pharmacists, friends, relatives, or local healers as their primary influence. Out of 246 participants, the most common source among males was friends/relatives (36.75%), followed by self-medication (27.35%), social media (18.80%), and pharmacists (17.09%). Among females, the most common sources were friends/relatives (31.78%) and self-medication (31.01%), followed by social media (20.93%) and pharmacists (16.28%) (Table 7 and Figure 4).

The ease of Over-the-Counter (OTC) availability of potent TCS was identified as a major systemic contributor to inappropriate use.

Out of 246 participants, 46 males (39.32%) and 56 females (43.41%) believed steroids should only be used with a doctor's prescription, while 71 males (60.68%) and 73 females (56.59%) did not (Table 8, 9).

Adverse Effects

Adverse effects attributable to TCS misuse were common, underscoring the resulting dermatological morbidity (Table 10). Out of 246 participants, the most common side effect among males was itching (37.61%), followed by redness (28.21%), burning (17.95%), no side effect (11.97%), and pigmentation (4.27%). Among females, the most common was redness (31.78%), followed by itching (25.58%), no side effect (26.36%), burning (13.18%), and pigmentation (3.10%) (Figure 6).

Distribution of awareness of side effect (Figure 7). Out of 246 participants, most males had low awareness (52.99%), followed by moderate (35.04%) and high (11.97%). Similarly, most females had low awareness (57.36%), followed by moderate (31.78%) and high (10.85%).

DISCUSSION

The present cross-sectional study assessed the Knowledge, Attitudes, and Practices (KAP) regarding topical corticosteroids among dermatology outpatients in a tertiary care hospital. The results revealed high levels of misuse and inadequate awareness, which are consistent with previous reports from India and other low- and middle-income countries.

A notable finding in this study was that the majority of patients belonged to the younger age group (21-40 years), with a slight female predominance. This demographic trend reflects the common use of topical corticosteroids for cosmetic purposes, particularly for skin fairness and acne, conditions more frequently

associated with younger adults and women.[9] However, misuse was not confined to any particular age or gender, indicating that accessibility and social influences are stronger drivers than demographic characteristics.

Knowledge about the safe use of topical corticosteroids was found to be poor. Less than half of the participants were aware that these medications should be used only under medical supervision, and more than half believed that steroids were safe for conditions such as acne or skin lightening. This is consistent with earlier studies conducted in North India and Nepal, where 60-70% of participants were unaware of adverse effects such as skin thinning, dependence, or pigmentation changes (Table 3).[10] Misconceptions about the benefits of topical corticosteroids for cosmetic enhancement appear to be widespread and remain uncorrected due to insufficient patient education and lack of regulatory control over dispensing.[11]

Attitudes observed in the present study further highlight these misconceptions. More than half of the participants considered steroids to be safe for long-term use, and nearly one-third reported that obtaining them without a prescription was acceptable. Furthermore, almost half of the participants perceived corticosteroids as effective fairness agents. These perceptions reflect cultural and societal pressures regarding fair skin, a trend that has been well-documented in previous studies.[12] Such attitudes create sustained demand for these drugs and drive their inappropriate use even in the face of adverse consequences.

Practices related to topical corticosteroid use in this study were concerning. More than 60% of patients reported using these medications without prescription, with pharmacists, friends, and relatives being the main sources of recommendation (Figure 5). Only about one-quarter of patients obtained steroids directly from dermatologists. Similar findings have been reported in other Indian states, where community pharmacists dispense

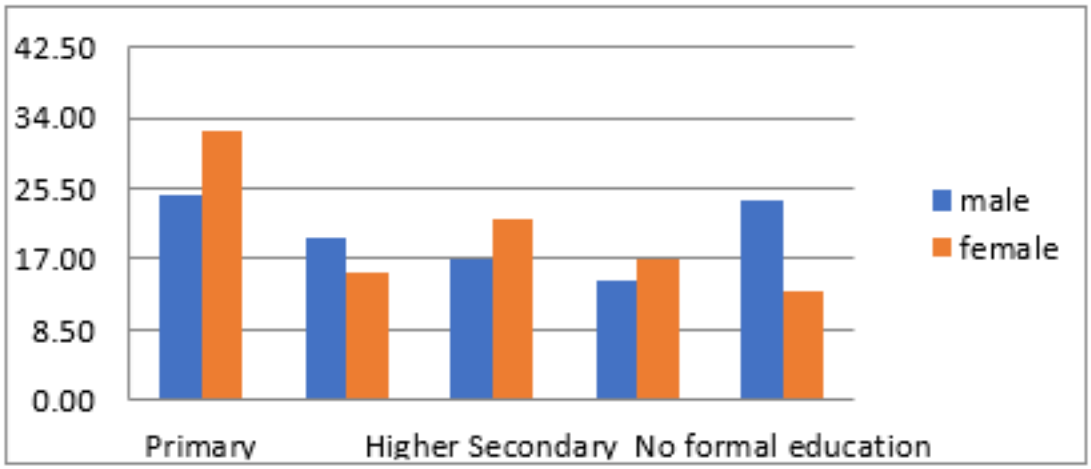

Figure 1: Demographic distribution of gender and education level.

Table 1: Gender distribution and education level.

Gender	Male		Female	
Education level	**Frequency**	**Percentage**	**Frequency**	**Percentage**
Primary	29	24.79	42	32.56
Secondary	23	19.66	20	15.50
Higher Secondary	20	17.09	28	21.71
Graduate	17	14.53	22	17.05
No formal education	28	23.93	17	13.18

Table 2: Association between education level and knowledge score.

Education level	*n*	Mean +- SD	F value	d_f	*p* value
No formal education	45	11.8±3.4			
Primary	71	12.3±3.1			
Secondary Higher	43	13.1±2.9	3.12	4.241	0.016
Secondary	48	13.5±3.3			
Graduate	39	14.2±3.0			

Table 3: Reason for use of steroids.

Gender	Male		Female	
What condition did you use the steroid for?	Frequency	Percentage	Frequency	Percentage
Skin whitening	8	6.84	12	9.30
Eczema	8	6.84	11	8.53
Fungal infection	39	33.33	41	31.78
Acne	21	17.95	23	17.83
Itching	29	24.79	21	16.28
Psoriasis	12	10.26	21	16.28

Table 4: Misuse index of topical steroids.

Gender	Male		Female	
Misuse Index (0-10)	Frequency	Percentage	Frequency	Percentage
0	0	0.00	0	0.00
1	0	0.00	0	0.00
2	0	0.00	0	0.00
3	0	0.00	0	0.00
4	2	1.71	2	1.55
5	1	0.85	1	0.78
6	0	0.00	2	1.55
7	42	35.90	34	26.36
8	18	15.38	21	16.28
9	31	26.50	36	27.91
10	23	19.66	33	25.58

Table 5: Duration of use of topical Steroids.

Gender	Male		Female	
What was the duration of use?	Frequency	Percentage	Frequency	Percentage
greater than 6 months	17	14.53	18	13.95
less than 1 week	8	6.84	12	9.30
between to 6 months	20	17.09	23	17.83
between 1 to 4 weeks	28	23.93	38	29.46
between 1 to 3 months	44	37.61	38	29.46
greater than 6 months	17	14.53	18	13.95

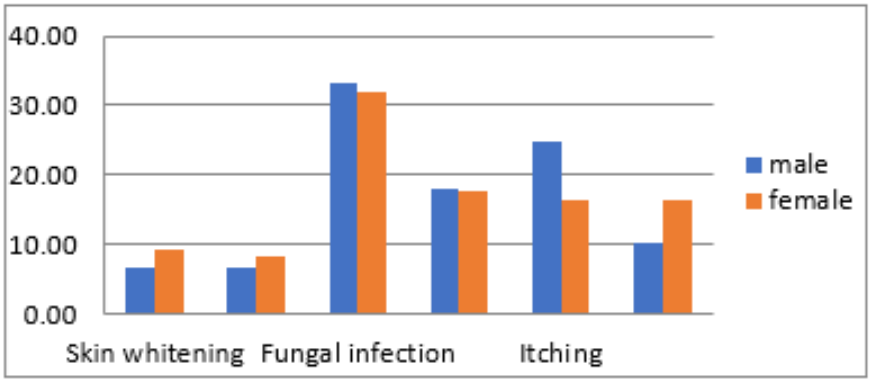

Figure 2: Reason for use of steroids.

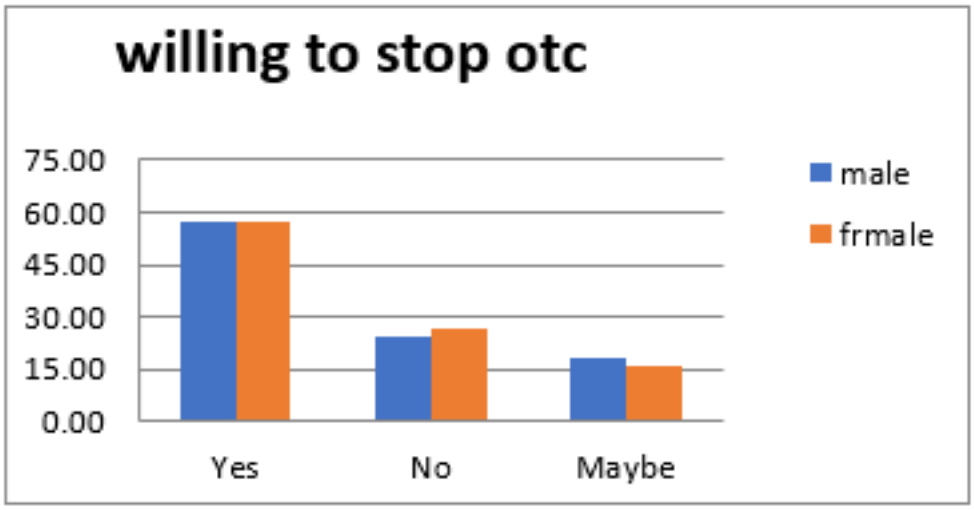

Figure 3: Willingness to discontinue OTC steroids.

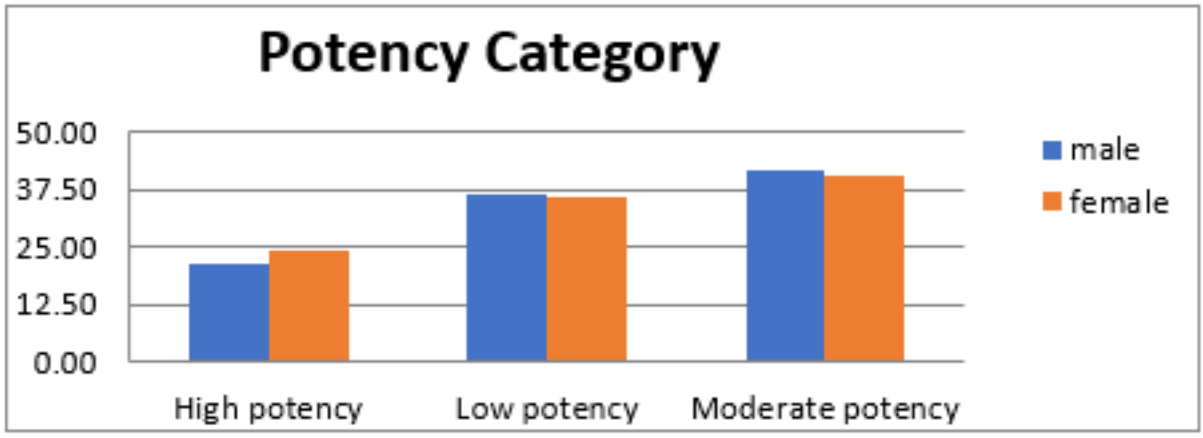

Figure 4: Potency category of topical steroids.

Table 6: type of topical steroid used.

Gender	Male		Female	
Which topical steroid have you used?	Frequency	Percentage	Frequency	Percentage
Clobetasol	25	21.37	31	24.03
Betamethasone	28	23.93	19	14.73
Hydrocortisone	14	11.97	15	11.63
Mometasone	21	17.95	33	25.58
Desonide	3	2.56	4	3.10
Unknown cream	26	22.22	27	20.93

potent steroid formulations without medical supervision.[11] The perspectives of pharmacists and non-specialist prescribers were not studied, as medications were obtained from outside sources and could not be traced. Source and contact tracing were beyond the scope of our study due to financial restrictions. Media and advertisements may also contribute to topical corticosteroid misuse. The promotion of combination creams and indirectly marketed steroid-containing formulations can influence patient behavior, including commonly used products such as Sapat lotion and other multi-drug combination creams. advertised by non-trained professionals on social media and other platforms.

The pattern of use observed also raises alarm regarding potency and duration. About 35% of the study participants used topical corticosteroids for more than a month, and 28% reported use of moderate to high-potency formulations. These practices significantly increase the risk of both local and systemic adverse

Table 7: Potency category of topical steroids.

Gender	Male		Female	
Potency Category	Frequency	Percentage	Frequency	Percentage
High potency	25	21.37	31	24.03
Low potency	43	36.75	46	35.66
Moderate potency	49	41.88	52	40.31

Table 8: Prescriber of topical steroid.

Gender	Male		Female	
Who prescribed the steroid?	Frequency	Percentage	Frequency	Percentage
Self-medicated	32	27.35	40	31.01
Pharmacist	20	17.09	21	16.28
Friend/Relative	43	36.75	41	31.78
Social media	22	18.80	27	20.93

Table 9: Knowledge about need for a prescription.

Gender	Male		Female	
Doctor's prescription	Frequency	Percentage	Frequency	Percentage
Yes	46	39.32	56	43.41
No	71	60.68	73	56.59

Table 10: side effects experienced due to topical steroids.

Gender	Male		Female	
What side effects did you experience?	Frequency	Percentage	Frequency	Percentage
Redness	33	28.21	41	31.78
Itching	44	37.61	33	25.58
No side effects	14	11.97	34	26.36
Burning	21	17.95	17	13.18
Pigmentation	5	4.27	4	3.10

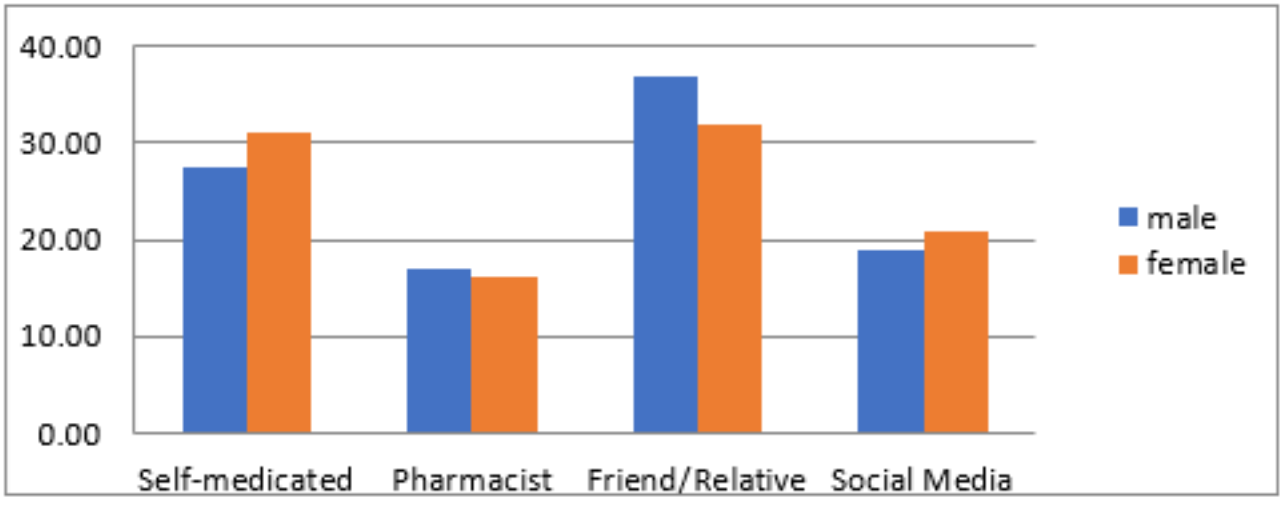

Figure 5: Prescriber of topical steroid.

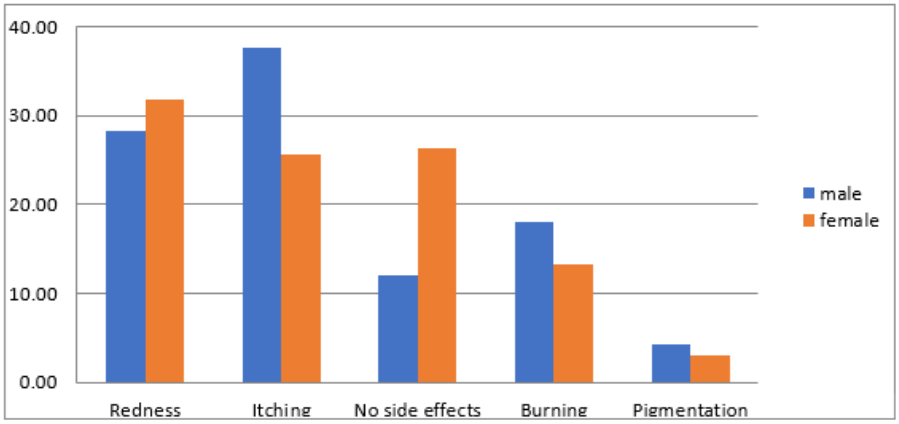

Figure 6: Distribution of side effects.

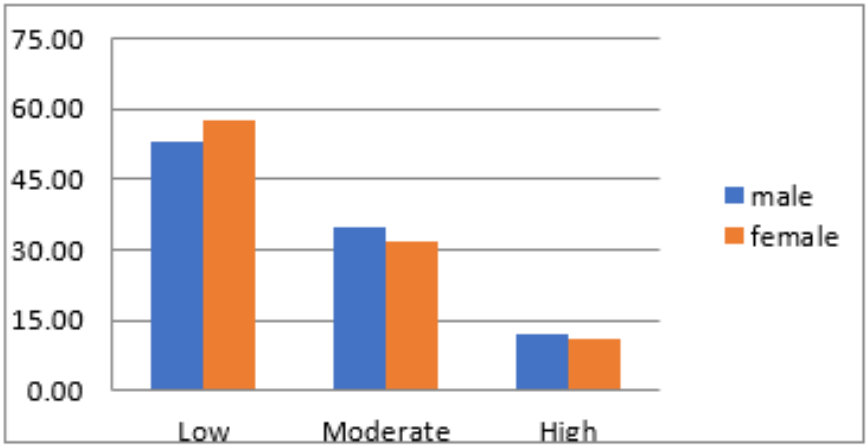

Figure 7: Distribution of awareness about side effect.

effects. Comparable studies from North India and Bangladesh reported prolonged use in up to 40% of cases, often for cosmetic or fungal infections.[13,14] The present findings align with recent reports of steroid-modified *Tinea*, an epidemic largely fuelled by unsupervised use of steroid-containing creams for fungal infections.[15]

Adverse effects documented in this study included skin thinning, pigmentation changes, acneiform eruptions, striae, and *Hirsutism*. These are typical complications of steroid misuse and have been extensively described in previous dermatological literature.[16] The frequency of such adverse events in our study emphasizes the magnitude of harm caused by inappropriate steroid use, yet continued usage by patients suggests that short-term perceived benefits outweigh concerns about long-term damage. This behavioural pattern has been observed in other KAP studies, where patients persisted with steroid application despite experiencing side effects, due to the immediate relief or cosmetic improvement perceived.[17]

Perhaps the most striking observation was the absence of a significant association between education level and the misuse of topical corticosteroids. This suggests that misuse is not limited to populations with lower literacy, but is instead widespread across all educational and socioeconomic backgrounds. This finding diverges from certain earlier reports which identified lower literacy as a risk factor for inappropriate use.[18] It underscores the fact that widespread availability, inadequate regulation, and strong cultural perceptions may override the protective influence of formal education.

The result of this study may also be influenced by the socioeconomic and demographic characteristics of the study population. Most of the patients were from rural areas of Bangalore with lower and middle socioeconomic backgrounds. Such factors have been associated with increased reliance on informal healthcare sources and a higher likelihood of inappropriate medication use. In these settings, both trained and untrained healthcare providers, as well as over-the-counter access to medications, may contribute to irregular prescribing practices and misuse of topical corticosteroids. The study did not explore policy or regulatory enforcement issues, such as over-the-counter availability and pharmacy practices, which may play an important role in misuse. Although medications were categorized based on existing guidelines, assessing how effectively these regulations are implemented was beyond the scope of this study. Strengthening

regulatory monitoring and enforcement may help address these gaps.

Taken together, the findings of this study highlight topical corticosteroid misuse as a public health challenge that transcends demographic boundaries. Easy OTC access, inadequate awareness, and cultural preferences for fairness collectively drive inappropriate use. These findings resonate with multicentric Indian studies which have called for stricter regulation of steroid dispensing and targeted awareness interventions.[19]

CONCLUSION

Topical corticosteroid misuse constitutes a highly prevalent public health crisis among dermatology outpatients at this tertiary care hospital, affecting a broad population, particularly younger adults, and resulting in significant dermatological morbidity. The misuse is driven by chronic, unsupervised use of high-potency agents, procurement without prescription, and pervasive misinformation from non-specialist sources. To mitigate the profound burden of TCS-induced adverse effects, a multi-pronged intervention is urgently required. This must include immediate and rigorous enforcement of prescription-only policies, mandatory targeted training for non-dermatologist prescribers and pharmacists, and large-scale, culturally appropriate public awareness campaigns.

ACKNOWLEDGEMENT

In our successive endeavour, we would like to take this opportunity to thank our mentor and research guide Dr. AISHWARYA S (Asst. Professor, Dept. Pharmacy Practice, Krupanidhi College of Pharmacy, Bangalore) for his untiring effort, advice and availability in guiding us in this research study.

We express our sincere thanks to our hospital guide Dr. Roshan Manoharan, (Assistant Professor, Dept. of Dermatology, MVJ Medical College and Research Hospital) and for his support and bestowing us with valuable knowledge.

We express our sincere thanks to our HOD Dr. Beulah Milton, (HOD, Dept. of Pharmacy Practice, Krupanidhi College of Pharmacy, Bangalore) and for her support and bestowing us with valuable knowledge.

We are grateful to Dr. Raman Dang, (Principal, Krupanidhi College of Pharmacy, Bangalore) for providing us the necessary support and facilities in carrying out this project work.

Lastly, we are hereby thanking our family and friends who supported us morally and financially and assisted in carrying out this research.

ABBREVIATIONS

TCS: Topical Corticosteroids; **OTC:** Over-the-counter; **LMICs:** Low- and Middle-Income Countries; **KAP:** Knowledge, Attitudes, and Practices; **WHO:** World Health Organization; **HPA:** Hypothalamic-pituitary-adrenal; **TSW:** Topical Steroid Withdrawal; **OPD:** Outpatient Department; **ANOVA:** Analysis of Variance.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

REFERENCES

1. Barnes PJ. How corticosteroids control inflammation: Quintiles Prize Lecture 2005. Br J Pharmacol. 2006;148(3):245-54.
2. Nayan S, Kolay A, Chauhan SB, Singh I. Navigating Global Regulatory Divergence in Over-the-counter Drugs: Addressing Emerging Risks and Harmonization Challenges. Current Drug Research Reviews. 2025.
3. Palace K. False Cure: The "Miracle Cream" Fueling a Denied Epidemic and the Movement Fighting Back. Hall Royale Mastery; 2025.
4. Lovrić I, Tomić I, Tomić I, Zeljko I, Bevanda M, Mandić M, Lovrić S, Šimić D. Inappropriate Use of Topical Corticosteroides in the Dermatology Outpatient. Psychiatria Danubina. 2021;33(suppl 10):71-5.
5. Khaliq SA, Naz S, Farid F, Fatima A. Clinical Indications and Abuse of Corticosteroids: A Narrative Review.
6. ***6.*** Meena db, goyal dn, tomar dj. Clinico-epidemiological study of topical corticosteroids abuse and their adverse effects. Tpm-Testing, Psychometrics, Methodology in Applied Psychology. 2026; 33(S1):13-7.
7. Improda N, Chioma L, Capalbo D, Bizzarri C, Salerno M. Glucocorticoid treatment and adrenal suppression in children: current view and open issues. Journal of Endocrinological Investigation. 2025;48(1):37-52.
8. Mubeen M, Bint-e-Shahzad W, Azeem L, Noor I. Fairness at a Cost: The Hidden Dangers of Steroid-Based Skin Lighteners. Journal of Community Medicine and Health Solutions. 2025;6(2):077-9.
9. Chohan SN, Suhail M, Salman S, Bajwa UM, Saeed M, Kausar S, Suhail T. Facial abuse of topical steroids and fairness creams: a clinical study of 200 patients. Journal of Pakistan Association of Dermatologists. 2014;24(3):204-11.
10. Poudyal Y, Aryal N, Rajbhandari A, Ghimire M, Acharya S, Raut S, Joshi B, Pokharel S, Cheah PY, Adhikari B. Over the counter use of topical corticosteroid for skin conditions among patients before attending skin specialist clinic in Nepal: A qualitative study. PLOS Global Public Health. 2025;5(6):e0004812.
11. Sheth NK, Nair PA. Topical steroids: Awareness and misuse among patients, pharmacists and general medical practitioner. Indian Journal of Dermatology, Venereology and Leprology. 2021;87(1):54-9.
12. Ghouse AN, Ashraf E, Khan ZI, Sidiqqui S. Obsession to fairness and topical steroid induced acne: A situation analysis of patients presenting in dermatology clinic at a private hospital in Karachi. Pakistan Journal of Medical Sciences. 2024; 40(1Part-I):128.
13. Sultana GA, Bhuiyan MZ. Topical Corticosteroid Abuse on the Face: A Prospective Study of Garments Workers Appearing at Dermatology Outpatients in a Private Medical College Hospital. Medicine Today. 2015;27(1):23-6.
14. Akhter F, Araf S, Hossain MF, Haque MA, Islam MR. The Dangers of Misuse of Corticosteroid Drugs in Treating Superficial Fungal Infections: Presentation of a Case Series for Stricter Policy Regulation. Public Health Challenges. 2025;4(4):e70151.
15. Paudel S, Parajuli N, Dahal SC, Paudel S. Improper use of topical corticosteroids in *Tinea* infections in a tertiary care hospital. Journal of Nepal Health Research Council. 2021;19(01):71-5.
16. Meena S, Gupta LK, Khare AK, Balai M, Mittal A, Mehta S, Bhatri G. Topical corticosteroids abuse: A clinical study of cutaneous adverse effects. Indian journal of dermatology. 2017;62(6):675.
17. Makurina HI, Cherneda LO. Steroid-induced dermatoses: a challenge for modern dermatology.
18. Sheth NK, Nair PA. Topical steroids: Awareness and misuse among patients, pharmacists and general medical practitioner. Indian Journal of Dermatology, Venereology and Leprology. 2021;87(1):54-9.
19. Verma SB. Sales, status, prescriptions and regulatory problems with topical steroids in India. Indian Journal of Dermatology, Venereology and Leprology. 2014;80:201.

Cite this article: Sharma S, Dhakal A, Srimanth KS, Manoharan R, Aishwarya S. An Observational Study on Topical Corticosteroid Awareness and Misuse among Dermatology Outpatients at A Tertiary Care Hospital. Indian J of Pharmaceutical Education and Research. Krupapharmacon 2026:296-304.