Section: Community Medicine

Original Research Article

PATTERN AND TREATMENT-SEEKING BEHAVIOUR REGARDING COMMON SKIN CONDITIONS AMONG PATIENTS PRESENTING IN THE OUTPATIENT DEPARTMENT OF A RURAL HEALTH TRAINING CENTRE OF A TEACHING HOSPITAL IN BAREILLY

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ABSTRACT

Background: Skin conditions are among the most common health concerns worldwide, significantly affecting individuals' quality of life. In rural areas, challenges such as limited access to healthcare, low awareness, and economic constraints can delay treatment-seeking, worsening outcomes. This study aimed to explore the pattern of common skin conditions and the treatment-seeking behaviour of patients attending the OPD at the Rural Health Training Centre of a teaching hospital in Bareilly.

Materials and Methods: A cross-sectional observational study was conducted from July to September 2024 among 320 patients presenting with dermatological complaints at the RHTC. Data were collected using a pre-tested semi-open-ended interview schedule. Skin conditions were diagnosed with the support of a dermatologist.

Results: Out of 320 participants, 55% had infectious skin conditions (mostly fungal and parasitic), while 45% had non-infectious conditions (such as acne and eczema). Males and those under 18 years were more affected by infectious conditions, while females and the 18–40 age group had a higher prevalence of non-infectious diseases. Socio-economic status and religion also showed significant associations. Notably, 82% had not sought any healthcare before visiting the RHTC. Common delays in treatment were due to preference for home remedies, lack of awareness, and financial issues. Adherence to prior treatments was inconsistent, primarily due to ignorance and lack of improvement.

Conclusion: This study highlights a high burden of infectious skin conditions and significant delays in treatment-seeking due to socio-economic and awareness barriers. Targeted interventions are needed to improve early diagnosis, awareness, and adherence to treatment in rural populations.

Keywords: Skin diseases, Rural health, Treatment-seeking behaviour, Infectious dermatological conditions, Healthcare access.

INTRODUCTION

Skin conditions are among the most prevalent health problems globally, with significant implications for individuals' quality of life. In rural settings, the burden of skin diseases is compounded by limited access to healthcare and treatment options. Studies have shown that patients from rural areas often face challenges in seeking timely and appropriate care for skin conditions, influenced by factors such as awareness, socioeconomic status, and healthcare accessibility. Many patients initially turn to over-the-counter medications or self-treatment before seeking professional care, particularly for common

conditions like scabies, leading to delays in proper diagnosis and treatment.[1]

The rural healthcare system frequently struggles with providing specialized care, and this gap often leads to patients delaying or avoiding necessary treatment. Understanding the treatment-seeking behaviour in these settings is essential for developing targeted healthcare interventions. Studies have shown that rural populations often rely on traditional remedies or self-medication before seeking formal medical attention.[2] Skin diseases, which are common among the elderly residing in rural areas due to factors such as aging skin, chronic conditions, and environmental exposure, often require appropriate management to prevent complications. Understanding the health-seeking behaviour of elderly people in relation to skin diseases is crucial for improving healthcare interventions and ensuring that this vulnerable population receives timely and effective treatment.[3] Previous studies have highlighted that individuals in rural areas often rely on alternative medicine, including traditional and home remedies, due to lack of awareness and access to modern medical care. Additionally, delays in seeking professional help can result in worsened clinical outcomes, as seen in the progression of conditions like eczema, psoriasis, and fungal infections.[4] Barriers to seeking timely medical attention include cost, lack of trust in healthcare providers, and the stigma associated with certain skin diseases such as atopic dermatitis.[5] Therefore, understanding these factors is crucial for designing targeted interventions to improve healthcare delivery in rural settings.

Despite the high prevalence of skin conditions, the treatment-seeking behaviour in such settings has not been well documented. This study aims to explore the pattern of common skin conditions and the treatment-seeking behaviour of patients presenting in the Outpatient Department (OPD) of the Rural Health Training Centre (RHTC) at a teaching hospital in Bareilly, with the goal of identifying factors that influence patients' decisions to seek medical help.

Objective

1. To study the pattern of common skin conditions among the study population.
2. To assess the socio-demographic factors associated with common skin conditions.
3. To evaluate treatment-seeking behaviours of study participants.

MATERIALS AND METHODS

Study Design: A cross-sectional observational study.
Study Population: Patient visiting OPD at the Rural Health Training Centre who presented with skin conditions.
Study Area: Rural Health Training Centre of a Tertiary care hospital, Bareilly.
Study Period: July 2024 to September 2024

Inclusion Criteria

1. Patients of all age groups presenting with dermatological complaints.
2. Patients or guardians (in case of pediatric patients) willing to provide informed consent for participation in the study.

Exclusion Criteria

1. Patients who refuse to participate.

Sampling Method: Purposive sampling is used to select participants.

The sample size for this study was determined based on data from a pilot study, which indicated that approximately 25% of the total patients visiting the Rural Health Training Centre (RHTC) per day presented with dermatological complaints. Given this proportion, the study aimed for a 10% margin of error at a 95% confidence interval, which resulted in a final sample size calculation of 320 participants. This sample size was deemed sufficient to ensure the representativeness and statistical power needed for reliable analysis of the dermatological complaints and treatment-seeking behaviours among patients at the RHTC.

To collect the necessary data, a pre-designed, pre-tested semi-open-ended interview schedule was used. This schedule was carefully crafted to capture both the nature of the participants' skin conditions and their treatment-seeking behaviour. Patients visiting the weekly dermatology Outpatient Department (OPD) at the RHTC were selected for interviews. Before data collection, all participants were informed about the purpose of the study, ensuring transparency and voluntary participation. Informed consent was obtained from each individual or their guardian in the case of paediatric patients. The dermatological conditions presented by the patients were diagnosed with the assistance of a dermatologist consultant, who visited the RHTC on a bi-weekly basis, ensuring expert evaluation of the skin conditions for accurate data collection.

Ethical clearance was taken prior conducting the study from Institutional ethical committee. (Ref. No.: SRMS IMS/ECC/2024/146)

RESULTS

The study included 320 participants, mostly aged 18–40 (42.5%), with a nearly equal gender split and a slight Muslim majority. Most were unmarried (55%), lived in nuclear families (85.31%), and belonged to the upper-middle class (46.25%). Education levels varied, with the largest group having primary education (35.63%) and 16.25% being illiterate. [Table 1] Out of 320 participants 55% of cases are infectious skin disease, while 45% are non-infectious skin dis disease. [Figure 1]

[Table 2] shows that among the 320 participants, fungal (23.43%), parasitic (23.12%), and acne (23.44%) were the most common skin conditions. Infectious skin conditions had a slightly higher overall prevalence. Less common conditions

included viral infections (1.56%) and lichen planus (1.25%).

The association between skin conditions and socio-demographic variables is presented in [Table 3]. Infectious conditions were more common in those under 18 (57%) and males (58%), while non-infectious were higher among females (59%) and those aged 18–40 (55%) (p = 0.001 for gender).Hindus had more infectious cases (51%) and Muslims more non-infectious (61%) (p = 0.005).Non-infectious conditions were frequent in the upper socio-economic group (19%), while infectious cases were higher in the lower-middle group (18%) (p = 0.001).

Age showed no statistically significant association with skin condition types (p = 0.052). As shown in [Figure 2], 82% of participants had not consulted a healthcare provider before coming to RHTC, while only 18% had.

[Table 4] shows that most participants sought treatment for skin conditions within a week (42.19%) or within a month (35.63%). Common reasons for delays included preference for home remedies (26.56%), lack of awareness (25.94%), and financial constraints (22.50%). Only a small percentage sought treatment immediately (10.63%), while 11.56% waited more than a month.

The treatment-seeking behaviour of 58 participants who had previously consulted elsewhere, majority exhibited inconsistent adherence to treatment, with 39.69% sometimes adhering, and 43.13% adhering most of the time. Only 1.72% always adhered, while a small percentage never (3.44%) or rarely (13.13%) followed the prescribed treatment. The main reasons for non-adherence were ignorance (48.10%), followed by lack of improvement (28.90%), side effects (13.50%), and cost (10.40%). [Table 5]

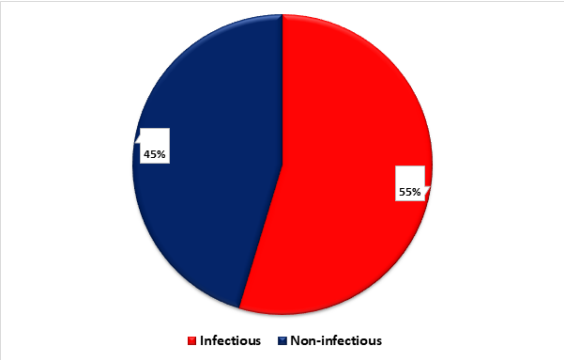

Figure 1: Category-wise Distribution of common skin conditions among study participants(n=320)

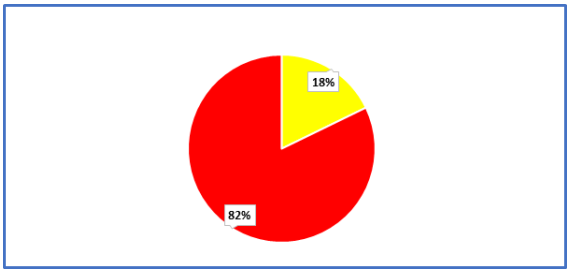

Figure 2: Distribution of study participants based on whether they have consulted a healthcare provider ever before coming to RHTC

Table 1: Socio demographic profile of the study participants(n=320)

Variables		Frequency (n=320)	Percentage (%)
Age (years)	0 -18	124	38.75%
	18 - 40	136	42.50%
	40 - 60	49	15.31%
	> 60	11	3.44%
Gender	Male	162	50.63%
	Female	158	49.38%
Religion	Hindu	147	45.94%
	Muslim	173	54.06%
Marital status	Married	144	45.00%
	Unmarried	176	55.00%
Education Level	Illiterate	52	16.25%
	Primary	114	35.63%
	High school	37	11.56%
	Intermediate	77	24.06%
	Graduate	40	12.50%
Type of family	Nuclear	273	85.31%
	Joint	47	14.69%
Socio economic status*	Upper	36	11.25%
	Upper Middle	148	46.25%
	Middle	67	20.94%
	Lower Middle	38	11.88%
	Lower	31	9.69%

*B.G Prasad scale updated for Jan 2023

Table 2: Pattern of common skin condition among study participants(n=320)

Type of skin patterns		Frequency (n=320)	Percentage
Infectious	Fungal	75	23.43%
	Viral	5	1.56%
	Bacterial	21	6.56%
	Parasitic	74	23.12%
Non - Infectious	Eczema	11	3.43%

	Pigmentary disorders	14	4.37%
	Urticaria	15	4.68%
	Acne	75	23.44%
	Alopecia	19	5.93%
	Psoriasis	7	2.18%
	Lichen planus	4	1.25%

Table 3: Association between pattern of skin conditions and socio-demographic variables

Variables		Infectious (n = 175)	Non-infectious (n = 145)	Test statistic	p value
Age	<18 years	99 (57%)	25 (17%)	53.96	0.052
	18 - 40 years	56 (32%)	80 (55%)		
	40 - 60 years	18 (10%)	31 (21%)		
	> 60 years	2 (1.1%)	9 (6.2%)		
Gender	Female	73 (42%)	85 (59%)	9.07	0.001
	Male	102 (58%)	60 (41%)		
Religion	Hindu	90 (51%)	57 (39%)	4.69	0.005
	Muslim	85 (49%)	88 (61%)		
Socio economic status	Upper	8 (4.6%)	28 (19%)	34.08	0.001
	Upper Middle	85 (49%)	63 (43%)		
	Middle	39 (22%)	28 (19%)		
	Lower Middle	32 (18%)	6 (4.1%)		
	Lower	11 (6.3%)	20 (14%)		

Table 4: Treatment-seeking behaviors of the study participants regarding common skin conditions

Treatment seeking behaviour		Frequency(n=320)	Percentage
Time taken to seek current treatment	Immediately	34	10.63%
	Within a week	135	42.19%
	Within a month	114	35.63%
	More than a month	37	11.56%
Reasons for delay in seeking treatment	Distance from healthcare facility	27	8.44%
	Financial constraints	72	22.50%
	Lack of awareness	83	25.94%
	Preference for home remedies	85	26.56%
	No delay, taken treatment immediately	53	16.56%

Table 5: Treatment seeking behavior among pts who had already taken consultation elsewhere(n=58)

Treatment seeking behaviour		Frequency (n=58)	Percentage
Adherence to Treatment	Never	2	3.44%
	Rarely	8	13.13%
	Sometimes	23	39.69%
	Most of the time	24	43.13%
	Always	1	1.72%
Reasons for Non-Adherence to Treatment	Lack of improvement	16	28.90%
	Cost	6	10.40%
	Side effects	8	13.50%
	Ignorance	27	48.10%
	Always	1	1.72%

DISCUSSION

Skin conditions, particularly infectious diseases, are a significant public health issue, with various socio-demographic factors influencing their prevalence. This study sought to examine the distribution of infectious and non-infectious skin conditions, focusing on factors such as age, gender, and socio-economic status.

The current study found that infectious skin diseases constituted 55% of cases, with fungal (23.43%), parasitic (23.12%), and acne (23.44%) being the most prevalent. Non-infectious skin conditions accounted for 45%. Among infectious diseases, viral infections (1.56%) and lichen planus (1.25%) were less common. These results are consistent with previous research. Emodi et al,[6] reported a high prevalence of fungal and parasitic infections in rural Nigeria, which aligns with the findings of this study. Similarly, Kanungo et al,[7] highlighted the dominance of infectious skin diseases in rural India, further corroborating the current study's results. Ager et al,[2] observed a higher rate of infectious diseases in rural areas, reinforcing the pattern found in the present study.

Gender and age distribution also revealed key insights. Infectious skin conditions were more common in males 58% and 57% were individuals under 18 years, whereas non-infectious conditions were more prevalent in females (59%) and those aged 18–40 years (55%). Furthermore, Hindus showed a higher prevalence of infectious cases (51%), while Muslims had a higher prevalence of non-infectious conditions (61%). The socio-economic status of participants also had a significant impact, with non-infectious conditions being more common in the upper socio-economic group (19%), while infectious conditions were more prevalent in the lower-middle socio-economic group (18%).

These findings are consistent with earlier studies. Emodi et al,[6] observed higher rates of infectious skin conditions among younger populations, which aligns with the current study's results regarding individuals under 18 years. Kanungo et al,[7] similarly found a higher prevalence of infectious conditions in males, further supporting the present study's results. Additionally, Ager et al,[2] reported that infectious diseases were more prevalent in lower socio-economic groups, which resonates with the socio-economic pattern seen in this study.

Age did not demonstrate a significant association with the types of skin conditions in this study. However, gender and socio-economic status were more prominent determinants of disease prevalence. Libu et al,[8] found that younger individuals, particularly children, were more susceptible to infectious skin conditions, and socio-demographic factors such as gender and socio-economic status influenced disease prevalence. Amin et al,[9] similarly observed a higher prevalence of infectious skin conditions in males and noted that socio-economic factors significantly impacted the types of conditions seen. This further supports the findings in the present study, particularly concerning gender and socio-economic influences.

In terms of treatment delays, the current study found a pattern of delayed treatment seeking, consistent with other studies in the field. Research on nonmelanoma skin cancer has highlighted delays in diagnosis and treatment due to a failure to recognize the seriousness of symptoms, which can result in disease progression.[10] Similarly, a study in Liberia identified financial constraints and a lack of awareness as significant barriers to timely treatment for severe, stigmatizing skin diseases.[11] In the case of psoriasis, delays in seeking medical help were attributed to the perception that the condition was not severe enough to warrant immediate treatment, with many patients opting for home remedies.[12] These findings underscore the significant role of financial constraints, lack of awareness, and self-medication in delays to treatment.[13]

The treatment-seeking behavior of the 58 participants who had previously consulted elsewhere was analyzed, revealing inconsistent adherence to prescribed treatment regimens. While 39.69% sometimes adhered to treatment and 43.13% adhered most of the time, only 1.72% always adhered to the prescribed regimen. A small percentage (3.44%) never adhered, and 13.13% rarely followed the prescribed treatment. A study on dermatological diseases found non-compliance was often due to a lack of visible improvement, side effects, and misunderstanding of the treatment regimen. This aligns with the reasons for non-adherence found in the current study.[14] Additionally, a study on leprosy highlighted self-medication and a lack of understanding about the importance of treatment, mirroring the barriers identified in this study. These findings highlight common obstacles to treatment adherence in dermatological conditions, including ignorance, side effects, cost, and lack of visible improvement.[15]

CONCLUSION

In conclusion, the findings of this study provide valuable insights into the prevalence, socio-demographic factors, and treatment-seeking behaviour associated with infectious and non-infectious skin conditions. The study's results are consistent with existing literature and underscore the importance of addressing socio-economic barriers, gender influences, and delays in treatment seeking to improve health outcomes for individuals with skin diseases. Further research focusing on intervention strategies to overcome these barriers is necessary for improving the management and treatment of skin conditions.

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