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Management of Dermatitis in Community Pharmacies: An Italian Survey on Pharmacists' Practices and the Impact on Corticophobia

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ABSTRACT

Community pharmacists play a key role in promoting safe and effective self-management of common skin conditions and providing educational support for clinician-prescribed therapies, thereby enhancing patient adherence. In this study, a semi-structured survey was conducted with 154 Italian community pharmacists to gather insights on their counseling practices regarding dermatological disorders. The findings offer a comprehensive overview of the frequency and approaches used in counseling within Italian community pharmacies, highlighting existing knowledge gaps and misconceptions. Notably, a generally negative perception of topical corticosteroid use was observed among pharmacists, reflecting a phenomenon known as corticophobia. Based on this finding, we discuss the potential impact of pharmacist-related corticophobia on patient adherence. Finally, we summarize the primary educational resources pharmacists expressed a desire for, suggesting their implementation to support more effective dermatology counseling.

Keywords: Community pharmacist, Eczema, Corticophobia, Dermatological conditions, Counseling

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Introduction

Skin diseases represent a significant global health challenge, ranking as the fourth leading cause of disability worldwide [1]. Among these conditions, dermatitis is the most prevalent, with eczematous dermatitis being a particularly serious and often underestimated issue, affecting social, psychological, and economic aspects of life [2]. In Italy, dermatological disorders impact approximately 15% of the population (around 9 million individuals), with eczema particularly common among young adults and women [3]. Patient requests for advice regarding dermatitis are among the most frequent in community pharmacies, especially when conditions can be self-managed without direct consultation with a general practitioner [4]. Estimates suggest that counseling related to skin conditions accounts for 12–23% of pharmacists' overall advisory activities [5].

Over the past decade, the dermatological sector—which includes cosmetics, nutritional supplements, and medicinal products targeting skin health—has experienced steady growth, with a reported revenue increase of 1.8% in 2018 [6, 7]. These statistics do not differentiate between products dispensed via physician prescription and those recommended directly by pharmacists, yet community pharmacies remain a primary source for over-the-counter (OTC) products suitable for sensitive or reactive skin.

Despite the critical role of pharmacists in dermatology, limited information exists regarding their approach when addressing patients' dermatological issues, the frequency and types of conditions encountered in the pharmacy setting, their level of education in dermatology, and the availability of operational tools or guidelines aligned with medical practice [8]. As reported by Tucker *et al*. in the UK context [4], the role of pharmacists in managing dermatological diseases in Italy also appears poorly defined, despite their potential to significantly impact patient care. Community pharmacies offer several advantages, including wide accessibility, personalized counseling, and

the convenience of simultaneous product purchase, which can support self-management of minor skin conditions and the monitoring of long-term therapies [9].

Pharmacists occupy a unique position that enables them to educate patients on the proper use of topical therapies prescribed by general practitioners. Topical corticosteroid therapies (TCT) are widely used for both acute and chronic dermatological conditions and are generally safe and effective when applied appropriately [10-13]. However, patients frequently exhibit corticosteroid phobia, or "corticophobia," often fueled by misleading or incorrect information from healthcare professionals, which can negatively impact treatment outcomes [14, 15].

Although some studies have explored pharmacists' perceptions of TCT, data on Italian pharmacists remain scarce. Research in the UK has highlighted knowledge gaps and misconceptions among community pharmacists regarding TCT [16], while a study in Belgium reported the highest prevalence of corticosteroid phobia among pharmacists compared to other healthcare providers, including pediatricians, general practitioners, and dermatologists [17].

The present study aims to investigate the types and frequency of dermatitis cases reported by a sample of Italian community pharmacists, evaluate their role in managing these conditions, and identify knowledge gaps that may hinder optimal professional practice. Additionally, this work seeks to assess the prevalence of corticophobia among pharmacists and examine how their perceptions may influence patients' adherence to topical corticosteroid therapy.

Materials and Methods

A 19-item semi-structured questionnaire was created by a panel of 13 pharmacists with expertise in dermatology and skin care. The survey was divided into three sections: "dermatology," "treatment and pharmacist's role," and "educational needs and tools," with the full questionnaire available in the Supporting Information. The first section aimed to identify the types and frequency of skin conditions most often observed in community pharmacies. The second section examined three key areas: patients' trust in pharmacists as advisors for dermatitis management, pharmacists' involvement in managing dermatological conditions, and the attitudes of both pharmacists and patients toward topical corticosteroid use. The third section focused on assessing pharmacists' educational gaps and their preferences for learning resources in dermatology.

The survey was distributed to 200 community pharmacists selected from SIFAC (Società Italiana di Farmacia Clinica) members to ensure nationwide coverage, with all participants having at least one year of community pharmacy experience. Pharmacists were approached either in person or via email by a colleague trained in dermatology, and asked to complete the questionnaire either through interviews or using Google Drive (Google LLC, US). Responses were treated as categorical data and summarized using counts and percentages. Data collection took place between January and March 2017, and analysis was performed in Microsoft Excel (US).

Results and Discussion

The results are presented following the structure of the questionnaire, with questions labeled by section letter (A, B, C) and number. Out of 200 invited pharmacists, 154 returned completed surveys, corresponding to a 77% response rate.

Section A: dermatology

Pharmacists were asked to define eczema (QA1), list types of eczema they knew (QA2), and identify the forms most frequently encountered in their pharmacies (QA3), with multiple answers allowed. They also estimated the proportion of isolated versus complex eczematous cases (QA4). When eczema was part of a broader condition, respondents indicated the suspected underlying cause reported by patients (QA5). Finally, they reported the frequency of counseling by patient age groups (children, adolescents, adults, elderly) with one response per question (QA6).

For QA1, 170 distinct definitions were submitted, highlighting wide variability in terminology and level of detail. Researchers organized these into 10 categories **(Table 1)**. The most common description, provided by 40.3% of respondents (n = 62), was "Skin inflammation with erythema and/or vesicles and/or itchiness." For comparison, Merriam-Webster defines eczema as "An inflammatory condition of the skin characterized by redness, itching, and oozing vesicular lesions which become scaly, crusted, or hardened" [18].

Table 1. Pharmacists' Definitions of Eczema

Definition	Number of Pharmacist Responses (n = 170)	Percentage (%)
Inflammation of the skin with redness, vesicles, and/or itching	62	40.3
Skin inflammation presenting as a rash	27	17.5
Disorder affecting the epidermis	23	14.9
Dermal irritation	23	14.9
Itchy skin condition	15	9.7
Inflammation localized in the dermis	13	8.4
Allergic skin reaction with varying degrees of itching	3	1.9
Inflammation accompanied by redness and swelling	2	1.3
Redness of the skin with vesicular lesions	1	0.6
General skin disorder	1	0.6

Regarding the various types of eczema (QA2), pharmacists were most familiar with atopic dermatitis, irritant contact dermatitis, and seborrheic dermatitis, with recognition rates of 79.9 percent (n = 123), 74.7 percent (n = 115), and 64.3 percent (n = 99), respectively **(Figure 1)**. These same forms of eczema were also the ones most commonly encountered by pharmacists in practice (QA3), as illustrated in **Figure 2**.

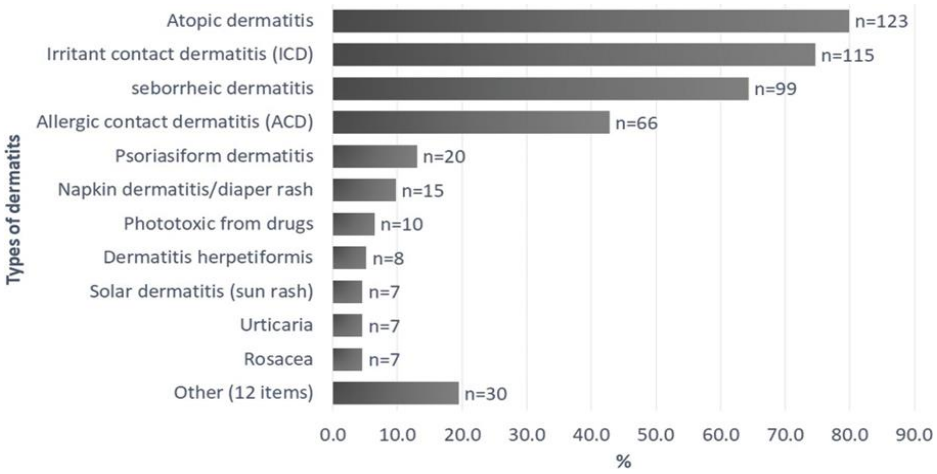

Figure 1. Percentage of pharmacists familiar with each type of dermatitis, based on the conditions they reported knowing; respondents could select multiple options.

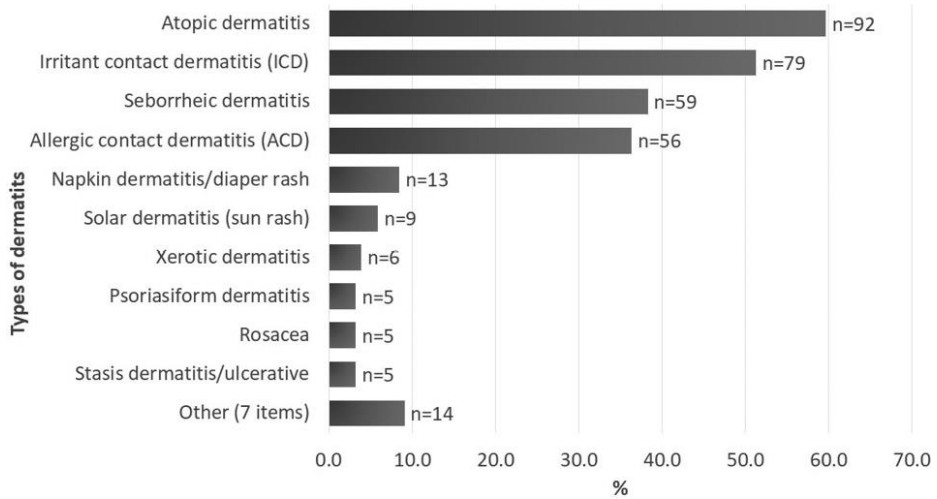

Figure 2. Types of dermatitis encountered in community pharmacies, expressed as the percentage of pharmacists reporting each condition; multiple responses were allowed.

Among complex cases of eczema (QA5), occupational factors were identified as the underlying cause in 42.2% of instances (n = 65), while a genetic predisposition, inferred from patients' family histories, was reported in 30.5% of cases (n = 47). Other contributing factors included exposure to cosmetics and detergents (10.4%), adverse drug reactions (10.4%), and food allergies (8.4%).

The prevalence of these dermatological conditions varies across the population depending on age, sex, and comorbidities. Pharmacists are therefore often called upon to provide both therapeutic guidance and educational support for acute and chronic skin disorders. When assessing counseling frequency by age group (QA6), results showed that most pharmacists offered advice to children, adults, and elderly patients at least once per week. Adolescents sought pharmacist guidance less frequently, typically fewer than four times per month.

Section B: treatment and role of the pharmacist

The first portion of Section B explored patients' trust in pharmacists. It was reported that 57.1% of patients (n = 88) consulted the pharmacist before visiting a physician (QB1), likely due to the convenience of pharmacies, the perceived expertise of pharmacists, and the ability to quickly access treatment for minor conditions [19]. Pharmacists also provide a triage function, identifying complex or uncertain cases and directing them promptly to physicians without delaying diagnosis or treatment.

Subsequent questions focused on pharmacists' management of dermatitis and their attitudes toward topical corticosteroid therapy (TCT). Pharmacists were asked to list treatments prescribed by physicians for eczema (QB3, multiple answers allowed), with TCT being the most commonly reported (71.4%, n = 110), followed by emollients (24.7%, n = 38). Pharmacists' opinions on TCT (QB4) were collected as open-ended responses, yielding 184 statements that were categorized as wholly positive, partially positive, or negative. Only 26.1% of pharmacists (n = 48) expressed fully positive views toward TCT.

A clear discrepancy emerged between pharmacists' perspectives and dermatologists' recommendations: prior studies have shown that pharmacists often advise patients to reduce doses, shorten treatment duration, and emphasize potential adverse effects during counseling [20, 21]. This pattern of reluctance aligns with international findings, including Belgian data where community pharmacists and general practitioners were notably hesitant to prescribe corticosteroids [17].

This apprehension reflects corticophobia—the fear or hesitation regarding corticosteroid use—observed among patients, caregivers, and healthcare providers [22].

The survey further investigated pharmacists' perceptions of patients' adherence (QB5) and compliance (QB9) with TCT. Most pharmacists (66.9%, n = 103) believed that patients followed the prescribed therapy, and 63.6% (n = 98) considered patients compliant or accepting of the treatment. Only 11.0% (n = 17) suspected patient reluctance.

These perceptions may underestimate the actual prevalence of corticophobia, which is a primary contributor to non-adherence. Previous research has shown that parents of children with atopic dermatitis—one of the most frequently encountered conditions in pharmacies—often fear steroid side effects and intentionally reduce doses or treatment duration [23, 24]. Corticophobia is also prevalent among adults with atopic dermatitis, with reported rates ranging from 21% to 83% [15]. Contributing factors include concerns about skin atrophy, uncertainty regarding long-term effects, systemic absorption, developmental impacts, and confusion over dosing across different formulations [25].

Overall, our findings suggest that while Italian pharmacists themselves exhibit caution toward TCT (QB4), they may underestimate the extent of corticophobia among their patients.

Farrugia *et al*. reported that 76.6% of patients using topical corticosteroids "often or always" received information from physicians or pharmacists about the potential risks associated with these treatments [26]. Notably, pharmacists were more inclined than physicians to suggest alternative therapies. The findings from our survey align with these observations, highlighting a pronounced hesitancy among pharmacists toward TCT.

Our data indicate that over two-thirds of pharmacists mistakenly assume that patients are fully adherent and compliant with topical therapies. Similarly, an Australian survey by Smith *et al*. found that pharmacists tend to underestimate non-adherence as a cause of treatment failure, although at a lower rate of 36% [27]. These results suggest that Italian community pharmacists have an overly optimistic perception of patient adherence, despite the fact that non-adherence is a major concern in dermatology [28]. Adherence to topical corticosteroids is particularly low in atopic dermatitis, with higher compliance observed only during short-term treatment courses [29]. Non-

adherence often stems from a poor understanding of therapy instructions, underscoring the critical role of pharmacist counseling in promoting proper use and improving compliance [30].

Pharmacists can also significantly influence adherence to long-term therapies. Multiple studies have identified community pharmacists as key reference points for patients with dermatitis [31, 32]. When properly informed about corticophobia, pharmacists can help patients overcome this fear, support adherence to TCT, and ultimately contribute to better dermatological outcomes [33, 34]. Indeed, patients who receive thorough information about TCT tend to develop more positive attitudes toward corticosteroid use, which correlates with improved adherence [35].

Beyond providing accurate treatment information, other factors influence therapy adherence, with corticophobia being particularly significant [36]. Targeted education of pharmacy staff, combined with focused patient counseling for those at higher risk, has been shown to reduce corticophobia effectively [33].

Various pharmacist-led interventions can enhance adherence, including educational initiatives, treatment monitoring, electronic reminders, telephone follow-ups, patient support programs, and self-management or training programs [14]. Given the importance of high-quality counseling in improving patient knowledge on TCT and dermatological care [37], the final section of our questionnaire explored pharmacists' educational needs and the tools they consider useful to address these needs.

Section C: educational needs and resources

In the final section of the survey, pharmacists were asked about the sources from which they acquire dermatological knowledge (QC1), the tools they use in daily practice (QC3), and whether they felt the need to expand their expertise in dermatology and skin-care products (QC4).

The results indicated that most pharmacists primarily relied on practical experience gained on the job (58.4 percent, n = 90). Other commonly cited sources included corporate training programs (44.2 percent, n = 68) and self-directed study (43.5 percent, n = 63).

Overall, there appears to be no standardized instrument or guideline shared with the medical profession to assist Italian pharmacists in providing structured counseling on dermatological conditions. This gap is strongly perceived: over 76% of respondents (n = 118) stated that a standardized counseling framework would be valuable for both patients and pharmacy professionals. Furthermore, the majority of pharmacists expressed a desire to enhance their knowledge in this area, ideally through specialized courses led by dermatology experts. **Figure 3** illustrates the types of educational tools preferred by pharmacists who are interested in further training.

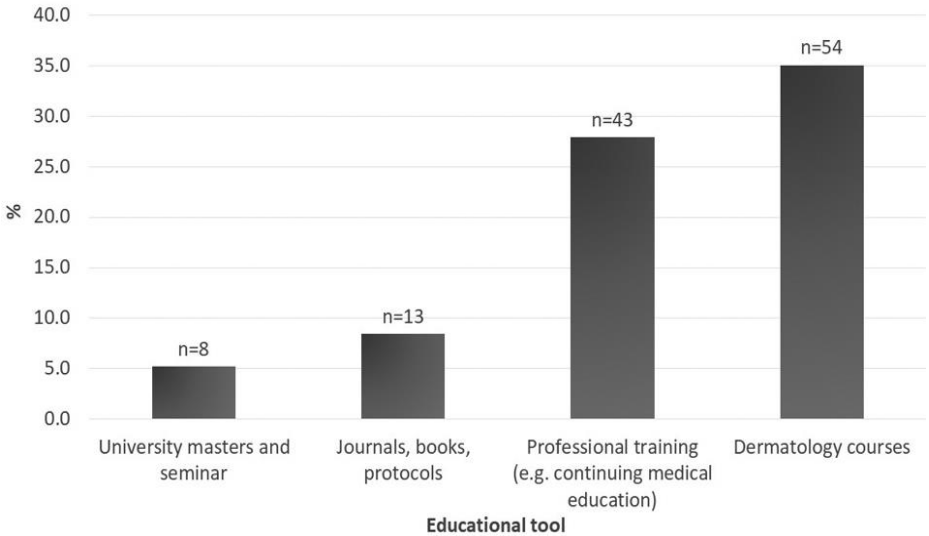

Figure 3. Preferred educational resources for pharmacists.

Previous research has highlighted gaps in community pharmacists' knowledge regarding corticosteroid use, including misconceptions and insufficient education [16]. Such deficits can be noticed by patients, increasing the risk of corticophobia and reducing adherence [26].

A frequent issue in pharmacy practice is instructing patients on the correct dosage of topical corticosteroids: approximately half of pharmacists do not provide guidance on the fingertip unit (FTU) or proper application technique [38]. Moreover, Lau and Donyai reported that over 60% of pharmacists are unaware of the total number of corticosteroid potency classes, 75% believe patients do not need to know the potency of their prescribed corticosteroid, and only 44% recognize that side effects are uncommon when these medications are used correctly [16]. These findings indicate that both patients and healthcare providers—particularly pharmacists—harbor concerns regarding steroid therapy. This underscores the need for training and re-education programs that align pharmacists' knowledge with physicians' guidelines, a need that is also relevant in Italy.

Targeted education, such as courses led by dermatologists, has been shown to improve pharmacists' understanding of TCT and foster more positive attitudes toward these therapies [27]. Overall, the educational resources identified in **Figure 3** appear well-suited to address the knowledge gaps revealed in our survey.

Conclusion

This study confirms that patients with dermatological conditions frequently turn to community pharmacists for advice. Recognizing how pharmacists can enhance their counseling and first-line management of dermatitis is crucial to improving patient outcomes and quality of life.

Our research provides original qualitative data on pharmacists' knowledge of dermatology, the types and frequency of conditions encountered in pharmacies, and the knowledge gaps alongside the educational resources needed to address them. Notably, Italian pharmacists generally hold a cautious view of topical corticosteroids, yet most believe their patients are fully adherent and compliant with TCT. This discrepancy suggests that pharmacists may underestimate the prevalence of corticophobia, which could be mitigated through targeted training and other educational interventions.

Data collected through the Italian Society of Clinical Pharmacy (SIFAC) offers an important foundation for developing standardized counseling tools. When co-designed with general practitioners, such tools could enhance the management of dermatitis in the community pharmacy setting.

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Ethics Statement: None

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