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Research Article

**A CROSS SECTIONAL ANALYSIS OF TYPES & FREQUENCY  
OF PRESENTING COMPLAINTS BROUGHT BEFORE DERMA  
TOLOGISTS IN HYDERABAD, PAKISTAN**Anam Shaikh<sup>1\*</sup>, Quratulain Bachani<sup>2</sup>, Umair Chang<sup>3</sup><sup>1, 2 & 3</sup>Liaquat University of Medical & Health Sciences, Jamshoro<sup>1, 2 & 3</sup>Liaquat University Hospital, Hyderabad**Abstract:**

**Background:** Disorders of the skin, hair, and nails fall within the remit of a dermatologist. The specialty is divided broadly into medical and surgical fields, with clinicians in secondary care often practicing both. Dermatologists are becoming one of the most often visited clinicians as the awareness about the impact of skin diseases and the crucial role of 'skin specialist' is growing widely in general population.

**Objective:** No matter how well trained a clinician; the work burden often undermines the capacity to work effectively. However, the spectrum of patient visits to the dermatologists, the reasons and types of problems, if known, can help make good predictions of the future patient influx & help the clinicians prepare beforehand & be able to deal with the workload effectively.

**Methods:** This observational cross-sectional city wide survey was conducted in Hyderabad. Secondary data was derived from clinic records about patient inflow & their disease classification and frequency along with demographic variables. Primary data was also collected from June to August 2014 using structured self administered questionnaires at Civil Hospital.

**Results:** The most common complaint that patients were presented with was itching (56.7%), followed by complaint of cosmetic worry (29.3%) and pain (14%). The disease classification was diverse but the top 3 diagnosed problems were Pyoderma (19%), Fungal Infection (15.3%) and Acne (12%). The most troubling anatomical area for the patients was the face that brought in 19.3% of the patients. 15.3% of the patients interviewed expressed un-satisfaction towards the health care provided mainly due to the long queues and waiting hours at the clinics.

**Conclusion:** Although satisfactorily manageable (84.7%) at present, the ever increasing patient base of dermatology clinics can get out of hand in the near future. Steps need to be taken to ensure timely health care to the populations which include training clinicians to deal with the impending workload effectively.

**Key words:** Dermatologists, clinician and Pyoderma.

**Corresponding Author:****Anam Shaikh,**

Liaquat University of Medical &amp; Health Sciences,

Jamshoro. Hyderabad,

Sindh, Pakistan

anamshaaikh@gmail.com

QR code



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**INTRODUCTION:**

Dermatology, according to merriam webster, is the branch of medicine dealing with the skin, its structures, functions and diseases [1]. Back in the 18<sup>th</sup> century, this medical field was devised as a sub-specialty of internal medicine. Initially, the field of dermatology was lumped together with venereal diseases, owing to the fact that, in any skin rash, syphilis was an important probable diagnosis. The modern face of this field, emerged early in the 20<sup>th</sup> century, after the discovery of an effective drug therapy for syphilis.

As time progressed, it was felt that since dermatological examination was different to basic medical examination since it involved mainly cutaneous aspects, dermatology began to be treated as a separate branch of medicine. The scientific basis for the difference between the two, was, however, not recognized until the middle of the 19<sup>th</sup> century by Ferdinand von Hebra, an Austrian physician. Hebra stressed for an approach to skin diseases based on the microscopic examination of skin lesions. Following Hebra's work, dermatologists concentrated chiefly on the description and classification of skin diseases, but a new emphasis on the biochemistry and physiology of these diseases, begun by Stephen Rothman in the 1930s, led to the development of more sophisticated and effective treatments in the latter half of the 20<sup>th</sup> century.

Dermatologists have gained the capacity to control fungal diseases of the skin, to recognize and treat skin cancers at an early stage, to control the life-threatening skin diseases pemphigus and lupus erythematosus, and to alleviate psoriasis [2]. Nowadays, it has evolved into a specialty with both medical and surgical aspects [3 - 4] with clinicians in secondary care often practicing both. Dermatologists are becoming one of the most often visited clinicians as the awareness about the impact of skin diseases

and the crucial role of 'skin specialist' is growing widely in general population.

No matter how well trained a clinician; the work burden often undermines the capacity to work effectively. However, the spectrum of patient visits to the dermatologists, the reasons and types of problems, if known, can help make good predictions of the future patient influx & help the clinicians prepare beforehand & be able to deal with the workload effectively.

**METHODS:**

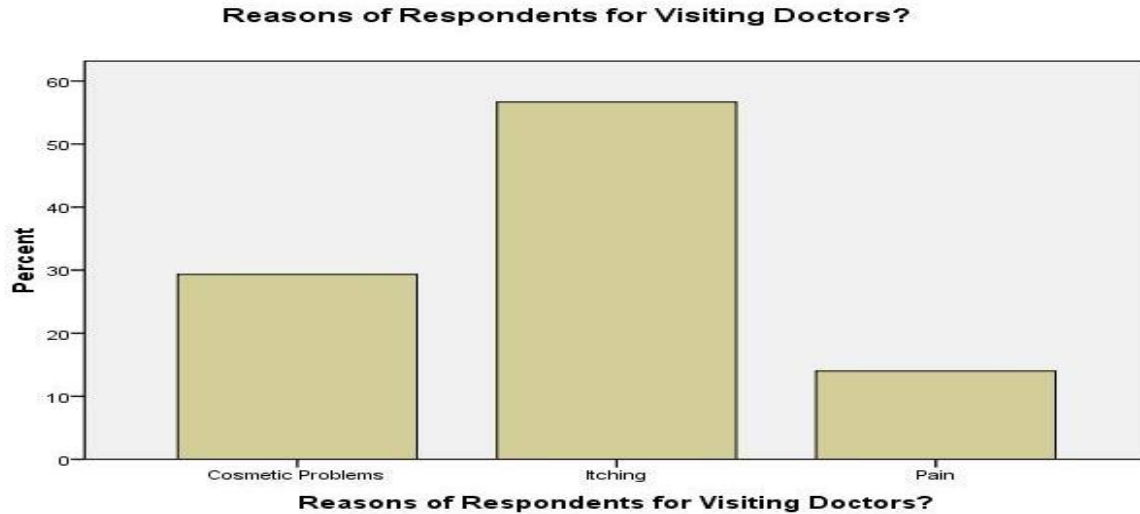
This observational cross-sectional city wide survey was conducted in Hyderabad. Secondary data was derived from clinic records about patient inflow & their disease classification and frequency along with demographic variables. Primary data was also collected from June to August 2014 using structured self administered questionnaires at Civil Hospital. The total sample, selected via convenience sampling, comprised of 300 patients (78 males and 222 females).

The primary data questionnaires included both open & close ended questions to get both quantitative and qualitative data in an attempt to develop investigate the research questions while the secondary records held only limited quantitative information regarding disease frequency.

**RESULTS:**

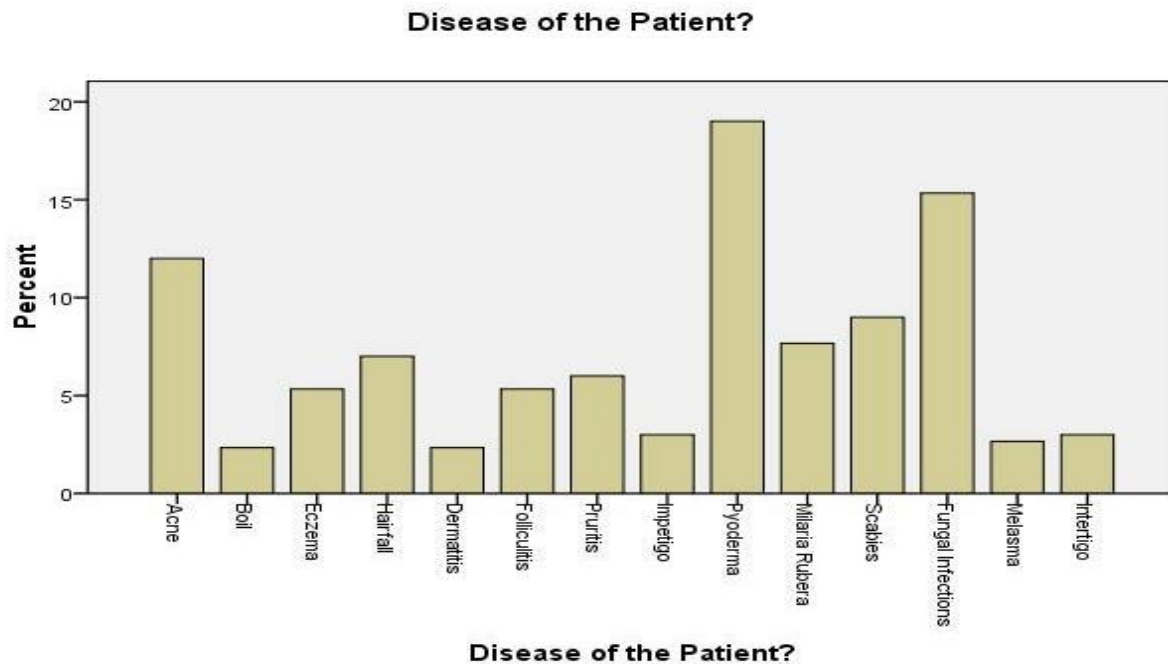
The primary and secondary data records showed coherence and similar trends were observed. The joint data was also synchronous with already existing international literature, however, comparisons with other parts of the world could not be drawn due to novelty of the topic and uniqueness of the research questions especially in our part of the world.

The most common complaints that dermatologists are presented with routinely are shown in figure 1.



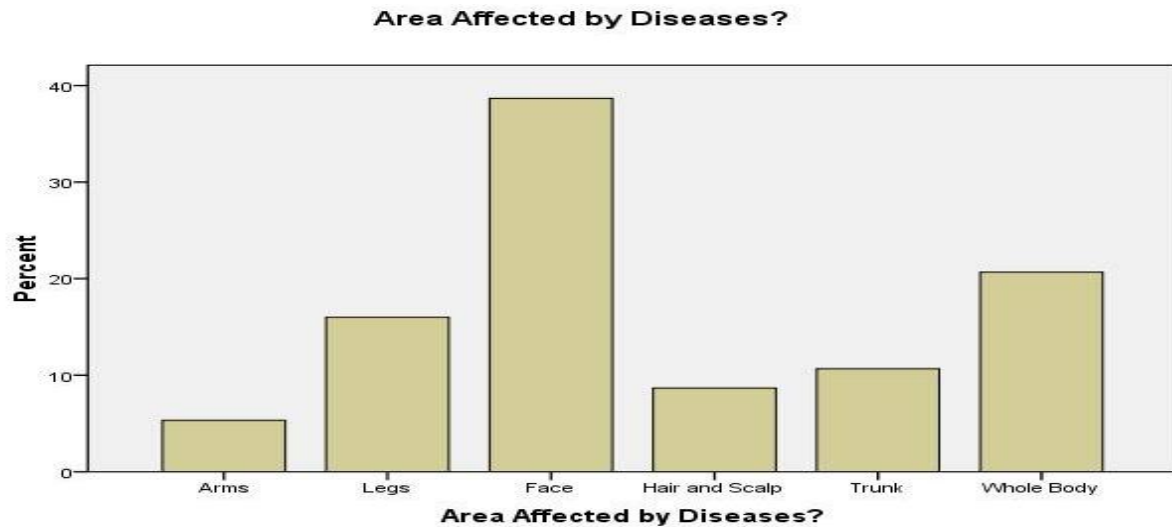
**Fig 1:** The most common complaint that drove patients to seek medical help was itching (56.7%), followed by complaint of cosmetic worry (29.3%) and lastly pain (14%). It is interesting to note that pain, a leading factor for seeking medical help in nearly all other specialties, hold little importance as far as dermatology is concerned. This highlights that the field thrives more upon the “wants” of the patients and less upon the “needs” of the patients.

The disease classification was diverse but largely synonymous with our hypothesis and existing literature as depicted in the figure below.



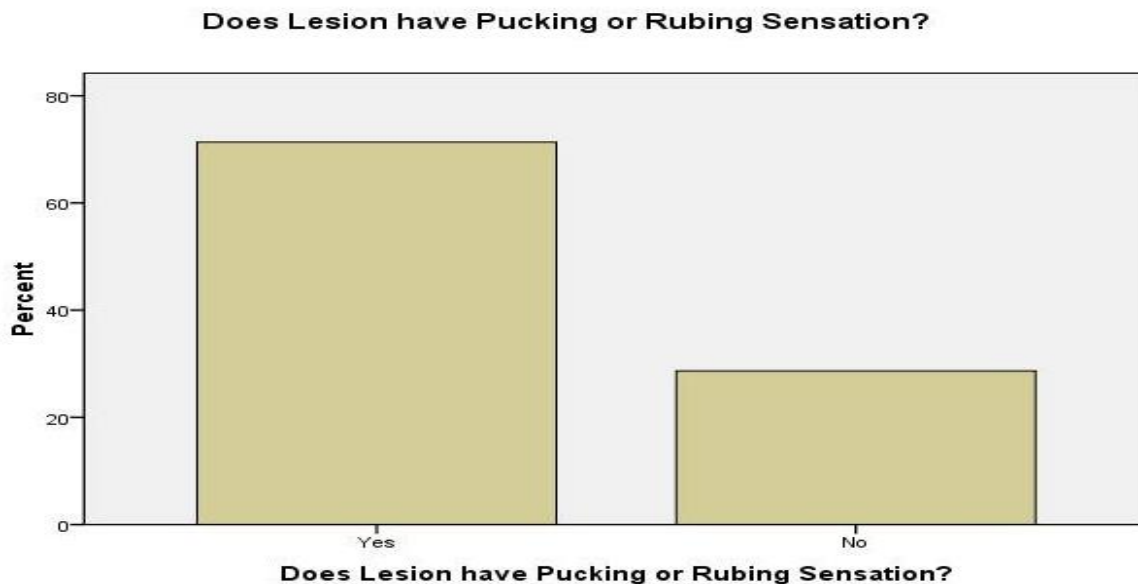
**Fig 2:** The top 3 diagnosed problems were Pyoderma (19%), Fungal Infection (15.3%) and Acne (12%). The remaining, lesser yet significant, disease burden comprised of Scabies (9%), Miliaria Rubra (7.7%), Hair fall (7%), Pruritis (6%), Eczema and Folliculitis, both, (5.3%) in chronological order. Impetigo, Melasma, Boil and dermatitis were also reported but rarely.

Another proof for the latent belief that facial skin is considered the most precious by the masses was unearthed by the following figure that classifies the anatomical areas needing the most care.



**Fig 3:** The most troubling anatomical area for the patients was the face that brought in 19.3% of the patients. Cases with entire body skin disease followed with an occurrence of 20.7%. Legs (16%), Trunk (10.7%), Hair and Scalp (8.7%) and Arms (5.3%) brought in lesser patients subsequently. The great number of patients presenting with disease of facial skin could be due to the fact that facial skin is the most exposed skin.

During the entire data collection period, a heightened level of awareness about dermatologic issues was seen in the public along with the increased desire to address the problems that they previously would have ignored, but the following figure 4 shows that still a lot needs to be done to educate the public about reaching for expert care on time.



**Fig 4:** The skin lesions presented at clinics and hospital were often advanced and showed aggravated symptoms. Pucking and major itching was often (present 71.3% and absent 28.7%) reported by patients in their skin lesions.

#### DISCUSSION:

Our primary disease, Pyoderma gangrenosum is an ulcerative, cutaneous condition with distinctive clinical characteristics first described in 1930 [5]. According to Prof Jeffrey P Callen, in his referral practice, affiliated with a teaching hospital, doctors

would expect to see between five and ten new patients per year. About half the patients are found to have an associated systemic disease [6]. As with so many other skin diseases, this disorder is likely to be seen by other specialties than dermatology (eg, by gastroenterologists, general surgeons, plastic

surgeons, haematologists, and rheumatologists). The diagnosis is confirmed by exclusion of other processes that may cause cutaneous ulcers [7]. Lesions of pyoderma gangrenosum often follow a minor injury, a sequence known as pathergy. Treatment consists of non-specific immune modulating agents combined with conservative wound care [8].

The ulceration of classical pyoderma gangrenosum is frequently characteristic. The border is well defined and deep erythematous to violaceous in colour. The lesion extends peripherally and the border often overhangs the ulceration as the inflammatory process spreads within the dermis, only secondarily causing necrosis of the epidermis. The lesions may be single or in crops, often beginning as a discrete pustule with a surrounding inflammatory erythema. Lesions frequently progress rapidly, and some patients will have accompanying fever, malaise, myalgias, and arthralgias. The lesions may occur on any surface but are more common on the legs. Pain is sometimes so severe that narcotics are required. As the lesion heals the resulting scar is often cribriform [6].

Our results majorly contradict the occurrence of this disease in other areas of the world and show that this is the markedly leading dermatological concern in our locality by a vast margin.

Next in line, cutaneous fungal infections are common in the western world, and causative organisms include dermatophytes, yeasts, and non-dermatophyte molds. These organisms are in constant competition for their particular environmental niche, often resulting in the emergence of one or more predominant pathogens and displacement of other less competitive species [9]. Our data is devoid of laboratory mycology investigations and cannot attribute the disease prevalence to any particular organism. Nonetheless, it is clear that like the west, our locality too is plagued with dermatological issues of mycologic origin.

Thirdly, Acne is usually considered a disorder of adolescence is among our top three concerns. A number of studies have examined the prevalence of this condition in the adolescent population. There are, however, relatively few data on the prevalence of acne in the adult population [10]. Similar demographic (particularly age) relations are evident in our data and a strong resemblance exists with the rest of the world.

### CONCLUSION:

Although satisfactorily manageable (84.7%) at present, the ever increasing patient base of dermatology clinics can get out of hand in the near future. Steps need to be taken to ensure timely health care to the population which includes training

clinicians to deal with the impending workload effectively. Major focus must be given to the top 3 presenting complaints namely, Pyoderma, fungal infections and Acne. Worryingly, Pyoderma occurrence in our locality is manifolds that reported previously in evidence based literature. Further research needs to be conducted targeting this disease solely so that the authorities may be sensitized towards this growing grave concern.

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