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Research Article

Role of Family Physician in Dermatological Care

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Abstract

Background: Family physicians set up the major group of primary care doctors and as such are in charge for management of wide variety of disorders. Family physicians can play a significant role in prevention, diagnosing, and management of skin disorders as they perceive a greater percentage of the population than dermatologists.

Objective: To discuss results of previous studies investigating role of family physician in dermatological care.

Method: This is a systematic review was carried out, including PubMed, Google Scholar and EBSCO. Topics concerning role of family physician in dermatological care and other articles were used in the making of the article. The founded articles were screened by titles and reviewing the abstracts.

Results and Conclusion: Family physicians face a wide variety of skin conditions in their practical lives. Qualification, training and support of family physicians are required for diagnosis and management of different dermatological conditions. Communication between the family physician in primary healthcare facilities and dermatology specialists is required for proper referral system.

Keywords: *Family Physicians; Dermatological Care; Skin Disorders*

Introduction

Family physicians set up the major group of primary care doctors and as such are in charge for management of wide variety of disorders. Family physicians can play a significant role in prevention, diagnosing and management of skin disorders as they perceive a greater percentage of the population than dermatologists [1]. Patients visit family physicians for variable skin conditions. Skin disorders are widespread in the general population and account for a high proportion of all diseases dealt with by family doctors as 3rd most frequent complaint (15.1%) in primary care [2].

Many of the skin disorders treated by family doctors develop and yet most patients are pleased with the treatment they get for their skin conditions. Since people with a more serious skin disorder and a poorer quality of life have made the most regular use of health services, paying more attention to physical manifestations and psychologic impairments can have positive effects for dermatological management by improving comfort with therapy and patient compliance with dermatological intervention [3].

Family doctors face a growing difficulty in the assessment and treatment of skin conditions. They should be experienced in the identification and treatment of infection, as well as in recognizing when referring patients to the right specialist. Dermatology is one of many arrays to which family medicine physicians must dedicate their focus over a three year training period [4]. Assessing which skin disorders are more often seen by family doctors may result in better understanding of these disorders and consequently, to the advancement of adequate diagnosis and management training [5].

Family physicians must be trained for dermatological disease recognition and management, as well as understanding when to refer patients to the appropriate specialist [6]. Training dermatology is largely associated with clinical and realistic practice, in addition to academic understanding, in looking at a variety of skin disorders and their presentations. Patient care and follow-up of patients during preparation is important for tracking the response to treatment. Family Physicians of special interest are, by necessity, able to provide additional high-quality clinical care to the needs of their patients at the neighborhood level to their core generalist position [7]. Medical experience in the field of dermatology is typically restricted to only one to two months during undergraduate study and another month of training as a family physicist. With this little knowledge, it can be difficult for a family physicist to identify and manage skin disorders comfortably [8].

An appropriate training will qualify the Family Physician to diagnose and manage skin conditions more precisely and confidently. Cases that can be appropriately handled in primary care should be tracked and physicians should be able to recognize cases that need to be transferred to tertiary care. This involves patients whose condition is in question, cases requiring biopsy or additional care that require advanced therapy, such as phototherapy or possible malignancy in the skin. It should be stressed that the experience of a family physician in dermatology would not make one a dermatologist [9].

Aim of the Study

To discuss results of previous studies investigating role of family physician in dermatological care.

Materials and Methods

Sample and study groups

PubMed and EBSCO Information Services were chosen as the search databases for the publications used within the study, as they are high-quality sources. PubMed being one of the largest digital libraries on the internet developed by the National Center for Biotechnology Information (NCBI) which is a part of the United States National Library of Medicine. Topics concerning role of family physician in dermatological care and other articles were used in the making of the article. The founded articles were screened by titles and reviewing the abstracts. Inclusion criteria: the articles were selected based on the relevance to the project which should include one of the following topics: 'family physician in dermatology management primary care of dermatology disorders by family physician, dermatology care in family medicine clinics'. Exclusion criteria: all other articles which do not have one of these topics as their primary end, or repeated studies, and reviews studies were excluded.

Statistical analysis

No software was utilized to analyze the data. The data was extracted based on specific form that contains (Title of the publication, author's name, objective, summary, results and outcomes). These data was reviewed by the group members to determine the initial find-

ings, and the prevalence of dermatological cases in family clinic. Double revision of each member's outcomes was applied to ensure the validity and minimize the mistakes.

During articles selection, studies were doubled-reviewed, and their results to assure that we enroll the studies related to the objective of our study, and to avoid or minimize errors in the results. We tried to include articles that fit in the outcome criteria for inclusion into our review.

Results

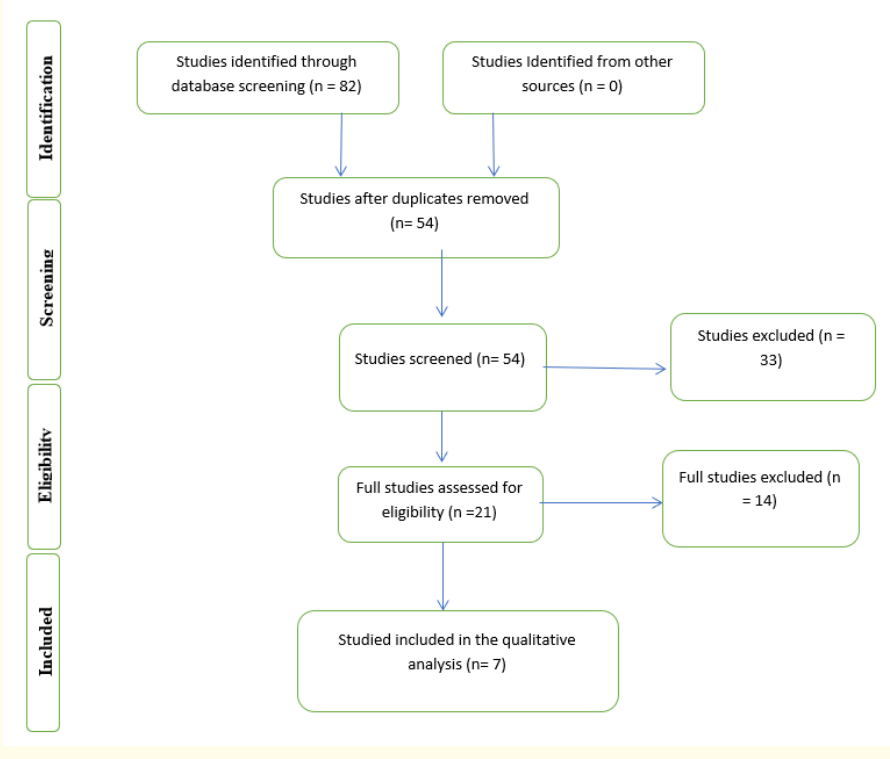
The search of the mentioned databases returned a total of 82 studies that were included for title screening. 54 of them were included for abstract screening, which lead to the exclusion of 33 articles. The remaining 21 publications full-texts were reviewed. The full-text revision lead to the exclusion of 14 studies, and 7 were enrolled for final data extraction (Table 1).

Author, country, year of publication	Methodology and Objective	Results
El-Wahed MA., *et al.* Egypt 2015 [10]	A cross-sectional comparative study included 552 patients seen by family physician in the primary healthcare unit (sample was divided into two groups, patients attended family health unit representing the primary healthcare services (group A) patients attended the Outpatient Clinic representing the secondary healthcare services (group B)).	Prevalence of skin disorders seen by family physician was 17,53% of total patients in outpatient clinic of primary healthcare. Patients' cases improved after the visit and were satisfied with the care. Difficulties in management of allergic and cancerous lesions were reported by family physician so cases were referred for dermatologists.
Awadalla Farah., *et al*. 2008 [11]	Study undertaken to determine types of skin problems and medications family physicians most commonly diagnose and prescribe. National Ambulatory Medical Care Survey data from 2002 to 2005 was analyzed and compared to data from 1990–1994.	Prevalence of skin disorders seen by family physician accounted for 8% of all visits to family physicians in 2002–2005. Dermatitis, pyoderma, tinea, benign neoplasms, and candida were the most common identified condition. Antihistamines, topical anti-infective drugs and corticosteroids are the most prescribed drugs. Family physicians helped in diagnoses of undiagnosed cases by 10%.
Verhoeven Elisabeth W M., *et al*. Netherlands 2008 [12]	Registered epidemiological research to assess the prevalence of multiple skin disorders, using a patient questionnaire to examine the utilization of health services, within a network of family practitioners including 12000 participants.	The study found that; skin diseases accounted for 12.4% of all cases seen by family physicians. Patients who reported more severe disease and lower quality of life made more use of all forms of health care.
Lowell, B A., *et al*. USA, Miami (2001) [13]	A retrospective study undertaken on patients seen during a 2-year period at a general medicine clinic in University of Miami and upon referral to a University of Miami dermatology office to determine the prevalence of skin disease, dispositions of referral, diagnoses made, and procedures performed.	36.5% of patients who presented to their primary care physician had at least one skin problem. A variety of different of diagnostic procedures have been conducted by the primary care provider, with a small number of diagnostic procedures performed. Diagnosis provided by the primary care practitioner was consistent with that made by the dermatologists by 57% of the time.

Margolis, C. F., & Ramundo, M. L. (1978) [14]	Cross sectional study conducted to determine physicians' attitudes toward, and referral patterns in, acne management.	Primary care doctors thought that most patients with less serious acne should be treated and were neutral when referring to patients with nodulocystic acne. The findings of the study found that nearly all patients with less extreme acne and most patients with nodulocystic acne had primary care doctors. The writers agree that primary care doctors should and can treat most cases of acne without referral.
Fien, Sari., *et al.* (2005) USA [15]	A chart review at a family medicine clinic to determine the percentage of patients presenting with dermatologic disease and to identify the most common diseases encountered.	21% of patients seen by a family medicine physician had at least one skin problem, which was the chief complaint in 72.2% of them.
Goetsch, Nicholas J., *et al.* 2017 [16]	A descriptive, cross-sectional survey investigating the need for enhanced skin lesion teaching in a family medicine residency setting.	(83.2%) of family physicians reported feeling confident in their ability to diagnose skin lesions, (85.3%) differentiate between benign and malignant lesions, and (94.3%) perform a biopsy of a lesion. Nearly 90% of clinicians surveyed believe that skin cancer screenings are the standard of care. The primary reason listed by respondents who said they do not routinely perform skin cancer screenings was inadequate time (68.2%).

Table 1: *Author, country, year of publication, methodology and results.*

The included studies had different study designs.



Discussion

Skin disorders are in the top twenty major causes of family practitioner returns to the clinic. Fairly mild skin conditions are a major concern for patients due to their visibility. Family physicians are on the front line of managing skin conditions. Skin disorders accounted for more than 44 million office visits in the United States in 2015 as reported by the Centers for Disease Control and Prevention's (CDC's) [17].

Results reported in the table show skin diseases accounted for 12.4%, 21%, 17.530% and 8% of all diseases seen by the participating family physicians in different studies respectively [10,11,12,15] which was in accordance with earlier studies [18,19]. Verhoeven, Elisabeth W M., *et al*. found that; patients with more severe skin diseases often seek medication from dermatologists while the majority of patients have their skin conditions treated exclusively by their family doctor. Overall, people with more serious condition and poorer quality of life are finding more care [12].

Family physicians diagnose and treat a large variety of skin disease, their residency training in skin disorders is important. Goetsch, Nicholas J., *et al*. [16] reported that; family physicians are confident in skin lesions diagnosis. However, they reported a need for further training in family medicine training programs. Another research of interest is that family doctors prefer to refer common skin disorders to dermatological specialists [20]. Recent findings also show that integrating longitudinal approaches, internet-based teaching and photography can prove to be as successful if not more efficient than conventional methods [21-23]. El-Wahed MA., *et al*. [10] reported that; people with skin disorders should first attend primary healthcare sites, in order to maximize the use of health services where they can be subject to a full thorough evaluation and adequately handled or referred to the dermatologist in complex situations or in challenging diagnoses and recur to a well-constructed patient care.

Accreditation Council for Graduate Medical Education states that all residents must have experience in diagnosing and managing common dermatological conditions. This was supported by Awadalla Farah., *et al*. [24] who found that family doctors diagnose a wide variety of skin conditions and recommend treatments to treat them. A new meta-analysis analyzed the efficacy of instructional practices to enhance the diagnosis, categorization and recognition of skin lesions [25].

Variable educational involvements over long time were associated with the greatest improvement in physician skills [16].

Family doctors make more dermatological diagnosis and recommend more medication than ever. Verhoeven, Elisabeth W M., *et al*. [12] found that 65% of participants were treated only by their family physician during this year. Patients with severe case as itching, and a low disease-related quality of life made the most use of medical services. These findings agreed with Stein., *et al*. [26] who reported that patients with a chronic disease accompanied by severe psychosocial impairments made more frequent use of medical care.

Conclusion

Family physicians face a wide variety of skin conditions in their practical lives. Qualification, training and support of family physicians are required for diagnosis and management of different dermatological conditions. Communication between the family physician in primary healthcare facilities and dermatology specialists is required for proper referral system.

Bibliography

1. Estrada Castanon R., *et al*. "Community dermatology and the management of skin diseases in developing countries". *Tropical Doctor* 22 (1992): 3-6.

2. Bechelli LM., *et al*. "Epidemiological survey of skin diseases in schoolchildren living in the Purus Valley (Acre State, Amazonia, Brazil)". *Dermatologica* 163 (1981): 78-93.

3. Lowell BA., *et al*. "Dermatology in primary care: Prevalence and patient disposition". *The Journal of the American Academy of Dermatology* 45.2 (2001): 250-255.

4. Tenney JB., *et al*. "National Ambulatory Medical Care Survey: background and methodology. National Center for Health Statistics". *Vital and Health Statistics* 2 (1974): 61.

5. International classification of diseases, ninth revision, clinical modifica-tion, sixth edition". Salt Lake City: Med-Index Publications (2003).

6. Ramsay DL and Weary PE. "Primary care in dermatology: whose role should it be?" *Journal of the American Academy of Dermatology* 35.6 (1996): 1005-1008.

7. Practitioners with Special Interest (PwSI) 'Implementing care closer to home - providing convenient quality care'. Accreditation of PwSIs and the service delivered in the community". East Midlands Healthcare Workforce Deanery (2008).

8. Hastie A., *et al*. "Postgraduate Medical Education And Training. A Guide For Primary And Secondary Care". Radcliffe Publication; London (2005): 229-230.

9. Leelavathi M. "Family physicians with special interest in dermatology". *Malaysian Family Physician* 3.1 (2008): 64-65.

10. El-Wahed MA., *et al*. "Pattern of dermatologic care by family physicians versus dermatologists". *Menoufia Medical Journal* 28 (2015): 583-586.

11. Awadalla Farah., *et al*. "Dermatologic disease in family medicine". *Family Medicine* 40 (2008): 507-511.

12. Verhoeven EW., *et al*. "Skin diseases in family medicine: prevalence and health care use". *Annals of Family Medicine* 6.4 (2008): 349-354.

13. Lowell BA., *et al*. "Dermatology in primary care: Prevalence and patient disposition". *Journal of the American Academy of Dermatology* 45.2 (2001): 250-255.

14. Margolis CF and Ramundo ML. "Acne management. Primary care physician or dermatologist?" *Postgraduate Medicine* 82.8 (1987): 139-146.

15. Fien S., *et al*. "Skin disease in a primary care practice". *Skinmed* 4.6 (2005): 350-353.

16. Goetsch NJ., *et al*. "Assessment of postgraduate skin lesion education among Iowa family physicians". *SAGE Open Medicine: SAGE Journals* (2017).

17. Du Vivier A. "Atlas of Clinical Dermatology". 4th edition. Philadelphia, Pa.: Saunders (2012).

18. Van der Linden MW., *et al*. "Tweede nationale studie naar ziekten en verrichtingen in de huisart-spraktijk. Klachten een aandoeningen in de bevolking en in de huis-artspraktijk". [Second national study on morbidity and interventions in general practice. Complaints and morbidity in the general population and in general practice]. Utrecht/ Bilthoven: NIVEL/ RIVM (2004).

19. McCormick A., *et al*. "Morbidity Statistics From Gen-eral Practice". London: HMSO (1995).

20. Feldman SR., *et al*. "The gatekeeper model is inefficient for the delivery of dermatologic services". *Journal of the American Academy of Dermatology* 40.3 (1999): 426-432.

21. Reust CE. "Longitudinal residency training: a survey of family practice residency programs". *Family Medicine* 33.10 (2001): 740-745.

22. Cyr PR. "Family practice center-based training in skin disorders: a photographic approach". *Family Medicine* 27.2 (1995): 109-111.

23. Gerbert B., *et al*. "The effectiveness of an Internet-based tutorial in improving primary care physicians' skin cancer triage skills". *Journal of Cancer Education* 17.1 (2002): 7-11.

24. Accreditation Council for Graduate Medical Education. "Resident review requirements in family medicine-2015". Chicago, IL: Accreditation Council for Graduate Medical Education (2015).

25. Stein MB., *et al*. "Does co-morbid depressive illness magnify the impact of chronic physical illness? A population-based perspective". *Psychological Medicine* 36.5 (2006): 587-596.

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