

Health Needs and Problems among Military Personnel with Skin Disease

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Abstract

Background: Skin diseases is the a major health problems that cause morbidity for military personnel either at war or during peace times. Skin diseases cause negative psychological and social impacts on the quality of life of military personnel. **The study aimed to** assess health needs and problems for military personnel with skin diseases. **Research design:** Descriptive research design was used to conduct this study. **Setting:** The study was carried out in outpatient dermatological department at kobri al-kobba medical hospital. **Sample:** purposive sample of soldiers attending outpatient dermatological department, the total sample included 418 subjects. **Tools:** **Tool I-** Self-administered Questionnaire which covers the following parts: **The 1st part:** Socio-demographic characteristic of military personnel. **The 2nd part:** Military personnel knowledge regarding skin diseases. **The 3rd part:** Military personnel health practice regarding skin diseases. **The forth part:** military personnel health status from medical record. **Tool II:** The Index instrument to measure the effect of skin disease on military personnel quality of life and health problems related to skin diseases. **Results:** 69.7 % of the military personnel were 21-24 years old, 32.3 % of the studied military personnel had satisfactory knowledge regarding skin diseases. 57.4 % of the studied subject had unhealthy reported practices regarding skin diseases. 44.5% had moderate impact of military personnel health and quality of life. **Conclusion:** There was positive statistically significance Correlation between knowledge and health practice of military personnel. **Recommendation:** Develop and implement health education program for military personnel to increase their knowledge about skin diseases and practices should be followed to manage skin diseases.

Keywords: Health Needs, Military Personnel, Skin Disease

Introduction

Skin is the largest organ of the body, the body's outer covering, which protects against heat, light, injury, and infection. Skin regulates body temperature and stores water, fat, and vitamin D. It is made up of two main layers, epidermis and dermis contains blood and lymph vessels, hair follicles, and glands that produce sweat, which helps regulate body temperature, and sebum, an oily substance that helps keep the skin from drying out. Sweat and sebum reach the skin's surface through tiny openings called pores (Miller, et al., 2017).

Skin diseases is a global public health problem that often has physiological, psychological and social impacts. It is any medical conditions that affect the skin vary greatly in symptoms and severity. They can be temporary or permanent, and may be painless or painful. The pattern of skin diseases in any

community is influenced by genetic, climate, socioeconomic status, occupations, education, hygiene standards, customs, and quality of medical care (Greaves, 2015). Skin diseases can be acquired or be aggravated by the climatic conditions. Sun exposure in particular is a major source of skin damage that cause moles, wrinkles, sunburn, actinic keratosis and skin cancer including basal cell carcinoma. (Bobrov et al., 2021).

Common signs and symptoms of skin disease include raised bumps that are red or white. a rash, which might be painful or itchy, scaly or rough skin, peeling skin, ulcers open sores or lesions dry, cracked skin and discolored patches of skin. Fleshy bumps, warts, a loss of skin pigment and excessive flushing. (Lan et al., 2020) .

Military personnel those who serve in armed Forces representatives of the country.

Their positions, pay and responsibilities vary depending on their service unit (army, navy, marines, air force, space force and sometimes force guard). Ranks (officer, noncommissioned officer and enlisted recruit) (Abramovich, 2022).

Common types of skin disease in military personnel as acne commonly located on the face, neck, shoulders, chest, and upper back Breakouts. Scabies and actinic keratosis appears on parts of the body that receive a lot of sun exposure (hands, arms, face, scalp, and neck). Affected areas by eczema may be red, itchy, greasy, or oily. Atopic dermatitis and Wart Caused by many different types of a virus called human papillomavirus. Chicken box and fungal infection as *tenia pedis* (Athlete's foot) rash caused by a fungus that rapidly multiplies in warm, damp conditions, such as athletic shoes). Symptoms include dry, itchy, red skin. The skin between the toes or under the foot may be soggy, white, cracked, or scaly. (Toukabri et al., 2017).

Life in the military has a beneficial impact on the majority of serving soldiers' well-being. The type, intensity, and duration of duty, as well as the transition from civilian life to full-time military, may nevertheless, have negative impact on military personnel' well-being, As a result of these negative impact A variety of factors linked to military service may play a role in the development of mental, physical, and social health issues among military personnel. These include military life's intense physical activity, lifestyle issues such as cigarette smoking and alcohol usage, bodily trauma, and psychological trauma due to disconnection from civilian life due to profound differences between civilian and military life, so military personnel health needs as education, communication, support and self-care must be met to avoid negative influence of skin diseases. (Oster et al., 2017).

The Department of defence faces significant challenges as a large employer in Egypt ensuring that all members of the military, as well as their families receive appropriate health care for everything from general health and well-being to meet all aspects of health needs for military personnel specialized

clinical care for deployment-related injuries like amputations, exposure chemically induced illnesses, environmental conditions related to military service sites, and posttraumatic stress disorder. (Leone et al., 2021)

Role of community health nurse (CHN) toward military personnel to prevent skin diseases and improve quality of life is concerned with providing health education to military personnel about how to prevent some types of preventable skin diseases by life style modification as hand washing frequently, avoid direct contact with the skin of other people who have an infection, avoid sharing eating utensils, drinking glasses personal items such as blankets, hairbrushes, swimsuits, shoes, socks and towels with other people. Cleaning of foot, wearing clean socks and dry shoes, avoid wearing too tight closed-toe shoes. Sleep for at least seven hours each night, Drink plenty of water, avoid excessive physical or emotional stress, Eat well balanced diet, Get vaccinated for infectious skin conditions, such as chickenpox, avoid environmental and dietary allergens and avoid contact with harsh chemicals or other irritants. (Maurer & Smith et al., 2014).

Significant of the Study

Skin diseases are a major health problem affecting a high proportion of the population and causing distress, disability, poor self-image, depression, and anxiety. The prevalence of skin disease in Egypt was 43%. In military personnel About 20000 patients were diagnosed by skin diseases attending dermatological outpatient clinic from Jan 2019 to Dec 2019 and that causing distress, disability, poor self-image, depression, and anxiety for military personnel. Military roles deal with this cases by giving the patient either sick leave or rest from services that lead to shortage of military manpower. So, this study was held to assess health needs and problems for military personnel with skin disease and the practical needs for this special category to be a step in improving health status. (Unpublished data from medical record 2019).

Aim of the Study

This study was aimed to assess health needs and problems for military personnel with skin diseases through:

- 1- Assessing military personnel knowledge regarding skin diseases.
- 2- Assessing military personnel health practice regarding skin diseases.

Research Questions

- A) Is there relation between military personnel's sociodemographic characteristics and practice regarding skin diseases?
- b) Is there relation between military personnel's sociodemographic characteristics and knowledge regarding skin diseases?
- c) Is there relation between military personnel's knowledge and their health practices regarding skin diseases?

Study Design

Descriptive research design was used to conduct this study.

Study Setting

The study was carried out in outpatient dermatological department at Kobri al-Kobba medical hospital, two clinics in the second level of outpatient clinics building specialized in providing dermatological medical service for all categories and ranks of military personnel.

Sample Type

A **purposive sample**, the estimated sample size is **418** subjects, at confidence level 95% and precision rate at 0.05 by using **Steven equation, 2012**. Since the total number of Patients attending the dermatological outpatient clinic was **20000** subjects. with inclusion criteria such as newly diagnosed by skin disease 6 months ago and their age 18 years or older.

Tools of Data Collection: data was collected through using tow tools:

Tool I: self-administered questionnaire was developed by the researcher based on literature review and written in simple clear Arabic language consists of three parts: (Part 1)

Socio-demographic characteristics of military personnel which include: age, educational level, occupation, place of service, residence and marital status. (Part 2) Military personnel knowledge regarding skin diseases include:- skin disease definition, causes, signs and symptoms, types of skin diseases, risk factors, complication and treatment.

The scoring system for total knowledge was adapted as the following:

Scoring system is graded according to the items of questionnaire. The scoring system for military personnel's knowledge was calculated as follows (1) score for correct answer and (0) score for incorrect and don't know answer. For each area of knowledge, the score of the items was summed- up and the total divided by the number of the items, giving a mean score for the part. These score were converted into a percent score. The total knowledge score was 12 points which represent 100% and categorized into 2 levels as following:

- **Satisfactory** $\geq 60\%$
- **Un Satisfactory** $<60\%$

(Part 3) Military personnel reported health practice regarding skin diseases include:- **personal hygiene practice include:** shower daily, use the appropriate cleanser for skin type, moisturize the face daily with a moisturizer suitable for skin type, avoid sharing personal items, use a protective cream before exposure to the sun, dry the skin with a well-boiled cotton towel, Avoid touching skin and unclean hands and wash hands before and after touching affected areas.

Treatment reported practices which include: Take medication on time, Continue to use creams and ointments as directed by doctor, avoid exposure to the sun after using ointments and creams, avoid tampering with the injury site, Avoid squeezing pimples and itching, avoid exposure to stress and nervous pressure and get enough sleep.

Smoking reported practices which include 3 practices avoid smoking, avoid exposure to secondhand smoke (inhaling cigarette smoke from other people) and avoid caffeine such as coffee.

The scoring system for total reported practices was adapted as the following:

Each item has 2 levels of answer **done** and **not done**. These were respectively scored 1 and 0. For each area of reported practices, the score of the items was summed- up and the total divided by the number of the items, giving a mean score for the part. The total score of the military personnel regarding total reported practices was 18 points which represent 100% and classified into the following:

Done Correctly→ when the total score of practices was $\geq 60\%$

Not Done→ when the total score of practices was $< 60\%$

Nutrition which include: Eat vegetables daily, Drink water about 8 cups per day, Eat nuts and foods that contain vitamin A such as sweet potatoes, apricots, and carrots, Eat foods that contain omega-3s such as salmon, mackerel, and soybeans, Eat foods that contain vitamin E, such as spinach, avocado, olive oil, and almonds, Eat foods that contain zinc, such as spinach, wheat germ, chicken, beans and mushrooms, Eat high-fiber foods such as whole grains, vegetables and fruits, especially in the skin, Eat figs and its products, Eat carbohydrates like rice and pasta, Eating proteins of all kinds in large quantities, such as milk and its products, Eat all kinds of carbohydrates, such as sugars, Eat foods high in salt, such as salted popcorn, processed meats, and canned foods, Eat fruits that contain salt, such as mango and strawberry, Drink bottled juices and drink soda water.

❖ Scoring system

Nutritional practices had 3 levels of answers **in large quantities, in small quantities** and **avoid it**. These were respectively scored 2, 1, and 0. For each area of nutritional practices, the score of the items was summed- up and the total divided by the number of the items, giving a mean score for the part. The total score of the military personnel regarding nutritional practices was 48 points which represent 100% and classified into:

Done Correctly→ when the total score of practices was $\geq 60\%$

Not Done→ when the total score of practices was $< 60\%$.

Tool II: The Skindex instrument to measure the effect of skin disease on military personnel quality of life and health problems related to skin diseases. (Vasquez et al.,2019). (skindex-29) includes 3 domains: **symptoms domain** (7 items) which include: feel pain due to skin disease, feel burning or tingling, feel itchy on the skin, using water on the skin cause discomfort, Skin irritated, Skin sensitive and Skin bleed. **Emotional domain** (10 items) which include: feel that skin disease is very serious, feel depressed because of skin condition, feel afraid of scars as a result of skin disease, feel ashamed of the condition of skin, feel worry that skin condition will get worse, feel angry about the condition of skin, feel embarrassed, frustrated, humiliated and bothered by the condition of skin. **Functional domain** (12 items) which include: Skin disease affect sleep status, Find it difficult to practice work or hobbies because of skin disease, Skin disease affect social life, Have to stay at home because of skin disease, Skin condition affect contact with favorite people, Have to do some things on your own because of skin condition, Finding it difficult to show friendliness to the people in life because of the condition of skin, Skin disease affects interaction with others, affects desire to stay with others, affects sexual life, causes a problem with favorite people and always makes tired. **Scoring system of skindex:** skindex had 3 levels of answers: **Agree, Not agree and Rarely**. These were respectively scored 2, 1, and 0. For each area of domains, the score of the items was summed- up and the total divided by the number of the items, giving a mean score for the part. The total score of the military personnel health problems was 58 points which represent 100% and classified into:

- **Sever effect on health > 70%**
- **Moderate effect on health 50-70%**
- **Mild effect on health < 50%**

Operational Design Preparatory Phase:

Preparation of the study design and data collection tools was based on reviewing current and past available national and international related literatures, and the theoretical knowledge of various aspects of the study using textbooks, articles, magazines and internet search. This was necessary for the researcher to be acquainted with and oriented about aspects of the research problem as well as assist in the development of the data collections tools.

Validity of the Tools

The validity of the tools was carried out to assess the appropriateness of each item to be included in the questionnaire document. The answers are stated as (accept and disagree). Based on the jury recommendations correction rearrangement, rephrasing of some items and modification were done.

Reliability of the Tools

The reliability was done by Cronbach's Alpha coefficient test which revealed that each of the two tools consisted of relatively homogeneous items as indicated by the moderate to high reliability of each tool. The demographic data was 0.811, the internal consistency of knowledge was 0.820, medical history was 0.809 and practice was 0.904.

Ethical Consideration

- Approval from ethical committee of faculty of nursing, ain shams university.
- Informed consent was obtained from military personnel after explaining the purposes of the study.
- No harmful methodology was used with cases.
- Each person had the right to withdraw from the study at any time.
- Confidentiality was maintained.

Administrative Design

Faculty of nursing of Ain Shams University administrators approved on title and protocol. Then ethical committee approved then an official written approval letter clarifying the purpose of the study obtained from the Dean of the Faculty as an approval

for data collection to conduct this study and obtaining approval from the head of kobry-elkobba medical complex for conducting the study at this setting.

Field Work

The researcher attended the previous mentioned study setting 3 days per week from 9am to 2pm. Firstly The researcher introduced herself to the soldiers and explained the aim of the study to gain the confidence and trust to the participate in the study. An oral consent will be obtained.

Self-administered questionnaire was distributed to the study group to assess military personnel actual skin problems, risk factors, knowledge and health practice regarding skin diseases.

After completing the given questionnaire, all of the subjects undressed, with the exception of underwear, and were individually examined in a nursing room. The assessment over the entire body, including the scalp, face, neck, trunk, and extremities was conducted and confirmed by one board-certified dermatologist.

The military personnel who were diagnosed with a skin disease by the dermatologist answered one additional questionnaire (Skindex-29) measure the effect of skin disease on military personnel quality of life and health problems related to skin diseases which include 3 domains: symptoms domain (7 items), emotional domain (10 items) and functional domain (12 items).

Pilot Study

A pilot study was conducted on 10% of the studied military personnel (42 subjects) to test the content, applicability and simplicity of the tool used in the study. Based on the pilot study the tools were organized. Organization of the tool included rephrasing, rearrangement of some questions. After refinement and organization final forms of the tool were developed. This pilot study was carried in two weeks before starting the study and those who shared in the pilot study were included in the studied sample.

Statistical Design

Statistical presentation and analysis of the present study data were carried out, using mean and standard deviation, Chi-square and linear correlation coefficient (r) by using the Statistical Package for Social Science (SPSS version 21).

Significance level was considered as follows:

Highly statistically significant	$P < 0.01^{**}$
Statistically significant	$P < 0.05^*$
Not significant	$P > 0.05$

Results:

Table (1): Distribution of the studied subject' according to their socio-demographic characteristics It was clear that 69.1 % of the studied military personnel their age were 21-24 years old, 76.6 % of them were single, and 44.7 % of them have secondary educational level. 66.5 % of the studied military personnel were working in free business, 71.5 % of them lived in rural. Regarding place of service 33.0 % of them were serving in Southern District.

Figure (1) Illustrates that 67.7 % of the studied military personnel had unsatisfactory knowledge about skin diseases.

Table (2): shows military personnel's total practice regarding skin diseases that there were 53.1% had Not Done health practice about personal hygiene, 56.9% had Not Done health practice about treatment of skin diseases, 60.1% had Not Done health practice about smoking and 55.5% had Not Done health practice about nutrition.

Figure (2) shows that 57.4 % of the studied subject had reported Not Done

practices scores and 42.6% had reported Done practices scores regarding skin diseases.

Table (3): States that 41.6% had severe effect of skin disease on physical domain, 46.4% had moderate effect on emotional domain and 47.1% had moderate effect on functional domain.

Figure (3): Reports that 16.5% had mild impact, 44.5% had moderate impact and 39% had severe impact of skin diseases on physical, emotional and functional domains.

Table (4): Reports Highly statistical significant relation between total health practice regarding skin diseases and Age, Educational level of the studied subject when p - value was $<0.01^{**}$, and there was statistically significant relation between total health practice regarding skin diseases and marital, residence of studied subject p - value was <0.05 and there was no significant relation between total health practice regarding skin diseases and job, place of service of studied subject p value was >0.05 .

Table (5): observes Highly statistical significant relation between total knowledge regarding skin diseases and Age, educational level of the studied subject when p - value was $<0.01^{**}$, and there was statistically significant relation between total knowledge regarding skin diseases and job of studied subject p - value was <0.05 and there was no significant relation between total knowledge regarding skin diseases and marital status, place of service of studied subject p value was >0.05 .

Table (6): shows positive statistically significance Correlation between knowledge and health practice.

Table (1): Distribution of the studied subject' according to their socio-demographic characteristics (n=418).

Personal information	N	%
Age		
18-20	129	30.9
21-24	289	69.1
x S.D 21.07±1.02		
Marital status		
Single	320	76.6
Married	98	23.4
Educational level		
No read and write	37	8.9
Read and write	41	9.8
Basic education	58	13.9
Secondary education	187	44.7
University education	95	22.7
Job		
Governmental	44	10.5
Private	96	23.0
Free business	278	66.5
Residence		
Rural	299	71.5
Urban	119	28.5
Place of service (unit)		
Central area	125	29.9
Western region	72	17.2
Southern District	138	33.0
The second army	83	19.9

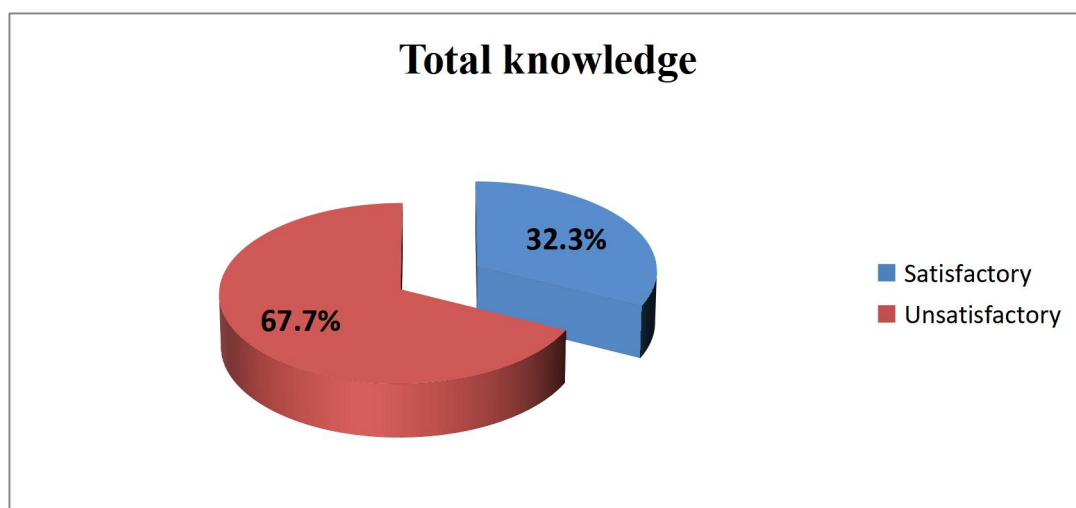


Figure (1): Percentage distribution of the studied subject' according to their total knowledge regarding skin diseases (n=418).

Table (2): Number and percentage distribution of the studied subject' according to their total practice (n=418).

Items	Done		Not Done	
	n	%	n	%
Personal hygiene	196	46.9	222	53.1
Treatment	180	43.1	238	56.9
Smoking	167	39.9	251	60.1
Nutrition	186	44.5	232	55.5

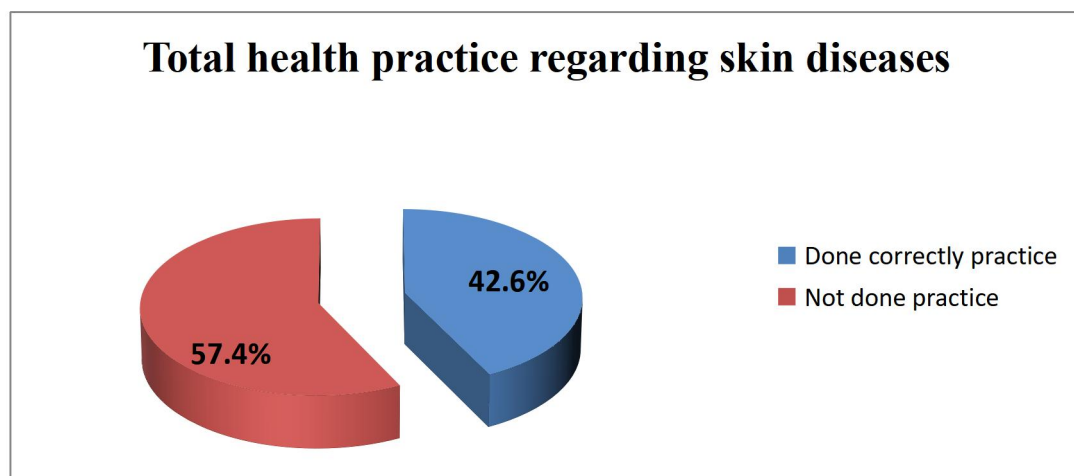


Figure (2): Percentage distribution of the studied subject' according to their total health practice regarding skin diseases (n=418).

Table (3): Number and percentage distribution of the studied subject' according to their total domains of skindex instrument (n=418).

Total domains of skindex	Mild Effect		Moderate Effect		Severe Effect	
	No	%	No	%	No	%
physical domain	77	18.4	167	40.0	174	41.6
Emotional domain	56	13.4	194	46.4	168	40.2
Functional domain	73	17.5	197	47.1	148	35.4
Total	69	16.5	186	44.5	163	39.0

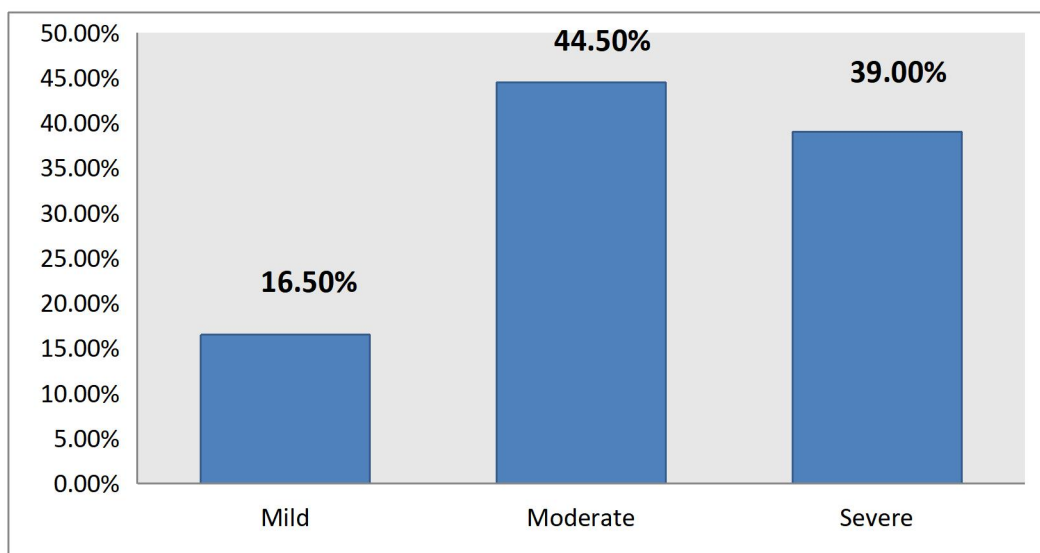


Figure (3): Percentage distribution of the studied subject' according to their total domains of skindex instrument (n=418).

Table (4): Relation between socio-demographic characteristics of studied subject' and their total health practice regarding skin diseases (n=418).

Items	Total health practice				X ²	P-Value		
	Healthy practice N=178		Unhealthy practice N=240					
	N	%	N	%				
Age	18-20	35	19.7	94	39.2	18.21	.000**	
	21-24	143	80.3	146	60.8			
Marital status	Single	103	57.9	217	90.4	6.551	.015*	
	Married	75	42.1	23	9.6			
Educational level	Illiterate	2	1.1	35	14.6	6.922	.009**	
	Read and write	2	1.1	39	16.3			
	Basic education	30	16.9	157	65.4			
	Secondary education	51	28.7	7	2.9			
Job	University education	93	52.2	2	0.8	1.274	.061	
	Governmental	22	12.4	22	9.2			
	Private	49	27.5	47	19.6			
Residence	Free business	107	60.1	171	71.2	12.39	0.025*	
	Rural	75	42.1	224	93.3			
Place of service	Urban	103	57.9	16	6.7	7.641	0.115	
	Central area	125	39	21.9	86			35.8
	Western region	72	25	14.0	47			19.6
	Southern District	138	63	35.4	75			31.3
	The second army	83	51	28.7	32	13.3		

*Significant at $p < 0.05$. **Highly significant at $p < 0.01$. Not significant at $p > 0.05$

Table (5): Relation between socio-demographic characteristics of studied subject' and their total knowledge regarding skin diseases (n=418).

Items		Total knowledge				X ²	P-Value
		Satisfactory N=135		Unsatisfactory N=283			
		N	%	N	%		
Age	18-20	6	4.4	123	43.5	10.523	.003**
	21-24	129	95.6	160	56.5		
Marital status	Single	95	70.4	225	79.5	1.100	.085
	Married	40	29.6	58	20.5		
Educational level	Illiterate	0	0	37	13.1	9.201	.005**
	Read and write	0	0	41	14.5		
	Basic education	1	0.7	186	65.7		
	Secondary education	44	32.6	14	4.9		
Job	University education	90	66.7	5	1.8	4.911	.012*
	Governmental	29	21.5	15	5.3		
	Private	15	11.1	81	28.6		
	Free business	91	67.4	187	66.1		
Residence	Rural	23	17.0	276	97.5	15.03	.002**
	Urban	112	83.0	7	2.5		
Place of service	Central area	29	21.5	96	33.9	1.315	.057
	Western region	18	13.3	54	19.1		
	Southern District	45	33.3	93	32.9		
	The second army	43	31.9	40	14.1		

*Significant at $p < 0.05$. **Highly significant at $p < 0.01$. Not significant at $p > 0.05$

Table (6): Correlation between knowledge and health practice (n=418).

Items	Total health practice	
Total knowledge	R	.768
	p	.000**

(**) Statistically significant at $p < 0.01$. r Pearson correlation

Discussion

Skin diseases is a major health problems that cause morbidity for military personnel either at war or during peace times, it is any medical condition that affect the skin vary greatly in symptoms and severity. They can be temporary or permanent, and may be painless or painful. Skin diseases causes negative psychological and social impacts on the quality of life (QOL) of military personnel. Skin diseases can cause anxiety. It is important to identify the symptoms of depression and indeed treat them, because they impair "self-image" and have an influence on the wish to "take care of oneself" (Goh & Kok, 2021).

Regarding military personnel demographic characteristics as observed in Table (1), the current study revealed that, more than half of them aged 21-24 years old (table 1) with mean \bar{x} S.D 21.07±1.02. This might be

due to the common age of military service ranged from 18-24 years old. This result was in the same line with YAN, (2018), who assessed Prevalence of skin diseases among marine-training soldiers stationed in east coastal area and its influencing factors. who reported that more than half of the studied military personnel their age ranged between 17-23 years.

The current study approved that the most of the military personnel were single (table 1). This might be due to their age and community culture to end the military service first. These result agreed with Ispireli, (2022), who assessed Epidemiology of atopic dermatitis in military personnel., who reported that the majority of the military personnel were single.

The current study revealed that more than third of the studied military personnel have secondary educational level (table 1). This

result supported with **Al-Zoman et al., (2018)**, who studied "pattern of skin diseases in Riyadh military hospital. Who reported that more than half of the studied military personnel have secondary educational level?

The current study approved that two thirds of the studied military personnel lived in rural area (table 1). This result disagreed with **Alshamrani et al., (2019)**, who studied "Pattern of skin diseases in a university hospital in Jeddah, Saudi Arabia age and sex distribution. Who reported that 65.8 % of the studied students lived in rural area?

Regarding total knowledge score of skin diseases, the current study revealed that less than one third of the studied military personnel had good knowledge about skin diseases (figure 1). This result agreed with **Zhou et al., (2017)**, who studied Skin disease in United Nations peacekeepers in Lebanon., who reported that 34.1 % of the sample had good level of knowledge toward skin diseases.

Regarding total practices scores, the current study revealed that less than half of the studied military personnel had satisfactory practices about total personal hygiene (Table2). This might be due to they are busy with many other things and not organizing their time. This result agreed with **Sahala et al., (2016)**, who assessed "The prevalence of skin diseases and its association with hygiene behavior and level of education in a Pesantren, Jakarta Selatan" who reported that only 20 % of the participants had satisfactory practice regarding daily personal care.

Regarding total practices scores, the current study revealed that less than half of the studied military personnel had Done practices daily care of skin diseases (figure 2). This result agreed with **Hulmani et al., (2017)**, who studied the "knowledge, attitude and practice towards acne vulgaris among acne patients above 15 years" (n= 100), and reported that the studied patient had poor practices toward acne vulgaris.

Regarding to health problems related to skin diseases, The present study showed more

than one third of the studied MP had sever effect on functional domain because of the condition of skin. This result agreed with **Yew et al., (2020)**, who studied Psychosocial impact of skin diseases population-based study (n= 1510) who reported about third of the studied subject had social isolation.

The current study revealed that about half of studied MP had moderate impact of skin diseases on health status (figure3). This result agreed with **Kalboussi et al.,(2019)**, who assessed "Impact of allergic contact dermatitis on the quality of life and work productivity" who reported about half of studied sample had moderate effect of eczema on health status.

Regarding relation between military personnel's socio-demographic characteristics and their total health practice regarding skin diseases as observed in Table (4) the present study Shows Highly statistically significant relation between total health practice regarding skin diseases and educational level of the studied subject when p- value was $<0.01^{**}$.

These results agreed with **Sanclemente et al., (2017)** who studied The impact of skin diseases on quality of life A multicenter study, (n=4340) and showed that there was highly statistical significant relation between total health practice score of the studied subject and educational level of them. This might due to most of studied military personnel well educated so they have good knowledge about health practice regarding skin diseases.

As regard relation between the studied military personnel's total knowledge score and their demographic data, (table5) the present study showed that there was Highly statistically significant relation between total knowledge and age of the studied subject when p- value was <0.01 .

These results came in line with **Ahmed Abd El-Ghaffar et al., (2021)** who studied "Effect of Nutritional Therapy on Acne Vulgaris among Adolescent Students" (n=280) and showed that there was highly statistical significant relation between total knowledge

score and age of the studied subject. his might be due to that the individual in this age stay along time in front of media and internet and may be acquired knowledge about skin diseases.

Concerning correlation between total knowledge score and practices of military personnel (table 6). This study shows that there was positive statistically significance correlation between total knowledge and health practice of studied military personnel.

This result agreed with **Zaenglein et al., (2016)**, who assessed "Guidelines of care for management of acne vulgaris", (n= 310), who reported that there was statistically correlation between knowledge and practices of the participants.

Conclusion

The current study findings concluded as the following:

Approximately one third of the military personnel had good knowledge about skin diseases. Less than half of the military personnel had unhealthy practices regarding skin diseases. Less than half have moderate impact of skin diseases on symptoms, emotional and functional domains. There was highly statistically significant relation between total health practice regarding skin diseases and Age, Educational level of military personnel. There was highly statistically significant relation between total knowledge and Age, Educational level and Residence of the studied military personnel. There was positive statistically significance Correlation between knowledge and health practice of military personnel.

Recommendations

Based upon the results of the current study the following recommendations suggested:

- Develop and implement health education program for military personnel to increase their knowledge about skin diseases and practices should be followed to prevent and manage skin diseases.
- Further researches are needed to study barriers and motivators factors to encourage military

personnel to maintain a healthy practices to prevent skin diseases.

References

- Abramovich, K. O. (2022).** Issues of Pension Provision for Military Servicemen (National and Foreign Eperience). *International Journal of Social Science & Interdisciplinary Research* ISSN: 2277-3630 Impact factor: 7.429, 11(01), 288-290.
- Ahmed Abd El-Ghaffar, N., Mohamed Abd El-Aal, E., & Hamido Abosree, T. (2021).** Effect of Nutritional Therapy on Acne Vulgaris among Adolescent Students. *Journal of Nursing Science Benha University*, 2(2), 86.
- Alshamrani, H. M., Alsolami, M. A., Alshehri, A. M., Salman, A. K., Alharbi, M. W., Alzuhayri, A. J., & Mleeh, N. T. (2019).** Pattern of skin diseases in a university hospital in Jeddah, Saudi Arabia: age and sex distribution. *Annals of Saudi Medicine*, 39(1), 22-28.
- Al-Zoman, Abdulrahman Y., and Abdulrahman K. Al-Asmari. (2018)** "Pattern of skin diseases at Riyadh Military Hospital." *Egypt Dermatol Online J* 4.2: 4-14.
- Bobrov, A. G., Getnet, D., Swierczewski, B., Jacobs, A., Medina-Rojas, M., Tyner, S., ... & Antonic, V. (2021).** Evaluation of *Pseudomonas aeruginosa* pathogenesis and therapeutics in military-relevant animal infection models. *APMIS*.
- Greaves, M. (2015).** **Antihistamines in Dermatology.** *Skin Pharmacology And Physiology*, 18(5), 220-229.
- Goh, C., & Kok, W. L. (2021).** Irritant Contact Dermatitis in Military Healthcare Personnel During COVID-19: Case Report.
- Hulmani, M., Bullappa, A., Kakar, S. and Kengnal, P. (2017):** Knowledge, attitude and practice towards acne vulgaris among acne patients. *Journal of international research in Dermatology*; 3(1): 107- 112.

- Ispireli, M. (2022).** Epidemiology of atopic dermatitis in military personnel. SCIENTIFIC JOURNAL „SPECTRI“, 1.
- Kalboussi, H., Kacem, I., Aroui, H., El Maalel, O., Maoua, M., Brahem, A., ... & Mrizak, N. (2019).** Impact of allergic contact dermatitis on the quality of life and work productivity. *Dermatology Research and Practice*, 2019.
- Lan, J., Song, Z., Miao, X., Li, H., Li, Y., Dong, L., & Tao, J. (2020).** Skin damage among health care workers managing coronavirus disease-2019. *Journal of the American Academy of Dermatology*, 82(5), 1215-1216.
- Leone, R. M., Homan, Z., Lelong, A., Bandekow, L., & Bricknell, M. (2021).** An analysis of international military health systems using the military medical Corps worldwide Almanac. *Military Medicine*, 186(9-10), e1017-e1023.
- Maurer, F. A., & Smith, C. M. (2014).** Community/public health nursing practice: Health for families and populations. Elsevier Health Sciences.
- Miller, Jeffrey H; Marks, James G. (2017),** Lookingbill and Marks' Principles of Dermatology 6th Edition. December 22.
- Oster, C., Morello, A., Venning, A., Redpath, P., & Lawn, S. (2017).** The health and wellbeing needs of veterans: a rapid review. *BMC psychiatry*, 17(1), 1-14.
- Sahala, M. A., Soedarman, S., Rizky, L. A., Natanegara, A. P., Advani, M. S., & Sungkar, S. (2016).** The prevalence of skin diseases and its association with hygiene behavior and level of education in a Pesantren, Jakarta Selatan 2013. *eJournal Kedokteran Indonesia*, 119-24.
- Sanclemente, G., Burgos, C., Nova, J., Hernández, F., González, C., Reyes, M. I., ... & y Cirugía, A. C. D. D. (2017).** The impact of skin diseases on quality of life: A multicenter study. *Actas Dermo-Sifiliográficas (English Edition)*, 108(3), 244-252.
- Toukabri, N., Dhieb, C., El Euch, D., Rouissi, M., Mokni, M., & Sadfi-Zouaoui, N. (2017).** Prevalence, etiology, and risk factors of tinea pedis and tinea unguium in Tunisia. *Canadian Journal of Infectious Diseases and Medical Microbiology*, 2017.
- Vasquez, D., Aguirre, D. C., & Sanclemente, G. (2019).** Construct validity and responsiveness of the Colombian version of Skindex-29. *British Journal of Dermatology*, 181(4), 770-777.
- YAN, Z. H. (2018).** Prevalence of skin diseases among marine-training soldiers stationed in east coastal area and its influencing factors. *Academic Journal of Second Military Medical University*, 661-666.
- Yew, Y. W., Kuan, A. H. Y., Ge, L., Yap, C. W., & Heng, B. H. (2020).** Psychosocial impact of skin diseases: A population-based study. *Plos one*, 15(12), e0244765.
- Zaenglein, A. L., Pathy, A. L., Schlosser, B. J., Alikhan, A., Baldwin, H. E., Berson, D. S., ... & Bhushan, R. (2016).** Guidelines of care for the management of acne vulgaris. *Journal of the American Academy of Dermatology*, 74(5), 945-973.
- Zhou, Z., Liu, T., & Zhang, Z. (2017).** Skin disease in United Nations peacekeepers in Lebanon. *BMJ Military Health*, 163(1), 27-30.