

## Research Article

# Knowledge, Attitude and Practice in Preventing Transmission of Scabies among Nurses Students at Sabia University College Jazan University 2018

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**Abstract**

Scabies is a parasitic mite that causes intense pruritus (itching), rashes, and lesions. Although infestation is not life threatening, scabies is a nuisance disease that is commonly found in health care, The Saudi Ministry of Health assured everyone that measures had been taken to cure the scabies cases.

It promised awareness of the disease would be raised and preventative measures taken among all those affected by scabies and anyone who came into contact with them.

**Aim:** This study aimed to assess knowledge attitude and practice of nurses students on prevention of scabies, and to found correlation between demographic data and the knowledge attitude and practice, descriptive study enrolled 53 nurses students, selected randomly using structured questionnaire,

**Results:** Shows good knowledge, attitude and practice and also showed significant relation with education level and economic status.

**Conclusion:** Students had good knowledge, attitude and practice.

**Keywords:** Nurses students; Knowledge; Attitude; Practice; Scabies; Jazan university

**Introduction**

Scabies is a parasitic mite that causes intense pruritus (itching), rashes, and lesions. Although infestation is not life threatening, scabies is a nuisance disease that is commonly found in health care facilities and can result in crisis, fear, and panic. Scabies outbreaks can be costly to control and may easily reoccur if not properly contained and treated [1].

Mites cannot fly or jump but crawl at the rate of 2.5 cm per minute on warm skin. They can survive for 24 to 36 hours at room temperature and average humidity and remain capable of infestation and epidermal burrowing [2]. Scabies is a skin disease caused by sensitization to *Sarcoptes cabiei* mites, it is an endemic in tropical and non tropical area like Egypt [3].

Scabies can affects all ages, adults and children. Older children, also young adults, Scabies often occur to children living in boarding schools as they live together with a group of people which will lead to because they are more vulnerable to many skin diseases and reflect reduced immunity which will lead to an easy and high risk condition for contracting various contagious disease as scabies [3] it occurs in both sexes, in all ethnic groups, and at all socioeconomic levels. In an epidemiologic study in the United Kingdom, scabies was shown to be more in urban areas and common in winter than in summer [4].

Classical presentation is the most common form of scabies symptoms, primary symptom of scabies is intense pruritus (itching), which often intensifies at night or after a hot shower. Pruritus is not

caused directly by the scabies mite but is the result of a systemic allergic reaction to the mite its eggs, Round, symmetrical, 2-3 mm diameter papulovascular (bumpy, fluid-filled) lesions are often present on the body [5]. Affected areas of the body include flexor (inside) wrist surfaces, interdigital spaces (web of fingers), breasts, areolas (nipples), umbilicus (belly button), belt line, navel, abdomen, intergluteal cleft (area between buttocks), buttocks, thighs, penis,

**Table 1:** Demographic data no (53).

%	frequency	variable
		<b>age</b>
81.1	43	20-22 years
18.9	10	above 22 years
		<b>education level</b>
49.1	26	level 5
26.4	14	level 6
13.2	7	level 7
11.3	6	level 8
		<b>marital status</b>
71.7	38	single
28.3	15	married
		<b>economic status</b>
79.2	42	good
9.4	5	middle
11.3	6	poor

**Table 2:** Knowledge of respondents regard scabies no (53).

Types of knowledge	frequency	(%)	Mean	SD
<b>Have you ever heard of scabies disease</b>				
Yes	44	83	1.1698	0.37906
No				
<b>What is the cause</b>				
Sarcotes scabies	44	83	1.1698	0.37906
germs	9	17		
<b>What are the sign and symptoms</b>				
The effect of scratching Got small to large spots which are reddish and wet	39	73.6	1.2642	0.4451
Itching at night and feel heat with pus	14	26.4		
<b>Parts of body that are affected</b>				
Between fingers	26	49.1	1.6981	0.77422
Armpits, waist, elbow	17	32.1		
gnitalia	10	18.9		
<b>The transmission of scabies disease</b>				
Skin to skin contact	19	35.8	2.1887	1.12757
Clothes, bed linin, towel	15	28.3		
Skin only	9	17		
Through clothes and bed linen only	10	18.9		
<b>Who can suffer from scabies</b>				
All groups	29	54.7	1.4528	0.50253
teenagers	24	45.3		
<b>Can you exchanging clothes with an infected person spread scabies</b>				
no	53	100	2	0
<b>Can scabies be harmful to the health of skin</b>				
yes	45	84.9	1.1509	0.36142
no	8	15.1		
<b>Does the patient need to be quarantined</b>				
yes	45	84.9	1.1509	0.36142
no	8	15.1		
<b>What should we do to break the chain of scabies disease</b>				
Disinfection to clothes and bed linen	27	50.9	1.4906	0.50469
Keep distance with infected person	26	49.1		
<b>Can drying mattress and pillow prevent infection</b>				
yes	27	50.9	1.4906	0.50469
no	26	49.1		
<b>Mean knowledge</b>				
Good (≥65%)	40	75.4	1.2642	0.4451
Fair (65-50%)	13	24.5		
Poor (≤50%)	0	0		

P value.5 which is significant

scrotum, elbows, feet, ankles, and anterior axillary (underarm) folds.) (Affected areas on healthcare workers typically include the forearms, chest, thighs, and abdomen [6].

Scabies can occur from unhealthy behavior as changing cloth in the room, exchange cloth and personal items between people and

sharing them also can transmit by sharing bedding and using same pillows [7].

Treatment of scabies on individuals and reduction of skin-to-skin contact with infected individuals is recommended as the primary means of eliminating the infestation. Although transmission *via*

**Table 3a:** Attitude of respondents toward scabies no (53).

Type of attitude	frequency	%	Mean	SD
<b>Mattresses and pillows are dried every week</b>				
strongly agree	24	45.3	2.2453	1.37149
agree	8	15.1		
neutral	9	17.0		
disagree	8	15.1		
strongly disagree	4	7.5		
<b>Scabies sufferers have to be quarantined</b>				
strongly agree	23	43.4	2.3962	.36142
agree	7	13.2		
neutral	11	20.8		
disagree	3	5.7		
strongly disagree	9	17.0		
<b>Did not exchange clothes, towels and bedding with others</b>				
strongly agree	33	62.3	1.8868	1.36805
agree	7	13.2		
neutral	4	7.5		
disagree	4	7.5		
strongly disagree	5	9.4		
<b>Scabies patients do need to be avoided</b>				
strongly agree	34	64.2	1.7170	1.18285
agree	9	17.0		
neutral	4	7.5		
disagree	3	5.7		
strongly disagree	3	5.7		
<b>Personal hygiene is very necessary to keep the body from the scabies</b>				
strongly agree	44	83.0	1.2830	.66151
agree	3	5.7		
neutral	6	11.3		

fomites is possible, regular housekeeping and hygienic measures such as changing and washing of bedding in hot water followed by drying materials in a mechanical dryer at the highest temperature setting should be adequate to prevent further spread [8].

The Saudi Ministry of Health assured everyone that measures had been taken to cure the scabies cases. It promised awareness of the disease would be raised and preventative measures taken among all those affected by scabies and anyone who came into contact with them [9].

### Prevention Can Be As Follows

Assign patient to a private room. Restrict visitors until treatment regimen completed; alternatively, require visitors to gown and glove as required for contact isolation precautions. If resources permit, cohort employees to care for this patient only (no other direct care responsibilities) until an effective treatment is completed. HCWs must wear gloves and a long-sleeved gown with the wrist area covered and shoe covers to attend to patient needs, for housekeeping duties, and handling of laundry. Consider spraying pyrethrin in insect

repellent to wrist (edge of glove and ribbing of sleeve area), arms and front of gown. Remove gown before leaving the room and wash hands bed linens, towels and clothing used by the affected persons during the 4 days prior to initiation of treatment should be placed in plastic bags inside the patient's room, handled by gloved and gowned laundry workers without sorting, and laundered in hot water for at least 10 minutes. The hot cycle of the dryer should be used for at least 10-20 minutes. Non-washable blankets and articles can be placed in a plastic bag for 7 days, dry cleaned or tumbled in a hot dryer for 20 minutes.

- Change all bed linens, towels and clothes daily.
- Blood pressure cuffs, walking belts, stethoscopes, etc. should be designated for single patient use and left in the patient's room. Discard all creams, lotions or ointments used prior to effective treatment.
- Upholstered furniture containing any cloth fabric should be removed from the room and, if necessary, replaced with plastic or vinyl furniture. Mattresses must be covered with plastic or vinyl.

**Table 3b:** Attitude of respondents towards scabies no (53).

Types of attitude	frequency	%	Mean	SD
<b>To keep distance from scabies sufferers is really necessary or needed</b>				
strongly agree	20	37.7	3.0566	1.72554
neutral	6	11.3		
disagree	11	20.8		
strongly disagree	16	30.2		
<b>Scabies can be prevented by maintaining a good personal hygiene</b>				
strongly agree	35	66.0	1.6981	1.18622
agree	8	15.1		
neutral	4	7.5		
disagree	3	5.7		
strongly disagree	3	5.7		
<b>If found cases of scabies, treatment should be done quickly to prevent the transmission of disease</b>				
strongly agree	45	84.9	1.2075	.53200
agree	5	9.4		
neutral	3	5.7		
<b>Besides personal hygiene, there must be a good environment to prevent scabies</b>				
strongly agree	45	84.9	1.2075	.53200
agree	5	9.4		
neutral	3	5.7		
Mean attitude				
Good (≥65%)	29	54.7	1.2642	1.12757
Fair (65-50%)	21	39.6		
Poor (≤50%)	13	24.5		

P value .05 which is significant

**Table 4:** Correlations between knowledge attitude and practice and demographic data.

variable/demographic	age	education level	marital status	Economic status
<b>Knowledge p 0.5</b>	.022	.001	.016	.003
<b>Attitude p .05</b>	.139	.015	.485	.039
<b>Practice p .000</b>	.931	.119	.438	.223

- The patient’s room should be vacuumed daily with a vacuum cleaner designated for this room alone, followed by routine room cleaning and disinfection. The vacuum cleaner bag should be changed daily; removal and disposal of contaminated bags should be performed in accordance with infection control protocol

- The room should be terminally cleaned upon discharge or upon transfer of the patient from the room [10] the study aimed to assess knowledge, attitude and practice of nurses students on prevention of scabies, and to found correlation between demographic data and the knowledge attitude and practice.

## Methodology

### Study design

The descriptive cross sectional study was used for conducting the study.

**Study setting:** The data were collected from Sabia University College

**Study population:** nurses students of sabia University College/ Jazan University

**Study period:** The study was conducted in between March 2017-April 2018

**Study sample:** Simple random sampling consisted of 53 nurses students, from class 5-6-7-8

**Tool of the study:** For data collection a self-administrative questionnaire was developed by researchers and used to assess

a. Nurses’ socio-demographic characteristic as regards their age, education level, marital status and economic status.

b. Participants’ knowledge assessed as follows: each question had true and false choices [1] awarded for each correct answer; (0) for incorrect. Correct responses were summed up to get a total knowledge scores for each participant. Total score for all questions reached 11 grades. The knowledge scores were classified into Poor knowledge (≤50%), Fair knowledge (65-50%), and (≥65%) considered Good

**Table 4a:** Practice of respondents towards scabies no (53).

SD	Mean	%	frequency	Types of practice
				<b>Change clothes</b>
		20.8	11	every week
0.82196	2.4528	13.2	7	every 2 week
		66	35	daily
				<b>bath</b>
		20.8	11	every week
0.82063	2.566	1.9	1	every 2 week
		77.4	41	daily
				<b>Wash towel</b>
0.31988	2.8868	11.3	6	every 2 week
		88.7	47	daily
				<b>Change bed linen</b>
		71.7	38	every week
0.6571	1.3774	18.9	10	every 2 week
		9.4	5	daily
				<b>Change pillowcase</b>
		71.7	38	every week
		18.9	10	every 2 week
0.6571	1.3774	9.4	5	daily
				<b>Drying mattress</b>
0.395	1.1887	81.1	43	every week
		18.9	10	every 2 week
				<b>Drying pillow</b>
		81.1	43	every week
0.395	1.1887	18.9	10	every 2 week
				<b>Towel never being borrowed by friend</b>
0	1	100	53	yes
				<b>Never borrow a friend's towel</b>
0	1	100	53	yes

knowledge

c. Attitude assessed using a 5-item Likert scale (ranging from strongly agree 5 to strongly disagree, (1) It had 9 item rating scale with the highest score of 5 for each option and total possible score was 45. The attitude scores were categorized into good ( $\geq 65\%$ ), fair (65-50%), and poor ( $\leq 50\%$ ), and

d. Participants' practice assessed as follows: each question had true and false choices (1) awarded for each correct answer; (0) for incorrect. Correct responses were summed up to get a total practice scores for each participant. Total score for all questions reached 26 grades.

The practice scores were classified into Poor practice ( $\leq 50\%$ ), Fair practice (65-50%), and ( $\geq 65\%$ ) considered Good practice. Data were analyzed using SPSS package Version 20. The data was analyzed using descriptive (frequency and percentage) and inferential statistics based on the objectives.

**Table 4b:** Practice of respondents toward scabies no (53).

SD	Mean	%	frequency	Types of practice
				<b>Never sharing clothes with friends</b>
0	1	100	53	yes
				<b>Clothes never being borrowed by friend</b>
0	1	100	53	yes
				<b>Never sleep in other's bed</b>
0	1	100	53	yes
				<b>Friends never sleep in your bed</b>
0	1	100	53	yes
				<b>drying towel after use</b>
		79.2	42	yes
0.40943	1.2075	20.8	11	no
				<b>Mean practice score</b>
0.395	1.1887	81.1	43	Good ( $\geq 65\%$ )
		18.9	10	Fair (65-50%)
		0	0	Poor ( $\leq 50\%$ )

P value .000

## Results

There are 53 students enrolled in this study (81.1%) of them their age range from 20-22 years and half of them in level 5 and (26.4%) in level 6 while only 11.3% from level 8,38 (71.7%) are single while the rest of them are married and has good economic status which represent 79.2% as shown in (Table 1).

In (Table 2) the respondents asked about scabies, if they heard about scabies infections, causes, signs and symptoms, mode of transmission and other question explained in the table 2 all respondents explored good knowledge regard scabies, and the p value is .502.

In (Table 3a,3b) we asked respondents regard their attitude towards scabies, but they explored good attitude and their p value .05 .

In (Table 3a,3b) the respondents explored good practice regard scabies and their P value .000.

In (Table 4 & 4a,b) there is significant relation between demographic data (education level.001, and economic status.003) and knowledge insignificant relation between knowledge, attitude, practice and demographic data.

## Discussion

This is descriptive study done in sabia university college suadia which carried in period from March to April 2008 sample selected randomly after listing all students, there is 53 students enrolled in this study, from analysis their age range from 20-22 years, single, and half of them in level 5.

In our study the respondents knowledge regard scabies 44 (83.0%) know what is scabies, same percent know the causes of it and the mode of transmission and parts of body affected, this agree with study done in (Pesantren Darul Fatwa, Jatinangor) where most of

the respondents heard about scabies and could apply the knowledge of preventing the transmission of scabies in their daily life activities such as practicing of good personal hygiene (62.2%), although they still did not know the cause of scabies, the same percent (62.2%) said the cause of scabies is germs, which is at variance with our study, the mean knowledge our respondents score is good which is (75.4%) [11] in this study we assessed the attitude of respondents, we want to know their attitude regard this infestation they explored good attitude in the area of patients who sufferers have to be quarantined, and not exchange clothes towels and bedding with others and not and keep distance from them mean attitude (54.7%) that means half of respondents explored good attitude which is same as study done in (santari) where their level of attitude of towards the scabies disease was good [12] but they were still 20.0% of santri under moderate level of attitude even they had a good level of knowledge [13]. In this study the level of practice of the respondents were on good practice regard personal hygiene like daily bath Wash towel, and habits like never being borrowed Towel by friend or even borrow a friend's towel or sharing clothes with friends men practice score (75.4%) this online with study in (santari where their respondents explored a moderate and good level, they assumed that it might be due to facilities provided and good support surround them [10]. However, their respondent's 1 respondent who still practiced bad personal hygiene such as washing towel and changing bed linen after 2 weeks or more. The reason was flack of facilities the pesantren was not provided with laundry facilities and they had to wash by themselves also they have no extra bed sheet to change it daily. Also they had bad habits practice regard borrowing the towel clothes and often sleep in other person's bed which is absolutely disagree with our respondents habits and practice [10] in our study there is significant relations of knowledge attitude and practice of our respondents and their socio demographic data (education, economic status).

## Recommendations & Conclusion

This study concluded that the knowledge and attitude and practice towards the prevention of transmission of scabies were good but we recommend that scabies as infectious disease must be one of the topics include in curriculum of nursing program.

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