

Original Research Article

Community attitude and practice towards skin disease prevention in a rural community in Busia County

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ABSTRACT

Background: Skin conditions were the fourth leading cause of nonfatal burden globally, expressed as years lost due to disability and eighteenth leading cause of health burden worldwide, expressed as disability adjusted life years. From Busia County health sector strategic and investment plan 2018-2023 report, skin diseases was third leading cause of morbidity in the county with 6.5%. Skin diseases, though very common in many developing countries, are not often regarded as a significant health problem even though serious diseases may be heralded by skin changes.

Methods: A cross sectional descriptive study design was adopted. Data was collected using questionnaires; it was entered in a password protected excels spreadsheets with accessibility limited to the research investigator; data analysis was done using statistical package for social science (SPSS) version 23; and presented in bar graphs and tables.

Results: It was revealed that 68.4% (N=273) had poor attitude towards skin diseases; 58.6% (N=234) of the respondents had poor practice towards prevention of skin diseases; and there was a significant association between community attitude towards skin diseases and practice towards skin diseases prevention.

Conclusions: The community practice towards prevention of skin diseases is predicted by the community attitude towards skin diseases.

Keywords: Attitude, Practice, Skin disease

INTRODUCTION

The global burden of disease (GBD), estimated the GBD attributable to 15 categories of skin disease from 1990 to 2010 for 187 countries; where a systematic literature reviews and data analysis was performed for various skin conditions. Three categories of skin conditions; fungal skin diseases (fourth), other skin and subcutaneous diseases (fifth), and acne vulgaris (eighth) were in the top 10 most prevalent diseases worldwide in 2010; and eight skin conditions fell into the top 50; the additional five skin conditions were pruritus, eczema, impetigo, scabies, and molluscum contagiosum.¹ Disability adjusted life year (DALY) ranked skin and subcutaneous diseases at

eighteenth globally; and fourth leading cause of nonfatal burden in GBD.²

In a study on the prevalence of skin and skin-related diseases, it was observed that skin and skin-related diseases were an important public health concern; and different factors such as study methodology, geographical location, ethnic group, age distribution and socio-economic status contributed to varying prevalence from study to study.³ The conditions accounted for a high percentage of visits to medical facilities worldwide. On the other hand, skin diseases, though very common in many developing countries, are not often regarded as a significant health problem even when serious diseases may be heralded by skin changes.⁴

In a study conducted in Eldoret (Kenya) on health problems of street children, it was noted that the most prevalent disease category was skin diseases which accounted for 50.9% of the total health conditions.⁵Hence the study was meant to assess the attitude and practice towards skin disease prevention in a rural community. The findings will support community health programmes on skin disease prevention.

METHODS

Study site

The study was carried out in Teso South sub-county, Busia County. The sub-county has six wards (Angorom, Chakol South, Chakol North, Amukura West, Amukura Central and Amukura East); and twenty one villages.

Study population

The study targeted Teso South Sub-county residents who were above 18 years; to assess the attitude and practice towards skin disease prevention in the community.

Study design

The researcher adopted a cross sectional descriptive study design; and was data collected at a specified time for analysis and there was no manipulation of variables.

Sample size determination

The researcher opted for Yamane's formula⁶to calculate sample size since the population of Teso South sub-county was known (137,924 people); and it also gives an allowance of 5% error. This resulted in a sample size of 399.

Sampling technique

The researcher used multi-stage sampling techniques to select various categories of study units. Teso South sub-county was purposively selected basing on the high population size compared to other sub-counties in county. Convenient sampling technique was adopted to select the Wards in the sub-county basing on the ease of accessibility and cooperation of the ward administrators.

The sample size was drawn from all the villages in the selected Wards. However, in each village, households were randomly selected based on the availability of an adult respondent; and individual respondents were sampled purposively basing on the inclusion and exclusion criteria of the study. The sample size was shared equally among the 14 villages in the selected wards with villages in Chakol South wards assigned extra respondents basing on the population size in the ward.

Data collection

Data was collected using standardized questionnaires with closed-ended questions. Questionnaires were administered to the community in four wards.

Data management and analysis

Data cleaning was done immediately to ensure that there were no omissions. Data was entered into a pass-word protected Excel spreadsheets with accessibility limited to the researcher and the questionnaires were archived in a safety cabinet. Data was then analyzed using statistical package for social science (SPSS) version 23. The community perception was determined using a series of questions. It was assessed using statements on a 5 point Likert scale: +5 (strongly agree) to +1 (strongly disagree) for positive statements, and -5 (strongly disagree) to -1 (strongly agree) for negative statements. Overall community perception was calculated using Likert scores, where scores $\geq 75^{\text{th}}$ score was good, while scores $< 75^{\text{th}}$ score was poor. The same was done for the community behaviour towards skin disease prevention.

Descriptive statistics was used to describe the basic features of the data which was analyzed in the form of frequencies and percentages. The Chi-Square test was used to determine the association of attitude with practice on skin disease prevention; and the results considered to be significant if the p value was equal or less that the significance value (0.05).

RESULTS

The median age of the respondents was 36.0 years, ranging from 18 to 74 years. 50.4% (N= 201) of the study participants were female; 43.9% (N=175) had attained secondary level; 43.1% (N=172) were self employed; and 43.4% (N=173) had an average monthly income of less than ksh. 5,000. The demographic data is presented in (Table 1).

Community attitude towards skin diseases

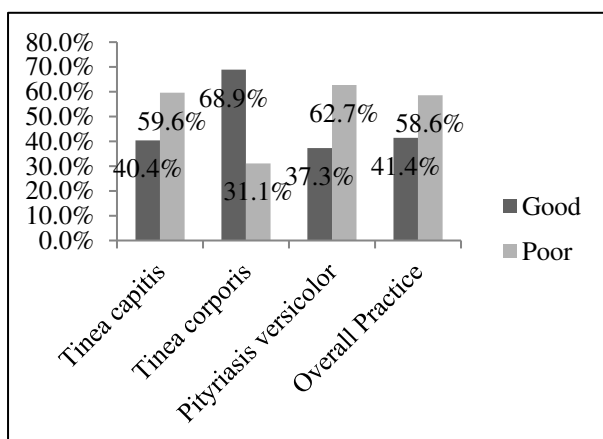
This study sought to find out the community attitude towards skin diseases that influenced prevention behaviour. It was revealed that 68.4% (N=273) had poor perception towards skin diseases. 78.2% of the respondents were of the opinion that people with skin diseases should be allowed to participate in activities like anyone else; 78.0% were in support that skin diseases interfere with social and leisure activities; 76.7% indicated that they would be embarrassed due to skin diseases; 72.9% supported that skin diseases have influence on and interference with the choice of clothing; and 83.9% were against people with skin diseases not being employed. The findings are presented in (Table 2).

Table 1: Demographic characteristics of respondents.

Demographics	N	(%)
Age (years)		
Median (range); 36.0 (18.0-74.0)		
Gender		
Female	201	50.4
Male	198	49.6
Education level		
Post-Secondary	103	25.8
Secondary	175	43.9
Primary	102	25.5
No formal education	19	4.8
Occupation		
Employed	81	20.3
Self employed	172	43.1
Unemployed	146	36.6
Average monthly income (Ksh)		
Median (range); 5,001-10,000 (<5000 - >15,001)		
<5,000	173	43.4
5,001-10,000	91	22.8
10,001-15,000	77	19.3
>15,001	58	14.5

Community practice towards prevention of skin diseases

Respondents' behaviour towards prevention of skin diseases was assessed; and 58.6% (N=234) of the respondents had poor practice towards prevention of skin diseases. In addition, respondents' behaviour towards prevention of specific skin diseases was determined, and it was revealed that 59.6% of the respondents had poor practice towards prevention of *Tinea capitis*, 68.9% engaged in good practices towards prevention of *Tinea corporis* while 62.7% had poor practice towards prevention of *Pityriasis versicolor* (Figure 1).

**Figure 1: Practice towards prevention of skin diseases.**

For *Tinea capitis*, 41.6% of the respondents avoided sharing hair brushes and other personal items very frequently while 34.8% practice frequently; and 33.8% very frequently practiced good hygiene while 47.6%

practiced good hygiene frequently. For *Tinea corporis*, 46.1% of the study subjects very frequently avoided sharing towels and other personal items with infected people while 33.6% practiced frequently; 36.6% very frequently practiced good personal hygiene while 46.4% practiced frequently. 53.9%, 46.6% and 46.1% frequently took fruits and vegetable, took lots of water and dried skin after shower respectively. For *Pityriasis versicolor*, 46.4% of the respondents practiced good hygiene very frequently while 41.6% practiced frequently; 31.6% of the study subjects avoided sharing clothing and personal belongings very frequently while 43.9% practiced frequently. 45.9%, 38.4% and 32.3% of the study subjects frequently put on breathable fabric, avoided wearing tight clothing and avoided using oily skin products respectively (Table 3). Data were presented as frequency of respondents (number) and percentages (%) of respondents unless otherwise indicated.

Association of community attitude towards skin diseases with practice towards skin disease prevention

The association of attitude towards skin diseases with practice towards skin diseases prevention revealed that; out of 58.6% (N=234) respondents who had poor practice towards prevention of skin diseases, 76.9% had poor attitude towards skin diseases; and out of 68.4% (N=273) respondent who had poor attitude towards skin diseases, 65.9% had poor practice. The results revealed association between community attitude towards skin diseases and practice towards skin diseases prevention ($p=0.000$) (Table 4).

DISSCUSION

Community perception towards skin diseases

The findings revealed that the community had poor attitude towards skin diseases similar to a study carried out in Yaounde, Cameroon which reported poor attitude among the general practioners while 60% of the study participants had poor attitude towards Atopic dermatitis.⁷ The findings are contrary to a study carried out in Pesantren Darul Fwata which reported 80% good attitude towards scabies among the Santri.⁸ In addition, the findings indicated that majority of the community members would be embarrassed due to skin diseases similar to a study in Kaduna, Nigeria where the participants reported to be ashamed, embarrassed and were uncomfortable of their skin condition due to *Pityriasis versicolor*, and a study among adults in Malaysian city which reported that 77.1% of the adults would be embarrassed due to skin infection.^{9,10} On the other hand, the findings were contrary to a study North central Nigeria where majority (58.8%) of the study participants had no specific preferences on the type of clothing; though the study revealed that skin diseases had influence on and interference on the choice of clothing among the community members.⁹ The attitude scores on the whether the suspects and those in contact with skin

disease patients should be quarantined; and whether skin disease patients should be isolated and properly treated before being released to the community, was similar to a study on the nursing students in Sabia university college which revealed 43.4% and 37.7% strongly agreed

respectively; and contrary to a study among the medical students in the kingdom of Saudi Arabia which reported that 100% of the respondents supported that scabies patients need to be avoided and the scabies patients have to be isolated.^{11,12}

Table 2: Community attitude towards skin diseases.

Variables	Strongly agree N (%)	Agree N (%)	Undecided N (%)	Disagree N (%)	Strongly disagree N (%)
I would be embarrassed due to skin disease	170 (42.6)	136 (34.1)	30 (7.5)	38 (9.5)	25 (6.3)
Skin diseases can interfere with my social and leisure activity	128 (32.1)	183 (45.9)	19 (4.8)	48 (12.0)	21 (5.3)
Skin disease have influence on and interference with choice of clothing	146 (36.6)	145 (36.3)	48 (12.0)	41 (10.3)	19 (4.8)
Skin diseases affect or restrict working duties or lifestyle	100 (25.1)	157 (39.3)	42 (10.5)	77 (19.3)	23 (5.8)
I would be affected in if my partner or my close friends or relatives has skin disease	116 (29.1)	152 (38.1)	61 (15.3)	54 (13.5)	16 (4.0)
I would shake hand with someone with someone with skin diseases	86 (21.6)	187 (46.9)	68 (17.0)	33 (8.3)	25 (6.3)
I would eat on the same plate with someone with skin disease	82 (20.1)	134 (33.6)	100 (25.1)	56 (14.0)	27 (6.8)
I would allow my child to marry from a family with skin disease	79 (19.8)	91 (22.8)	73 (18.3)	87 (21.8)	69 (17.3)
People with skin diseases should be allowed to participate in activities like anyone else	156 (39.1)	156 (39.1)	29 (7.3)	45 (11.3)	13 (3.3)
People with skin disease should not be employed	16 (4.0)	29 (7.3)	19 (4.8)	178 (44.6)	157 (39.3)
Suspects and those in contact with people with skin disease patients should be quarantined	56 (14.0)	138 (34.6)	70 (17.5)	81 (20.3)	54 (13.5)
Patients with skin disease should be isolated and properly treated before they are released to the community	72 (18.0)	128 (32.1)	34 (8.5)	115 (28.8)	50 (12.5)
Mean % score	25.2	34.2	12.4	17.8	10.4
Overall respondents' attitude towards skin diseases N (%)					
Good attitude	126 (31.6)				
Poor attitude	273 (68.4)				

The findings are also in line with a study on public perceptions and attitude towards vitiligo which reported that majority (56.1%) of the participants would not accept marrying a vitiligo patient, 19.3% would make decisions to marry a vitiligo patient after consulting a doctor, 13.8% would only accept marriage if the vitiliginous patches were in hidden, and 10.8% would accept regardless of the location of the patches. In addition, younger individuals would not accept marrying a vitiligo patient as compared to older ones.¹³

The poor attitude towards skin diseases observed in the community could be due to high illiteracy level and poor socio-economic status. In addition, the poor attitude could be linked to poor knowledge on skin diseases as evidenced by a study in Pesantren Darul Fatwa which reported good attitude due to the good knowledge among the study participants and respondents' past exposure to

the disease.⁸ Behavior towards prevention of skin diseases.

The findings revealed generally poor practice towards prevention of skin diseases among the community members similar to a study in Cameroon which reported poor practice among medical personnel on the prevention of atopic dermatitis.⁷ In addition, the study recorded poor practice towards prevention of *T. capitis* and *P. versicolor* contrary to a study among the Santri which reported 60% moderate practice towards scabies among the Santri.⁸

However, the study revealed good practice towards prevention of *T. corporis* similar to a study among the nursing students were 81.1% of the study participants' recorded good practice; and in addition, majority of the community members avoided sharing of personal belongings as a prevention measure towards skin diseases

similar to which reported 100% of the nursing students supported that individuals should not share clothes with

friends, never sleep in others bed and never borrow clothes from other people.¹¹

Table 3: Community practice towards prevention of skin diseases.

Practice towards prevention of <i>Tinea capitis</i>					
Variable	Very frequently N (%)	Frequently N (%)	Occasionally N (%)	Rarely N (%)	Never N (%)
I avoid sharing hair brushes and other personal items	166 (41.6)	139 (34.8)	61 (15.3)	18 (4.5)	15 (3.8)
I shampoo hair/ scalp	65 (16.3)	114 (28.6)	69 (17.3)	75 (18.8)	76 (19.0)
I practice good hygiene	135 (33.8)	190 (47.6)	56 (14.0)	12 (3.0)	6 (1.5)
I avoid petting animals that have patches on their skin	80 (20.1)	104 (26.1)	129 (32.3)	63 (15.8)	23 (5.8)
I carry out checkups for pets	33 (8.3)	102 (25.6)	82 (20.6)	100 (25.1)	82 (20.6)
Practice towards prevention of <i>Tinea corporis</i>					
Variable	Very frequently N (%)	Frequently N (%)	Occasionally N (%)	Rarely N (%)	Never N (%)
I avoid sharing towels and other personal items with infected people	184 (46.1)	134 (33.6)	45 (11.3)	25 (6.3)	11 (2.8)
I practice good personal hygiene	146 (36.6)	185 (46.4)	47 (11.8)	19 (4.8)	2 (0.5)
I dry skin after shower	84 (21.1)	184 (46.1)	107 (26.8)	19 (4.8)	5 (1.3)
I take lots of water to keep hydrated	68 (17.0)	186 (46.6)	88 (22.1)	50 (12.5)	7 (1.8)
I take fruits and vegetables	100 (25.1)	215 (53.9)	51 (12.8)	31 (7.8)	2 (0.5)
Practice towards prevention of <i>Pityriasis Versicolor</i>					
Variable	Very frequently N (%)	Frequently N (%)	Occasionally N (%)	Rarely N (%)	Never N (%)
I practice good hygiene	185 (46.4)	166 (41.6)	42 (10.5)	0 (0.0)	6 (1.5)
I avoid sharing clothing and personal belongings	126 (31.6)	175 (43.9)	56 (14.0)	31 (7.8)	11 (2.8)
I avoid using oily skin products	57 (14.3)	129 (32.3)	113 (28.3)	70 (17.5)	30 (7.5)
I reduce exposure to the sun or use sunscreen	53 (13.3)	104 (26.1)	143 (35.8)	70 (17.5)	29 (7.3)
I use sunscreen	122 (30.6)	89 (22.3)	75 (18.8)	51 (12.8)	62 (15.5)
I avoid wearing tight clothing	55 (13.8)	153 (38.3)	102 (25.6)	59 (14.8)	30 (7.5)
I wear breathable fabrics (cotton reduce sweating)	67 (16.8)	183 (45.9)	89 (22.3)	49 (12.3)	11 (2.8)

Table 4: Association of attitude towards skin diseases with practice towards skin diseases prevention.

Variable	Good practice, N (%)	Poor practice, N (%)	df	χ^2	P value
Good attitude	72 (43.6)	54 (23.1)	1	18.931	<0.0001
Poor attitude	93 (56.4)	180 (76.9)			

*cells with <5 counts were excluded from the analysis; df: degrees of freedom. χ^2 : Pearson's Chi-square value, p value was observed to be significant.

A significant percentage of the community practiced personal hygiene to prevent skin diseases similar to a study on the medical students which reported that 100% of the medical students practiced personal hygiene.¹² The practice in the community on water intake and consumption of fruits and vegetables mirrors a study on older adults on Sarakhs city which recorded 22.75% rarely take water, 22.75% sometimes, 20% often and 22.5% always; and 33.8% sometimes take fruits and vegetables, 20.25% often and 25.25% rarely.¹⁴

The poor practices towards prevention of skin diseases observed in the community could be attributed to poor economic status since the majority (43.4%) of the study participants had an average monthly income of less than Kshs. 5000, and only 20.3% were employed. Lack of higher education in the community revealed by almost a quarter of the study participants had attained post-secondary education could as well be associated to poor practice. In addition, the poor practices could be linked to the poor attitude observed among the community members.

Association of community attitude towards skin diseases with practice towards skin disease prevention

The study revealed a significant association between community attitude towards skin diseases and practice towards skin diseases prevention similar to a study among older adults in Sarakhs city which reported that there was association between attitude to skin care with practice of skin care among older adults in Sarakhs.¹⁴ The study findings supports the Theory of Reasoned Action which suggests that individual's health behaviour is predicted by the individual's attitude towards the behaviour. The association of attitude towards skin diseases with practice towards skin diseases prevention observed in the community could be linked to the knowledge on skin disease among the members of the community. Thus poor knowledge on skin diseases led to poor attitude towards the diseases which in turn led to poor practice on disease prevention. Poor attitude and poor practice reported in the community could be linked high illiteracy level and poor socio-economic status of the community.

CONCLUSION

The community practice towards prevention of skin diseases is predicted by the community attitude towards skin diseases.

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