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Research Article

Awareness on Scabies among Adults Residing in Rural Areas - A Descriptive Study

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Abstract

Background: Scabies is one of the most common neglected skin diseases seen in developing countries. Awareness of disease and hygienic practices can drastically reduce the incidence and related consequence in later years of life. With this view study is undertaken to assess the awareness of scabies and its prevalence in the rural community of Raigad district.

Methodology: A descriptive research design with a total enumeration sample was undertaken for the study. The adults age and/above 20 years, residing in Dhodhani village of Raigad district and willing to participate were chosen for data collection using researcher made pre-validated semi structured interview schedule. A total sample was 48 adults who were able to understand and communicate in local language.

Results: Out of 48 participants, 39 participants (81.25%) have heard about scabies. The total awareness score of participants regarding sign and symptoms and consequences of scabies was 47.6%. None of the participants were knowing all sign and symptoms, and consequences of scabies of health and productivity. The total awareness score regarding etiology, predisposing factors and measures for prevention were only 35.4% and about management of scabies the score was 51.6%. The mean awareness score was 44.9%. The survey resulted into finding out of 2 cases of scabies in the community.

Conclusion: From this study, researchers concludes that majority (81.25%) participants has heard about scabies, however understanding of scabies as a skin disease, its causes, sign and symptoms, and prevention was inadequate. There is great need for development of consciousness about scabies to protect self.

Keywords: Awareness, rural adults, scabies

Introduction

"Infectious Disease is one of the few genuine adventures left in the world".

– Mr. Hans Zinsser.

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Scabies is one of the commonest dermatological conditions accounting for a substantial proportion of skin disease in developing countries.[1] Globally, it is estimated to affect more than 200 million people at any time, although further efforts are needed to assess this burden.[2] In India, approximately 13–59% of people has been affected yearly especially among tribal area.[2-4]

Scabies is a contagious skin condition resulting from the infestation of a mite, Sarcoptic scabies. It burrows within the skin and causes severe itching. The disease is most found in people living in substandard hygienic conditions, overcrowding, and people who are sexually active.[1,6] Although it varies according to the socio-cultural and socio-economic status of the societies, it can be seen in all races, age groups and both genders. The rate of spread of disease may vary

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depending on social behavior access to adequate health services and migration of movement.[2]

Scabies affects families, particularly the most vulnerable; it also has the—greatest impact on young children. The burden of disease is compounded by nephritis, rheumatic fever, and sepsis in developing countries.[2,8] However, with a few notable–expectations, it remains largely neglected as an important public health problem.[2-11]

Scabies was declared as a neglected tropical skin disease by the WHO in 2017 as it is a significant health concern in many developing countries. Infested individuals required identification and prompt treatment because a misdiagnosis can lead to outbreaks, morbidity, and an increased economic burden.[2,8]

When the COVID-19 pandemic occurred for the first time in December 2019 the governments worldwide took some restrictions measures for slowing the spread of novel corona virus. Eventually, there are some reports which claim the incidence of scabies has increased during COVID-19 lockdown. It could be closed confinement at home during scabies.[4]

The need of the study was proposed because, during the posting at skin OPD researchers found frequent typical and atypical cases of scabies with symptoms of insomnia due to severe itching at night, rashes, and irritability. Most of the cases were reported from people residing at rural area.[12]

Research Methodology

A descriptive research design was adopted to assess the awareness on scabies among adults age of 20 years and above residing in Dhamani Village, rural area of Raigad District. Ethical approval was obtained from the Institutional ethical Review committee of MGM Dental College and Hospital Kamothe. Before data collection, informed consent was obtained from the participants in local language.

Those who are willing and able to converse in Marathi or English have participated in the study. Researcher used self-made, validated semi-structured interview schedule to collect the data. Reliability of the tool is checked by its utilization on five lay people other than the study participants. Tool included three parts. Part A is used to determine the basic bio data of the participants such age, sex, occupation, type of family, marital status and any medical comorbidities, and prior history of scabies. Part B is used to assess the awareness of scabies among participants using semi-structured interview method. This included type of disease, causes, sign and symptoms, treatment availability, and prevention of scabies. Part C is used to determine the presence of scabies among participants using semi -structured interview method. After seeking formal ethical approval and administrative permission from Director, MGM New Bombay College of Nursing, we have started the data collection process which was done from April 12, 2023 to April 15, 2023 from the participants fulfilling the inclusion criteria. The data were organized, tabulated, and analyzed based on the objectives of the study using descriptive statistics such as frequency and percentage and mean. To calculate the score of awareness, all right answers are given score one and wrong answers are given as zero. All items were grouped under following headings: Awareness about sign and symptoms and consequence, awareness about etiology and prevention of scabies, and awareness about management of scabies. Percentage score of each domain calculated using the maximum score and obtained score for that domain. Toward the end mean score of awareness was calculated.

Results

Section 1 - Analysis of sociodemographic data

Majority of the participants (81%) belong to the age group of 21–40 years. All women participants (94%) were housewife (Table 1).

Section 2: Analysis of awareness on scabies

Those participants (9) who answered that they have not heard about scabies, from them 19 questions on awareness of scabies and prevalence of scabies were not asked. Hence, the population (N=48-9=39) is considered for item analysis, percentage score of awareness and prevalence of scabies (Table 2).

Table 3 shows that 32 (82.05%) participants knew that scabies is a skin disease. Among seven items about sign and symptoms and consequences only 82.05% were aware of scabies as a skin disease, only 53.84% knew all symptoms of scabies, 63.89% knew all the common sites of scabies, and none knew both the right answers of type of rashes and time of itching. Only four participants knew that insomnia is one of the–

Table 1: Participant distribution based on Sociodemographic data using frequency and percentage (N=48)

Features	Sub category	Frequency (f)	Percentage
Age in years	21–30	22	46
	31–40	17	35
	41–50	7	15
	51–60	2	4
Gender	Female	45	94
	Male	3	6
Type of family	Nuclear	33	69
	Joint	15	31
Type of house	Kachha	23	48
	Pucca	25	52
Education	Illiterate	28	59
	Literate	8	16
/	Primary	10	21
	Secondary	2	4
Occupation	Housewife	45	94
	Service	3	6

Table 2: Distribution of participants based on awareness on scabies

Variables	Option	Frequency	%
Heard about scabies	Yes	39	81.25
	No	9	18.75

consequence of scabies. The awareness about consequences of scabies on health and productivity was found very less (Table 3 and Figure 1).

Figure 1 shows the participants obtained total 427 score out of 936. The mean percentage score of participants on awareness regarding sign and symptoms and consequences was 45.6%.

Table 4 shows that none of the participants knew that scabies is caused by mites. Unhygienic condition was comparatively better understood predisposing factor among 15 (38.5%) participants, followed by contact with infected person (35.9%) and crowded condition (23.1%). However, only one participant (2.6%) said that scabies spreads using accessories of infected person.

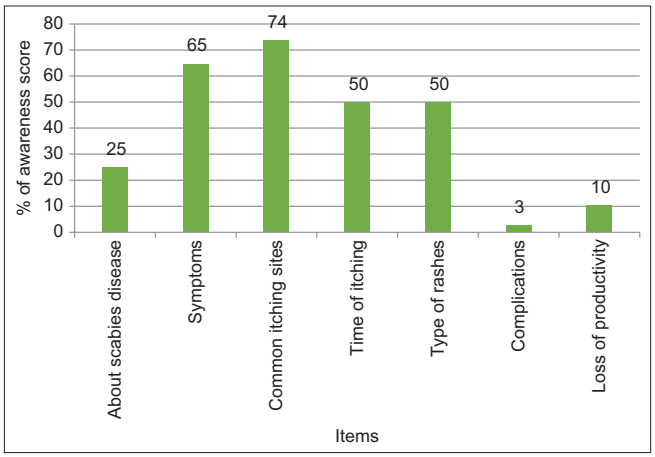

Figure 1: Item wise % of awareness about sign and symptoms and consequences

Table 3: Distribution of participants based on items regarding of awareness of sign and symptoms and consequences of scabies (N=39)

Variable	Options	Frequency	%
Knowing About Scabies Disease	Skin disease	32	82.05
	Causes itching	4	10.25
	Causes rashes, pustule	3	7.69
	All the above	0	0
Symptoms of scabies	Itching	11	28.2
	Sores/Rashes	3	7.69
	Thick crust on the skin	3	7.69
	All the above	21	53.84
	Other	1	2.56
Common places of itching in Scabies	Between fingers	3	7.69
	In the pubic and groin region	3	7.69
	Near belly button	3	7.69
	At breast line	1	2.56
	On thighs	2	5.12
	At waist	0	0
	All the above places	27	69.23
Itching time	Day time	14	35.89
	At night	25	64.1
Type of rashes in Scabies	Small	28	71.79
	Raised	11	28.2
Complications of scabies	Septicemia	0	0
	Heart disease	0	0
	Chronic kidney disease	0	0
	Insomnia	4	10.25
	Do not know	35	89.74
Loss of productivity	Yes	31	79.48
	No	8	20.51

Although the majority 21 (53.8%) participants reported that maintaining personal hygiene is important, none of them has reported the importance of cleaning and drying of skin fold for prevention of scabies. Very few expressed that contact with infected person and use of their accessories should be avoided. Few participants (15.4%) were unaware that there is no vaccine available for prevention of scabies.

The participants obtained total 152 score out of 427. The mean percentage score of participants on awareness regarding sign and symptoms and consequences were 35.4%. Figure 2 shows the percentage score of each item.

Table 5 shows that majority 20 (51.28%) participants knew that (Ayurveda, Allopathic, and Homeopathic) there are different treatment modalities available. Nobody has reported that they seek help from Mantrik or Vaidu.

The participants obtained total 181 score out of 351. The mean percentage score of participants on awareness regarding management of scabies was 51.6%. Figure 3 shows the percentage score of each item.

Table 6 shows that the awareness score about etiology and prevention of scabies was lowest (35.4%) among all domains of awareness of scabies mean % score of scabies awareness was just 44.9%. It shows that there is a need for the awareness of all the domains of scabies among the participants.

Section 3: Analysis of prevalence of scabies

Out of 39 participants who reported about awareness of scabies, only two family reported about scabies among two family members (Table 7).

Table 4: Distribution of participants based on items regarding of awareness of etiology and prevention of scabies

Item	Options	Frequency	%
Cause of Scabies	Bacteria	24	61.5
	Viruses	12	30.7
	Fungi	3	7.7
	Mites	0	0
Predisposing factor	Crowded condition	9	23.1
	Contact with infected person	14	35.9
	Unhygienic condition	15	38.5
	Use of accessories of infected person	1	2.6
Isolation needed for affected person	Yes	32	84.6
	No	7	17.9
Prevention of transmission	Avoid skin to skin contact with infected person	8	20.5
	Maintain personal hygiene	27	69.2
	Avoid use of accessories of infected Person	10	25.6
	Clean the skinfold with soap and water, and dry it thoroughly	0	0
Availability of vaccine on scabies	Yes	6	15.4
	No	33	84.6

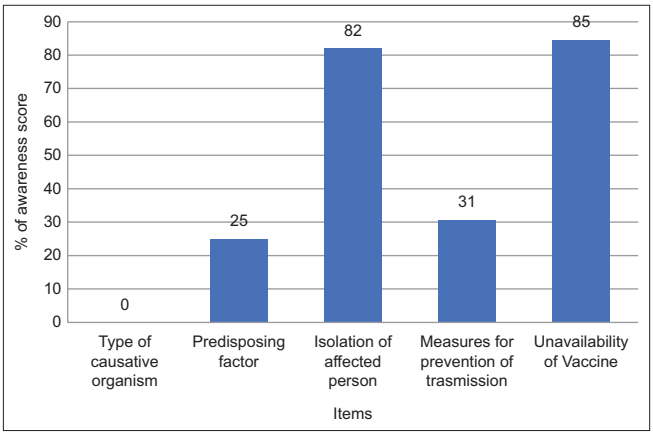

Figure 2: Item wise % of awareness score regarding etiology and prevention of scabies

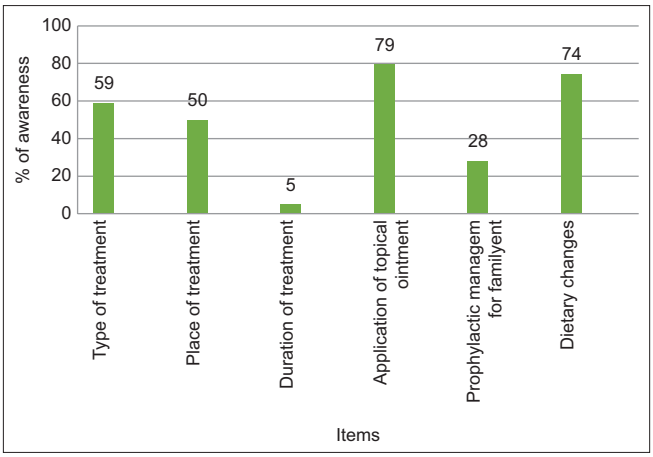

Figure 3: Item wise % of awareness score regarding management of scabies

Table 7 shows that among 39 participants 2 (5.1%) were affected from scabies.

Discussion

The prevalence of scabies in the current study is 5.12% that is two cases out of 39 and remaining nine adults who has never heard about it. This is lower than the study conducted by other researchers in India (22.4–69.5%) and outside India (0.2–71.4%).[13-15]

Out of 48 participants only 39 knew few things about the scabies. Researchers found–that only 53.8% are aware of all sign and symptoms of scabies. All participants were lacking awareness about consequences of scabies on health and productivity (Table 3). This justifies that participant has scored only 45.6% on awareness score of sign and symptoms and its consequences (Figure 1).

Although the mean domain score of awareness regarding etiology and prevention of scabies is inadequate (only 35.4%) (Figure 2 and Table 6), none of the participant were aware that mites are the cause of scabies and they grow in moist and dark skinfolds of body and hence cleaning and drying of skinfolds are necessary. Only 38.5% study participants knew that scabies is transmitted through unhygienic condition. Although 35.9% said that scabies is transmitted through contact with infected person and only 2.6% said that use of accessories is predisposing factor of scabies only few (20.5%) could comprehend and say that avoid skin to skin contact and few (25.6%) could say that do not use accessories of infected person. Whereas, 40.8% and 93.4% were unaware that scabies is being transmitted in a crowded condition and use of accessories of infected person, respectively. About 15% of participants have false believed that vaccine is available for protection against scabies (Table 4). The percentage of awareness score about prevention of transmission is found to be inadequate (31% only) (Figure 2).

On awareness score of management of scabies, the participants have scored 51.6% (Figure 3 and Table 6). Only 25.4% participants false believed that there is requirement for change in diet unlike in other diseases. Although majority knew that vaccine is not the solution for prevention, only few knew that there is a need for topical application to the

Table 5: Distribution of participants based on items regarding of awareness of management of scabies

Item	Options	Frequency	%
Type of treatment options available	Ayurveda	12	30.8
	Allopathic	7	17.9
	Homeopathic	0	0.0
	All the above	20	51.3
Place of treatment for scabies	At home	22	56.4
	In the hospital	17	43.6
Duration of treatment required	1 week	20	51.3
	2 weeks	17	43.6
	More than 3 weeks	2	5.1
Topical application needed for person infected with Scabies	Yes	31	79.5
	No	8	20.5
Need for topical application to all family members along with infected person	Yes	11	28.2
	No	28	71.8
Dietary changes required during scabies infection	Yes	10	25.6
	No	29	74.4

Table 6: Domain wise % of awareness score regarding scabies

Domains of awareness on scabies	Max score	Obtained score	% of awareness
About scabies sign and symptoms and consequences	847	427	45.6
About etiology and prevention of scabies	429	152	35.4
About management of scabies	351	181	51.6
Mean % score			44.9

Table 7: Number of family member suffered from scabies (N=39)

Variables	Option	Frequency	%
Does anyone in the family had scabies	Yes	2	5.1
	No	37	94.8

infected person (79.6) and to all members (28.2 %) of the family.

Around 95% of the participants were unaware that scabies treatment is for more than 3 weeks. Majority of the participants were aware about allopathic treatment than the Ayurvedic and homeopathy which is provided by government hospitals (Table 5).

The mean score of awareness regarding scabies is just 44.9%. However, in certain aspects participants lack the awareness greatly. This in line with the findings of other researchers, where most of the participants (84–94%) were unaware of facts of scabies.[9,16-18]

This also justifies that the 5.1% of prevalence of scabies in the current study is the combined effect of contribution of inadequate awareness about scabies as a disease, its prevention, overcrowding, kaccha houses and, poor hygiene as observed by the researcher. Thus, there is a huge need for awareness on scabies in the study population.[15]

Conclusion

From this study, researchers concludes that there is a lack of adequate awareness among tribal adults about different aspects of scabies such as cause, sign and symptoms, disease transmission, primary prevention, and treatment. The presence of scabies in the community and current level of awareness about scabies indicates the dire need of awareness cum service campaign for the tribal community of Raigad District. This would facilitate early detection and treatment, and adaptation of preventive measures of this tropical neglected disease.

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Authors Contribution

Dr. Jyoti Chaudhari: Guiding the research team, Concept and design development, data analysis and manuscript editing, reviewing, maintaining the integrity of the study. Ms. Celina Thomas: Leading the team, literature search, preparation of tool and conducting tool validity from experts, data collection. Ms. Pranita Patil: Preparation of tool and conducting the tool validity from experts and data collection. Ms. Snehal Patil and Ms. Sonali Bhosale: Data collection, Data entry, analysis, and preparation of manuscripts. Ms. Divya Pathak and Triveni Salunke: Data collection and preparation of tables and graphs.

Competing Interests

The authors have declared that no competing interests exist.

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