

## Disease perception and self medication in patients with scabies\*

### *Percepção da doença e automedicação em pacientes com escabiose\**

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**Abstract:** BACKGROUND - The high prevalence of scabies associated with low rate of self-diagnosis and stigmatization of infested people contribute to self medication.

OBJECTIVES – To ascertain perception of patients with scabies, regarding the condition, diagnostic possibilities considered, practice of self medication and their feelings when diagnosis is made.

METHODS - In a prospective study of cases, 65 patients seen at the Dermatology Outpatients Clinic of the *Universidade Federal de Pernambuco*, in Recife, Brazil, with clinical diagnosis of scabies were interviewed.

RESULTS - Only 47.7% believed that their symptoms were due to scabies, and 86% thought that they could be related to other diseases, such as infections, insect bites and allergy to contactants. Self medication was observed in 55.4% of patients, and the products mostly used were soaps and herbs. The diagnosis of scabies led to negative feelings in 56.7% of cases.

CONCLUSIONS – This study showed a low degree of suspicion of scabies among the people infested. Self medication was used in over half the cases, usually with improper products to treat the parasitosis. The diagnosis of scabies often leads to negative feelings, indicating the need of integral care of patients.

Keywords: Emotions; Scabies; Self medication

**Resumo:** FUNDAMENTOS - A situação de alta prevalência da escabiose, associada ao baixo grau de autodiagnóstico e à estigmatização dos parasitados, contribui para a automedicação.

OBJETIVOS - Verificar a percepção dos pacientes com escabiose em relação à doença, às possibilidades diagnósticas consideradas, à automedicação realizada e os sentimentos diante do conhecimento do diagnóstico.

MÉTODOS - Em estudo prospectivo de série de casos, foram entrevistados 65 pacientes com diagnóstico clínico de escabiose atendidos no ambulatório de Dermatologia do Hospital das Clínicas da Universidade Federal de Pernambuco, em Recife, Brasil.

RESULTADOS - Apenas 47,7% deles acreditavam que seus sintomas fossem devidos à escabiose, e 86% achavam que esses poderiam ser devidos a outras enfermidades, como infecções, picada de insetos e alergia a contactantes. Como automedicação, observada em 55,4% dos pacientes, os produtos mais utilizados foram os sabões e as plantas. O diagnóstico da escabiose levou a sentimentos negativos em 56,7% dos casos.

CONCLUSÕES - O estudo evidenciou ser baixo o grau de suspeição de escabiose entre os infestados. A automedicação foi utilizada em mais da metade dos pacientes, geralmente com produtos inadequados para o tratamento da parasitose. É freqüente o diagnóstico da escabiose levar a sentimentos negativos, indicando a importância da atenção integral ao paciente.

Palavras-chave: Automedicação; Emoções; Escabiose

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## INTRODUCTION

Scabies, an ectoparasite skin infection caused by the mite *Sarcoptes scabiei var. hominis*, is a cosmopolitan disease and does not present preference for sex, race or age. It is a condition acquired through interpersonal contact, while transmission may also occur by fomites. The main symptom is itching, which worsens at night. The occurrence of this condition among individuals sharing the same residence is a strong evidence of disease. Clinically, small erythematous excoriated papules are observed in the axilla, breast, trunk, penis, gluteal region and interdigital spaces of hands.<sup>1</sup>

Despite the lack of studies on scabies perception, a low grade of self-diagnosis is presumed. In a slum population of Fortaleza, in the Northeastern Region of Brazil, the prevalence of scabies in 2001 was of 8.8%; out of these cases, only 52% had searched for medical assistance. The authors understand that it is a hyperendemic disease, even though it is neglected by the population and the medical community.<sup>2</sup> This behavior is expressed by other skin conditions subject to prejudice and denial, such as leprosy.<sup>3</sup>

Self-medication is defined as the use of non-prescription medicines, that is, a personal decision made by patients about the use of a certain medication. This fact is observed in several countries showing a 90% prevalence.<sup>4,5</sup> This generic definition also includes medication prescribed or indicated by non-certified individuals, such as friends, parents or drugstore clerks – the latter is considered illegal practice of medicine.<sup>6</sup> According to ABIFARMA (*Associação Brasileira das Indústrias Farmacêuticas*) [Brazilian Association of Pharmaceutical Industries], nearly 80 millions Brazilians practice self-medication<sup>7</sup> and, every year, approximately 20 thousands individuals die in Brazil due to this practice.<sup>8</sup> Some predictive factors include long waiting for medical appointment and schooling, which provides better understanding to choose a medication.<sup>4,9,10</sup> Studies in Brazil show that the most used self-prescribed drugs are analgesics.<sup>11,12</sup> Arrais et al. showed that, among individuals who self-prescribed drugs, 6.2% looked for dermatologic products and 51% were advised by their social support network.<sup>11</sup>

Herbs and medicinal plants are in the list of self-medication supplies. Even though there is no consistent evidence of the efficacy of non-conventional therapies for skin conditions, phytotherapy is likely to be popular in many countries. In Nepal, among individuals who practiced self-medication, 8.7% used herbs. Many of them mentioned that despite being aware of the potential of allopathic medicine, treatment with herbs was considered appropriate.

The elderly knew phytotherapy for common diseases and used them before looking for medical advise.<sup>13</sup> In Norway, 19% of patients presenting atopic dermatitis and psoriasis used herbs.<sup>14</sup> In Rio Grande do Sul, in Brazil, 69% of patients used self-medication through plant infusions for several diseases.<sup>4</sup>

Scientifically, it is interesting to know the local reality regarding patient's perception of scabies, due to highly prevalent skin diseases associated to epidemiological risk of greater spread resulting from lack of diagnosis. It is important to know the product profile used for self-medicating scabies, in order to assess the individual risk of using substances - such as corticoids - which can hide the clinical status of disease or even cause some skin conditions, such as contact dermatitis by antibiotics and topical use of plants.

## PATIENTS

A case series was conducted to verify patients' perception of scabies and the type of self-medication used by them. Patients aged over 18 years, seen at the Dermatology Outpatient's Clinic of *Hospital das Clínicas* that voluntarily searched for the service, between April and September 2005, independently of their residential town, and presenting classical human scabies were enrolled in the study. Diagnosis was made based on physical examination, and individuals considered with scabies were those presenting erythematous papules with pruriginous microcrusts in the abdomen, breasts, axillas, gluteus, penis, fists and/or hands. Patients with cognitive disorders, communication disability, no typical features of disease and previous diagnosis of scabies were excluded from the study.

Data collection was done through a simple questionnaire developed specifically for this research. Two researchers interviewed the patients at diagnosis. There was no botanical corroboratory data provided by a specialist concerning the plants referred by the patients.

Patients were previously informed over the study's purpose and participated only after signing an informed consent. The project was approved by the Ethics Committee of the *Centro de Ciências da Saúde* of the *Universidade Federal de Pernambuco*, under the protocol number 048/2005.

## RESULTS

Sixty-five patients were interviewed, 22 males (33.8%) and 43 females (66.2%), aged 18-67 years (mean age of  $37.8 \pm 13.9$  years). Patients were originally from the metropolitan region of Recife (89.2%), of the *Mata* region (4.6%), *agreste* (dry region)

(4.6%) and *sertão* (1.5%) of Pernambuco. Thirty (46.2%) patients had formal education up to the eighth grade.

Sixty-two patients (95.4%) lived in brick houses. In average, the houses had  $4.8 \pm 1.7$  rooms, a total of  $4.1 \pm 2$  residents. Average family income varied from 0.3 to 100 minimal wages, median of 2.5 salaries. In terms of occupation, the larger group consisted of individuals out of the economically active population ( $n = 23$ ; 35.4%), followed by non-skilled manual workers ( $n = 18$ ; 27.7%).

Regarding disease perception (Table 1), 10 patients (15.4%) looked for medical assistance for reasons other than signs and symptoms of scabies. Only 31 (47.7%) considered scabies as a possible diagnosis. Out of 65 patients, 56 (86.2%) thought their signs and symptoms were due to other conditions. Among these, most considered it would their condition would be insect bite, fungal/viral/bacterial infection or parasite agents different from *S. scabiei* ( $n = 29$ , 51.8%) and contact dermatitis by elements including water in the house ( $n = 19$ , 33.9%).

Regarding self-medication (Table 2), 36 patients (55.4%) used topical products, and 8 (12.3%) oral products. One patient had used two classes of oral products and up to four of topical use. The most frequently used substances were antiseptics (potassium permanganate, boric acid, chlorhexidine and iodine) and soaps (yellow, sulphur-based), reported by 77.8% of interviewees. Plants used as infusions for dressing and soaps were used by 50% of those who practiced self-medication.

Among 18 patients that used plants topically, 1 (5.6%) used *juazeiro* (*Zizyphus joazeiro*),<sup>15</sup> and 17 (94.4%) used *aroeira* (*S. terebinthifolius*, or Brazilian peppertree, or *M. urundeuva*, both of the *Anacardiaceae* family).<sup>16</sup> Besides *aroeira*, one patient used parsley (*Petroselinum crispum*),<sup>17</sup> one

used shellplant (*Alpinia speciosa*),<sup>18</sup> 1 used black nightshade (*Solanum nigrum*),<sup>19</sup> and one used lacre (*Vismia guianensis*).<sup>20</sup>

Among eight patients who used products orally without medical prescription, 4 (50%) used antihistamines; 2 (25%) used plants; 2 (25%) used ivermectin; and 1 (12.5%) used tetracycline. *Aroeira* and shellplant were used as tea and for topical use.

Among 36 patients who practiced self-medication, the products had been chosen by parents and friends in 19 cases (52.8%) or by the patients themselves in 19 cases (52.8%). The drugstore clerk was responsible for indication of products used in only 4 cases (11.1%), and the health outreach agent or nurse in one case (2.8%).

Thirty seven patients (56.7%) referred one or more negative feelings due to diagnosis of scabies; 23 (35.4%) mentioned apprehension symptoms such as affliction, fear, discomfort, anxiety, restless, concern or distrust; 20 (30.8%) informed depressive symptoms such as sadness, shame, shyness, prejudice, feeling of promiscuity and of rejection; 6 (9.2%) stated symptoms related with repulsion, such as disgust and feeling of dirtiness; 25 (38.5%) considered scabies a common disease and, therefore, did not feed negative feelings due to diagnosis; and 3 (4.6%) expressed astonishment (Table 3).

## DISCUSSION

There are not many studies in literature on patients' perception of scabies. In this study, 15.4% of patients had looked for a dermatology service for reasons other than symptoms of scabies, and this diagnosis was obtained through a complete clinical exam. This rate is lower than that found by Heulkelbach et al., in 2001, who carried out a study in the health service of a slum community in the surroundings of Fortaleza, where half of the patients with scabies searched medical assistance due to complaints other than

**TABLE 1:** Presumed diagnoses by 56 patients with scabies who believed their skin conditions was not scabies

Presumed diagnoses	Cases (N = 56)	%
Insect bite or fungal, viral or bacterial infection, or caused by parasites, except <i>S. scabiei</i>	29	51.8
Allergy to contactants	19	33.9
Blood disease, "weak blood", collagen diseases, reactions to food and enteral use drugs, psoriasis, cancer	10	17.9
Heat rash, heat, humidity	8	14.3
"Normal" skin itching	4	7.1
Sexually transmitted disease	4	7.1
Witchery, psychological	3	5.4

TABLE 2: Features of products used topically by 36 patients with scabies as self-medication

Products	Frequency (N = 36)	%
Yellow and sulphur-based soap, iodine, boric acid, chlorhexidine, potassium permanganate	28	77.8
Herbs (teas for dressing, soaps)	18	50
Antifungal or antibiotic creams	9	25
Corticoid or antihistamine creams	6	16.7
Scabicide lotion	5	13.9
Specifications not informed	4	11.1
Scabicide soap	3	8.3

ched medical assistance due to complaints other than those related to this ectoparasitosis.<sup>2</sup> These rates demonstrated the importance of performing a complete dermatological examination on patients, regardless of the complaints that took them to the health services.

The fact that less than half of patients considered scabies a possible diagnosis and four (6%) patients thought itching was a normal skin condition, show the population's lack of knowledge about signs and symptoms that cause a common parasitosis. This low suspicion may reduce acceptance of diagnosis made by physicians and interfere in compliance to treatment.

Among the conditions patients presumed in this study, infections and infestation by agents other than *S. scabiei* were the most frequent and, they commonly believed that these lesions were caused by dogs' germs. Among the patients that thought the disease was due to allergy to piped water, this idea was reinforced by the occurrence of the same symptoms found in other residents in the house or the street.

Regarding self-medication, a high proportion of patients that used antiseptics and soaps, especially yellow soap, was observed. Possibly this is due to the fact that patients frequently thought they had infections or infestations different from scabies and, therefore, a more careful hygiene could better their symptoms and cure them.

It is easy to understand that *aroeira* was the most used plant considering that it is easy to acquire, as well as soaps containing it in their formulation. In addition, it is a low cost product, and commonly diffused through mass communication. There are few studies about its healing effects,<sup>21,22</sup> especially on skin, and possibility of photosensitization and contact dermatitis.<sup>23-25</sup>

It is emphasized that only six out of 36 patients practicing self-medication used adequate treatment, such as scabicide lotion, oral ivermectin or both. Dermatologists, in general, did not consider scabicide soaps alone as appropriate treatment for scabies.<sup>26-28</sup> Thus, it is evident that the selected products used for self-medicated scabies are not adequate, as reported in 1995 by Mahe et al.<sup>29</sup>

Contrary to Heukelbach et al, who did not observe mystification or stigmatization in scabies patients in a slum, in Fortaleza,<sup>2</sup> this study shows a high frequency of negative feelings related to diagnosis of scabies. This stigmatization depends on the population's socioeconomic context, and was described in other studies.<sup>26,30</sup> Therefore, it was observed that professional intuition and perception are required to welcome patients, yielding that, during consultation, feelings associated to the disease can emerge. Full care should be delivered, assessing not only the purely biological manifestations.

TABLE 3: Feelings reported by patients when diagnosis of scabies was informed

Feelings	Frequency (N = 65)	%
Nothing important, it is a common disease	25	38.5
Affliction, fear, discomfort, anxiety, restless, concern or distrust	23	35.4
Sadness, shame, shyness, prejudice, feeling of promiscuity and of rejection	20	30.8
Disgust and feeling of dirtiness	6	9.2
Astonishment	3	4.6

## CONCLUSION

The present study showed that scabies presents a low rate of suspicion among infested individuals who look for dermatology services. There are several conditions that patients presume and the most frequent are infections of different natures, such as insect bites and contact dermatitis. Self-medication

was observed in more than half of patients, most of them by suggested by parents and friends – or by the patient's own will –, using inappropriate products to cure the parasitosis. The diagnosis of scabies frequently caused negative feelings, demonstrating that full care should be delivered to patients, going beyond purely biological aspects. □

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