Delusory Parasitosis, Entomophobia and Scabies

By Richard and Patricia Kaae

ENTOMOPHOBIA AND DELUSORY PARASITOSIS

These two distinct phenomena are both based on the fear of small creepy creatures. As the name implies, entomophobia is the fear of insects. Based on a national survey, the fear of insects is ranked third in adults—closely behind the fear of public speaking and death. The fear of cockroaches is frequently ranked number one in the insect world. Possibly the fear of insects is a learned response. Very few children are afraid of insects unless they learn to be so by their parents, movies, or other sources. Because this is a learned response, this type of fear frequently can be reversed—sometimes with very little effort.

We have found that exposure to reptiles and insects is often enough to "unlearn" this fear. Once a young person can be persuaded to hold a walking stick and then to look into its "cute little face," they are halfway to undoing an acquired fear of all six legged animals. We have observed this behavior time and again due to our activity with youth fairs and other such public events. The annual county fair in Orange County, California has provided us the opportunity to educate children on a very large scale. Parents often know their own fear is irrational and don't want "to pass it along to their kids." Therefore, the child's acceptance often has a secondary benefit, in that the parent accepts the animal as well. Once we plop a scorpion, python, or tarantula into the arms of a young person, the parent will usually take a deep breath and then, once the child accepts the animal, the adult goes for it too. Parents don't want their kid to think they are big "sissies."

We once participated in a youth exposition where management sent us a teen aged girl to help out. Being deathly afraid of snakes, she probably was not the best volunteer for our type of exhibit! She assured us she would be all right as long as she didn't have to go near anything reptilian. After a short period of time, she ventured a small caress down the back of our most beautiful snake. Then she had us hold its head so she could feel what the body felt like. Then she
bravely held the whole snake. The snake, responding to a warm body in a cold room, coiled delicately around her arm and cuddled right up. By the end of the second day, she wanted to take it home with her. For most people, this intimate experience with the previously feared insect or snake is enough to overcome many years (sometimes decades) of learned terror.

Delusory parasitosis is a paranoia, or irrational fear, of small creepy non-existent creatures. Because mites are so small, often this condition is diagnosed as a mite infestation. This phenomenon is more common than one might expect. Frequently, people who are afflicted with this malady are quite normal in all other phases of life and lead productive lives.

I was quite unaware of this phenomenon until one day a man in his mid 40's walked into my office and indicated that the UCLA Medical Center had referred him to me. He indicated that he and his home were infested with small 'bugs' that he could not eradicate. After a short discussion he reached out into the air and indicated I had them in my office also. I responded that he must have brought them with him. He further stated that he had captured some and placed them on a piece of scotch tape. He related collecting each ‘critter.’ The first had bitten him on the leg and then disappeared under his skin, but he dug it out with a sewing needle. The second was on his pants cuff and bit him on the ankle. The third was found swimming around in his toothpaste. After considerable discussion we examined each 'critter' with a microscope. Needless to say, none resembled an insect or mite. Indeed, they were small grains of sand, pieces of lint and so on. However, even after this close inspection and working with him over a several-week-period, he could not be persuaded that the attacking creatures were imaginary. The situation became so bad that he convinced his wife that she was also infested. They had arguments over who had the most. They couldn't get them out of their home even though several exterminators were called. Because of the infestation the home was eventually sold at a considerable loss. Eventually, partly because of the turmoil, their marriage ended in divorce.

There have been many similar situations since then. One of the most unusual occurred a few years ago when a city official from Mission Viejo (Orange County) called me and indicated that he had a whole neighborhood infested
with scabies mites (see below). Scabies are parasitic mites that commonly infest humans. At the time this didn’t seem questionable because a number of the people had been to medical doctors and had been treated for this mite. These treatments didn’t seem to solve the problem, so I was brought in as a consultant. The main problem was centered on one particular resident. This woman apparently had convinced much of a neighborhood of the widespread infestation. She was using very drastic measures to try to eliminate these mites from her house and family. She would use lye to scrub down the beds on a weekly basis. On several occasions she washed her kids down with gasoline. Of course, upon hearing this, I began to realize that the whole situation was more than a little irrational.

A colleague from NCSU, Mike Waldvogel, reports similar experiences. He states he has received a variety of imaginary critters in vacuum cleaner bags, pillow cases, panty hose, skin samples, glue boards (like those you use for catching mice) and (the one he described as the ultimate) a bottle (formerly a pint gin bottle) that was labeled "after douching." Needless to say that one wasn’t opened! Neither were the vacuum cleaner bags, as they usually contain pesticide-laden dust from over treated carpets for these so called pests.

All of these cases have had several symptoms in common. The 'critters' typically fly through the air, crawl on the skin, frequently appear and disappear in the skin, make clicking noises and can be found in soap and toothpaste. Generally, inflicted individuals have gone to several medical doctors to no avail and can almost never be persuaded that the pests are imaginary.

**SCABIES**

*Sarcoptes scabei* is a parasitic mite that attacks a wide variety of mammals; however, there are many varieties, with each type being host-specific. For example, the variety of scabies that attacks humans does not infest other animals. Similarly the scabies mites that attack dogs do not infest humans. The human scabies mite is almost invisible to the naked eye (about 1/60 inch), cylindrical in shape, and has golf tee-shaped suckers on the tips of the legs.
A female human sarcoptic mange mite (Sarcoptes scabei) greatly magnified. Image courtesy of CDC Healthwise Photo Library.

The life cycles of male and female human scabies mites are somewhat different. A young female adult will crawl over the human body until she reaches soft wrinkly skin and, within two to three minutes, bores inward, forming a tunnel about 3/4" in length and parallel to the skin surface. She feeds on body juices and lays eggs (up to 20 per female) in the burrows. With close inspection mature females can be seen in the burrows. As a result of this activity, pimple-like structures develop which eventually rupture after a day or two, releasing the eggs on the skin. Once hatched, the larval and nymphal stages crawl over the skin and periodically feed in sebaceous glands and hair follicles. Male mites also feed in these areas. Generally it takes about two weeks to complete the life cycle from egg to adult.

Unfortunately, a brief sin-to-skin contact such as hand holding can result in acquiring scabies. It can also be transmitted sexually or just by sleeping in the same bed with someone. It can also be passed on from children. The scabies
mite can live a few days off the host and therefore, it can be acquired via bed linens, clothing and home furnishing.

The majority of the mites (63%) are found on the hands (especially between the fingers) and wrists and about 11% on the elbows. In women the mites are often found burrowing beneath and around the breasts and nipples. In young children, whose skin is still soft, the mites can be found all over the body and frequently on the legs.

Scabies infestation between fingers. Image courtesy of CDC Healthwise Photo Library.

There are no obvious symptoms for the first 30 days after infestation. During that period, treatments are not necessary. However, subsequently, an intense rash and itching begins to occur over many areas of the body, in some cases even in areas where the mites are not found. The itch is characteristically more severe at night and affects the trunk and limbs. It does not usually affect the scalp. Itching can become so intense that the infested person loses sleep and can be affected mentally. Blisters and pustules on the palms and soles are characteristic of scabies in infants. Secondary infection commonly complicates scabies and results in crusting patches and scratched pustules. After about 100 days the mite population drops off and symptoms of the infestation begin to disappear.
The best course of action consists of elimination of the mites from the body and treatment of recently worn clothing and bedding. The mites are totally host dependent and cannot live off the host for more than few days. Pesticide lotions can be used to kill those mites on the body. Kwell lotion was the standard for control for many years. However due to possible negative side effects of the active ingredient, it has been mostly replaced with more effective products. Permethrin cream is currently the most widely used product. Recently used clothing or bedding should be laundered, ironed or sealed in large plastic bags for a few days. Symptoms will not disappear completely for a few weeks after the mites are eliminated. This is significant because it is probably not a good idea to over-treat an infestation of these mites. One of our grandkids contacted scabies and the kids next door had the same problem. We instructed the neighbor how to treat her kids. About a week later she indicated that the symptoms had not disappeared and wanted to retreat her kid. This is not a good idea as exposing children too frequently to the prescribed pesticide can lead to overmedicating. Therefore it’s important to know and to follow the directions for such direct contact treatments.

It should be mentioned that medical doctors occasionally misdiagnose scabies mite infestations. As discussed above, several of the neighbors of the lady suffering from delusory parasitosis were convinced by her that they had scabies and were actually diagnosed and treated for them. I was once suffering from itching of the skin and went to a M. D. who immediately, upon hearing my symptom, stated that I had scabies and prescribed Kwell. I told him that I really didn’t have any of the other symptoms other than itching. His response was "sometimes there are no other symptoms," which may or may not be true. The point is that he didn’t even look at me. Upon hearing "itching" he stepped back about two feet (they are fairly contagious) and muttered "scabies." After using the Kwell with no relief, I consulted a dermatologist who correctly diagnosed my problem as dry skin.

A few years ago I was contacted by a convalescent home about a scabies infestation. They had approximately 100 patients half of which were diagnosed with scabies. This was a real problem. Public Health had quarantined the hospital because this is a communicable disease. Of course this was devastating and confusing to the older residents as their relatives couldn’t visit them. The
people who worked there were very concerned and fearful that they might carry the disease home with them and give it to their own families. With this in mind, the hospital wanted me to come up with a viable treatment program. Treatment was several fold. Everyone involved had to be treated with Kwell lotion—the chemical that at that time was preferred (long time ago). Treatment included all the patients and individuals who worked there as symptoms of an active infestation do not appear immediately. There was no need to treat the premises itself as the mites are host-dependent and can only live off the host for a day or two. However, recently worn clothing and bedding had to be treated as a potential source of infestation. We considered sending these to a commercial laundry, but that created the potential of infesting the individuals who worked there. Instead, we took all the clothing and bed sheets and sealed them in large trash bags for about four days, keeping in mind that the mites can only survive off the host for only a few days.

As previously mentioned control is 2 fold, namely elimination of the infestation on the body followed by treatment of found on recently worn clothing or bedding. A number of chemicals have been historically used for control of this mite.