

The Frequency of Shared Delusions in Delusions of Infestation

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Summary. The phenomenon of shared delusions was found in 9 (8.4%) of 107 personally investigated patients suffering from delusions of infestation (88 females, 19 males). A greater number of females (ratio of females to males 3.5:1) “induced” others, whereas a gender ratio of 1:1 was evident in the group of affected patients. Since the ratio of blood relations to non-blood relations was 1:2.3, genetic factors seem to play a less important role than the direct impact of deluded patients on their environment. The rare occurrence of shared delusions of infestation leads to the conclusion that only persons with a paranoid predisposition (*paranoide Bereitschaft*) may be affected. Cases of induced delusions are also described in which attending physicians act as “inducers”.

Key words: Delusions of infestation – Delusional parasitosis – Monosymptomatic hypochondriacal psychosis – Induced delusions – Folie à deux

Introduction

Induction of psychiatric disturbances is a well-known phenomenon in psychiatry. These disturbances were first described by Kenelm Digby in 1658 [18], but more than two centuries passed before it was the subject of a scientific investigation, performed by Lasegue and Falret [24]. This classic publication was the impetus to an intensive study of induced psychoses [6, 11, 15, 40], in which the different authors are in agreement that the paranoid psychoses are the most frequently induced. In this context psychopathological research has also dealt with questions about heredity of induced psychoses. In a study including 346 cases of induced psychoses, Scharfetter [40] found a preponderance of blood relatives, indicating that genetic as-

pects may be of importance in the development of “induced” (“sympathetic”) psychoses.

The first descriptions of shared delusions of infestation by parasites are attributed to Giacardy [14] and McNamara [29]. Giacardy noted, however, that Regis in 1896 and Debreuilh and Maillard 1901 had, in prior articles, reported similar cases. Since then, this subject has been treated and discussed by various authors [2–4, 7–10, 13, 16, 17, 22, 25–28, 31, 38, 39, 41, 43–50 etc.]. The great number of publications concerning shared delusions of infestation led to the assumption that this phenomenon is very common. In order to estimate the relative frequency of this phenomenon, Mester [30] compared the cases of shared delusions of infestation described in the current literature available to him with all other published cases of delusional infestation. Out of 295 patients (15 patients were his own observations, while the remaining cases were taken from the medical literature) suffering from delusions of infestation he calculated an 18% rate of shared delusions. In contrast to the gender distribution of the inducers (ratio of males to females 1:4) no main gender differences in the recipients could be found (ratio of males to females 1:1.04). Such an approach, however, inevitably involves many methodological pitfalls. The most important one, the high probability that multiple cases had been given preference in reporting, was pointed out by the author himself.

The various descriptions of shared delusions of infestation led to divergent hypotheses about “heredity” and “psychogenesis” of these special forms of delusions of infestation, as well as the pathogenetic hypotheses of delusions of infestation in general [32]. In these discussions, quite often no clear distinction between induction of tactile phenomena and the induction of “real” delusional ideas (in the sense of Jaspers [20]) were drawn, which resulted in great discrepancies concerning the frequency of inductive phenomena in delusions of infestation.

In contrast to the variety of opinions regarding shared delusions of infestation there is an almost complete lack of data (as distinct from vague suppositions) regarding the frequency of such inductive processes. This fact was the starting point of a study in which the following questions should be investigated on a larger sample of personally examined patients:

1. How often do shared delusions occur in delusions of infestation?
2. Are there gender differences in patients with shared delusions of infestation?
3. Is there a preponderance of blood relatives in patients with shared delusions of infestation?

Methods

This study was carried out on 107 personally examined patients (88 women, 19 men) suffering from delusion of infestation. All patients met Jasper's criteria for delusional ideas [20]. There were 34 patients with delusional infestation (sample 1) who were referred to the special psychiatric outpatient clinic for patients suffering from delusion of infestation, located at the University of Vienna Second Dermatology Clinic, and have been under the psychiatric care of one of the authors (M.M.). The other 73 patients with delusion of infestation (sample 2) were collected by the second author (E.K.) in the period 1958–1987 at the Institute of Parasitology and Zoology at the University of Veterinary Medicine, Vienna. As the second author's interest in delusional infestation is well known, especially among parasitologists as well as pest control companies and dermatologists, his patients have not only come directly to him but have also been referred by other physicians and pest control companies. In this manner, from 1958 to 1987, 73 patients with delusions of infestation were referred to him and all were included in this study.

As most patients with delusional infestation have a negative attitude towards psychiatric care, they are more frequently seen by dermatologists or parasitologists than by psychiatrists [5, 21, 23, 42]. Only a small minority of patients with delusions of infestation accepts psychiatric treatment. As there is some evidence that patients preferring dermatologists, parasitologists or psychiatrists may differ in some aspects [32, 33], studies which include only patients under psychiatric treatment involve the methodological problem of high selection. This well-known fact encouraged the first-mentioned author to establish a special outpatient clinic for patients suffering from delusion of infestation in the University of Vienna Second Dermatology Clinic, in which the deluded patients (referred by this clinic and other dermatological services, the Parasitological Institute of the School of Veterinary Medicine, the Parasitological Service of the Institute of Public Health, University of Vienna, and by private pest control companies) are treated by a psychiatrist.

The patients are not referred to a psychiatric care unit, but referred to a physician, whom they have been told is a specialist for their particular disorder. At this stage, they do not know that the specialist is a psychiatrist. Nevertheless, it is not necessary to deny this fact, which is of great importance for further treatment. If they had been told in the beginning that the specialist was *not* a psychiatrist, the physician would not have had a chance for later psychiatric therapy, because a confidential relationship would not have been possible. After establishment of a stable relationship based on confidence, the patients will ac-

cept further examinations and treatment, even if they realize that the doctor is a psychiatrist.

As this Viennese Model enables close cooperation between parasitologists, dermatologists and psychiatrists (the essential precondition for efficient therapy of patients suffering from delusion of infestation [33, 34, 36]), it opens up the opportunity to examine and treat those patients who are primarily reluctant to undergo psychiatric care, therefore avoiding the selection problem. Even though we may not have seen all patients with delusional infestation living in Vienna and its surroundings, both the widespread cooperation of the special outpatient clinic for patients suffering from delusions of infestation and the high number of patients indicate that the majority of patients with delusional infestation living in this region were recorded.

Results

In the first sample, the phenomenon of an induced delusion was observed in three (9%) of 34 patients. In one case, the delusion of infestation was transmitted from the daughter to the mother, in another case from the wife to the husband, and in the third case from a man to both his mother and his female companion. In the second sample, six (8%) inductions were discovered: three cases of wives to their respective husbands, one case of a woman to her male companion, and another of a woman to her sister. An induction from the husband to the wife was observed only in one case (Table 1). In summary, therefore, no essential differences could be detected regarding the frequency of shared delusions between the two groups of independently investigated deluded patients. For the whole group of examined patients, shared delusions were recorded in 8.4%.

Table 1. Description of inducers and induced of sample 1 of patients (PS 1 = patients treated in the period 1986–1987 at the special outpatient clinic for patients suffering from delusions of infestation in the Second Dermatology Clinic, University of Vienna; $n = 34$) and sample 2 of patients (PS 2 = patients investigated in the period 1958–1987 at the Institute of Parasitology and General Zoology, Veterinary University of Vienna; $n = 73$)

Sample	Inducer	Induced
PS 1		
Case 1	Female	Mother
Case 2	Female	Husband
Case 3	Male	Mother Female companion
PS 2		
Case 1	Female	Male companion
Case 2	Female	Sister
Case 3	Female	Husband
Case 4	Female	Husband
Case 5	Female	Husband
Case 6	Male	Wife

In the group of inducers, the male to female ratio was 1:3.5, whereas in the group of recipients there was no gender difference, the number of induced males and females being equal. Only three of the ten induced patients were blood relatives of the inducers. The remaining seven were in close contact with the primarily affected patient, but they were not blood related. The ratio between blood relatives and non-blood relatives was 1:2.3 (Table 1).

Discussion

The percentage of shared delusions in delusional infestation patients established in our study is in accord with the estimation of Wieser and Kayser [46], but differs from Mester's results [30]. The 18% rate calculated by Mester signifies a higher ratio of patients who transferred their delusions to closely associated persons. From his study, 1 of 5–6 patients seems likely to pass over his or her delusion to another person, whereas in our study, delusion transfer is expected in only 1 of 12 patients. The obvious discrepancy between Mester's and our results is probably due to the previously mentioned tendency to publish multiple cases occurring within the family or within a circle of acquaintances.

The ratio of men to women in our patient groups (1:3.5) is comparable with the 1:4 ratio established by Mester [30]. In our study, as well as in Mester's, there were no main gender differences in the recipient results. We therefore concur with Mester in his recipient ratio of 1:1.04 for the likelihood of being influenced; the paranoid predisposition is obviously not less in men than in women, but the latter are more prone to develop a primary delusion [30].

The ratio between blood relatives and non-blood relatives found in our group of patients (1:2.3) is between Mester's results ($n = 53$; 1:1.5) and those of Döhring [7] ($n = 11$; 1:4.5). In comparison with other "symbiotic" psychoses (shared psychoses) [40] we observed relatively few cases of delusional infestation within the family. Scharfetter [40] gave significant weight to blood relatives as compared with non-blood relatives in other forms of induced psychoses ($n = 346$; ratio of non-blood relatives to blood relatives = 1:1.7), emphasizing that genetic factors may be involved in their development. In contrast, we could not find a preponderance of blood relatives in shared delusions of infestation. The transference of this special form of delusion therefore seems to be due to the direct impact of deluded patients on their environment. In this context, the social isolation we often observe in our deluded patients (and also in their relatives) seems to be of great importance [33, 35]. Thus, the lack of other interpersonal relations leading to the invention

of an "enemy partner" [19] could be an explanation for the "clinging together" of isolated persons in one delusional system.

The "realism" of the theme of the delusional infestation and its generally logical structure could explain the fact that this special delusional theme is so often acquired secondarily by relatives. In addition, the mere imagination of an infestation by vermin on the body or the clothes may engender unpleasant sensations or even itching. One may also mention in this context the inclination of examiners to scratch themselves when listening to the deluded patients' complaints.

Incorporating these observations concerning the high "contagiousness" of itching, we may infer that, observed within the frame of delusional infestation, the phenomenon of shared delusions is not very common. We are therefore inclined to assume that delusion transference can only occur if the potential recipient displays a paranoid predisposition based on bodily, psychic and/or social constellations of conditions (*Bedingungskonstellationen*) [1, 11, 37]. To gain deeper insight into the questions regarding the occurrence of shared delusions of infestation, further psychopathological studies are needed. In particular, investigations of organic, psychic and social factors, comparing a sample of patients with induced delusions of infestation and a sample of persons closely associated with the delusionally infested patients (but not sharing their delusional ideas), seem to be appropriate in order to clarify the "constellations of conditions" of shared delusions of infestation.

Finally, we wish to emphasize that the false belief is not necessarily transferred from one deluded patient to another. Indeed, it is possible that a non-affected person may compel another susceptible person to a delusion. These cases cannot be assigned to the "induced psychoses" in the literal sense. Thus, in our group of patients we found that some attending physicians played a crucial role in the determination of delusional contents in many deluded patients. They actually instilled the idea of pruritus due to parasites, or they confirmed the patients' belief in infestation.

Such an approach (to confirm the patients' belief in infestation), as proposed by Frankel for treatment of delusional infestation patients [12], is to be categorically condemned not only for medical but also for moral and ethical reasons. Not only would this be of no help for desperately deluded patients, but would also further aggravate their exasperating situation. In addition, further treatment by another therapist is then rendered impossible. Patients will always refer to the "specialist" who confirmed their parasitic infestation. If confronted with a contradictory medical opinion of another therapist, patients will be unable to es-

tablish the indispensable confidential relationship necessary for effective treatment, and will continue to remain prisoner of their delusional ideas.

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