

Factitious Disorders in Neurology: An Analysis of Reported Cases

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Background: *Factitious disorder (FD) is the deliberate production or simulation of symptoms in order to adopt the sick role. Objective:* *The authors look at FD in the neurology setting. Method:* *The authors examined documented, published cases. Results:* *FD cases in neurology are strikingly different from those in other specialties in terms of their demographics. Whereas the paradigm of FD in medicine as a whole is of the socially stable female healthcare worker, neurology continues to report largely the classic itinerant “Munchausen’s” type. Discussion:* *The authors explore two possible explanations for this: either that female healthcare workers with FD do not present neurologically, or that, if they do, they are diagnosed with conversion disorder.*
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Factitious disorder (FD) is the deliberate production or simulation of symptoms in order to adopt the “sick role.” The first generally accepted report was Asher’s description of “Munchausen’s disease,” in 1951,¹ and it first entered the diagnostic canon in 1980.² By this time, several case series had suggested that Asher’s description of peregrinating, antisocial patients applied to only a fraction of factitious cases: most cases were actually socially stable women working in the healthcare field. The dominant paradigm was not “the Munchausen’s patient,” but “the factitious nurse.”

From the outset, Asher described the neurological, along with the abdominal and the hematological, as the most familiar type of factitious presentation.¹ The beginnings of FD in neurology may considerably antedate Asher, however, particularly in its relationship with hysteria. A hundred years earlier, neurologists working with hysteria were struck by their patients’ ready transition to deliberate simulation in order to prolong their illnesses,^{2,3} and Freud formally blurred hysteria and FD when he claimed that there was a degree of conscious simulation in every case of hysteria.⁴ Today, many see FD and conversion disorder (as hysteria is now known) not as separate

categories, but as neighbors on a spectrum of simulated disorder,^{5–8} with the clinical distinction usually impossible to make.^{9,10}

The effect of this putative proximity with conversion disorder may be to make it an even less welcome diagnosis.¹¹ Its effect on factitious neurology is likely to be more complex, and is the subject discussed here. We would predict that FD diagnoses in neurology will have become less common over time, particularly where they might resemble conversion disorder. By examination of the published case reports, we shall consider how the proximity with conversion disorder may have influenced the diagnosis of factitious neurology. These reports tell us little about the true incidence of FD, but, particularly by comparison among specialties, they do tell us something about doctors’ behavior.

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METHOD

We searched PubMed online for new case reports or series of FDs presenting with primarily neurological symptoms, using the search terms Factitious or Munchausen, AND Neurology, Neurological, Neurosurgery, Neurosurgical, Paresis, -Plegia, -Aesthesia, Ataxia, Apraxia, Epilepsy, Seizure, Ache, Pain, or Coma. This was constructed to include any terms which were composed of the above, so that, for example, "Pseudoseizure" would be detected by the search for "Seizure." Further reports were sought by searching PubMed for articles that cited Asher,¹ and for articles related to Bauer et al.¹² Articles' references were manually searched for further cases. Cases were excluded if they were Munchausen-by-proxy, cited children, were historical, or where the primary symptoms could not be established. Cases were also excluded when it was ascertained that "factitious" was used in its more general sense of artificial, such as "factitious elevated potassium in a hemolyzed blood sample;" the judgment as to the factitious nature of the case was otherwise left with the authors' verdict. Where the authors reached no firm conclusion as to whether cases were factitious, they were excluded.

Where a history of repeated presentations was described, the presenting symptoms at the initial encounter with the authors were used. Where symptoms from multiple systems were included, the predominant group or the apparent diagnosis was used (for example, the case where a "38-year-old female physician was admitted with the suspected diagnosis of a myelodysplastic syndrome . . . [on] physical examination, neurological and dermatological disorders could be found. . ." ¹³ was taken to be hematological). Where no apparent diagnosis was available (e.g., Bauer and Boegner,¹² Case 1), we included those cases where neurological symptoms comprised a major part of the presentation but where no one system predominated.

Deciding which disorders were neurological also took some thought. For example, dementias are treated both by psychiatrists and neurologists, and "blackouts" can have a variety of causes, of which neurological and cardiac are only the commonest. We decided such issues on the basis of which specialties were likely to have initially managed the patients and consulted a neurologist where there was doubt; so, in the above conditions, we took pseudodementias to be psychiatric, because they are more commonly managed by psychiatrists, and pseudoblackouts to be neu-

rological, because they are commonly associated with other pseudoneurological symptoms, and, therefore, managed by neurologists.

A second search was conducted, to explore the proportion of cases that were neurological over the last 5 years compared with the earliest period of factitious cases. This comprised a search of PubMed for every case of FD, irrespective of presentation, restricted to the periods 2001–2005 and 1951–1965, using the terms Factitious, Artefact, or Munchausen, and using the exclusion criteria above. The earlier period was extended to 15 years because so few cases were found when only 5 years were considered.

RESULTS

A total of 45 reports, comprising 90 cases with neurological presentations of FD, were found.^{7,12,14–56} A wide range of neurological presentations were included, the commonest being functional motor symptoms/simulated strokes, and seizures/blackouts; see Table 1 for the numbers and types of presentation.

Some of the demographics of the neurological cases were unusual when compared with other large samples of general factitious patients,^{57–62} although it should be emphasized that demographic information was only available for a subset of our cases. Although the ages (16–62; mean: 34), and marital status of the neurological cases (9 single, 8 married, 2 divorced) were very similar to the general series (total mean age: 33; marital status: 55%

TABLE 1. Neurological Presentations of Factitious Disorder

Presentation	Cases, N
Epilepsy ^a	19
Sub-arachnoid hemorrhage	3
Meningitis	4
Cycloplegia	2
Head injury	3
Back injury	6
Weakness ^b	28
Dystonia	2
Apraxia	7
Anesthesia	7
Neuralgia ^c	7
Meniere's disease	1
Deafness	3
Reflex sympathetic dystrophy	7
Mixed	3
Total	87

^aIncludes "blackouts." ^bIncludes cases reported as strokes or only as "motor conversion."

^cIncludes cases of neck or back pain.

TABLE 2. Proportions of All Factitious Cases by Type of Presentation, 1951–1965 and 2001–2005

Specialty	1951–1965	2001–2005	Total
Neurology	11	16	27
Endocrinology	9	16	25
Hematology	5	6	11
Pulmonary	1	4	4
Dermatology	16	116	133
Urology	0	8	8
Microbiology	18	23	41
Gastroenterology	16	5	21
Psychiatry	0	12	12
Toxicology	0	2	2
Oncology	0	6	6
Cardiology	3	3	6
Orthopedics	2	5	7
Obstetrics/Gynecology	0	1	1
Total non-neurological	70	207	277
Proportion of neurological cases	0.14	0.07	0.09

single, 29% married, 15% divorced; Fisher's exact test, $p=0.56$), their gender and occupation were not. First, the neurological cases were predominantly male (56%; 36/64), in contrast with the other studies, which found only 18%–32% of their cases to be male. Taking the grand total of the subjects in the general series, the proportion in our study is significantly different (chi-square with Yates's correction, $df: 1, p=0.003$). This will be important to the later discussion, because it is widely accepted that the profile of male and female factitious patients is different,^{57,63} with male patients being more peregrinating and more antisocial, and female patients being more socially stable, and typically working in healthcare.⁵⁸ Second, and in agreement with this, the proportion of patients employed in, or with training in, healthcare was unusually low in our sample (7/41; 17%), as compared with rates in the other series (48%–58%). Again, taking the grand total of the subjects in the other large series, the difference in proportions was significant (chi-square with Yates's correction, $df: 1, p=0.008$). As would be predicted, most of the healthcare workers in our sample (5 of 7) were women.

The proportions of factitious presentation by specialty are shown in Table 2. From 1951 to 1965, a total of 81 factitious cases were reported, of which 11 were neurological (13.6%). More common presentations were infective, dermatological, and abdominal. From 2001 to 2005, a total of 223 factitious cases were reported, of which 16 were neurological (7.2%). More common presentations were dermatological and infective, and endocrine was equally common. The difference in proportions of neurological cases between the two periods did not reach sig-

nificance (chi-square, $df: 1, p=0.13$). Because of space limitations, we have not given the references for the non-neurological cases, but these are available from the authors on request.

DISCUSSION

We must exercise caution in interpreting these data, because case reports bear only a tenuous link with the true distribution: indeed, there is evidence that the relationship between reporting frequency and research interest is an inverse one.⁶⁴ In what follows, we must remain clear that we are describing what doctors choose to report, and this will be subject to inevitable bias. Certain trends in reporting, however, are clearly supported. First, there are many more cases of FD reported now than 50 years ago. Second, neurological cases form a significant proportion of those, both now and in the past. Ours is an approximately central estimate of this proportion, with other series ranging from virtually nil^{59,60,62,65} to around 1 in 3.^{43,52,63} Third, some of the demographics of the neurological group appear substantially different from those of FD in general.

Neurological cases are regularly reported, but the cases reported are different from those of other specialties. If most cases in medicine are "factitious nurses," why does neurology largely report the Munchausen's type? Where are all the "factitious nurses" in neurology? We shall consider two answers to this, reflecting two possible consequences of the proximity of conversion to FD. One possibility is that "factitious nurses" do present neurologically, but are diagnosed with conversion disorder. A second possibility is that they may significantly avoid neurological presentations, precisely because they risk being diagnosed with conversion disorder. Finally, we will explain in terms of potential biases in our study.

Is Factitious Neurology Diagnosed as Conversion Disorder Instead?

Determining a case to be factitious requires the clinician to establish (DSM-IV): "A: the intentional production of physical or psychological signs or symptoms; B: the motivation is to assume the sick role; and C: the absence of external incentives."⁶⁶ Each of these is problematic.⁶⁷ Criteria B and C may apply to a significant proportion of nonfactitious cases, particularly those with functional illnesses, but will typically be impossible to determine in practice. Since they are likely to be unknowable, some have argued they should be dropped as criteria,

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because they do not meaningfully define a disorder.⁶⁸ This leaves criterion A as the key criterion for most practical purposes. If the patient is caught with his or her thermometer in their cup of tea, the clinician will probably assume they were doing so deliberately, and, in the absence of some obvious financial compensation, likely assume they were doing so to stay in hospital, particularly if their history reveals a pattern of similar presentations.

So: what evidence is used to determine the intentional production of signs or symptoms? Eisendrath and McNiel⁶⁹ have compiled a series of the kinds of evidence that clinicians use to support a “factitious” diagnosis. He lists “nonphysiologic physical signs” (present in 100% of cases): “atypical course of illness” (95%), “patient predicts worsening” (65%), “direct observation” (40%), and “direct physical evidence” (20%). The problem facing clinicians is that the commonest three of these features do not exclude nonfactitious functional disorders, such as hysteria. Bass and May⁷⁰ concur: “The judgment that a symptom is produced intentionally requires direct evidence and exclusion of other causes . . . If, and only if, the deliberate feigning of symptoms and signs can be established . . . should patients be confronted.” What may constitute direct evidence is up to the clinician, but with the growing power of patients and the ever-growing threat of litigation,⁷¹ clinicians must think in terms of what evidence they could defend in court. So, Krahn et al.,⁵⁸ for example, describe the evidence charted by clinicians when making 93 diagnoses of FD: “inexplicable laboratory results” (45.2%), “inconsistent or implausible history” (35.5%), “patient admission of self-induced illness” (17.2%), “outside records” (16.1%), “observed tampering; syringes, etc., found” (11.8%), “hidden medications found” (4.3%), “family confronted patient” (3.2%).

Given these methods of detection and the need for certainty before the diagnosis is made, is a detection bias toward certain presentations introduced? It seems very likely that it is: a bias toward disorders that use laboratory-based diagnosis, or that require medications to effect. In that case, medications or syringes can be found, and inexplicable laboratory results produced. This could explain why Munchausen’s-type presentations are reported largely in neurology, where there are few medications that replicate the disorder or tests that can be demonstrably “faked.” Our neurological cases were occasionally detected by observed manipulation of associated pyrexia,^{24,26,32} by family information,²⁷ or by inconsistencies considered too great to be subconscious.^{25,29,33} However, most commonly, they were detected by discovery of previous his-

tory of “Munchausen’s behavior:” use of false names, false histories, and peregrination.^{12,25,31,32,34,35,41,50,53,54,56}

Since “factitious nurses” will not be detected by these methods, this would suggest that the bulk of factitious patients remain hidden among the bona fide neurology cases—or, more likely, are diagnosed with conversion disorder, where inconsistencies are supportive of the diagnosis; and, given that the majority of detected cases present with conversion-type symptoms (Table 2), we should ask, rhetorically: if a socially stable woman with a healthcare background presented with conversion disorder, what, other than her confession, could possibly count as direct evidence that this illness was factitious?

Do Factitious Patients Avoid Neurologic Presentations?

The second possible explanation we will consider is patient choice: that certain types of presentation are more popular among those who simulate illness, and other types are less popular—with neurological disorder being less popular among “factitious nurses.” We postulate three factors as determining patient choice: 1) the model; 2) the means; and 3) the reward.

The model is simple enough: one needs to know what one is simulating in order to be even remotely convincing (see Betts and Boden,⁷² for example). This may partly explain why so many factitious patients have healthcare backgrounds, and why some have real experience of the disorder they subsequently simulate (see Casey and Bourke,⁷³ for a neurological example).

The means, too, is straightforward: one needs to be able to produce the signs. Again, this may partly explain the preponderance of healthcare backgrounds, but it also supports conjectures about preferences of factitious-disorder patients. Dermatological and infective manipulations are possible without the need for specialized equipment. Neurological disorders, too, can be feigned by anyone with a flair for the theatrical; no props are required. However, anyone simulating a stroke will not make it beyond their MRI scan unless they have a previous lesion: that is, after appropriate tests, it will usually be clear that this is not a stroke, but a functional or simulated stroke. Clearly, many detected factitious patients, even those with healthcare backgrounds, are “caught out” by clinicians; but one might ask whether anyone who knew even a little about diagnostic procedure would choose to simulate weakness, for example, because of the likelihood that they would eventually be caught out. This might not matter to a peregrinating Munchausen’s patient, who could then self-

discharge, but, to a nurse working at the hospital, this would seem potentially disastrous. Again, this would be consistent with the demographics in our sample: the Munchausen patient chooses neurology readily for the ease with which it may be feigned, but the factitious nurse avoids it, because she will not acquire a suitable diagnosis. Of course, being “caught out” in neurology does not necessarily mean the same thing as being caught out in some laboratory-based manipulation: it still leaves the differential as to conversion disorder or FD—which brings us to the third factor: the reward.

Factitious-disorder patients are often strongly motivated—to endure operations, investigations, and even death³⁷ in the pursuit of the sick role. Although their precise motivations remain unclear, we assume that it is the genuine care, sympathy, and solicitude of healthcare professionals that is sought, and, therefore, that conditions that elicit the most sympathy may be the most desirable. This would explain the enduring appeal of factitious cancer,^{13,30,43,60,74} despite the great difficulty in its simulation.

So what are the rewards for simulated neurological illness? Successfully simulated neurological illness is, of course, treated very seriously; but where there is doubt, where it is considered possibly functional, the rewards are very different, with dislike¹¹ and disbelief⁷⁵ common responses from staff. It has therefore been argued that more sophisticated patients have moved away from gross hysteria to pain and fatigue, which are still relatively “untainted.”^{76,77} This would, again, agree with our demographic findings. The “factitious nurse” would know the risks and the consequences of being diagnosed with a stigmatizing illness like conversion disorder in her own hospital: the peregrinating Munchausen’ type may be quite prepared to accept a week of investigations and an awkward self-discharge.

Limitations

A third possible explanation is here considered as a limitation: the demographic skew may simply reflect a reporting bias. Neurologists may feel awkward about reporting—indeed, may not get permission to report—a factitious presentation in a member of staff, so only report the Munchausen’s patients. It seems inevitable that such considerations would influence the general reporting bias in FD in some way. But it is not clear in what way, for it seems unlikely that a Munchausen’s patient would be willing or even in a position to consent to publication (al-

though there are cases of apparent pride in their deception, such as the notorious McIlroy, as reported by Pallis and Bamji⁷⁸). It is also much less clear why a bias against staff reporting would differentially affect neurology. Of course, with the absence of incontrovertible evidence of the type offered by falsified lab tests or discovered medications, the neurologists may feel less able to “broadcast” their diagnosis, and, instead, quietly circulate their suspicion among colleagues.⁷⁹ However, such reticence sounds more like the detection bias described as the first possibility—the inability to make a firm diagnosis, despite clinical suspicion.

Variation in interest in FD among specialties is very possible, however, so that the proportion measurements may well reflect inter-specialty reporting bias. Selection bias, possibly, our failure to find all the relevant cases with our search, is also likely to affect the proportions. Our specialty totals will represent only a fraction of the published cases, and this may vary between specialties, with their own descriptive traditions for FD. Furthermore, we are dealing with rare events, and a single report, particularly a large series, can have a large impact on the proportion for that period. Because there is a tendency for authors to collect cases over time and present them in case series, our proportions will be sensitive to the inclusion of such reports. Last, the more inclusive we make the neurological group, the greater the proportion of factitious cases will be considered neurological. However, since we predicted a small proportion, we have been conservative in this, and defined cases as neurological where there was doubt. A rather different result would probably have been obtained were we to have considered neurological symptoms, because some studies^{43,63} have shown these to be very common, particularly over time.

A related difficulty comes from the limited reporting of demographic data in our cases: it is possible that there is a systematic underreporting of demographics in women or in healthcare worker cases. The clearest argument that this is not the case comes from a comparison of the two largest series to which we have compared ours: Krahn et al.⁵⁸ and Plassman.⁵⁹ In the Plassman study, there are, similar to ours, high rates of missing data (they have gender and occupation data on 309 of over 1,000 cases) because their data were collected in a similar way; in the Krahn et al. study, they have virtually complete data, because their information was collected from hospital records; yet, the gender and occupation rates are very similar between the two studies (78% versus 72% for gender, and 58% versus 52% for medical occupation).

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This would suggest that there is no systematic discrimination in the reporting of gender or occupation data in case reports of factitious patients, so that missing data are not likely to be a significant source of bias.

We have argued throughout that there is a dearth of the expected “factitious nurses,” whereas it could equally be that there is an overabundance of Munchausen’s cases in neurology. This is a possibility we cannot exclude, although for it to be a serious concern, we would need to have some reason to think that the diagnosis of male patients as Munchausen’s was something that preferentially affected neurology.

Judgments as to whether cases are factitious comprise another problematic area. Most clinicians are more interested in reporting colorful histories, pathomimetic techniques, and methods of detection than in exploring motivations. We have been obliged to accept the judgment of the authors, as there may well have been other factors such as countertransference or the clinician’s assessment of the patient’s self-awareness, that have not been reported but which may have influenced the diagnosis. This has led to some unusual inclusions and exclusions, however. Taskaynatan et al.⁴⁰ considered all seven of their series of military reflex sympathetic dystrophy patients to be factitious, even though soldiers are more usually considered to be malingerers. Heruti et al.,⁸⁰ by contrast, seemingly concluded that one patient with a 35-year history of medical help-seeking was malingering, rather than factitious,

simply because the provoking incident was a car crash. The handling of factitious symptoms within nonfactitious diagnoses has also produced some perhaps-surprising decisions. For example, the finding of a factitious symptom (“cooking the thermometer”) in some early cases of chronic fatigue syndrome persuaded the authors that their cases were otherwise hysterical, not factitious.^{81,82} By contrast, Cohen and Chang⁷⁴ took the development of a limb paralysis to be hysterical rather than factitious, even though it was in the context of a clearly factitious cancer. It is difficult to reach any conclusions about the likely influence of this issue on the reports recruited by our study, although our suspicion, as hypothesized, is that neurologists are likely to err on the side of caution, and diagnose cases as hysterical, rather than factitious.

CONCLUSION

Reported neurological presentations of FD are proportionally common, but appear demographically dissimilar to reported cases from other specialties, where the “factitious nurse” is the most common presentation. We have suggested that this is because “factitious nurses” are being diagnosed with hysteria instead or they are avoiding neurological presentations, choosing instead to simulate disorders that do not carry the stigma of hysteria.

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