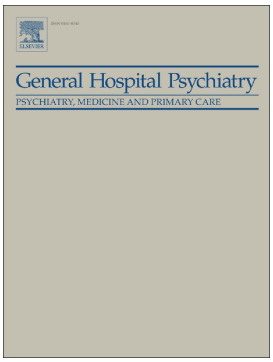

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Conversion Disorder: A systematic review of current terminology

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ABSTRACT

Objective: It has been argued that the label given to unexplained neurological symptoms is an important contributor to their often poor acceptance, and there has been recent debate on proposals to change the name from Conversion Disorder. There have been multiple studies of layperson and clinician preference and this article aimed to review these.

Design: Multiple databases were searched using terms including "conversion disorder" and "terminology", and relative preferences for the terms extracted.

Results: Seven articles were found which looked at clinician or layperson preferences for terminology for unexplained neurological symptoms. Most neurologists favoured terms such as "functional" and "psychogenic", while laypeople were comfortable with "functional" but viewed "psychogenic" as more offensive; "Non-epileptic/organic" was relatively popular with both groups.

Conclusions: "Functional" is a term that is relatively popular with both clinicians and the public. It also meets more of the other criteria proposed for an acceptable label than other popular terms – however the views of neither psychiatrists nor actual patients with the disorder were considered.

INTRODUCTION

Conversion Disorder is a condition where neurological symptoms are present without an identifiable "organic" neurological cause, and which are instead understood to be psychiatric in origin(1). The disorder is widely considered to be unpopular with patients and clinicians(2), with uncomfortable diagnostic encounters and patients feeling dismissed(3, 4). It has been argued that the diagnostic labels used contribute to this - stigmatising patients and

implying unhelpful aetiologies - and there has been intense recent debate over the need for a change(5-9).

Clearly this discussion is not new. The historical term, *hysteria*, was replaced by *conversion disorder* as recently as ICD-10 and DSM-III, presumably at least as much for its public connotations of emotional explosiveness as for its aetiological connotations of a wandering womb(10). New terminology has flowered, but divided along aetiological lines (dissociation, stress) and those that shun aetiology (unexplained, non-epileptic); and between those of neurologists (functional, non-organic) and psychiatrists (conversion, psychosomatic). There is no consensus, even among the official diagnostic manuals, with both ICD and DSM hedging their bets, in "dissociative (conversion) disorder" and "conversion (functional neurological) disorder", respectively. This proliferation of terms may of course be as unhelpful as the terms themselves.

There have been several attempts to clarify clinicians' and patients' preferences with empirical surveys. This article aims to systematically review those surveys to see whether a consensus can be found.

METHODS

Internet databases were searched for articles examining the use of terminology in conversion disorder from inception to May 2015. This included PubMed and OVID combined searches of EMBASE, MEDLINE and PSYCINFO. The MeSH terms "Conversion Disorder" AND "Terminology as topic" were used, with search terms ("conversion disorder" OR "psychogenic motor" OR "medically unexplained") AND "terminology", returning 31 and 54

abstracts from PubMed and OVID respectively. Excluding duplicates left 55 articles. Reference lists were searched and experts consulted to supply additional articles. Abstracts for each reference were screened using the following inclusion criteria: an empirical study on a human population, dealing with unexplained neurological symptoms and their terminology. 20 full text articles were assessed for eligibility, with 7 papers finally included in this review (see figure 1).

RESULTS

Clinician Perspectives

There were 4 studies identified that assessed clinician preferences, all by questionnaire (see table 1).

Table : Surveys of Clinician Perspectives on Terminology for Unexplained Neurological Symptoms

STUDY	STUDY GROUP	RESPONSE RATE	Terms in order of preference
Mace & Trimble (1991)	UK neurologists	168/275 (61%)	1)Psychogenic 2) Functional 3) Hysteria 4) Psychosomatic 5) Hypochondriasis 6) Abnormal illness behaviour

			7) Conversion Disorder 8) Malingering 9) Neurotic 10) Somatoform 11) Supratentorial
LaFrance et al (2008)	American Epilepsy Society members*	317/1760 (18%)	1) Non epileptic seizures. 2) Spells 3) Psychogenic seizures 4) Events 5) Pseudoseizures 6) Non epileptic attack disorder 7)Functional seizures
Espay et al (2009)	Movement Disorder Society neurologists (international)	519/ 2106 (25%)	Medical terms: 1) Psychogenic Movement Disorder 2) Functional disorder 3) Non organic disorder 4) Conversion Disorder 5) Psychosomatic disorder 6) Medically Unexplained Symptoms 7) Functional Somatic Syndrome 8) Stress-related disorder 9) Hysterical Lay terms: 1) Stress Related

			2) Psychogenic Movement Disorder 3) Functional disorder 4) Medically unexplained symptoms 5) Psychosomatic disorder 6) Psychogenic tremor 7) Not real 8) Hysteria
Wichaidit et al (2015)	Danish paediatricians	61/64 (95%)	1) Functional seizures 2) Psychogenic non epileptic

*Neurologists, epileptologists, psychiatrists, psychologists, neuropsychologists, neuroscientsts, neurosurgeons, nurses, social workers

The earliest study surveying clinician's preferences was by Mace & Trimble in 1991. This survey of 168 British neurologists found that the most popular terms used either informally/formally were "hysteria", "functional" and "psychogenic"(11). Notably, when questioned on what was classified as functional, the majority of neurologists considered Munchausen's syndrome should be and a minority thought paranoid schizophrenia should as well (a smaller number of surveyed psychiatrists felt the same way about Munchausen's, but no schizophrenia). Despite the strong endorsement of "functional", numerically, it also raised concerns about its ambiguity and the study concluded its use should be discouraged. However, given the relative age of the study, views on many of these terms may well have changed

In a survey by LaFrance et al in 2008, the most frequently used terms were “nonepileptic seizures” and “spells”, with a minority of participants using “pseudoseizures” and “psychogenic seizures”(12). The sample surveyed was a specialist group, which would have more experience with this disorder than other clinicians, and with the survey title as “nonepileptic seizures”, this may have biased respondents towards selecting this as their preferred term.

The survey conducted by Espay et al (2009) found that “Psychogenic Movement Disorder” was the most popular term used, though other terms were used concurrently. Interestingly, there was a difference in preferences for terms used formally and lay terms, with “psychogenic movement disorder” being the preferred medical term, and “stress-related” being the preferred lay term(13). Like LaFrance et al, they had large numbers of respondents but a low response rate, with the potential bias that implies.

In a survey of 64 Danish paediatricians, the preferred terms when communicating the diagnosis were “functional” and “psychogenic non-epileptic seizures”(14). This study also noted a diversity in coding practices, which bears on perceived aetiology. While some saw it as a conduct disorder, others considered it as a kind of syncope or collapse, with no singular agreed-upon code. This study was relatively small, and the study group were paediatricians, who would have different cultural and professional practices to the neurologists and psychiatrists in the previous studies. Similarly to LaFrance’s study, the words “functional” and “psychogenic non-epileptic” were used in framing in the survey, which may also have biased results.

Lay perspectives

There were only three papers that looked at lay preferences for terminology, all within the setting of adult and paediatric neurology clinics (see table 2) – though they included patients, they were not specifically patients with unexplained neurological symptoms.

Table 2: Surveys of lay/patient/carer perspectives on terminology for unexplained neurological symptoms

STUDY	STUDY GROUP	RESPONSE RATE	Terms in order of preference
Stone at al 2002	New neurology outpatients in UK	86/113 (76%)	1) Functional weakness 2) Stress-related weakness 3) Depression-associated weakness 4) Medically unexplained weakness 5) Psychosomatic weakness 6) Hysterical weakness 7) Symptoms all in the mind
Stone at al 2003	New neurology outpatients in UK	102/127 (80%)	1) Functional seizures 2) Stress-related seizures 3) Non-epileptic attack disorder 4) Psychogenic seizures 5) Pseudoseizures 6) Psychogenic seizures 7) Symptoms all in the mind
Morgan et al 2013	Parents/ guardians of paediatric outpatients patients* in US	146/177 (82%)	1) Non-epileptic events 2) Non-epileptic attack disorder 3) Functional seizures 4) Stress-related seizures 5) Paroxysmal seizures 6) Pseudoseizures 7) Psychogenic seizures 8) Hysterical seizures

*general paediatrics, general neurology outpatient, paediatric epilepsy monitory unit

Stone et al (2002) had an interviewer survey general neurology outpatients on a hypothetical unexplained leg weakness, finding that the least offensive term was "functional" (15) by determining the proportion offended (those who endorsed a connotation of "putting it on", "mad", or "imagined"), and calculating the 'number needed to offend' for each term – though notably, it did not include the official psychiatric label "conversion disorder". In a similar study of unexplained seizures, Stone et al (2003) found that "functional" was the least offensive term(16). The studies share the limitations of a hypothetical scenario, so that participants would be assessing terms which (presumably, at least in most cases) had no personal significance, and about which they would have little basis on which to form a preference if they were unfamiliar with the terms – by contrast with the 'real life diagnostic scenario' which would invariably involve a degree of explanation, not just a label.

Morgan et al (2013) adapted the above approach to the paediatric setting, finding that parents preferred "non-epileptic events" above all (12), and, in contrast to the previous study, found "non epileptic attack disorder" to be less offensive than "functional". Like the preceding studies, it employed a hypothetical scenario without direct personal significance, but it had a broader study base than the previous two, recruiting from three sites, and handed out questionnaires rather than the researcher administering them, so should have less of any 'interviewer effect' than the above.

Table 3: Popular terms as determined by study

Study/ Terms	**Conversion Disorder**	**Functional**	**MUS**	**Psychogenic**	**Psychosomatic**	**Pseudo-**	**Non-**

Mace & Trimble (1991)	x	✓	-	✓	x	-	-
LaFrance (2008)	-	x	-	✓	-	x	✓
Espay (2009)	✓	✓	-	✓	x	-	✓
Wichaidit (2015)	-	✓	-	✓	-	-	-
Stone (2002)	-	✓	✓	-	✓	-	-
Stone (2003)	-	✓	-	✓	-	x	✓
Morgan (2013)	-	✓	-	x	-	x	✓
TOTAL SCORE	**1/2**	**6/7**	**1/1**	**5/6**	**1/3**	**0/3**	**4/4**

✓ = endorsed

x = rejected

- = not investigated

DISCUSSION

This review found seven studies that investigated the use of terminology in conversion disorder with varying results. Though the seven studies had only partial overlap in the terms

considered (see table 3), many compared the terms "functional" and "psychogenic" and "non-neurological/organic/ epileptic", with few studies looking at any of the other terms. Classifying 'endorsement' and 'rejection' on the basis of terms' preference relative to other terms surveyed, 'endorsed' being those in the top half, preferences for "functional", "psychogenic", "non-organic/epileptic" and even "medically unexplained" emerge from this admittedly crude aggregation. Differences were also suggested between clinicians and patients (though of course no survey directly compared the two), with some clinicians rejecting 'functional', and some laypersons rejecting 'hysteria' and 'psychogenic'. It can also be seen from the paucity of studies and their differences that there is room for more research to be done.

It has been argued that the ideal terminology should fulfil multiple criteria: be acceptable to patients and clinicians, have neutral aetiology, not reinforce brain/mind dualism yet have a clear core theoretical concept and be able to stand alone as a diagnosis, be acceptable to those with established pathology and facilitate multi-disciplinary treatment, have a satisfactory acronym and a similar meaning across cultures (17). However, these criteria are unlikely themselves to be endorsed by those who favour a particular aetiology, for example, and it has been acknowledged that it might be hard to find a universally accepted term without creating a neologism(18); for though some of the terms have their advocates, all have their detractors.

Functional

The term "functional" has received a lot of positive interest in the recent years, including a drive to change the name formally to "Functional Neurological Symptoms"(7). It fulfils many of the criteria proposed for acceptable terminology for medically unexplained symptoms,

including relative popularity with patients and clinicians, aetiological neutrality and an apparent theoretical construct. That does not mean it is embraced by all. The ambiguity it affords has led some clinicians to reject it(11), though there are others who favour it for precisely that reason(19). It has been described as a crutch for neurologists, a "polite eponym" for a psychiatric disorder, so that the term "psychogenic" would be more appropriate to a respectful patient relationship(20). While its advocates believe it minimises dualistic interpretation(6), others have reported it reinforces other dualistic views(19). Its theoretical concept of a disorder with the functioning of the nervous system is implicit(19) but it has been argued that the term is misleading on that basis, as the symptoms should properly be described as "dysfunctional"(9). Finally, that aetiological neutrality may not always work in its favour when it becomes clear that some would extend the term to feigned conditions such as factitious disorder(11, 27).

Psychogenic

Lay studies have shown that "psychogenic" is not a favoured term, by contrast with clinicians(21) among whom it remains one of the most popular(5). However, while popular, not all would use it in front of patients - Edwards and colleagues hypothesized that this may be due to the negative public perception of a psychological condition; it is hard to escape public attitudes that "psychological" is akin to "not real"(5). Others have countered that with tactful explanation, patients would be accepting of the diagnosis(8, 9), and that what is inherently "from the mind" should be labelled as such. It is perhaps clearest of all in terms of core theoretical concept, but there are those who argue that a purely psychological cause of this disorder is no longer uncontroversial as aetiology, at least, and that the symptom group known as "psychogenic movement disorders" should be relabelled "functional movement

disorders"(5). Though quite what 'psychogenic' implies is itself open to interpretation(22) and public unease around the term 'psychogenic' is itself unexplained, and may have as much to do with the inclusion of 'psycho', for example, as with any specific interpretation.

Non neurological/ non epileptic/ non organic

These terms were generally well liked by clinicians and laypeople. Though not-exactly neutral on aetiology, they do leave it quite unclear what the disorder's theoretical concept is – something they share with "medically unexplained", a term reasonably popular with some patients(15) including (notoriously particular) patients with chronic fatigue syndrome(23), even as it makes clinicians wary. This labelling-by-exclusion may be seen as promoting our lack of understanding(18), or incompetence(17), and as offering only a "non diagnosis", which withholds from the patient a positive explanation for their symptoms and negates the reason they came to the doctor in the first place(24).

Limitations

The survey design obviously limits and prescribes the data obtained: while two studies included some additional qualitative data, all studies involved participants selecting from a fixed group of terms. As with all reviews, differences in methodology and sample limit direct comparison between studies. Importantly, with the exception of the two studies by Stone and colleagues, the studies' preferences were relative, so cannot be taken to endorse any of the terms absolutely, and are obviously only relative to the terms they happened to include.

Though our analysis of the terms above may suggest a degree of concurrence, the views of two groups are notably absent – the two groups who arguably matter most: patients who actually have the disorder and the psychiatrists who, in theory, should be managing them. These should be addressed by future surveys, by administering questionnaires to patients pre and post diagnosis regarding their understanding and acceptance of their condition, for example.

Though obtaining the views of diagnosed patients may prove challenging ethically and practically, it could be partially approximated by including a key aspect of the diagnostic process, the explanation. This raises the key question of whether any of the terms would remain – or become – offensive once an explanation had been given. Concerns over what aetiology or theoretical concept is implied would surely be secondary to what aetiology or theoretical concept was actually given by the diagnosing doctor.

The absence of the views of psychiatrists is lamentable, though perhaps understandable given their perceived absence from the diagnostic process(25, 26). Nevertheless, Conversion Disorder remains a psychiatric diagnosis, and "Conversion Disorder" the official label, so it is surprising to find no studies surveying lay opinions on that term, and only two of the clinician studies(11, 26). Though it is perhaps clear that "Conversion Disorder" is going to fail the criterion of implied aetiological neutrality, it is not clear that in the psychiatric context this will still represent a concern.

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Highlights

The label given to unexplained neurological symptoms is an important contributor to their often poor acceptance, and there has been recent debate on proposals to change their name from Conversion Disorder. We reviewed studies of clinician or lay preferences for the terms.

Most neurologists favoured terms such as “functional” and “psychogenic”, while laypeople were comfortable with “functional” but viewed “psychogenic” as more offensive; “Non-epileptic/non-organic” was popular with both.

“Functional” meets most proposed criteria, however the views of neither psychiatrists nor patients with the disorder have been considered.