Use of the delusions–symptoms–states inventory to detect psychiatric symptoms in a sample of homeless men

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SUMMARY

Background. *Previous research, often using the symptom–sign inventory, has demonstrated a high prevalence of psychiatric disorder among homeless people. The delusions–symptoms–states inventory detects the presence or absence of four classes of psychiatric illness — delusions of disintegration, integrated delusions, neurotic symptoms and dysthymic states.*

Aim. *A study was undertaken to determine the utility of the delusions–symptoms–states inventory in a sample of homeless men, and the prevalence of psychiatric symptoms in this group.*

Method. *The inventory was administered to 55 homeless men in a reception centre in Sheffield.*

Results. *Nearly half of the men obtained scores on the inventory suggesting that they had psychiatric symptoms. There was an overlap of syndromes, particularly among those with severe psychiatric illness. For example, seven men had all four classes of psychiatric illness.*

Conclusion. *Use of the questionnaire proved satisfactory. The findings support the contention that reception centres and similar accommodation are repositories for homeless mentally ill people.*

Keywords: psychiatric disorders; psychiatric symptoms; psychiatric assessment; single homeless people; men's health.

Introduction

FOR over 25 years the understanding of mental illness has been enhanced by systematic examination using the symptom–sign inventory developed by Foulds and colleagues. The symptom–sign inventory has since been used in a variety of surveys including those of homeless single people.[1-7]

Possible disadvantages of the symptom–sign inventory were that the questions required ungraded yes or no responses and that it was scored by the interviewer who interpreted the answers, introducing a potential source of bias.

Later, Bedford and Foulds produced the delusions–symptoms–states inventory which is completed by the subject and which has degrees of response to each of its 84 items.[8,9] All statements are prefixed by 'recently', explained as during the last month, to emphasize that the respondent's current state is being enquired about. The inventory contains 12 sets of seven items, each set corresponding to a personal illness syndrome. The term personal illness was used by Foulds[1] in preference to mental illness, and it reflected his interest in the disturbance in interpersonal relationships that tends to accompany many forms of psychiatric disorder. Positively endorsed items are scored from one to three, according variously to the degree of distress experienced, the frequency of occurrence or the certainty of belief. A person is categorized as having symptoms if he or she scores four or more on any one or more of the 12 sets.

In order to transform the delusions–symptoms–states inventory set scores into more familiar psychiatric parlance it is necessary to discuss briefly its attendant nosological model. Foulds and Bedford proposed a hierarchy model of four classes of personal illness, arranged in an ascending order of degree of inability to maintain mutual personal relationships.[10] Each class, apart from the highest class (class four), is composed of several groups, so that class one, dysthymic states, is made up of states of anxiety, of depression and of elation; class two, neurotic symptoms, is made up of symptoms of conversion, of dissociation, of phobia, of compulsion and of rumination; class three, integrated delusions, is made up of delusions of persecution, of grandeur and of contrition; and class four, delusions of disintegration, has no constituent groups. Examples of these are shown in Appendix 1.

The hierarchy model is inclusive and non-reflexive. Each higher class contains the lower, for example, all members of class four also fall into classes three, two and one, and all members of class two also fall into class one, but the converse does not hold. Foulds and Bedford found that 93% of 480 people undergoing psychiatric care fitted the hierarchy, as did 95% of 242 non-patients, the latter being predominantly non-symptomatic.[10]

Confirmatory studies, using the delusions–symptoms–states inventory as a questionnaire with psychiatric patients, were carried out.[11-14] The inventory's items, and patients' scores on the 12 sets of items, have been validated against clinicians' judgements.[8,14] The hierarchical approach is consistent with clinical experience, for example, many schizophrenic patients, in addition to their typical schizophrenic features, have depressive symptoms; and patients with depressive psychosis, in addition to their depressive features, have anxiety symptoms. Conversely, a patient with anxiety symptoms is not going to be diagnosed as having an anxiety state if there are definite depressive delusions, for example, delusions of contrition. A patient with depressive symptoms is not going to be diagnosed as having a depressive illness if there are features of schizophrenia.

Research has suggested that the prevalence of psychiatric disorder in homeless single persons is high.[4,7,15-17] This would therefore be a suitable population on which to explore the suitability of a screening test for such a disorder. Increasingly, primary care physicians are taking responsibility for hostels for homeless people. The psychiatric assessment of people in hostels for the

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homeless is difficult and time consuming. If a self-report questionnaire were an appropriate tool for assessing the mental states of single homeless people then this would be a great advantage to general practitioners.

A study was undertaken to assess the utility of the delusions–symptoms–states inventory in a community setting of homeless people; and to determine the prevalence of symptoms in this group. Ethical approval was obtained from the ethics committee of Sheffield University Medical School.

Method

The study was undertaken in 1990 in a Sheffield reception centre for homeless men aged 18 years and over . The reception centre appeared to operate no specific exclusion policy, and thus men suffering from alcoholism or drug dependence were admitted, contrary to the policy of some hostels for homeless single people. In fact only 32% of the 60 residents gave a history of alcoholism and only 8% a history of substance misuse. The typical resident was a middle-aged or elderly Caucasian man, there being only one Asian and one Afro-Caribbean resident. Only 27% had ever been married, and 60% admitted to a criminal record.

All the residents were approached in an identical manner by a psychiatrist known to them (S G) and were seen within the same week. They were asked to complete the delusions–symptoms–states inventory. For practical reasons, the subjects were asked to complete the questionnaire soon after the interview had started. This ensured compliance. For illiterate subjects, the questions were read out by the interviewer. Cooperation was voluntary and without reward.

Results

Of 60 resident men 55 (92%) completed the inventory and were interviewed by S G in the medical room. Five residents were not available to take part. The mean age of the men was 47 years.

The results of the delusions–symptoms–states inventory are shown in Table 1. Thirty (55%) claimed to be symptom-free, six (11%) complained only of dysthymic states and four (7%) suffered from both dysthymic states and neurotic symptoms. Only one person (2%) fell into the class with integrated delusions but seven (13%) also had delusions of disintegration. The remaining seven men (13%) had symptoms which did not fit into the hierarchy model. In five cases, they complained of neurotic symptoms without indicating any dysthymic state. Ignoring the hierarchy model, 25 men (45%) were positive for at least one set of items.

In more familiar terms there were eight psychotic men (15%) (almost entirely schizophrenic), 10 neurotic men (including the six men with dysthymic states) (18%) and 30 men (55%) who were not personally ill.

Discussion

These findings are consistent with other research that has demonstrated a high prevalence of psychiatric disorder among homeless people.[7,17-20]

The delusions–symptoms–states inventory has not been used previously among homeless people. However, its predecessor, the 80 item symptom–sign inventory, had been used in this population satisfactorily.[4,7,15] The symptom–sign inventory can be administered only by a qualified psychologist or psychiatrist, and depends on weighing up the answers given by the subject to questions read out aloud. The delusions–symptoms–states inventory avoids these two problems. It is appropriate for use by primary care physicians and other professionals working in the community. The earlier success of the symptom–sign inventory in studies among single homeless people in the United Kingdom and the United States of America, in both community based and hospital samples, suggested that the delusions–symptoms–states inventory would be even more satisfactory for use in the homeless population.[4,7,15]

The low refusal rate to participate in the study may be related to the fact that S G attended the reception centre on a regular weekly basis and was thus a well known face. However, she would have been known personally to only a minority of the interviewees in the sample.

The study found that 33% of the sample of homeless people were psychiatrically ill according to the inventory. Furthermore, the results show an overlap of syndromes, particularly in those with more severe psychiatric illnesses. These findings lend support to the fears that such reception centres may be repositories for those who used to be in longstay psychiatric wards.[16]

Moreover, the true prevalence of psychiatric illness in this group is likely to be higher. Screening instruments rely heavily on the presence of features of distress, such as symptoms of anxiety and depression, to detect cases of mental illness. Such

Table 1. Presence of symptoms according to the delusions–symptoms–states inventory (DSSI).

	DSSI symptom present[a]				
	Dysthymic states	Neurotic symptoms	Integrated delusions	Delusions of disintegration	No. of men
Symptom-free	–	–	–	–	30
Symptom pattern not fitting model	–	–	✓	–	1
	–	✓	–	–	5
	–	✓	✓	–	1
Symptom pattern fitting model	✓	–	–	–	6
	✓	✓	–	–	4
	✓	✓	✓	–	1
	✓	✓	✓	✓	7
Total					55

[a]Score of four or more on any of the seven-item sets indicates item presence (✓).

symptoms are usually present in patients with acute psychoses, but may be lacking in patients with chronic psychoses.[6,13,21] Thus the delusions–symptoms–states inventory may fail to identify some cases of chronic psychoses. Additionally, the inventory was intended to detect functional mental illness, but not organic psychoses, learning disability, psychosomatic disorders or personality disorder and its possible concomitants such as substance misuse and pathological sexual deviation. It is likely that if the subject were receiving medication for their psychiatric disorders then this would have made it more difficult for the screening test to reveal the symptoms of an underlying illness. However, many patients with chronic mental illness achieve only partial symptomatic relief from treatment.

It is increasingly recognized that the delivery of health care to the homeless population in the UK is unsatisfactory. The homeless person poses a considerable challenge to the primary care team for a number of reasons, including poor compliance with treatment, partly owing to a transient way of life, and because a high proportion of the single homeless population are suffering from mental illness.

General practitioners may have difficulties in recognizing mental illness in homeless single people, either when faced with an individual patient or when considering the appropriate primary care input into a hostel for homeless people. When faced with a person who is taciturn, defensive or even secretive about his or her history, the normal clinical interviewing techniques may not be sufficient. Previous methods used for research in this area, including lengthy structural psychiatric interviews, are not necessarily appropriate in the primary care setting, particularly when one realizes that the tolerance of the patient to lengthy interviews may be limited.[22] It is, therefore, of interest that a questionnaire that is completed entirely by the person concerned is, even given the limitations described earlier, capable of revealing mental illness in a substantial proportion of these subjects.

The delusions–symptoms–states inventory could be of value in screening other groups of people in the community. Whereas many screening questionnaires for psychiatric ill health categorize the population into cases and non-cases, the inventory has the advantage of giving a measure of how serious the underlying mental disorder is likely to be, along the dimension of distortion of reality testing that is assessed by the hierarchical model.

Appendix 1. Examples of the four classes in the delusions–symptoms–states inventory.

Class one, dysthymic states of:
Anxiety, eg, I have worried about every little thing.
Depression, eg, I have been so low in spirits that I have sat for ages doing absolutely nothing.
Elation, eg, I have been very excitedly happy for no particular reason.

Class two, neurotic symptoms of:
Conversion, eg, I lost my sight or hearing for a while and then it came back.
Dissociation, eg, people around me have seemed strange, unfamiliar or different.
Phobia, eg, I have been quite unable to bring myself to go out alone.
Compulsion, eg, I have had to keep on checking things again and again quite unnecessarily.
Rumination, eg, nasty thoughts or words have kept running through my mind against my will.

Class three, integrated delusions of:
Persecution, eg, I have felt that an organization or group has been planning my downfall.
Grandeur, eg, I have felt that I have a mission to carry out of great importance to the world.
Contrition, eg, I have felt that I am the vilest, most wicked person alive.

Class four, delusions of disintegration:
eg, voices have spoken to me when no one was there at all.

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