

Depersonalization Phenomena in Psychiatric Patients

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The complaints, 'I am a stranger to myself; I am unreal', are manifestations of depersonalization which have been noted frequently by clinicians. Depersonalization has been reported in epilepsy (1), after drug ingestion (16), encephalitis (19), hysteria (13), manic depression (24), and schizophrenia (20), as well as in various neurotic patients (22). It has also been noted in normals, but usually after emotional shock or physical exhaustion (7, 14). Most recently, persistent feelings of depersonalization have been elevated to the status of a diagnostic entity in itself (2).

There has been a proliferation of theories related to depersonalization; however, these are difficult to understand, as the terms depersonalization, derealization, and *déjà vu* are frequently used interchangeably (21). Many psychoanalysts have referred to the defensive aspects of depersonalization as a protection against anxiety (14, 22, 24). Freud described estrangement (a combination of depersonalization and derealization) as a parapraxic symptom similar to that found in dreams (15). Oberndorf notes that feelings of unreality and depersonalization serve a regressive function; he believes that *déjà vu* is a disturbance in reality perception which serves to reassure the patient against the insecurity of newness through feelings of familiarity (22).

Non-psychoanalytic authors have ascribed the causes of depersonalization to disturbances in memory, sensation and cognition (18). Bleuler in 1911 noted that depersonalization was associated with depression (5). Mayer-Gross called it a non-specific symptom (a preformed response of the brain) in illnesses of different kinds which would not become severe unless the illness became intensified. He felt that depersonalization was an intrinsic factor in the formation of delusional systems (19). Galdston in 1947 wrote about depersonalization

as a prodrome of schizophrenia (16). Schilder thought that there was increased self-observation in depersonalized patients, and attributed this to their changing body image. He concluded that 'somatic depersonalization was the germ of hypochondriacal delusion... that almost every neurosis has in some phase of its development symptoms of depersonalization' (26). Roth's observations in 1960 that depersonalization most frequently occurs in a setting of stress-precipitated anxiety led him to formulate the 'phobic-anxiety-depersonalization syndrome' (24). Cases reported by Davison in 1964 indicate that depersonalization of severe degree can occur as an almost isolated symptom (10, 29). Depersonalization has also been noted in normal populations, being more frequent in younger age groups and females (11).

Although it is apparent that depersonalization phenomena have created much interest among clinicians, there have been few systematic studies that attempt to evaluate these diverse theories and clinical findings. From our preliminary work and literature review we find that the following rather simple operational definitions of depersonalization and derealization are satisfactory. Two experiential states seem to emerge (either or both of which may be present):

(1) Depersonalization—The person feels *himself* distant and detached from the world, such that he feels strange or unreal.

(2) Derealization—The person's immediate environment seems unreal or changed.

The present study attempts to answer the following questions:

(1) Does depersonalization occur more frequently or with greater severity in some diagnostic groups than in others?

(2) Are there particular symptoms, e.g., delusions, depression, anxiety, to which these phenomena are strongly related?

(3) What implications does depersonalization have for prognosis, hospital course, and management?

(4) What effect do various medications have on depersonalization phenomena?

(5) What is the relation between depersonalization and other similar phenomena such as derealization and déjà vu?

METHOD

A questionnaire was devised which explored areas thought to be important in delineating depersonalization, derealization, and déjà vu phenomena, as follows:

(1) Specific attributes of these phenomena were abstracted from the clinical studies of Freud (15), Feigenbaum (14), Federn (13), Oberndorf (22), Mayer-Gross (19), and Tucker (31, 33).

(2) Observations and findings from these reports were converted into a questionnaire which included the following areas: feelings of somatic, emotional, and worldly estrangement (4, 13, 14, 15, 19, 22); subjective perceptual experiences involving sensory stimuli (8), body image, body awareness and activity (26, 31, 33); subjective feelings related to medications (7); and the similarity of depersonalization feelings to the effects experienced following the administration of hallucinogenic drugs (27).

(3) A small random sample of patients was seen in non-structured interviews by a psychiatrist to establish if these phenomena were familiar or unfamiliar to this population.

(4) The questionnaire was then given to a second pilot sample of patients in verbal and self-administered forms and modified to maximize comprehensibility. This second sample of patients taking the pilot questionnaire was then interviewed in semi-structured personal interviews to corroborate that the questionnaire was delineating primarily what a clinician would determine were depersonalization and derealization phenomena.

(5) The final questionnaire was a self-administered form of 49 questions, which took 5 to 12 minutes to complete.* Each question was answerable by circling a single word referring to the frequency the patient had a given experience (e.g., never = 1, rarely = 2, ... all the time = 5).

For the present research the final questionnaire was administered to an additional 85 consecutive admissions to the acute psychiatric division of the

* A copy of the questionnaire and scoring key may be obtained from G. J. Tucker, M.D., Department of Psychiatry, Yale University School of Medicine, New Haven, Connecticut, 06510.

Yale-New Haven Hospital during the period from July 1967 to April 1968. The questionnaire was given during the fourth week of hospitalization. The patient sample was consistent with that found among many acute private psychiatric services in terms of age and diagnostic categories. (Table I.) Diagnoses were arrived at prior to the analysis of the depersonalization data by a consensus of two senior staff members and the individual resident psychiatrist who was responsible for the particular patient. (Table II.)

TABLE I

Age range	No. of patients
Under 15	4
16-20	20
21-25	24
26-45	23
46-60	9
61-Over	4
Total	84

TABLE II

Dx categories	No. of patients
Personality disorder ..	26
Neurotic depression ..	13
Psychotic depression ..	11
Manic depressive, manic ..	3
Schizophrenic	25
Other	6

In addition to the administration of the depersonalization questionnaire, several personality inventories, attitude scales and symptom questionnaires were administered to the patients. The results on these inventories for the first 40 patients were analysed in relation to their depersonalization scores to help determine in a more systematic manner what factors related to the depersonalization experiences. These inventories and questionnaires included the Maudsley Personality Inventory (12), the Taylor Anxiety Scale (3), the Perceptual Experience Inventory (32), scales for nervousness (6), autism (6), anomie (30), cyclothymia (6), and the Marlowe-Crowne Scale (9). (Table 5.)

Information on the patient's behaviour and symptomatology at the time of hospital admission was also collected from standardized ratings by the patient's psychiatrist on the variables noted in Table IV. These ratings form part of a standard rating system routinely filled out by the staff, which has

been used successfully in other studies (17, 32). Additional data relating to age, sex, marital status and previous use hallucinogens were also collected. (Table III, Part A.)

For statistical analysis the 49 questions from the

depersonalization questionnaire were grouped into categories as outlined in Table III, Parts B and C. All data were analysed statistically to identify correlates of depersonalization and to determine the frequencies of the variables studied.*

TABLE III
Correlations of key variables studied
(*N* = 84)

Variables	Correlation coefficients		
	Depersonalization	Derealization	Déjà vu
A. Identifying information			
1. Age	0.22*	0.24*	0.02
2. Sex	0.09	0.11	0.08
3. Marriage	0.04	0.04	0.04
4. Diagnosis	0.05	0.02	0.00
5. LSD frequency	0.16	0.14	0.05
6. LSD experience (type)	0.10	0.10	0.15
B. Perceptual experiences			
7. Color	0.16	0.17	0.19
8. Time	0.11	0.25*	0.20
9. Under-inclusion	0.47**	0.54**	0.15
10. Depersonalization	—	0.64**	0.32**
11. Derealization	0.64**	—	0.18
12. Déjà vu	0.32**	0.18	—
13. Meds ↑ depersonalization	0.35**	0.21*	0.32**
14. Depressive mood	0.43**	0.35**	0.14
15. Feeling of 'deadness'	0.51**	0.60**	0.24*
16. Sense of personality affected by meds	0.54**	0.35**	0.07
17. Sense of behaviour affected by meds	0.21*	0.15	0.05
18. Bodily feelings affected by (hospital) milieu	0.27*	0.26*	0.05
C. Psychomotor function			
19. Increased body awareness	0.45**	0.45**	0.47**
20. Increased restless body movement	0.42**	0.40**	0.10
21. Amount of organized physical activity	0.23*	0.14	0.01
22. Body tenseness or tiredness increased by meds.	0.41**	0.41**	0.29**
23. Increased drives to motor activity	-0.37**	-0.35**	0.10

**p* = .05

***p* = .01

RESULTS

In this study depersonalization phenomenon was not the primary presenting complaint of any patient, and therefore it did not achieve the status of a primary diagnosis but rather that of a symptom which at times was only elicited from detailed examination of the patient. Eighty per cent of the patients in this study experienced depersonalization at some time in the past or present, but only 12 per cent reported severe and lasting experiences. Diag-

nosis was not related significantly to depersonalization, although there was a trend towards more depersonalization in schizophrenic

* In order to confirm several of the key findings, and to determine whether the results from the depersonalization scale can be replicated across samples, a second additional sample of 128 consecutive patients from the same setting, similar in demographic and clinical characteristics, was administered the questionnaire. The relationship between depersonalization and diagnosis, age, trait anxiety and introversion was analysed in this second sample and is reported in the text where appropriate.

patients. Because of these suggestive findings, this relationship was analysed more completely with the second, larger sample of 128 patients, among which were 52 schizophrenics. The results with this second sample of patients confirmed the trend noted in the first sample, this time with the schizophrenics having significantly more depersonalization.

With regard to specific characteristics, depersonalization correlated positively with both visual and auditory hallucinations, with measures of cyclothymia, with introversion, and with tests of trait anxiety (the Taylor Anxiety Scale) (Table IV). As it seemed possible that anxiety and depersonalization might be closely linked for many patients, this relationship was explored in the second sample of 128 patients. The results in this additional sample again indicated a significant

positive relationship between trait anxiety and depersonalization. The relationship between depersonalization and introversion was also examined in this second sample; the trend found in the first sample, in the direction of a positive relationship between these two variables, was found again in the second sample. Despite this positive trend, however, the relationship between depersonalization and introversion was not quite significant in the second sample, indicating that while there probably is a positive relationship, it is not a very strong one.

Depersonalization also related to a cluster of symptoms characteristic of depression, such as guilt, withdrawal, feelings of 'deadness', anomie, frustration, and poor self-esteem. (Table V.) There was also a significant correlation between depersonalization and a difficulty in excluding irrelevant stimuli (stimulus over-inclusion) (32) which seems to be related to disorders of

TABLE IV
Correlation of variables with symptoms and behaviour
(*N* = 40)

Symptoms	Correlation with Depersonalization
Delusions ¹	
(Hi = strange things) ..	0.23
Delusions ¹	
(Hi = others think peculiar)	-0.09
Delusions ¹	
(Hi = pt. believes ideas) ..	0.18
Hallucination ¹ (Hi-visual) ..	0.36*
Hallucination ¹ (Hi-auditory) ..	0.37*
Confusion ³ (Hi = confused) ..	0.05
Concentration ³ (Hi = low conc.)	0.20
Compulsivity ²	-0.07
Hypochondriasis ²	0.20
Depressed Mood ²	-0.01
Isolation ²	0.09
Regression ²	0.03
Paranoid th. ²	0.12
Bizarre sp. ²	0.27
<i>Behaviour</i>	
Suicide attempt ¹ (Hi = many)	0.39*
Present dysfunction ¹	0.51**
Church attend. ¹ (Hi = frequent)	0.25
Poor chance getting better ¹ ..	0.32*

¹ Research interview.

² Psychiatrist's Evaluation.

³ Marlowe-Crowne Ques.

**p* = .05.

***p* = .01.

TABLE V
Correlations of variables with personality inventories
(*N* = 49)

Variable	Correlation with Depersonalization
Cyclothymia	0.48**
Extroversion-Introversion ^a ..	-0.32*
Lie Scale ^b	-0.08
Neuroticism	0.19
Taylor Manifest Anxiety ..	0.32*
Anomie	0.35*
Frustration	0.42**
Autism	0.54**
Cycloid thinking	0.32*
Emotionality	0.56**
Withdrawal	0.53**
Guilt (From Buss-Durkee Hostility Inventory)	0.41**
Motor retardation	0.13
Confusion	0.21
Stimulus Overinclusion ..	0.35*
Self-esteem (From Semantic Differential)	-0.42**
Self-potential (From Semantic Differential)	-0.17
Self-activity (From Semantic Differential)	-0.28

^a Hi = extroversion

^b Hi = truth

**p* = .05

***p* = .01.

attention (Table V, $r = 0.35$). Interesting negative findings were that there were no significant correlations with motor retardation, compulsivity, observed depressed mood, or delusions; all of these have been cited in the past as frequent in depersonalized patients (19, 24, 27, 29).

Demographic data indicated strongly that younger patients have higher depersonalization scores than older patients. The results were also significant in the second larger sample, with more depersonalization in younger patients. Sex and marriage were unrelated to depersonalization. Those with histories of hallucinogenic drug use described the depersonalization experience as different from these drug effects. Almost all variables relating to body image (body awareness and body movement as well as conscious efforts to restrict external stimuli) were significantly related to depersonalization experiences. (Table III.)

The psychiatrists rated patients with depersonalization as sicker, having greater degrees of current dysfunctioning, and having poorer prognoses. (Table IV.) It is interesting, however, that these patients did not stay in the hospital longer than patients without depersonalization, and they achieved various indices of progress in the therapeutic community at the same time as other patients, indicating that at least for this sample there is little prognostic significance to depersonalization alone for short-term improvement.

The patients with depersonalization were likely to interpret external stimuli as affecting their bodies rather than their emotions or intrapsychic feelings; this was particularly true of the way they perceived the effects of the hospital milieu. They felt that psychotropic drugs, particularly phenothiazines, increased their feelings of depersonalization.* Those treated with initial high doses of phenothiazines were reduced within weeks to minimal dose levels. It is of note that the physicians uniformly seemed to decrease dosages early for these patients, probably because of complaints of side-effects (Table 3, variables 13, 16 and 17).

* The drugs, however, did not lead to extensive extrapyramidal symptoms, because of antiparkinson medication.

Depersonalization and derealization correlate with almost exactly the same variables and most likely represent two aspects of the same experiential state, or different expressions of the same state in individual patients. (Table III.) Déjà vu phenomena, although reported in 92 per cent of the patients (but experienced frequently in only 15 per cent), correlated with very few of the variables that depersonalization and derealization did, and thus most likely represent a different type of symptom or experiential state. (Table IV.) Other phenomena that have been cited as concomitants of depersonalization are time and colour distortions. However, these did not correlate significantly with depersonalization. (Table III.)

DISCUSSION

It should be noted that a number of factors suggest that the questionnaire was exploring, in a general way, the construct it was designed to assess, that the construct of depersonalization bears a consistent relationship to other variables of importance, and in this sample depersonalization phenomena seem distinct from delusional thoughts. Thus the clinical interviews conducted during the pilot work were in close agreement with the initial depersonalization scores from the questionnaire. In addition, during the formal study period the relationship between depersonalization and several other variables (e.g. age, trait anxiety) showed a consistent pattern in that the same relationships between depersonalization and these variables were found across two different samples of patients. These consistent patterns suggest that the relationships between depersonalization and other phenomena are real ones which can be replicated across samples. Finally, the depersonalization scores were positively related to a number of variables which other clinicians have previously hypothesized are linked to depersonalization. These three types of evidence indicate that the questionnaire is assessing depersonalization, and that depersonalization is related, in a consistent fashion, to other important phenomena.

From the present results we can attempt to characterize the type of patients who most often experience depersonalization as young, fre-

quently anxious, introverted patients with mood swings. The data indicating that depersonalization is found more frequently in younger patients confirm reports by other clinicians. Depersonalization also seems to be strongly correlated with affective states and feelings, particularly depressive mood or low self-esteem but not specifically with depressive diagnoses. The correlations with depressive feelings have been noted previously by Bleuler (5) and recently by Sedman (27, 28) and will be dealt with in more detail in subsequent studies. The higher percentage of schizophrenic patients with depersonalization experiences confirms the clinical impression that depersonalization is a frequent concomitant of this disorder.

How then can we understand depersonalization? A clue to the understanding of depersonalization can be found in the distribution of the data. It is of note that there are few significant correlations in observed clinical signs (Table IV) but many in the self-report scales (Table III), indicating that the primary disturbance manifests itself as *experiences* related to the self or the world. If we understand one aspect of ego function as those factors that mediate or integrate the individual's perception of external and internal stimuli, then we can say that depersonalization represents a disturbance of that aspect of ego functioning. Certainly the high correlations with body awareness, body movement and introversion indicate an increased awareness or focusing of attention on inner stimuli. The high correlations with auditory and visual hallucinations, and with an inability to exclude irrelevant stimuli (32) (e.g. 'I am attending to everything at once and as a result I do not really attend to anything'), relate to a difficulty in the integration of external stimuli. This ego defect may then be characterized as a difficulty in excluding irrelevant stimuli (internal or external), to problems in processing these incoming stimuli, and on an overall level to a difficulty in synthesizing competing stimuli which may lead to self-perceived changes in the self, or the world, or both.

The association of depersonalization and anxiety is important in view of Roth's formulation of the phobic-anxiety-depersonalization

syndrome. It should be noted that, although the data indicate that patients with depersonalization are often anxious, it is an open question whether the anxiety leads to the depersonalization or whether the anxiety is due to the experience of the depersonalization itself. This relationship of depersonalization to anxiety might lead one to think that phenothiazines would ameliorate this condition. However, the response to phenothiazines is poor, and this seems understandable in that these drugs may either cause new bodily stimuli or alter customary modes of processing internal and external stimuli and thereby compound feelings of depersonalization.

The disparity between the experiences of depersonalization and the phenomena produced by hallucinogenic drug use is of interest but unexplained. Thirty per cent of the patients studied had some experience with drugs such as LSD and other hallucinogens. Although it is cited that depersonalization is a part of the hallucinogenic experience these patients report the specific experiences as different. Whether this is related to anticipated euphoric effects of the hallucinogenic drugs or the setting in which they are taken is unclear.

SUMMARY

The present research, designed to investigate the presence of depersonalization in psychiatric patients, found that depersonalization occurs more frequently in younger patients who are frequently anxious, who seem to be preoccupied with internal processes, and who have a tendency toward cyclothymia and depression. From this study depersonalization and derealization seem to be two aspects of the same phenomenon, and in this respect emerge as symptoms rather than as discrete diagnostic entities. One interesting question is whether these phenomena are lifelong events or occur only at the times of an emotional illness, as proposed by Mayer-Gross. The current data, particularly the correlations with the various personality inventories which are usually indicative of long-standing personality traits, would indicate that these phenomena are probably present throughout most of life but are intensified and noted more during periods of emotional distress.

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