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Short Communications

Causal Attributions in Psychiatric Patients

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Summary. An instrument for a systematic assessment of attributions that psychiatric patients have about their disorder is presented together with some preliminary results, for example on differences between sex and diagnostic groups. The comparison with a sample of (mostly untreated) students demonstrates that causal attributions in psychiatric patients should be assessed with specifically designed instruments. The presented scale may help to investigate longitudinally the course of causal attributions during treatment.

Key words: Causal attributions – Instrument – Psychiatric patients – LAC-scale

The assumptions patients make about the nature of the disease and, in particular, its etiology, may influence their help-seeking and health behaviour, their compliance in therapy, coping strategies and other important aspects in the course of a psychiatric disorder.

Patients' assumptions about the disorder are influenced by popular conceptions of mental health (Nunnally 1961, Angermeyer and Matschinger 1992) but may change through personal experience (Trute and Loewen 1978).

Causal attributions may even be part of the disorder itself as in the characteristic cognitions described by Beck (1976) and others in depression.

Although psychiatry and psychotherapy have always been aware that causal attributions are relevant in many ways for etiology, treatment, and course of a disorder (Linden 1982, Angermeyer and Klußmann 1988), there is a lack of systematic and detailed assessment of these attributions in psychiatric patients. The available instruments are limited to broad categories or certain aspects like attributions about the treatment (Linden 1985).

With Rotter's Locus-of-control concept as a background, the Health Locus-of-Control Scale (Wallston et al. 1976), the IPC (Krampen 1981), and other measures of generalized causal expectancies focus on only two or three dimensions like an internal, an external-powerful others and an external-chance dimension.

The Levels of Attribution and Change Scale, LAC (Norcross, Prochaska, and Hambrecht 1985) was designed to assess a large spectrum of causal attributions. Ten attributional categories (or "levels" according to Norcross et al.) could be differentiated by factor analysis and constitute the scales of the LAC (s. Table 1). This instrument, however, was developed in a student population and had not been applied in a psychiatric setting, yet.

The present study attempts (1) to test the stability of the American findings in a parallel German sample (i.e., students) and (2) to compare these with the results in a clinical sample.

Method

Instrument: The LAC-Scale provided a structured pool of 60 items (6 for each of the 10 categories), for example "My problem is partly due to my physical constitution" or "My problem is partly due to conflicts I have with my present family". The items were translated into German, and 11 items were added in order to include more of the medical background mostly concerning aspects of treatment. The items were prefaced by the phrase "My problem is due to...". Answers had to be marked on a 5-point Likert-type scale (1 = strongly disagree to 5 = strongly agree).

Sample: The instrument was administered to two samples separately, to 160 students and to an unselected sample of 145 in- and out-patients of the Central Institute of Mental Health, 71 males and 74 females, age 19 to 76. The diagnostic distribution was: schizophrenia or similar disorders (ICD-9 295: 21.1%), affective psychoses (ICD-9 296: 28.6%), neurotic and personality disorders (ICD-9 300 and 301: 15.2%), other psychiatric disorders like substance abuse, eating disorders etc. (ICD-9 303-309: 35.9%). About two thirds of the patients received pharmacotherapy, one third solely psychological therapy.

The same instrument was administered to 160 medical and psychology students (44.4% males; age 19 to 52). 15.6% of these students were currently under treatment for some kind of psychological distress (mostly concerning self-esteem and interpersonal problems).

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Table 1. Factor structures of causal attributions in the three samples

U.S. student sample $N = 186$[a]	German student sample $N = 160$	Clinical sample $N = 145$
Maladaptive cognitions Insufficient effort Chosen lifestyle Intrapersonal conflicts	Perfectionism Insufficient effort Chosen lifestyle	Intrapersonal causes
Spiritual determinism Bad luck Biological inadequacies Environmental difficulties	God Chance	External-fatalistic causes
Familial conflicts Interpersonal conflicts	Familial and interpersonal conflicts	External-interpersonal causes

[a] Norcross et al. (1985)

Statistics: Separate principal component analyses were performed in the two samples in order to reveal independently the underlying structure of the instrument. In the psychiatric sample, exact individual factor scores were used to study differences in causal attributions between age, sex, diagnostic, and treatment groups.

Results

In the student sample, six factors could be extracted explaining 60.0% of the total variance. This solution replicated some factors of the ten-factor structure found by Norcross et al. (1985), while other factors merged in one factor in the German student sample (Table 1).

In the psychiatric sample, three factors emerged from the principal component analysis: Factor I (explaining 52.8% of the variance) included conflicts and problems the patient has with him/herself, as well as low self-esteem, chosen lifestyle, insufficient effort, and negative personal appearance. This factor was labeled "intrapersonal causes". Factor II (11.1% of the variance) combined causes like God, the stars, fate, and biological dispositions ("external-fatalistic"). Factor III (7.7% of the variance) included familial conflicts, problems in partnership and social relationships ("external-interpersonal causes").

No significant correlations were found between age and factor scores on the three dimensions ($r_I = -0.07$; $r_{II} = 0.21$; $r_{III} = -0.24$).

MANOVA (with the factors sex and diagnosis) revealed that external-fatalistic attributions were significantly ($F = 8.31$; $P < 0.01$) more prevalent in men than in women, while intrapersonal and interpersonal attributions did not differ between the sexes. The diagnosis was only relevant for intrapersonal attributions which were more frequently expressed by patients with neurotic and personality disorders than by patients with affective psychoses, which mentioned intrapersonal causes still more often than patients with schizophrenic disorders ($F = 5.41$; $P < 0.01$). There was no interaction between sex and diagnosis on any of the three dimensions.

Treatment modality was related to interpersonal attributions: Patients with pharmacotherapy noted interpersonal conflicts less often as probable causes than patients who received no medication (*t*-test: $t = 2.35$; $P < 0.05$).

Individual factor scores on the three dimensions were correlated with the patients' scores on the three scales of a widely used locus-of-control instrument (IPC by Krampen 1981): Factor I ("intrapersonal causes") did not correlate significantly with the internal dimension of the IPC ($r_I = 0.05$) but with the external-powerful others dimension ($r_P = 0.53$; $P < 0.001$) and with the external-chance dimension ($r_C = 0.52$; $P < 0.001$). Factor II ("external-fatalistic causes") was correlated negatively with the internal dimension of the IPC ($r_I = -0.29$; $P < 0.001$), but the correlations with the two other dimensions were statistically not significant ($r_P = 0.05$; $r_C = 0.13$). Factor III did not correlate significantly with any of the IPC-scales ($r_I = -0.12$; $r_P = 0.11$; $r_C = 0.15$).

Discussion

Since the same instrument was administered to a psychiatric population and to a mostly untreated sample of students asked about their personal problems, the dimensional structure of causal attributions could directly be compared between the two samples. The factor structures differ largely: While students attribute psychological distress to a broad spectrum of sources, three dimensions are enough to describe the patient's attributions of their disease: intrapersonal, external-fatalistic, and interpersonal causes. This discrepancy suggests that causal attributions concerning psychological distress should be assessed with different instruments in psychiatric and in untreated populations. Comparisons between subgroups of patients, therefore, were based on the three-factor solution of the clinical sample in this study.

The finding of independent attributional dimensions in psychiatric patients contrasts with earlier results by Angermeyer and Klußmann (1988) who found interrelating attributions within a multifactorial etiological concept when applying a shorter list of items and open questions to their sample. The number of relevant categories of causal attributions, however, was relatively small in both studies.

The gender difference regarding external-fatalistic attributions (more often expressed by male patients) and the different frequency of intrapersonal attributions in the diagnostic groups (lower prevalence in functional psychoses) have some clinical plausibility but need replication.

The higher frequency of interpersonal attributions in patients treated without medication might reflect an interaction between treatment modality and attributional preferences: In many cases psychotherapy, counseling, sociotherapy etc. focus on interpersonal conflicts, which then are incorporated by the patient into his/her attributional set.

This hypothesis (and several other interesting questions) can only be decided by longitudinal studies of causal attributions in psychiatric patients. The presented scale may be applied repeatedly during treatment in order to investigate the cognitive process in the patient accompanying any type of therapy.

The study demonstrates the complexity of interrelations between general attributional styles (supposedly with "trait"-character) and specific attributions regarding a disorder ("state"-character), but further clarification is needed.

Finally, the parallel application of the instrument both in the patient and the therapist may improve matching them particularly in psychotherapy (Hambrecht 1991).

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