# S48. Categorical and dimension approaches in schizophrenia

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## CONCEPTUALISATION OF SCHIZOPHRENIA: THE SYMPTOM-ORIENTED APPROACH

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E. Bleuler presumed that nearly all symptoms of dementia praecox represent reactions to the illness process but that some of them are particularly linked with the basic disturbance. He suggested that the identification of such fundamental symptoms could lead the discovery of specific impairments. But the assumption that fundamental symptoms are not mutually independant incited to base research on samples comprising all patients presenting at least one of the various symptoms suspected to be fundamental. K. Schneider's proposal to base the diagnosis of schizophrenia on the presence of symptoms recognizable without difficulty represents a similar syndromatic approach. Modern classifications include at choice Bleuler's fundamental and Schneiders first rank symptoms in their diagnostic criteria. This may lead to erroneous attributions in view of the possibility that most of the first rank symptoms and some of the symptoms Bleuler suspected to be fundamental may be unspecific reactions to different basic etiologies. It can be expected that research based on symptoms is better suited to resolve this problem. Results of recent symptom-oriented studies in particular those investigating the relationship between formal thought disorders and specific cognitive impairments are discussed.

# HETEROGENEITY IN SCHIZOPHRENIA: IDENTIFYING SUBTYPES BY CLUSTER ANALYSES

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The negative-positive dichotomy in schizophrenia seems to be an oversimplification since other subtypes such as mixed, disorganized and residual have been individualized in a previous study (Dollfus et al, 1996).

The aim of this study was to test the stability of this subtypology of schizophrenia by using a particular method of cluster analysis on a larger data set. The Ward's method was applied to the Positive And Negative Syndrome Scale (PANSS) score of 198 patients, defined as schizophrenic by one of the three diagnostic criteria (DSMIII-R, Feighner, RDC).

The results suggest the existence of at least 3 subtypes (positive, negative and mixed) of schizophrenic patients independently of the phase of illness (chronic, acute) and 2 subtypes which vary with the phase of illness: a residual subtype was observed in patients in stabilized phase whereas a positive non-disorganized subtype was displayed in patients in an acute phase. The former subtype had not particular characteristics compared to others whereas the latter subtype was characterized by a late onset of illness (m  $\pm$  DS = 49.8  $\pm$  20.2), a prevalence of female (84.6%) and a good outcome.

This study shows the stability of the positive, negative and mixed clusters which shows the oversimplification of the negative-positive dichotomy in schizophrenia.

#### THE DEFICIT SYNDROME OF SCHIZOPHRENIA: TOWARDS HETEROGENEITY OF SCHIZOPHRENIA?

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From Kraepelin's (1896) and Bleuler's (1907-1911) first descriptions to recent studies, several authors have debated the question of unity or diversity of schizophrenia. Within this context, the negative symptoms have generated major interest and some authors (Crow, Andreasen, Kay) classified schizophrenia according to the presence or absence of negative symptoms. Based on Kraepelin's clinical description, Carpenter et al. (1988) proposed another subtyping: the deficit symptoms which refers to the presence or absence of prominent primary enduring negative symptoms. Primary negative symptoms have to be inherent to schizophrenia itself, in other words they must not derivate from factors such as depression, anxiety, akinesia... B. Kirkpatrick et al. (1989) have proposed the "Schedule for the Deficit Syndrome (SDS)" to reliably identify the deficit syndrome concept. Deficit patients as compared to non deficit patients, share neurological, neuropsychological, brain imaging impairments biochemical and therapeutical characteristics supporting this subtyping.

## FACTOR ANALYSIS AND STRUCTURAL MODELS OF SCHIZOPHRENIA

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The Positive and Negative Syndrome Scale (PANSS) was conceptualized as an objective method for evaluating 30 symptoms that define three syndromes of schizophrenia: positive, negative and general psychopathology. Additionally, the scale contains five factors as described in the widely used Brief Psychiatric Rating Scale (BPRS). Based upon exploratory factor analytic studies of the PANSS it has been suggested that four or as many as five factors may be necessary to describe the syndromes of schizophrenia. Confirmatory factor analysis, based upon structural modeling, provides for a statistical test of the adequacy of alternative factor structures. We report a study using the method of confirmatory factor analysis to determine which of eleven alternative factorial models provides the best fit for PANSS rated symptoms of schizophrenia. The sample (N = 1233)was obtained by pooling data across five centers. All a priori models failed to meet criteria for a good fit to the empirical data. Of eleven factor models evaluated, the best fitting alternative was the modified five factor solution proposed by Lindenmayer et al. 1995 (Robust CFI = 0.827). Since the lack of fit was not attributable to 1. Poor reliability 2. low variances or 3. small sample size, we conclude that modifications in the PANSS are required if the scale is to be used to generate an adequate structural model for the symptoms of schizophrenia.