The meaning of symptoms of schizophrenia in DSM-IV-TR: In terms of competence clinical psychology

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ABSTRACT

The present study examined the characteristic symptoms (Criteria A) and social/occupational dysfunction (Criterion B) using diagnostic criteria for schizophrenia in DSM-IV-TR, in terms of competence clinical psychology. The criteria were translated into 24 component symbols in the competence list consisting of five factors (cognitive, physical, social, survival, and general self-esteem competence) with three graduate students of clinical psychology. The results suggest that Criteria A and Criterion B are associated with dysfunction of 14 components included in five competence factors. Further studies are warranted in order to argue causes of schizophrenia.

KEY WORDS: symptoms of schizophrenia, DSM-IV-TR, competence clinical psychology

Problem

In our previous study (Katsumata, 2004), we examined Schneider’s first-rank and second-rank symptoms of schizophrenia in terms of competence clinical psychology. Schneider’s symptoms were described as dysfunctional symptoms in three factors; cognitive, social and survival competence including sensation and perception (six symptoms), thinking (four symptoms), and cognitive style (two symptoms). No dysfunctional symptoms were found in factors of physical and general self-esteem competence.

The present study aimed to examine the diagnostic criteria for schizophrenia in DSM-IV-TR, in terms of competence clinical psychology.

Method

Materials

The characteristic symptoms (Criteria A) and social/occupational dysfunction (Criterion B) in diagnostic criteria for schizophrenia in DSM-IV-TR were used as materials in this study.

Criteria A (Characteristic symptoms): Two (or more) of the following, each present for a significant portion of time during a 1-month period (or less if successfully treated):

1. delusions
2. hallucinations
3. disorganized speech (e.g., frequent derailment or incoherence)
4. grossly disorganized or catatonic behavior
5. negative symptoms, i.e., affective flattening, alogia, or avolition

Note: Only one Criterion A symptom is required if delusions are bizarre or hallucinations consist of a voice keeping up a running commentary on the person’s behavior or

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thoughts, or two or more voices conversing with each other.

Criterion B (Social/occupational dysfunction): For a significant portion of the time since the onset of the disturbance, one or more major areas of functioning such as work, interpersonal relations, or self-care are markedly below the level achieved prior to the onset (or when the onset is in childhood or adolescence, failure to achieve expected level of interpersonal, academic, or occupational achievement).

Procedure of material analysis

The Criteria A and Criterion B for schizophrenia in DSM-IV-TR were translated into 24 component symbols in the competence list consisting of five factors (cognitive, physical, social, survival, and general self-esteem competence) by three graduate students of clinical psychology and the author.

A. The Competence List: The list consisted of five factors and 24 components of competence (Table 1).

Factor I: Cognitive Competence (eight components)

Factor II: Physical Competence (five components)

Factor III: Social Competence (five components)

Factor IV: Survival Competence (four components)

Factor V: General Self-Esteem Competence (two components)

B. Criteria of classification for causes of symptoms or problem behavior: From the competence clinical psychological points of view, some symptoms or problem behavior are hypothesized to be caused by dysfunction of competence. The dysfunction of competence is also hypothesized to be caused by the following four factors. The symbols for each factor are shown in the following brackets.

Factor A. Undevelopment of competence [−]

Factor B. Restriction of competence [△]

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Competence List (5 factors and 24 components)</th>
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<tbody>
<tr>
<td><strong>Factor I. Cognitive Competence</strong></td>
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<tr>
<td>a. Sensation and perception: ①sensation, ②perception</td>
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<td>b. Verbal: ①verbal comprehension, ②verbal expression</td>
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<td>c. Thinking: ①judgment, ②decision, ③reasoning, ④problem solving, ⑤imagination, ⑥creativity</td>
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<td>d. Attention: ①concentrating attention, ②observation</td>
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<td>e. Cognitive style: ①concern (interest, curiosity), ②flexibility</td>
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<td>f. Memory: ①short-term memory, ②long-term memory</td>
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<td>g. Learning: ①learning ability, ②scholastic achievement</td>
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<td>h. Planning: ①planning ability</td>
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</table>

**Factor II. Physical Competence**

a. Physical form (appearance): ①height, ②weight, ③the girth of the chest, ④features (looks)

b. Physiological function: ①internal organs, ②internal secretion, ③sexual maturity

c. Motor performance: ①general motor ability, ②motor fitness, ③physical fitness, ④strength and endurance of arm and shoulder girdle

d. Physical health: ①medical history, ②present state of health

e. Physical action: ①physical expression, ②voice, ③posture, and ④motion (movement, action)

**Factor III. Social Competence**

a. Self-disclosure

b. Friendliness

c. Cooperation

d. Social interchange (interpersonal relations)

e. Leadership

**Factor IV. Survival Competence**

a. Volition: ①will, desire, ②subjectivity, ③challengingness (risk-taking), ④achievement motivation

b. Diligence: ①effort, ②continuation

c. Self-control: ①time management, future time perspective, ②autonomy, ③sense of responsibility, ④perseverance, ⑤economic control

d. Task accomplishment: ①academic activities (attending school, studies), ②occupational activities (attendance, duties, labor)

**Factor V. General Self Esteem Competence**

a. 3A of emotional stability: ①Affection, ②Acceptance, ③Approval

b. Self-confidence: ①sense of competence, ②sense of efficacy

Factor C. Distortion of competence [～]

Factor D. Disturbance or abnormality of
Results

To classify the Criteria A (A1, A2, A3, A4, A5) and Criterion B for schizophrenia in DSM-IV-TR, the following two explanations were adopted for each symptom.

a. Brief explanation of symptoms
b. Competence factors, components and symbols for symptoms

Criteria A (Characteristic symptoms): The positive symptoms (Criteria A1–A 4) and the negative symptoms (Criterion 5).

A1. Delusions: distortions in thought content [Ic ①~☆]

a. Brief explanation of delusion: Delusions are erroneous beliefs that usually involve a misinterpretation of perceptions or experiences. Their content may include a variety of themes (e.g., persecutory, referential, somatic, religious, or grandiose). Persecutory delusions are most common; the person believes he or she is being tormented, followed, tricked, spied on, or subjected to ridicule. Referential delusions are also common; the person believes that certain gestures, comments, passages from books, newspapers, song lyrics, or other environmental cues are specifically directed at him or her.

b. Competence factors, components and symbols for delusion: Distortions in thought content (judgment)/distortions of friendliness/distortion in sense of competence [Ic ①~☆/Ill b~☆/Vb ①~☆].

A2. Hallucinations: distortion in perception [Ia ①②~☆]

a. Brief explanation of hallucination: Hallucinations may occur in any sensory modality (e.g., auditory, visual, olfactory, gustatory, and tactile), but auditory hallucinations are by far the most common. Auditory hallucinations are usually experienced as voices, whether familiar or unfamiliar, that are perceived as distinct from the person’s own thoughts.

b. Competence factors, components and symbols for hallucination: Hallucinations are distortions in sensations and perception [Ia ①②~☆].

A 3. Disorganized speech (e.g., frequent derailment or incoherence): Distortion in language and thought process [Ib ②~/Ic~]

a. Brief explanation of disorganized speech: Speech of individuals with Schizophrenia may be disorganized in a variety of ways; derailment or loose associations, tangentiality, word salad, etc.

b. Competence factors, components and symbols for disorganized speech: Distortion of verbal expression/thought disorder [Ib ②~/Ic ③⑤~☆].

A 4. Grossly disorganized or catatonic behavior: distortions in self-monitoring of behavior [IVc ②~☆]

a. Brief explanation of grossly disorganized or catatonic behavior: Grossly disorganized behavior may manifest itself in a variety of ways, ranging from childlike silliness to unpredictable agitation including dressing in an unusual manner (e.g., wearing multiple overcoats, scarves, and gloves on a hot day), inappropriate sexual behavior (e.g., public masturbation) or unpredictable and untriggered agitation (e.g., shouting or swearing), catatonic stupor, maintaining a rigid posture and resisting efforts to be moved (catatonic rigidity), active resistance to instructions or attempts to be moved (catatonic negativism), the assumption of inappropriate or bizarre postures (catatonic posturing), or purposeless and unstimulated excessive motor activity (catatonic excitement).

b. Competence factors, components and symbols for grossly disorganized or catatonic behavior: Distortion of self-control (autonomy)/distortion of will, subjectivity/distortion of thinking (judgment)/emotional instability/distortion of physical action (posture, motion) /distortion of cooperation [IVc ②~☆/IVa ①②☆/Ic ①~☆/IVa ①②~☆/II ③④~☆/IIIc ①~☆].

A 5. Negative symptoms, i.e., affective flattening, alogia, or avolition: Restrictions in the range and intensity of emotional expression
(affective flattening), restrictions in the fluency and productivity of thought and speech (alogia), and restrictions in the initiation of goal-directed behavior (avolition).

a. Brief explanation of negative symptoms: The negative symptoms of Schizophrenia account for a substantial degree of the morbidity associated with the disorder.

Affective flattening is especially common and is characterized by the person's face appearing immobile and unresponsive, with poor eye contact and reduced body language. Although a person with affective flattening may smile and warm up occasionally, his or her range of emotional expressiveness is clearly diminished most of the time. Alogia (poverty of speech) is manifested by brief, laconic, empty replies. The individual with alogia appears to have a diminution of thoughts that is reflected in decreased fluency and productivity of speech. Avolition is characterized by an inability to initiate and persist in goal-directed activities. The person may sit for long periods of time and show little interest in participating in work or social activities.

b. Competence factors, components and symbols for negative symptoms: Dysfunction of cognitive style (concern, flexibility)/restriction of attention/poor physical action (physical expression, motion)/restriction or diminution of thinking/restriction of volition (will, subjectivity, diligence)/poor verbal expression [Ie 1 2~*/I1d 1 1~*/I2e 1 4~*/I4c~*/IVa 1 2~*/IVb 1 2~*/Ib 1 2~*/].

Criterion B (Social/occupational dysfunction)

a. Brief explanation of social/occupational dysfunction: For a significant portion of the time since the onset of the disturbance, one or more major areas of functioning such as work, interpersonal relations, or self-care are markedly below the level achieved prior to the onset (or when the onset is in childhood or adolescence, failure to achieve expected level of interpersonal, academic, or occupational achievement).

b. Competence factors, components and symbols for social/occupational dysfunction: Dysfunction of social interchange (interpersonal relations)/dysfunction of task accomplishment in academic activities and occupational activities/dysfunction of self-control [III d~*/IVd 1 2~*/IVc 1 2~*/].

In Table 2, the results of classification of criteria for schizophrenia in DSM-IV-TR by the competence list were disposed.

Discussion

The 15 components of competence with underlines in Table 2 indicate that they are related with symptoms in criteria for schizophrenia. In other words, it could be explained that symptoms for schizophrenia may stem from dysfunctions of their components of competences.

The most important competence influencing symptoms of schizophrenia was Cognitive Competence. Five symptoms including A 1 (delusion), A 2 (hallucination), A 3 (disorganized speech), A 4 (grossly disorganized or catatonic behavior), and A 5 (negative symptoms, i.e., affective flattening, alogia, or avolition) were related with any of five components; sensation and perception, verbal, thinking, attention, and cognitive style.

The second important competence was Social Competence and Survival Competence. In Social Competence, three symptoms including A 1 (delusion), A 4 (grossly disorganized or catatonic behavior), and B (social/occupational dysfunction) were related with any of three components; friendliness, cooperation, and social interchange (interpersonal relations). In Survival Competence, three symptoms including A 4 (grossly disorganized or catatonic behavior), A 5 (negative symptoms), and B (social/occupational dysfunction) were related with any of four components; volition, diligence, self-control, and task accomplishment (academic activities or occupational acti-
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<th>Fac</th>
<th>Component</th>
<th>Symptom &amp; Competence Sign</th>
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<tr>
<td>I COG</td>
<td>Sensation and perception:</td>
<td>A 1. delusion [Ic ①～☆/Ilb ～☆/Vb ①～ ④☆].</td>
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<tr>
<td></td>
<td>a. Sensation,</td>
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<td>b. Verbal:</td>
<td>A 2. hallucination [Ia ②～☆].</td>
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<td></td>
<td>c. Thinking:</td>
<td>A 3. disorganized speech (e.g., frequent derailment or incoherence) [Ib ②～☆/Ic ③④～☆].</td>
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<td>d. Attention:</td>
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<td></td>
<td>e. Cognitive style:</td>
<td>A 4. grossly disorganized or catatonic behavior [Iv ②～☆/Iwa ①②☆/Ic ①～☆/V a～☆/Il e ③④～☆/IIlc～☆].</td>
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<td></td>
<td>f. Memory:</td>
<td>A 5. negative symptoms, i.e., affective flattening, alogia, or avolition [Ie ①②～☆/V d ①～☆/Il e ④⑤～☆/Ic～☆/Iva ①②～☆/IVb ①②～☆/Ib ②～☆].</td>
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<td>g. Learning:</td>
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<td>h. Planning:</td>
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<td>II PHYS</td>
<td>a. Physical form (appearance):</td>
<td>A 4. grossly disorganized or catatonic behavior [Iv ②～☆/Iwa ①②☆/Ic ①～☆/V a～☆/Il e ③④～☆/IIlc～☆].</td>
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<td>b. Physiological function:</td>
<td>A 5. negative symptoms, i.e., affective flattening, alogia, or avolition [Ie ①②～☆/V d ①～☆/Il e ④⑤～☆/Ic～☆/Iva ①②～☆/IVb ①②～☆/Ib ②～☆].</td>
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<td>c. Motor performance:</td>
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<td>d. Physical health:</td>
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<td>e. Physical action:</td>
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<td>III SO</td>
<td>Self-disclosure</td>
<td>A 1. delusion [Ic ①～☆/Ilb ～☆/Vb ①～ ④☆].</td>
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<td>b. Friendliness</td>
<td>A 4. grossly disorganized or catatonic behavior [Iv ②～☆/Iwa ①②☆/Ic ①～☆/V a～☆/Il e ③④～☆/IIlc～☆].</td>
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<td></td>
<td>c. Cooperation</td>
<td>B. social/occupational dysfunction [IIId～☆/IVd ①②～☆/Ivc ①②～☆].</td>
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<td>d. Social interchange (interpersonal relations)</td>
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<td>e. Leadership</td>
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<td>IV SUR</td>
<td>a. Volition:</td>
<td>A 4. grossly disorganized or catatonic behavior [Iv ②～☆/Iwa ①②☆/Ic ①～☆/V a～☆/Il e ③④～☆/IIlc～☆].</td>
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<td>b. Diligence:</td>
<td>A 5. negative symptoms, i.e., affective flattening, alogia, or avolition [Ie ①②～☆/V d ①～☆/Il e ④⑤～☆/Ic～☆/Iva ①②～☆/IVb ①②～☆/Ib ②～☆].</td>
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<td></td>
<td>c. Self-control:</td>
<td>B. social/occupational dysfunction [III d～☆/IVd ①②～☆/Ivc ①②～☆].</td>
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<td></td>
<td>d. Task accomplishment:</td>
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<td></td>
<td>a. Emotional stability:</td>
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<td></td>
<td>b. Sense of competence,</td>
<td>A 1. delusion: [Ic ①～☆/Ilb ～☆/V h ①～ ④☆].</td>
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<tr>
<td>V GSE</td>
<td>Sense of efficacy</td>
<td>A 4. grossly disorganized or catatonic behavior [Iv ②～☆/Iwa ①②☆/Ic ①～☆/V a～☆/Il e ③④～☆/IIlc～☆].</td>
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2. [☆]: undevelopment of competence, [△]: restriction of competence, [～]: distortion of competence, [☆☆]: disturbance or abnormality of competence
vities).

In Physical Competence and General Self-Esteem Competence, two symptoms were related with symptoms of schizophrenia. In Physical Competence, two symptoms including A 4 (grossly disorganized or catatonic behavior) and A 5 (negative symptoms) were related with a component of physical actions including physical expression, posture and motion. In General Self-Esteem Competence, two symptoms including A 1 (delusion) and A 4 (grossly disorganized or catatonic behavior) were related with two components; emotional stability and self-confidence.

**Conclusion**


**References**

