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Cognitive Behavioural Therapy (CBT) in chronic schizophrenia: Report of a case

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Abstract

Background: *The aim of this case presentations is to demonstrate the benefits of a CBT intervention in a patient with schizophrenia of the chronic residual type. It'll be further demonstrated how the presenting complaints of the patient were formulated and treated integrating a range of formulation driven CBT models and techniques.*
Materials and Methods: *CBT therapy involved 30 weekly 35-minute sessions which had 5 distinct phases described, spanning approximately 9 months (basic therapeutic process). Furthermore, the patient received further treatment for another two years with 3-month follow-up CBT sessions. Last he was evaluated one year after the end of the follow-up sessions. At the beginning and the end both of the basic therapeutic process, of the follow-up sessions and one year after the end of the follow-up sessions the patient was further assessed with: the Trail Making A and Trail Making B for visuospatial attention and executive functions, Stroop Neuropsychological Screening Test for selective attention, Rey Auditory Verbal Learning test (RAVLT) for verbal memory span and efficiency of learning, the PANSS for current psychopathology and the Global Assesment of Functioning Scale (GAF).*
Results: *After the end of the 30 weekly sessions the patient exhibited significant improvement in the PANSS negative symptoms and general psychopathology scores as well as the level of anxiety and functioning. The benefits were maintained and were even on occasion improved at the end of the follow-up sessions; unfortunately, one year after the last follow-up sessions the observed improvements disappeared.*
Conclusions: *The patient, whose case was described, exhibited significant improvements in his negative symptoms and general psychopathology scores, as well as his level of anxiety and functioning. Furthermore, the patient seemed also to have benefited from CBT follow-up sessions. CBT treatment could be beneficial, for patients with schizophrenia of the chronic residual type. Future studies with larger numbers of patients should verify the above-mentioned result.*

Key words: Cognitive Psychotherapy, therapeutic techniques, schizophrenia therapy, here and now, collaborative empiricism

Introduction

Schizophrenia

Schizophrenia is one of the ten most important causes of long term incompetence worldwide (Van Os & Kapur, 2009). Around 1% of the population manifests the disorder (Jablensky, 1997).

The symptoms that help us diagnose schizophrenia can be distinguished into (Van Os & Kapur, 2009):

1. Positive Symptoms (delusions, hallucinations)
2. Negative Symptoms that have to do with volition disturbances, poverty of speech and social withdrawal.
3. Cognitive Impairment (memory, attention and executive function disturbances).

The schizophrenic patient is unable to be functional in several aspects of his/her life, such as social, occupational and self-care. The main therapy for schizophrenia is the anti-psychotic medication therapy. Also, a series of psychosocial interventions as the psychoeducational interventions towards the individual and their families, the Cognitive Behavioral Therapy (CBT), and the education in social skills, seem to have place

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in an effective schizophrenia treatment (Stephens, 1978; Birchwood & Tarrier, 1992; Birchwood et al., 2000; Mc Glashan, 2005; Soldatos & Likouras, 2006; Kallergis & Madianos, 2009; Economou et al., 2007).

Cognitive Psychotherapy (CBT) in Schizophrenia

Cognitive Psychotherapy (CBT) , specifically, has been described as an effective intervention in reducing positive symptoms (especially in controlling delusions and hallucinations), symptoms concerning emotional disturbances, enhancing the feeling of control upon the illness, increasing self-esteem and instilling hope into the patient (Papakostas, 1994; Fowler et al., 1995; Chadwick & Birchwood, 1996; Jones et al., 1998; Boulougouris, 1998; Nelson et al., 2005; Garety et al., 2001, 2008; Beck et al., 2009; Bechdolf et al., 2011; Berry & Hayward, 2011; Hagen et al., 2011; Hutton et al., 2012; Maxwell et al., 2012).

Recent studies support the effectiveness of CBT in schizophrenia, either during the acute phase (Drury & Birchwood, 1996; Allot et al.,2011) or in the case of a medication resistant disorder. The effectiveness on the maintenance of positive therapeutic results in a possible follow up has also been stressed (Gumley et al., 2003; Durham et al., 2005; Zimmermann et al., 2006). The psychoeducational interventions have been globally developed the last 40 years. They follow the CBT rules and they are applied both in the patients, and in their families (Falloon et al., 2002). They include information concerning the disorder, education in social and communication skills, problem solving and setting goal techniques and a context of support (Economou, 2000). It has been found that they help in reducing the number of relapses, and consequently the number of hospitalizations (Magliano & Fiorillo, 2007; Rummel-Kluge and Kissling, 2008). Moreover they enhance compliance, they ensure a positive dynamic in family relationships with lower stress levels, they ameliorate the coping strategies concerning the disorder, they reduce the family burden, they positively bias the family towards the mental health services and they increase the help levels received by these services. Main goal of the CBT in schizophrenia is the association of thoughts and feelings with the reoccurrence of psychopathology and their reassessment (Perris, 1989;Turkington et al., 2004). By using CBT we have a successful development and an improved expression of empathy, concerning psychotic experiences. The core element in therapy is the development of a trusting relationship between the patient and the therapist.

In conclusion an outline of a CBT intervention (Kingdon & Turkington, 1994) in schizophrenia includes: The therapeutic relationship, behavioral enhancement of adaptive mechanism/strategies, understanding of the psychological experience, intervention on the hallucinations, intervention on the depression-anxiety levels, prevention of relapses and Social disability.

Some core skills that a therapist must bear, as far as CBT in psychosis is concerned, are (Nelson et al., 2005a,b): Empathy, inspiring feelings of warmness and the unconditional positive viewing of the patient, good feedback, trustworthiness, honesty, Non – judgmental attitude and understanding towards the patient, sensitization and patience, following patient's pace and even giving way to him/her if necessary, acceptance of patient as a person, not acceptance of his beliefs, avoid confrontation, using the Socratic Method (Questioning) , using Brainstorming ,(Nelson et al., 2005a,b).

Establishing a psychotherapeutic relationship (rapport) is absolutely necessary and prioritized, especially in patients with disturbed reality check (Zimmermann et al., 2005).

In this way we understand the patient, we don't doubt him/her, we listen and we show empathy, especially during the first sessions.

The therapist ought to be patient, tolerant, interested and empathic towards the patient, focusing on the current problems and on reality check (Nelson, 1997; Nelson et al., 2005a, b). During the initial stages the therapist usually aims at relaxing the patient avoiding interpretations and remarks that could possibly evoke anxiety (Nelson et al., 2005a, b). There follows familiarization with Cognitive Theory concerning schizophrenia. What we should always bear in mind, is that psychotic patients, even when they are not delusional, they find it difficult to understand the difference between reality and the cognitive constructions that have about it. In other words, the ability of metacognition among these patients is reduced (Papakostas, 1994).

At a later stage, while in therapy, we should try to instill hope into the patient and set goals, while we assess his/her cognitive deficits. Moreover, the therapist looks up for the opinion of the patient, and is willing

to listen to possible suggestions, with which the patient believes he can be helped. The patient's aspects and beliefs are further investigated along with his/her thoughts concerning how other people conceive his/her illness, followed by the implementation of cognitive and behavioral techniques to check the plausibility of his/her words (Nelson et al., 2005a,b).

Concerning this certain case study our goal is to exhibit the potential benefits from a long term CBT intervention for a patient with schizophrenia of the chronic residual type (NICE, 2002), followed up by less-than-usual frequent sessions (sensitization sessions per three months). Furthermore, the CBT influence on the maintenance of therapeutic results and possible improvement will be assessed, in respect with the stability of the patient and the reduction in relapses (Zimmermann et al., 2006).

INFORMATION ABOUT THE PATIENT

Referral

The patient is a 49-year old man referred to the Vocational Rehabilitation Center of Eginition University Hospital. He had a 20-year history of mental health problems; he received a diagnosis of schizophrenia in 1993. At the time of the referral P was single (he still is) and had no children. He was prescribed antipsychotic medication. No problems regarding his physical health were reported. Prior to this CBT intervention he had no contact with any psychological therapies.

Presenting Problems

P presented with an abundance of negative psychotic symptoms (he was socially isolated, emotionally withdrawn, had blunted affect, could not form friendships and relationships, find difficult to be entertained) (PANSS Negative Scale Score= 41). He reported his problems as relating to reduced global functioning due to the schizophrenic disorder. He is afraid that something unexpected might happen to him, he remembered always to have this fear. He wanted to speak to other people but he could not. He said he had never thought before how important it was to talk, to claim his rights; however he found it difficult to begin and maintain a conversation, he did not know how to do it.

For the last decade he has not been hospitalized in psychiatric hospitals, he attributed this to his better adherence to antipsychotic medications. It was his feeling that he would be in better shape if he had adhered to medications from the very beginning of the presentation of psychotic symptoms; unfortunately, he had been hospitalized several times before realizing this.

The patient gave his informed consent to participate in a CBT intervention. The main goals of this intervention were decided by P and the CBT therapist. P would like to socialize more, to be able to communicate effectively with other people, to reduce his stress while socializing, avoid depression, to be able to engage himself in entertaining and self-fulfilling activities and find work if it is possible.

INTERVENTION

CBT Therapy

The basic therapeutic process involved 30 weekly 35-minute sessions which had 5 distinct phases described, spanning approximately 9 months and was based on the principles of CBT Therapy for psychosis. There was strict implementation of time in order to prevent possible fatigue from the patient's side.

Furthermore, the patient received further treatment for another two years with 10 follow-up CBT sessions. Specifically, six sessions took place during the first year (one every two months), and four sessions during the second year (one every three months). Last he was evaluated one year after the end of the follow-up sessions.

Cognitive Assessments - Outcome Measures

Besides the clinical interview and observation, psychometric tests were used for the assessment of the patient's cognitive functions. Those tools were the following:

- Rey Auditory Verbal Learning test (RAVLT) for verbal memory span and efficiency of learning (Rey, 1941)
- the Trail Making A and Trail Making B for visuospatial attention and executive functions (Zalonis et al., 2008)
- Stroop Neuropsychological Screening Test for selective attention (Stroop, 1935)
- The positive and negative syndrome scale (PANSS) for schizophrenia (Kay et al., 1987)
- the Global Assessment of Functioning Scale (GAF) (Hall,1995)

Four assessments took place, with the use of psychometric tests:

1. At the initial session
2. Within completion of main therapy
3. At the end of the two-year follow-up
4. One year after the last follow-up.

Initial Assessment

Initially an assessment of his deficits took place (see Table 1). The patient is of normal intelligence - whatever cognitive impairment observed has to do with the practical aspect, also demonstrating a deficiency, mainly on the part of recognition and classification of information, as well as a difficulty in choosing the correct ones accordingly to the situation.

At the same time, he exhibits a low level of working memory. However, his score is always near to normal. In addition, he exhibits a marginal disturbance of concentration and attention, probably due to excessive stress (besides the expected deficits due to illness).

During the initial sessions, lack of motivation, collaboration and spontaneity were obvious. At the same time a question had been set: whether the social interaction was experienced as punitive by the patient (Falloon, 1985; Hogarty et al., 1987).

Therapeutic interventions:

The initial and main therapeutic intervention was completed in thirty sessions and lasted 9 months. During the intervention a number of Cognitive and Behavioral techniques were applied, whilst the homework technique was extensively implemented within the setting of collaborative empiricism (Nelson et al., 2005a,b; Beck, 2008). Homework is a core part of cognitive intervention, which stresses the patient's responsibility to get better, and conforms to the principles of collaborative empiricism according to Cognitive Psychotherapeutic Intervention (Kingdom & Turkington, 1994).

The CBT Intervention was built upon the principles and philosophy of Cognitive Psychotherapy in psychosis (Nelson et al., 2005a, b; Kingdon & Turkington, 1994; Tarrier et al., 1998; Morrison, 2002; Morrison & Barratt, 2010), while it took place in 5 phases (Harper, 2011).

Phase 1 – Case Conceptualization – Establishment of the Therapeutic Relationship (Rapport)

During the first phase (sessions 1 to 4) a thorough recording of clinical history of the patient was carried out, along with a full clinical assessment and a recording of the cognitive link (Thought – Feelings – Behavior – Somatic symptoms). That provided us with a complete recording in both clinical and behavioral level. Our primary intention during those initial sessions was to establish the therapeutic relationship (rapport), which is a priority especially for a patient with disturbed reality check (Zimmermann et al., 2005).

At first, an examination of the patient's phobias and their onset was performed as well as an in-depth investigation concerning the ways of maintaining and coping with them.

Additionally, there was established familiarization with the cognitive model of psychotherapy within the setting of collaborative empiricism (Papakostas, 1994).

Phase 2 – Understanding the Disorder / Illness, Empathy, Focusing on recording negative cognitions, Case Formulation – Establishment of the Therapeutic Alliance:

During the following sessions (5th to 8th), the therapist understood the mechanism in which the patient perceived psychosis through his experiences, and how he interpreted his own symptoms. Moreover, the case formulation was successfully achieved by recording the patient's negative cognitions and negative automatic thoughts, which is a prerequisite for the successful implementation of cognitive Psychotherapy (Morberg Pain et al., 2008; Harper, 2011).

The patient's case formulation focused on the recording of the factors predisposing and precipitating psychosis, the parameters of its perpetuation, as well as those particular factors that protect from it (see Table 3).

Through this dynamic procedure, the patient gradually established a therapeutic alliance with the therapist. Particular emphasis was given on tackling the patient's problems concerning "here and now" (Turkington et al., 2004)

Phase 3 – Positive self-formulation, recording and interpretation of Automatic Thoughts, reducing Negative symptoms and combating inactivity.

From 9th to 14th sessions, there was a concerted effort to break the patient's vicious circle of inactivity, on one hand, and to achieve his mobilization on the other. The patient was recommended to keep an Activity Scheduling log and proceed to a weekly planning of activities that would make him feel pleased and fulfilled, which was aiming at increasing the level of his activity gradually as well as improving his quality of life.

Feedback from the sessions was very positive. The patient reported that he was greatly assisted from this systemic psychotherapeutic intervention. He acknowledged improvement in his mood and reduction in his anxiety, reporting that he had incorporated activities that pleased him more. Additionally, an improved eye contact was observed by the therapist.

In the 11th session a "mastery thermometer" was built along with the patient. This 0 to 10 scaled "thermometer" rated how satisfactory each activity was. At the same time the TIC-TOC technique was applied, in order to reconstruct his dysfunctional cognitions.

The constant repetition of conclusions throughout the sessions, as well as their reflection on the patient, ultimately helped the patient to gradually assimilate new knowledge.

In the subsequent sessions (12th and 13th sessions) the patient was provided with the opportunity to differentiate between mastery and pleasure. This was achieved by in-session examples, which increased his confidence, accompanied by feelings of pleasure and wellness.

It's indicative that at the 14th session, the patient reported that he felt more invigorated, as he used to be, when he communicated and took walks more often. Nevertheless, he was concerned about the fact that he was still unemployed.

Moreover, there was suggested, in the form of homework, the recording of positive activities that deserved reward during the week, since he occasionally tended to focus more on negative events rather than giving emphasis on the positive ones.

Phase 4- Focusing specifically on in-depth training in social skills and cognitive techniques, as well as understanding the link between Thought and Emotion, and interpretation of the way his Behavior is affected.

In sessions from 15th to 27th the patient underwent thorough training in social skills, which he was lacking of. In that way the patient learned how to communicate effectively.

During the 15th session the patient was set to understand the association between state of illness, thought and emotion. The patient seemed to understand how thought and emotion are associated, when his mood changed, and was able to ask himself "what went through my mind". Just at the 15th session the patient seemed to have already been more mobilized, with a definitely better mood, since he was more optimistic about life. At the 16th session, he scheduled activities which pleased him, such as walks and contacting his relatives. He had already understood how important it was to plan pleasant activities; therefore he tackled inactivity, resulting in feeling better.

At the same time there were efforts made to reduce his self-stigmatization by using the continuum of health-illness, which really impressed to him. He reported that within this continuum he was neither constantly sick nor healthy, but just like any other person throughout their lives, each time he was at a different point of the continuum.

During the 17th and 18th session, the therapist introduced ways with which the patient could have effective communication with others. There was a discussion on what communication is and how the patient could perceive it. The important roles of eye contact, voice tone and gestures were mentioned as well. During the session the role-playing technique was used twice. At this point, the patient had already begun to adequately manage his stress and tackle boredom and inactivity with weekly activities which pleased him. It was agreed to continue training in social skills, which would ameliorate the level of his interpersonal communication.

In the subsequent sessions (19th and 20th), training in communication techniques took place. The patient learned about disarming technique, empathy (emotional and mental) and exploratory questioning. He seemed to understand these concepts and to participate actively. In each technique role-playing was performed, concerning everyday life scenarios, with the successful participation of the patient.

In the following sessions (21st – 22nd) the training on assertive behavior was carried on. This behavior could also be described as openly, when someone wants to protect his rights without becoming passive or aggressive.

In the 23rd and 24th session, the patient was trained in the problem-solving technique. The 7 steps of the technique were reported. A number of examples (3) from the patient's everyday life were used, which were solved by the patient himself following the seven steps.

During the 25th and 26th session the patient was trained in the advantages-disadvantages technique in order to decide whether he would choose, or not, an alternative. A relevant example was used amid the session, while a corresponding homework was given as well.

The patient was consistently more mobilized, optimistic and hopeful, while his stress level was reduced. From now on, he thought that he would be able to control his disorder more effectively.

In the next two sessions, i.e. until the 28th, a procedure of repetition and reflection concerning the main points of social skills training took place. This procedure involved several role plays and homework, which had to do with social situation among family and friends.

Phase 5 – End of treatment. Feedback:

28th to 30th sessions. A gradual closing of the therapeutic approach was made, with several repetitions of the main points of intervention as well as feedback and reflection. Finally, the patient was assessed, 9 months after the initial CBT intervention with a new PANSS test, which exhibited significant improvement (about the size of 2 standard deviations) mainly in negative symptoms and general psychopathology. Moreover, his functionality was improved, while an ameliorated awareness was observed, concerning the importance of medication. He also seemed to be aware of the fact that the disorder was responsible for his reduced social skills. The patient himself reported that the Cognitive Psychotherapy helped him to change for the better in this area of his life.

A preparation for the completion of the therapeutic process was made, discussing with the patient how he would deal with situations from then on and how he would apply what he had learned to everyday life.

The patient thanked the therapist, while the therapist rewarded him for his effort and improvement, while he expressed feelings of pride and ongoing support in order the patient to implement in everyday life what he learned during therapy. The therapist was reassuring that he would be willing to offer help concerning that implementation. Finally the patient was informed that after the end of the psychotherapeutic intervention some follow-up sessions would take place.

Follow-up sessions of a two-year-time-span, after the completion of basic CBT intervention.

These follow-up sessions of a two-year-time-span were mainly commemorative, while they can be regarded as sensitization sessions as well.

They took place every 3 months, and at the end of two years, the benefits for the patient not only were maintained but also enhanced (Table 1).

Non interventional Phase in a year

The which improvement were not maintained at the same level of the basic intervention of the two-year-follow-up. However, these benefits were not totally eradicated.

INTERVENTION RESULTS

After completing the main intervention, the patient demonstrated a remarkable decline in the negative symptoms, while the level of general psychopathology and the stress level were decreased as well. Additionally, there was improvement in his functionality. The aforementioned findings were obvious not only at the end of the main intervention but especially after the two-year follow-up phase.

This effect could not only be observed within the clinical context, but following assessment with psychometric tests as well (Table 1). Moreover, his levels of attention and concentration were improved, along with his memory and learning ability (Table 2).

It is a fact that these benefits were maintained throughout the two-year follow-up, during which, some parameters were improved. However, one year after the completion of the follow-up, most of the benefits in all areas subsided, though they remained at a higher level than pre-CBT.

The patient believes that he has learned to manage his anger more effectively, as well as the daily difficulties. He does not feel alienated and isolated, and he claims that he has tackled inactivity. Furthermore, he is optimistic and confident and believes that he can be effective in facing any problems that may occur after

the completion of the sessions.

He remains consistently mobilized and in good mood. He thinks that after a long time he is able to control his life, as much as possible, because of the disorder. He starts making plans and dreams about the future. He knows that the illness is chronic and that he will always be on medication, but believes that he deserves a better life and he will try to improve it day by day.

CONCLUSIONS – DISCUSSION

Throughout the sensitization sessions serious effort was made so that the patient could see the perspective of dealing with various daily situations himself. It had been stressed to him that it was important to keep trying, and that he shouldn't be discouraged by any failure. After all, now he recognizes that the quality of his life has improved, and is hopeful and optimistic, while his self-esteem has certainly been ameliorated.

There may be disadvantages due to the sparse frequency of sessions; however, he is encouraged to evaluate the advantages of trying to do things by himself. After all, he is a definitely capable person, and it is useless to ruminate over his illness.

It has been proved that cognitive intervention helps to control both the positive and negative symptoms of the disorder, improve the psychotic patient's quality of life, and enhance his/her confidence while being more optimistic towards life (Nelson et al., 2005, NICE, 2002).

Pharmacotherapy and CBT are already considered treatments of choice in the UK official guidelines (NICE 2002). However, in Greece there are no such structures for patients with chronic psychosis, since that requires planning, funding and educated personnel (therapists), as well as fully organized and equipped centers in order not only for the patient population to be supported with therapeutic means, but the efficacy of CBT to be verified both experimentally and empirically, as far as both positive and negative symptoms of the disorder are concerned (Langer et al., 2012).

Under no circumstances can we claim that CBT cures schizophrenia, but in combination with medication it may constitute a significant step towards life-improvement of chronic psychotic patients (Kemp, 1998). Additionally, CBT can be helpful in treatment of co-morbid depression. It can also decrease the self-stigmatization that the patient and his family share about the disorder, and therefore affect the opinion that most of the society has (Falloon, 1985, 1992).

The benefits of the main therapeutic intervention have been enhanced after the two-year follow-up (every three months). Even a year after the last follow-up session, without any intervention in between, some of the benefits were maintained, although to a lesser extent. The condition of the patient was obviously better than before the initial intervention.

It would be very interesting to apply this therapeutic approach to a larger population of patients with chronic psychosis, for a number of reasons. First, it is necessary to increase the validity and credibility of the intervention. Additionally, it would result in an improvement of the particular patients' quality of life. Finally, it would reduce the financial cost of their health care, since the recurrence of the disorder, which leads to possible hospitalization or additional medication, is definitely more costly for the health system, than the cost of the CBT intervention itself (Zimmermann et al., 2005).

In conclusion, the results of this CBT intervention, as well as of other studies (Sensky et al., 2000; Rector et al., 2003; Pinto et al., 1999; Tarrier et al., 2001), exhibit that the application of Cognitive Therapy can reduce the negative symptoms of psychotic patients. Moreover, CBT would probably be more beneficial for the patients and the Health System as well, if follow-up sessions were applied, even less frequently (NICE, 2002) but for a long period within the context of Community Psychiatry (Madianos, 1994;Christodoulou, Tomaras & Oikonomou, 2002)

As mentioned above and demonstrated by the case we just studied, the two-year occasional follow-up of sensitization not only maintained the benefits of the intervention, but enhanced them at some point.

This case study, perhaps, could probably be used as a guide for a more extensive implementation of CBT in psychosis, even with more infrequent but long term follow-ups, which establish the benefits of CBT and can be financially viable for the Health Care System as well (NICE, 2002; Nelson et al., 2005 a,b; Zimmermann et al., 2005; Gaynor et al., 2011).

ΠΑΡΑΡΤΗΜΑ

TABLE 1: PANSS-GAS RESULTS

	Initial Stage	End of Therapy	Follow up	1 year after the last follow up
Positive	12	7	13	15
Negative	41	23	13	31
General Psychopathology	73	33	32	59
Funcionality	37	53	62	45

TABLE 2: COGNITIVE FUNCTIONS

TMA	110	75	70	64
TMB	175	137	135	160
STROOP L	46	48	48	44
STROOPX	40	42	42	38
STROOPXL	38	40	40	36
Direct Memory	5	6	7	8
Learning Curve	15	14	13	12
Retroactive Interference	12	13	13	13
Proactive Interference	11	13	13	13

TABLE 3: CASE FORMULATION

Predisposing factors	Percipitating factors	Perpetuating factors	Protective factors
Hereditary predisposition	Death of parents	Phobias-Anxiety	Compliance
Anxious Personality	Bad relationship with stepmother	Loss of Supportive Setting	Early intervention
Introversion	Loss of family bussiness	Expressed feelings	Psychosocial intervention
Social isolation	Anxiety	Unemployment	Housing & Welfare Support (even in a minimum level)
	Loss of employment	Religious Setting	
	Family Setting		

Existing Worries
'Fear of death", "something bad way happen to my siblings", "I'm not going to be one of the chosens" (Jehovah witness).
"I must not gain weight or I'll die", Several phobias concerving his physical health".
"I don't know how to communicate"

Thoughts	Feelings	Behaviors
"I'm going to die" "I'm worthles"	Aunxiety Fear	Living Alone Malnutrition
"I'm going to lose my mind"	Helplessness	A number of meaningless examinations
	Despair	Inactivity
	Sadness Distress	Arguing with his sister

Social Behavior	Somatic Symptoms
Social isolation	Thinner than normal
Shyness Introversion	Palpitations Numbness
He doesn't communicate. He doesn't know how and he doesn't want to	Constipation Gastrointestinal - Musculoskeletal problems

Underlying Worries
"afraid of dying when getting 60 years old", "to be left alone- abandoned", "to have no money", "afraid that my brother may change faith", "my bones are getting thinner, cause I'm a sinner"

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