

Conjunctive Group Therapy-Therapeutic Processes of the Group: A Case Study of an Adult Type I Diabetes Mellitus Patient

Siousioura Dimitra^{1*}

¹Department of Psychiatry, Evaggelismos General Hospital, Athens, Greece

Abstract

The present study examines Therapeutic Processes of 2-year Conjunctive Group Therapy Model of adult type I diabetes mellitus patient in parallel with medical treatment at a Greek state hospital. The study focuses on the patient's changes in thoughts, emotions, behaviors and metabolic control after termination of the intervention, through group dynamics. Qualitative data was collected from focused interviews and group sessions, before and after the intervention and thematic analysis was performed. Blood samples were collected for the measurement of glucose levels. Findings showed that by termination of the group therapy, the patient improved blood glucose regulation and she integrated all aspects of the disease, the psychology of her needs, the idiosyncratic personality traits and the quality of her life. The effectiveness of the two-year therapeutic model confirms the need for a holistic approach towards type 1 Diabetes Mellitus treatment.

Keywords: Type 1 diabetes mellitus, Patient, Group therapy, Conjunctive group therapy, Therapeutic processes of the group, Therapist, Group members.

Introduction

Type 1 Diabetes Mellitus (T1DM) is an important public health problem, as diabetes complications are responsible for high morbidity [1-3]. In Greece, it is estimated that there are around 800,000 Diabetes Mellitus (DM) patients (8% of the population) of which 10% (80,000) suffer from T1DM, according to the Hellenic Diabetes Association [4]. T1DM develops early in life and insulin injection is an integral part of medical treatment of the disease. As a chronic disease T1DM brings patients up against complicated psychological challenges as changes induced by its onset may be detected at a biological as well as an emotional level [5,6]. It is noticed that Greek T1DM patients often address their medical problem exclusively to endocrinologists and usually have problems with regimen compliance, and thus metabolic control, such as the present case report. Thus, the present study argues that therapy of T1DM patient should focus not only on the organic-medical aspects, but also on the psychological factors that contribute to the course of the disease. The 2-year Group Psychological Intervention in Patients with T1DM used in the present study is based on the principles of Conjunctive Group Therapy (CGT) model [7-10]. This model attempts to explore and therapeutically address the intermediate psychosomatic variables that affect the course of adjustment and, finally, the acceptance of the disease, substantially determining the diabetes regimen compliance and the therapeutic outcome, i.e. the achievement of glycemic control. The course of adjustment to the T1DM, is long and often damaging, with potential complications, not only at an organic, but also at a psychosomatic level. The CGT model, aims at regulating blood glucose levels by helping to

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***Corresponding Author:** Dr. Siousioura Dimitra, Department of Psychiatry, Evaggelismos General Hospital, Athens, Greece, Tel: 00306974427434; Email: [dsiousioura\(at\)yahoo.gr](mailto:dsiousioura(at)yahoo.gr)

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shorten the adjustment time and finally to the acceptance of T1DM. CGT for adult T1DM patients is a Group Psychological Intervention for T1DM that combines principles and techniques from various psychotherapeutic models including the Strategic School of Family Therapy [11,12], focused on the Strategic School [13], Systems-Centered Therapy for Groups [14] and Supportive Psychotherapy for people suffering from physical disease [15-17]. The basic target of the model is improvement of metabolic control through the group processes and following mechanisms:

- a. Acceptance of the disease
- b. Modification of knowledge, attitude and behaviour of self-care
- c. Resolution of psychological conflicts so as to obtain control of the disease
- d. Rendering the disease as a part of the "unified self" [7,18]

Diabetes education (psychoeducation) is an integral part of Conjunctive Group Therapy. Also, the Model includes, focused interviews of the outpatients before and after the participation in 2-year group sessions and measurement of the biological index of glycosylated hemoglobin HbA1c (%), before and after the application of group intervention, as well. The purpose of this article is to present the case of T1DM adult patient who participated in a 2-year CGT [7,18] voluntary, while receiving parallel medical treatment for T1DM. It is focus on a patient with Brittle Diabetes (BD), manifesting severe fluctuations of glucose levels. Unbalanced glycemic control with severe fluctuations of low and high glucose of a multifaceted etiology constitutes the definition of BD. The metabolic instability accompanied by often and severe episodes of hypo and/or hyperglycemia (ketoacidosis) occurs suddenly and uncontrollably [19-26]. This condition is observed often in patients with T1DM, especially young adults and women [26-30], while it is rare in patients with Type 2 diabetes mellitus [31]. Response to treatment does not always follow glycemic control [32]. This model is recommended as an integral part of the treatment of T1DM because it combines medicine that is the realistic aspect of the illness- with the psychology of the individualized patient needs.

Case Study

A 29-year-old woman outpatient attended 2-year group intervention in parallel with medical treatment for DM1 at Greek state hospital (Diabetes Clinic of Evaggelismos General Hospital/Department of Endocrinology, Diabetes and Metabolism) in Athens. The patient's demographic and clinical characteristics are presented in table 1. She was diagnosed with DM1 at the age of 18 and had followed intensive medical treatment with the use of injection since then. Group Therapy started in the beginning of 2014 and ended in the beginning of 2016 and was based on the principles of CGT [7,10,18,33,34]. Group involved eight members including the patient and the meetings took place at "Evaggelismos" hospital. Each session lasted two

hours and the group met twice per month. The patient's participation in the group was based on referral from the endocrinologist and her own consent and personal request for a psychotherapeutic intervention. The patient also was informed:

- A. That the intervention regarded the psychological aspects of diabetes
- B. That an Endocrinologist/Diabetologist of the hospital was going to be present at the group meetings as a participative observer
- C. In case that medical or nutritional issues arose, there would be a common decision on arranging an extra session with doctor or dietician
- D. About the rules and regulations of the group psychotherapeutic procedure: discretion, stable presence, confidence, trust, open expression, and non-guided topics of discussion. The group was closed type and the criteria for group participation were the following:
 - a. Glucose dysregulation
 - b. Referral by endocrinologists and/or diabetologist
 - c. Priority order

The members common request was the achievement of metabolic control. For practical reasons, four different groups of patients were formed. The Therapist was a Psychologist specialized in Clinical and Health Psychology and received external supervision by a mental health expert specialized in Liaison Psychiatry. Research data was obtained with the use of focused interview by Merton RK, et al. [35] at two different times (before and after the intervention) and the patient's answers were content-analyzed using Grounded Theory methodology [36-38]. Grounded theory seeks to derive thematic categories from initial data. The basic thematic categories that emerged were: expectations from the group, psychological adjustment to T1DM, self-care, everyday life, stress, quality of life and depressive symptoms, family and friends, redefinition of T1DM and metabolic control. The process was reiterated several times in order to examine emerging thematic categories. Validation of the approach was considered to have been achieved when repeated data

Table 1: Patient's demographic and clinical characteristics.

Parameter	Value
Sex	Female
Marital status	Single
Living with family	No
Age	29
Age at the time of diabetes diagnosis	18
Duration of disease (years)	11
Nationality	Greek Caucasian
Level of education	University
Occupation	Partly-skilled
Modality of T1DM medical treatment	Injection
Type of T1DM medical treatment	Intensive
Diabetes complications	No
History of antidepressant therapy	No

analysis revealed no new thematic categories [38]. The same analysis was followed for focused interview before and after the group intervention, and for the therapeutic processes of the group. Data concerning metabolic control was collected by glycosylated Haemoglobin measurements (HbA1c%). HbA1c% is a biological index, which indicates the average plasma glucose concentration over prolonged periods of time. The index is produced using High Performance Liquid Chromatography method and a high percentage value of HbA1c% indicates poor DM regulation during the last weeks (good regulation: 6.5% to 7%, marginal regulation: 7% to 7.5% and poor regulation: >7.5%) [35]. Blood samples for HbA1c% measurement was collected prior to, and after the termination of the therapeutic intervention. The results of the therapeutic processes of the group are presented in table 2. The first column contains the therapeutic processes that develop in the group dynamics. The second and third column contain the patient's emotional state, beliefs and attitudes through the aforementioned processes and her own characteristic phrases, before her participation in the

group and after termination of the group, respectively. The results of HbA1c% measurements are presented in table 3. The patient's HbA1c% measurement before the intervention was 12.4% and after the intervention HbA1c% value was 11.4%. The patient gave an oral ethical clearance for this case study. Her basic demographic characteristics have been altered, for confidentiality purposes.

Discussion and Conclusion

The patient's participation in the group was voluntary; psychological aspect of diabetes was the only motive of participation in the group. At the beginning of the process, she displayed strong resistance to disclose. The typical difficulty of somatic patients to express their emotions [37], which rate them as a sign of weakness of their ego, is the fundamental belief of the Therapist of these patients (Table 4). Her dominant resistances consist of:

- a. The difficulty of verbalizing emotions
- b. The lack of motivation for self-awareness [39]

Table 2: Therapeutic processes and reactions before and after participation in the group.

1-7 Each process	
A Patient's reaction and phrases (in quotes) before participation	B Patient's reaction phrases (in quotes) after participation
<p>1. The process of accepting the disease as a "unified self"/a whole person.</p> <p>A. She starts by expressing anger and bitterness about her life. As for diabetes, she just indifferent.</p> <p>"... I hate diabetes. I did not choose it so I punish it."</p> <p>B. She begins with the observation that since she begun to face disease as one with herself, she engages with self-care and is more interested in being educated about the disease.</p> <p>"Diabetes is part of B's (her name) life, if I love B. I can love diabetes also."</p>	<p>2. The process of differentiation of the ego is reinforced so that the adult dynamic of each member be utilized in every-day life, in managing the disease, the unpredictabilities and the complications by focusing on individualized dysregulation factors of the disease.</p> <p>A: She focuses on discharge from the role of carer she had adopted and restores the weight she felt from the family difficulties and ultimately from the lack of existing.</p> <p>"I feel anger for my over-offering to others and to the additional burden of the disease."</p> <p>"There has never been any acceptance of diabetes and if there has been, some factors toppled it...my psychological mood comes first".</p> <p>B: She deems that she will achieve management only if she is able to balance logic with emotions. She tries:</p> <p>a) To be independent from her mother</p> <p>b) and to play the role of the daughter and not that of the therapist and career for her mother.</p> <p>"... I set limits for self-protection."</p> <p>"The psychological problems affect my mood, but I try not to affect diabetes anymore."</p>
<p>3. The process of deepening in the emotional and psychological side of the disease, in order for the members to be able to express their fears, phobias and concerns regarding the long-term complications of the disease, the short-term complications of hypoglycaemia, the diabetes-related stress and stigma.</p> <p>A. She considers that for a long period she was left to the facts, without expressing her own will. Moreover, she brings back the issue of neglecting the disease, because she has not accepted it.</p> <p>"There has never been any acceptance of diabetes and if there has been, some factors toppled it...my psychological mood comes first".</p> <p>"...I experienced permanent grief at home ..."</p> <p>"How many gaps I need to cover to find myself..."</p> <p>B. Coming in the group, she had already decided to fight in order to stand on her own feet. She feels stronger when she hears other members.</p> <p>"... which relationships can be considered as healthy"</p> <p>"... now that I joined the group, perhaps it is time both for myself and diabetes too."</p> <p>"I regularly measure my blood glucose; good news brings me peace."</p>	<p>4. The process of emotional expression with a focus on personal examples from life and the disease, as a means of defusing stress and cohesion in the group. So, members are not threatened because of their personal exposure. Their disease brings them to group (cross-sectional process) [16]. Afterwards, participation in the therapeutic processes of the group renders them involved and ultimately requesting psychological support (longitudinal process) [16].</p> <p>A. She abandoned herself and even more diabetes control, being preoccupied mainly with her mother.</p> <p>"Psychology define my diabetes."</p> <p>"I feel alone ... so you do not have the motive for controlling diabetes."</p> <p>"Building a stable relationship is my motivation to manage diabetes."</p> <p>B. She begins with her expectations by the group. She remains in the group because the disease was not the focus of the sessions.</p> <p>"... I want to live, not just say it ..."</p> <p>"... I began to apply what was said in the group, because I see that it works ..."</p>

<p>5. The process of learning new coping strategies, through members' views and therapeutic suggestions. Learning new ways of behaviour and roles creates a context of secondary learning, where each member learns to find solutions, and alternatives, leaving back the previous ineffective rigidity and distress [16,63].</p> <p>A. She worries about complications but she does nothing to control glucose. She is afraid of stress. It overwhelms her so she forgets about the diabetes. She associates it with the communication difficulties she had with her mother. "Psychology defines my diabetes." "... worries until today...I was frozen; I realized that my strength was nothing but weakness." "... in this group we discuss the essence of life; human relations; this is why I'm still coming here." "Building a stable relationship is my motivation to manage diabetes."</p> <p>B. She was affected by X (other member of the group) who has incorporated diabetes in everyday life and has a better control. "... I began to apply what was said in the group, because I see that it works." "Diabetes 'opened' me as a person." "I was relieved by the burden, I spoke about issues that I had never spoke before to anyone."</p>
<p>6. The process of learning how to manage stressful situations. Often, various stressful situations are accused for glucose fluctuations, especially BD, inhibiting the motivation of self-care.</p> <p>A. She focused on the disease. It caused her insecurities and mood swings. She wants to stay calm, when facing difficulties, which are already too many to control and they affect diabetes (hypo-and-hyperglycemia). Fear of death recurs when complications emerge and when she feels sad. "My blood glucose has reached 500 due to stress." "...for so long I was hurt for others...I haven't lived my life." "...for me, my mental peace comes first and diabetes follows."</p> <p>B. Group process as therapeutic means. She joined the group because she has hope. Group processes made her exist as an individual and show her the way to walk her own path with diabetes. "The group can bring something like a competition among us ... many of us have common goals." "I take courage from other members." "Diabetes reminded me that there is life for me out there..."</p>
<p>7. The process of social networking with expanded support frameworks. On one hand members, improve some aspects of their social activity, which affect directly or indirectly disease management, and, on the other hand, they develop social skills that enhance well-being, mood, and satisfaction from their daily routine and, as a result, the motive of self-care [43,44].</p> <p>A. She considers necessary to communicate the fact of the disease, especially to her boyfriend. She separates only some moments in her relationship where the disease interferes. These are the episodes of hypoglycaemia. She considers that she has not made the disease part of her everyday life. "...I have many friends, everybody knows." "I talked about it everywhere, not knowing what it is and how to deal with it..."</p> <p>B. She focuses on the management of hypoglycaemia in relation to her partner which knows no aspects of her disease. She wants to help of the group about diabetes and intimate relationships. "My partner will overcome my hypoglycaemia because he loves me." "We're like everyone else...living, exist as everyone else...diabetes is our life."</p>

Table 3: Mean and standard deviation of HbA1c% measures before and after participation in the group.

Parameter	Before participation	After termination
HbA1c Value	12.4%	11.4%

Table 4: Conjunctive Group Therapy Model: characteristics of the therapist.

Characteristics of the therapist
<ul style="list-style-type: none"> • Clinical Psychologist or/ Health Psychologist specialized in Liaison Psychiatry. • Considers each patient as a unique personality with psychosomatic needs. • Contributes to a therapeutic relationship based on support instead of interpretations. • Performs active listening to the patient's needs and wishes that are related not only to diabetes but also to life in general. • Performs therapeutic connections among emotions, life events, experiences and diabetes symptoms (hypo- and hyperglycemias and complications). • Reinforces the expression of diabetes experiences, as well as verbalization of negative emotions, to which the patient resists. • Reinforces understanding of resistance, so that the patient is enabled to make connections among diabetes, self and others. • Encourages deep understanding of diabetes and of the self, as this contributes to reality testing instead of idealizations. • Explores Brittle Diabetes on an individualized level. • Explores the correlation of diabetes related stress with inadequate self-care. • Reinforces individualized responsibility, not only towards diabetes, but also towards the patient's everyday life. • Explores phobia of hypoglycemia and its medical and social impact on patients' life. • Explores the impact of family dysfunctionality and diabetes stigma on glucose dysregulation. • Reinforces diabetes announcement as a process of self-awareness and diabetes acceptance. • Reinforces patients' search for supportive social network. • Connects, separately for each patient, diabetes adjustment, with acceptance and final metabolic control.

- c. The difficulty of connecting the dysregulation of glucose with her emotional and family problems [34]
- d. The insecurity and low tolerance for the unpredictability's of the disease (hypo- and hyperglycemia and diabetes complications [40]
- e. Denial as an unconscious tendency for self-protection from the painful reality of the disease
- f. Fear of change and of the unknown that characterizes human nature

Gradually, as the intervention progressed, she realized that the group taught her alternative and more effective approaches for the disease through the suggestions of members or through therapeutic interventions. The strengthening of modeling, through the therapist and members (psychological mirroring), emit new healthy traits of personality through imitation [15] and learning as an emergent property, resulting from the interactions among members [41]. The previous negative or even hostile attitude towards the disease that may function as a self-destructive behavior [42] was eliminated. And she recognized her personal responsibility, regarding the long-term dysregulation. She also regained contact with friends and improved some aspects of her social activity through the process of developing social skills that enhance well-being, mood satisfaction from her daily routine and, as a result, the motive of self-care [43,44]. The processing in the group contributed to realize that the power/help she offered to her mother was at the same time deprived from her (Table 2). She learned how to set personal boundaries and became more autonomous because she deserves it. Finally, she realized that various stressful situations were accused for glucose fluctuations, inhibiting the "motivation" of her self-care. She redefines the role of diabetes in her life as a part of herself. The group operates as a social and familial microcosm, where she could, not only freely express disease management obstacles and behaviors but also thoughts and emotions regarding the self. These changes regarding motives, mechanisms, roles, emotions, behaviors and disease outcome that the patient displays are in line with the principles of CGT, as the intervention addresses both the psychological and biological aspects of T1DM [7,18,33,45-50]. All these insights require the long-term duration of the group (2 years) and the use of combined techniques, for the achievement not only of functional behaviors, but also of stable changes. Moreover, she activated healthy elements, such as: schedule, strong will to control glucose which no longer is an enemy but part of the "unified self" [7], responsibility for self-care (patient-centered style) as a necessity in life [51]. So, she becomes aware of the effect of stress on blood glucose fluctuations, recognizes the early signs of hypoglycaemia and she was able to distinguish them from those of stress [52] and she took the responsibility for her difficulties in managing the diabetes even for its deterioration (Brittle Diabetes, unstable diabetes). More specifically, as shown by the results in table 2 prior to intervention, her expectations of diabetes treatment were

observed to be concerned about psychological issues instead of medical ones. This means that she was concerned with the factors that mediate regulation or dysregulation of glucose, thus suggesting the multifactorial aetiology of metabolic control. Gradually, she perceived that experiences diabetes as a continuous struggle and a constant sense of threat with intense and prolonged stress, caused by her family of origin. Regarding T1DM management the support from the family is especially important for the patient's empowerment and their adherence to self-care [18,53]. Furthermore, studies refer that family interactions may be stressful triggers (due to judgmental comments expressed) that lead to inadequate metabolic control [54-56] in contrast to positive emotion, which leads to optimal metabolic control through the processes of hormonal mechanisms [55]. It is also likely that family's perception of the disease (disability/stigma) influences patient's regulation of metabolism [57]. Thus, for many years she had poor metabolic control, as shown by HbA1c% value in table 3. The areas where Therapist Diabetes Care focused were:

- a. Patient's emotional expression and non-illness personality traits
- b. Gradual accomplishment of realistic targets, regarding regimen and everyday activities, which give patient's life a positive meaning [58]
- c. Provision of information and advice, not only about the condition itself, but also about various aspects of life [59]
- d. Replacement of dysfunctional behaviours with alternative functional ones
- e. The member systems of reference and the connections with the three dimensions of time (past, present, future), and the impact on her current reality [60]

The atmosphere of the group has a dual role: supportive and therapeutic. This means that patient interacts and reflects thoughts, feelings, share decisions and help with problem-solving, by undertaking an active role, not only in their own reality, but also in the reality of other members. The perception and understanding of different thoughts, emotions and behaviors, and hence the various types of disease management, contributes to the reduction of disparities. Strengthening of the views of members, suffering from the same disease has a strong therapeutic potential. This is because, due to common emerging emotions, their views act as a primary corrective emotional experience of adjustment and finally acceptance of the disease, before reintegration to the healthy society [18]. Patients that participate in CGT are expected to develop their self through the system of the group. Thus, they obtain deeper self-awareness and this leads to eventually redefinition of diabetes. This means that pain caused by the disease is regarded as an opportunity for personal development. Thus, the Therapist is assumed to contain and listen to all the needs of group members and the painful feelings generated by the disease, acting as a helper for pain generated by the disease [61-63]. The aforementioned therapeutic targets

of CGT focus on the person who suffers from T1DM, rather than the patient. Cure is being replaced by Care, which is oriented towards the individual as a unique personality [7,18]. The examination of one patient who participated in group therapeutic intervention for T1DM does not allow generalizations about the use of CGT in T1DM treatment and does not account for treatment outcomes for other T1DM patients. The focus was to emphasize on the changes that took place in the patient, through the therapeutic processes of the group and explores the T1DM treatment as a process that requires a holistic approach for the effective coping that combines medical monitoring, regimen compliance and psychological intervention. Further research is required in order to examine the causes of change that addresses both the physical and psychological aspects of diabetes.

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