Case Report

Substance use by an adolescent with a history of childhood cancer: the role of counseling in risk management

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ABSTRACT

Background: Childhood cancer survivors may have a tendency to risk-taking. Adolescents with a history of childhood cancer experience psychological and neurocognitive long-term effects that also impact negatively their social life. Adolescents are exposed to many risk factors in order to be socially accepted, such as drug use, alcohol use, as well as provocative behavior at school and in the wider social environment. Therefore, the counseling process is vital, to cope with the negative effects of the disease and ensure a positive adjustment in adulthood.

Case Report: The present case study is focused on an adolescent male with a history of childhood cancer (acute lymphoblastic leukemia) who suffered cognitive effects on his memory that resulted in poor school performance and stress and reported cannabis use. The counseling intervention was based on the combination of cognitive-behavioral and systemic approach, and family counseling, with the aim to enhance the adolescent's socialization through psychosocial interventions. The duration of the counseling was seventeen sessions. The results of the intervention showed that the initial goal of the student was achieved, i.e. to socialize with his peers and to give up substance use. At the same time, the adolescent discovered many hidden aspects of himself, learned to trust, to communicate without fear and shame, to set limits in the relationships with his family and to claim his rights. The psychological, emotional and moral support of childhood cancer survivors by mental health professionals is important, even years after treatment, to ensure adolescent smooth personal development and social integration.

Key Words: *counseling; adolescence, childhood cancer, survivors; substance use, cannabis; drug; addiction; acute lymphoblastic leukemia; cognitive effects; school performance; stress*

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Background

During adolescence, the feeling of loneliness derives from social difficulties, such as rejection, low school performance, adjustment problems, socio-economic level of the family, lack of social skills, low acceptance of peers, family conflicts and communication through social networks [1-6]. Adolescents with physical illnesses, such as childhood cancer, have experienced similar conditions [7,8]. According to research, most people who experienced loneliness and have survived a life-threatening illness have used substances such as alcohol and cannabis [9,10].

The counseling of adolescents with a history of childhood cancer focuses on five areas [11]: a) information, b) practical and functional issues related to cancer, c) emotional issues, d) interpersonal issues, and e) existential and spiritual issues. Regarding the therapeutic interventions, they can be performed as follows: a) individually, b) with multidimensional family therapy and c) with psychosocial interventions [11, 12, 13].

Personalized intervention model involves three approaches [12,13]: a) the behavioral approach: it aims to help adolescents identify the triggering factors of high-risk behaviors, such as cannabis use, and develop skills and behavioral management techniques in order to avoid and reduce the current use, b) the cognitive-behavioral approach: it focuses on identifying and changing distorted thoughts and dysfunctional perceptions that lead to problematic behaviors, c) the individual activation approach: it encourages adolescents to recognize the fact of doing drugs and develop an inner motivation to change their behavior. According to the third approach, the sessions are grouped into three phases [15, 16]. In the first phase, the first four sessions are held with the aim of enhancing the adolescent's motivation to engage in treatment. The second phase includes six more sessions with the aim of developing skills in order to adopt the social attitude and behavior the adolescent desires. Finally, in the third phase, the treatment focuses on maintaining the desired behavior indirectly. Other, psychosocial interventions in adolescents include [11, 14]: a) peer counseling, b) technology-based interventions and c) skills-based interventions. According to Spence (2003) [17], the cognitive-behavioral model for social skills training constitutes a multi-modal model for adolescent's social inclusion. The above model includes: a) social skills training through cognitive-behavioral techniques, b) social perception skills training c) techniques of self-regulation, d) the solution of social problems and e) the reduction of undesired behaviors. Based on the cognitive-behavioral approach, the social learning mechanisms for the acquisition of social skills are (Hansen, Nangle, & Meyer, 1998): a) learning through observation, b) the consequences associated with social behavior, c) the feedback of the counselor directly or indirectly and c) the cognitive restructuring of the individual, which is achieved through self-declarations and daily practices for the manifestation of the desired behavior. According to Hansen et al. (1998), the categories of strategic social skills are: a) the utilization of the functional conditions of the individual's life, b) the learning process, individualized and differentiated to the needs of the individual, c) the integration of the functional elements of individual's personality in the counseling process to achieve the generalization of the desired behavior and d) the utilization of external factors.

The multisystem approach is also considered appropriate for counseling adolescents with chronic diseases [19]. To obtain concrete results, the family should be involved in both child support and counseling processes [20]. The multisystem approach is based on the assumption that the child's/adolescent's development and behavior are influenced by four basic concentric systems/environments, centered. The Microsystem, the Mesosystem, the Exosystem and the Macrosystem. In this way, the individual is treated as a member of the system who constantly interacts with the other members of the system. The concept of Chronosystem, i.e. the time factor and the changes that take place during life, was later introduced in the model [19].

Case Presentation

A.K. was a 17 year-old adolescent, of Greek origin, student in the last grade of high school (Lyceum) who lived in Athens with his parents and his younger brother. The relationship with his parents was characterized by emotional tensions and lack of communication. Concerning his social transactions, he encountered great difficulty in developing friendships or other kind of relationships. He spent many hours on the Internet and rarely interacted with friends or class-

mates. In addition, he reported occasional cannabis use with his classmates. Regarding his medical history, during the 5th grade of primary school he was diagnosed with childhood cancer (acute lymphoblastic leukemia). He had undergone chemotherapy for eight months at the AHEPA Hospital of Thessaloniki. Since then, he had no relapses and was followed-up medically every six months. However, he had suffered cognitive effects that resulted in memory problems poor school performance and high levels of stress. In general, he was characterized by introversion,low self-esteem, strong addiction to the computer and intense feelings of loneliness. He presented at the Center for Adolescent Medicine & UNESCO Chair on Adolescent Health Care at the "Aghia Sophia" Children's Hospital, accompanied by his father, with a basic request to strengthen and empower socialization with his peers.

Counseling Intervention

The counseling intervention focused mainly on the training of social skills with the aim of strengthening A.K's socialization. The intervention was based on a combination of the cognitive-behavioral approach and the systematic approach techniques. In the case of A.K, an individualized intervention was carried out to help him reduce and abstain from cannabis use as well as to reduce intercourse with peers who used cannabis. Based on the treatment model of Hendriks, van der Schee and Blanken (2011) [15], the first intervention phase was not implemented in the adolescent, as it had been carried out during the first sessions. Therefore, there was a combination of the next two phases for a small number of sessions [4], as he was not a regular user. The treatment focused on his belief and positive attitude towards drugs as well as on his delinquent behavior. Subsequently, several cognitive-behavioral techniques were utilized [17, 21], such as instructions, discussion, role-playing and painting, which functioned therapeutically, so that the adolescent could explore himself and identify the conditions and factors that made it difficult for him to engage in social relationships.

During the sessions, free subject painting in the "here and now" was deemed necessary so that the adolescent could not only relate the past to the present, but also develop verbal communication. The discussion, often enhanced with exercises (such as use of diary, image processing, Internet research, creation of timetable, management of emotional changes), and the whole counseling process aimed at developing his social and communication skills with peers. For example, with role-playing he managed to balance the relationship with his mother, while with relaxation exercises, he managed to limit stress. For the management and abstention of cannabis use, various cognitive-behavioral techniques were used [22] in the context of psychoeducation, such as: information about the negative effects of drugs, information with reliable written texts about legal sanctions both against the individual and his family regarding the drug trade, the processing of images about drug addicts, the Internet search by himself for the negative effects and their presentation during the session, the written exercise on his attitude towards drugs, the handling of safety behaviors by socializingwith friends who did not use cannabis, direct verbal reinforcement to achieve desired behavior, and family therapy aimed at support within the family context. At the same timethe adolescent's functional conditions and environmental factors were utilized to integrate the functional elements of his personality in the treatment, so that he could develop his social and communication skills.

The sectors utilized in A.K.'s counseling were the interpersonal issues concerning the supportive role of his family, the impact of chemotherapy on his school performance, the difficulty in developing friendships and other kind of relationships with his peers, the difficulty in revealing his history of childhood cancer and expressing his feelings for that period. In addition, the existential issues concerning the image he had about drugs in relation to chemotherapy were discussed. He was convinced that "after enduring the pain of chemotherapy and not dying of childhood cancer, he will not die of drugs". This exercise was useful and provided a lot of information, which were utilized in two sessions. The first session focused on the adolescent's relationships with family members and the second on his friends from various social backgrounds, in order to improve and enhance his social interactions.

After the completion of the counseling process, A.K. managed to focus on strengthening his social skills instead of being led to harmful behaviors, improving his social relationships, changing his beliefs about

cancer and realizing that he is not invulnerable. The ultimate goal was for A.K to respond more realistically to demanding situations, manage the challenges of society and maintain his self-confidence.

The psychological, emotional and moral support of childhood cancer survivors by mental health professionals is important, even years after treatment, to ensure adolescent smooth personal development and social integration.

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