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Addiction to Video Games: A Case Study on the Effectiveness of Psychodynamic Psychotherapy on a Teenage Addict Struggling with Low Self-Esteem and Aggression Issues

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Abstract

The present case study focused on a 14 years old teenager who struggled with addiction to computer games and subsequent issues of aggression and social withdrawal. Drawing from theories on addiction, self-esteem, and mentalization, we focused the connection of addiction to low self-esteem and poor mental representations. In addition, we examined the effectiveness of psychodynamic psychotherapy on treating addiction improving levels of self-esteem and alleviating aggressive behaviour over a course of two and a half years. Indeed, the use of a combination of three projective tests, namely the Thematic Apperception Test, the Kinetic Family Drawing, the Family Apperception Test and the Rosenberg Self-Esteem Scale helped us determine our patient's emotional state and lack of self-esteem at the beginning of therapy. The same tests were administered at the end of the therapeutic sessions and the results are discussed in relation to the progress of the patient over the course of the therapy.

Keywords

Psychodynamic Psychotherapy, Addiction, Computer Games, Aggression, Mentalization, Self-Esteem

1. Introduction

Nowadays, online gaming is one of the most popular activities among children

and adolescents. Computer games are the second most frequently used application after social media (Wakoopa, 2012). According to the Entertainment Software Association (2012), computer and online game play rates and sales are increasing every day. Entertainment Software Association (2012) revealed that 32% of the players are less than 18 years old. The DSM-5 states that Internet Gaming Disorder is most common in male adolescents 12 to 20 years of age.

Research in the field reveals a plethora of reasons players engage in online gaming, such as fun and recreation (Griffiths & Hunt, 1995; Kuss & Griffiths, 2012). Additionally, players seem to use computer games as a means to cope with stress (Grusser, Thalemann, Albrecht, & Thalemann, 2005; Wood, Griffiths, & Parke, 2007) and gain status among peers (Hellström, Nilsson, Leppert, & Åslund, 2012). Furthermore, a study conducted by Wan & Chiou (2006) supported that online gaming allowed players to socialize and escape real life. Research on video and computer gaming literature reports both positive and negative effects on players (Wood, Griffiths, & Parke, 2007).

Among the positive effects of computer games is the improvement of visual, motor and spatial skills due to the spatiotemporal nature of computer games (Boot, Kramer, Simons, Fabiani, & Gratton, 2008). Besides this, evidence shows that online gaming allows players to develop skills related to memory, attention and problem solving (Boot, Kramer, Simons, Fabiani, & Gratton, 2008). Furthermore, games may function as educational tools, while relieving stress and fostering social interaction (Bowman & Tamborini, 2012). Despite the positive effects of playing computer games for adolescents, there are also negative effects, especially when gaming turns to an addiction (Witt, Massman, & Jackson, 2011). Computer game addiction is excessive or compulsive use of computer and video games that may interfere with daily life (Weinstein, 2010). Rather than engaging in the real world, an addicted user devotes the majority of his or her time to gaming. Clinicians working in the field have identified some key indicators of gaming addiction such as: being unable to stop playing games, compensating lack of success in real life with success in games, procrastinating responsibilities because of playing computer games, and preferring games over other activities (Horzum, 2011).

Not all medical experts agree on whether addictive gaming behaviors should be classified as a disorder. In the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), "Internet Gaming Disorder" is defined as a "condition warranting more clinical research and experience before it might be considered in the main book as a formal disorder". In 2018, however, the World Health Organization (WHO) included gaming disorder alongside gambling disorder under "Disorders Due to Addictive Behaviors" in its diagnostic International Classification of Diseases.

Nevertheless, due to the lack of an official definition accepted by experts in different fields, there is no set number of hours per day signifying an addiction. Therefore, the most significant factor in examining problematic gaming beha-

viour does not refer solely to the hours children play per day. Rather, it also includes the way computer gaming is interfering with a teen's social relationships, school performance, mood, and development of interpersonal skills. Should they continue to play despite experiencing significant negative consequences in other areas of their life (e.g., ignoring school or friends), then their computer gaming is a problem and it needs attention. In these cases, teens devote more time to gaming than anything else in expense of other activities such as school, relationships, clubs and sports. According to Dr. Frank W. Paulus, of Saarland University Hospital, in Germany (REF) "Excessive gaming may lead to avoiding negative moods and neglecting 'normal' relationships, school- or work-related duties, and even basic physical needs".

Investigating potential negative effects of computer games, researchers came across a range of problematic behaviours such as time distortion (Rau, Peng, & Yang, 2006), inattention, hyperactivity (Chan & Rabinowitz, 2006), aggressive behavior (Ferguson, 2007), violent acts (Ferguson et al., 2008), and negative emotions (Chumbley & Griffiths, 2006). The majority of research conducted in this field assumes there is a correlation between games and problematic behaviours, but there are also studies reporting no correlation, especially with respect to aggression among teenagers (Elson & Ferguson, 2014a, 2014b; Ferguson, 2007; Sherry, 2001). The result of a study by Shokouhi-Moqhaddam et al. (2013) indicated that there was about 95% correlation between time spent playing games among adolescents and anxiety/depression, withdrawn/depression, rule-breaking behaviors, aggression, and social problems. He states that the most prevalent problems observed among youths and adolescents with behavioral problems are aggression, anxiety, and depression. In line with the aforementioned, the results of a study of You, Kim, & No (2015) indicated that violent video games have a significant effect on aggressive behaviors and a significant indirect effect on prosocial behaviors. Aggression has been defined as physical or nonphysical behavior directed toward harming or injuring another living being who is motivated to avoid such treatment (Baron & Richardson, 1994). Since violent games focus almost exclusively on physical acts of violence, effects are expected to show up primarily on physical aggression. A large number of studies, which confirmed the correlation between violent computer games and aggressive behavior, aggressive emotions, physiological arousal, and rule-breaking behavior, also emphasized that the lower the age of the player, the stronger the correlation (Abdolkhaleghi et al., 2003; Anderson & Bushman, 2001; Winsler & Wallace, 2002).

In general, boys tend to engage in higher levels of aggressive and disruptive behaviors in comparison to girls (Kazdin, 1997). The DSM-5 states that Internet Gaming Disorder is most common in males 12 to 20 years of age. This is supported by a growing body of research (Chiu, Lee, & Huang, 2004; Chou & Tsai, 2007; Griffiths, Davies, & Chappell, 2004; Hartmann & Klimmt, 2006; Horzum, 2011; Quaiser-Pohl, Geiser, & Lehmann, 2006; Walther, Morgenstern, & Hanewinkel, 2012; Xu et al., 2012) where it is clearly portrayed that boys spend more

time playing on computers than girls (Chou & Tsai, 2007; Festl, Scharkow, & Quandt, 2013; Lucas & Sherry, 2004; Witt et al., 2011). Excessive and pathological gaming is more common among male adolescents compared to adolescent girls (Chiu et al. 2004; Gentile, 2009; Grusser et al. 2005). Because of its relatively high prevalence among adolescents, this age group is considered particularly vulnerable to any negative effects that excessive gaming has on players.

Anna Freud (1936) went on to describe adolescence as a battle between the drives and the ego, which perceives itself to be challenged, and strives even more to exert its defences. In puberty a strong id is faced with a relatively weak ego. Defence, victory, and defeat of the ego alternate. Ultimately, this struggle is based on a primary and primitive inherent animosity between ego and drive. In 1958, Anna Freud defined adolescence as a phase of "necessary disharmony", which generates an inner and an outer state of turmoil in youth. But the serious conflicts of that time are to be considered as less a case of symptoms of disease, than as "beneficent attempts" which aim at a new psychic balance. In contrast to a pure theory of recapitulation, adolescence is now awarded a progressive and independent developmental function.

Erik Erikson (1959) adopts a yet more radical shift of perspective: it is not the conflicts of drives that are of pivotal importance, but rather the adolescent's encounter with social structures, which endorse and advance development. In his epigenetic model, he describes an ego which increasingly integrates the social world and its own psycho-sexual and psychosocial experiences into its identity. Adolescence is a psycho-social phase of suspension, a "psycho-social moratorium".

Regarding the mentalization theory of Fonagy et al. (2002), the reflective function is of great importance. Two steps in children's maturation are integral in this theory: 1) the leap to formal and logical thought operations. They reinforce the need for interpersonal understanding and are therefore integrated into the attachment context; and 2) the urge for separation from the internally represented parents. The new, advanced cognitive complexity is what drives the acquisition of separation, but is also capable of derailing the process. With the acquisition of abstract thinking and the greater capacity to reflect, the adolescent acquires the possibility to withdraw from his feelings, to observe himself and others, and to draw conclusions from this.

Fonagy & Target (1997) define reflective function as "the developmental acquisition that permits the child to respond not only to other people's behavior, but to their conception of their beliefs, feelings, hopes, pretense, plans, and so on". Reflective function or mentalization enables children to understand how others think (Baron-Cohen, Tager-Flusberg, & Cohen, 1993; Morton & Frith, 1995). By attributing mental states to others, children make people's behavior meaningful and predictable. The concept of "mentalization", defined as the capacity to understand one's own behavior and the actions of others in terms of intentional mental states (De Oliveira et al., 2017; Fonagy, 1989), has a specific importance in the domain of psychiatric disorders, due to its fundamental par-

ticipation in the developing of adequate interpersonal relationships and healthy self-image (Fonagy, Gergely, & Target, 2004). Adolescence is a critical period of rapid biological and social development, during which early signs of adult mental disorders may be manifested.

Bouchard & Lecours (2008) describe mentalization as a continuous process which functions as the "immune system" of the psyche, since it modifies external and internal pressures. Normally, mentalizing contributes to the coherent and meaningful experience of one's own psychic states. Instead of acquiring this tolerable distance from direct affective pressure, addicts often suffer from severe anxiety and depression. These conditions are triggered by the deep conviction that the individual is helpless in regulating not only external reality but also his or her emotional states.

The concept of mentalization could be applied in the field of behavioral addictions, due to the fact that various problems in emotional, ideational and relational domains can be explained by deficits in mentalization and dysfunctional attachment styles. Lacking the capacity to mentalize, individuals cannot accurately recognize their own feelings and those of other people. The end result is their interpersonal relationships are negatively impacted. The inability of a person to understand what they feel and why they feel it, does not let them regulate, or simply tolerate, intense feelings. This can lead many children, adolescents or even adults to withdraw.

According to Kardefelt-Winther (2014), the motive to escape reality is correlated with negative emotions, lack of social interactions outside the online gaming community, social anxiety and solitude. Thus, excessive use of computer games is interpreted as a way for the child to cover needs that are not met properly, and deal with difficulties efficiently. Computer games addiction is usually a symptom of emotional emptiness, where the fictional world of video games is seen by the addict as a refuge. In other words, this type of dependency allows the teenager to create a fictional world, where they are isolated and escape from the objective reality.

2. Current Study

The aim of this study was firstly to investigate the effects of a psychodynamic psychotherapy sessions which took place for a period of two and a half years, and aimed at uncovering the aetiology of the teenager's addiction, with the purpose of treating the addiction, improving levels of self-esteem, and reducing the aggressive tendencies, which were highlighted in the results of the projective tests provided.

2.1. Participant

The present article is based on the psychodynamic psychotherapy sessions conducted with a patient, here named Michael due to confidentiality reasons, aged 14 years old, who visited our practice as he exhibited aggressive behaviour to-

wards his parents and sister. As the behaviour continued for a period of six months, his parents felt he was in need of professional help. The sessions were held weekly over a period of two and a half years. During our first session with his parents, named Helen and John, we asked them if anything had changed recently in their son's behaviour. They replied that the only thing Michael different in that time period was the fact that Michael was spending increasingly more time playing computer games, which is something he was doing in the past to a lesser extent. Elaborating on changes that had taken place in the past six months, they explained that he showed less and less interest in doing his homework. Based on what they could see, they had concluded that the games he played were of violent nature. His behaviour began to change, and he became extremely aggressive towards them and her little sister. In detail, he would argue with them more often and resolve to push his sister when arguing with her, and would shout at his parents.

2.2. Materials and Methods

At the beginning of the psychodynamic psychotherapeutic sessions with Michael, a combination of projective tests was completed by him in order to assess aggressive acting-out behavior, levels of self-esteem, and emotional well-being. More specifically, during our first session with Michael we used questions form the seven-item game addiction scale developed by Lemmens et al. (2009), which is based on the DSM IV criteria for pathological gambling previously adapted by Griffiths et al. (2005) (Salience, Tolerance, Mood modification, Relapse, Withdraw, Conflict and Problems). The questions asked were the following:

1) Salience: "Did you spend all day thinking about a game?"

2) Tolerance: "Did you start spending increasing amounts of time on games?"

3) Mood modification: "Have you played games to forget about real life?"

4) Relapse: "Have others unsuccessfully tried to reduce your game use?"

5) Withdrawal: "Did you feel bad when you were unable to play?"

6) Conflict: "Did you have fights with others (e.g., family, friends) over your time spent on games?"

7) Problems: "Have you neglected other important activities (e.g., school or work) to play games?" Every item was preceded by the statement: "During the last 6 months, how often…" Players rated all.

Following the questions above, which established Michael's relationship with computer games, he completed a combination of three projective tests during our second session. The following tests were chosen; the Thematic Apperception Test, the Kinetic Family Drawing, and the Family Apperception Test. These tests provide a comprehensive assessment of emotional state, self-image, intra family relationships and socialization patterns, from a psychoanalytic and systemic point of view. The first projective test used was The Thematic Apperception Test (TAT), developed by the American psychologist Henry A. Murray and lay psychoanalyst Christiana D. Morgan in 1930 (Morgan, 1995).

This projective measure intends to evaluate a person's patterns of thought, at-

titudes, observational capacity, and emotional responses to ambiguous test materials. In the case of the TAT, the ambiguous materials consist of a set of cards that portray human figures in a variety of settings and situations. The subject is asked to tell the tester a story about each card that includes the following elements: the event shown in the picture; what has led up to it; what the characters in the picture are feeling and thinking; and the outcome of the event.

Many studies have tried to establish a correlation between behavioral aggression and aggression scoring systems of the TAT, with varying results. Several researchers have reported a positive correlation between observed behavioral aggression and aggression scored in the TAT (Davids, 1973; Evans, 1981; Hafner & Kaplan, 1960; James & Mosher, 1967; Skolnick, 1966; Stone, 1956).

The cards used were: 1, 2, 3BM, 4, 5, 6BM, 7GF, 8BM, 13B, 19.

The second projective test used was the Kinetic family drawing. The Kinetic Family Drawing (KDF), developed Burns & Kaufman (1970), requires the test-taker to draw a picture of his or her entire family. Children are asked to draw a picture of their family, including themselves, "doing something." This picture is meant to elicit the child's attitudes toward his or her family and the overall family dynamics. The KFD differs from the traditional family drawing tests in that it adds a kinetic element to the picture. The addition of movement to the otherwise static drawing mobilizes the child's feelings about himself and their place in the family. Thus, the drawings afford a glimpse of the quality and the extent of interpersonal relations in the family. Upon completing the drawing, he was asked to name the figures and the family relationship of each (dad, mum, aunt, etc.).

The last test used was The Family Apperception Test (FAT). FAT, created by Wayne M. Sotile et al. (1999), is a projective assessment procedure based on the family system theory. FAT allows the subjects' affects and feelings about their family to be assessed. The FAT allows the tester to highlight various themes relating, for example, to the existence of apparent conflicts, the resolution of conflicts, the quality of family interactions, and the existence of limits defined within the framework of the family. The instruction given was "I have a series of pictures that depict children and their families. I'll show them to you one by one. I would like you to tell me what's happening in the image, what led to this scene, what the characters are thinking or feeling, and how the story will end. Use your imagination and, above all, remember that there is no right or wrong answer in what you say about an image. I will write down your answers so that I can remember".

Those tests were used again one year and a half later, during our last session with Michael, in order to examine if psychotherapy was effective in his case.

Additionally, during the first psychotherapy sessions of we observed that Michael was struggling with low self-esteem and poor self-image. In order to confirm the validity of our observation we conducted the Rosenberg Self-Esteem Scale during the third session.

The Rosenberg Self-Esteem Scale (RSES) was developed by Rosenberg (1965).

It is a 10-item Likert self-report measure of global self-esteem. It consists of 10 statements related to overall feelings of self-worth or self-acceptance. The items are answered on a four-point scale ranging from strongly agree to strongly disagree. The cut-off scores of this scale are: 0 - 15 Low Self-Esteem, 15 - 25 Normal Self-Esteem, 25 - 30 High.

2.3. Psychodynamic Psychotherapy

Psychodynamic psychotherapy was conducted for two and a half years. A psychodynamic approach enables the client to examine unresolved conflicts and symptoms that arise from past dysfunctional relationships. We attempted to help the addict teenager understand how gaming is related to his school, emotions and moods, and sense of life goals and rewards. In therapy, we focused on the feelings and issues that preceded addictive thoughts or acts.

In the case of non-substance addictions, such as those of sex, gambling and gaming, we can theorize that the substance is replaced by a behaviour. The action of playing causes feelings of pleasure, which ensures the addict will repeat the action whenever they are given the chance to do so. Video game addiction can also have a psychological component.

During therapy, it is essential to focus on the motives that drive someone in engaging in addictive gaming behaviour, instead of focusing on the time they spend playing. In contrast, the time an addict spends playing can be used to evaluate their progress; specifically, it can indicate the control exercised by the addict over the addiction (Taquet & Hautekeete, 2013).

It is considered essential to allow the addict to recognize and acknowledge the consequences of excessive gaming, such as negative emotions (anger, guilt) and physical effects (loss of appetite, disturbed sleep patterns). Research suggests that another damaging effect of excessive gaming is the detachment from one's true self, and the potential for self-actualization.

3. Results

In regards to the questions of the scale developed by Lemmens et al. (2009), Michael explained that he would spend most of his day playing video games. He also mentioned that he would rather play video games than study or go to school, and elaborated on the his parents' efforts to make him reduce the time he spent playing computer games. He admitted that he did not wish to reduce the time he spent playing video games, as this was the only activity he genuinely enjoyed. When asked about his relationship with his family and friends, he replied that lately he had been fighting a lot with his family and felt isolated from his friends. Furthermore, Michael supports that he chooses to invest on single player games.

3.1. First Session Results

3.1.1. The Thematic Apperception Test (TAT)

Card 1: A little boy stares at his violin and wants to play with it. He is unable to,

because his parents forbid it, which makes the boy angry at them. However, they are about to go to the supermarket, which will give the boy a chance to play the violin.

Card 2: The person in the card may be the daughter of the other figures. She returns from school and carries her books in her arms. She comes back because she has quarreled with other girls and now she argues with her parents too. As in the previous card, Michael reveals an aggressive attitude of the child towards the parents.

Card 3BM: The boy has shot someone. The child wants to hide in order to avoid the punishment. Michael describes the ambiguous object as a gun. The object can give important information about aggressiveness.

Card 4: The man abandoned the woman who tried to keep him close to her. The man is angry and that's why he wants to leave. When he is angry he'd rather be alone.

Card 5: The mother in this picture cares about her child. In contrast, the child doesn't wish to be close to his mother, as he wants to be left alone in his room to play with his toys.

Card 6BM: The son announces to his mother that he wants to leave.

Card 7GF: A little girl is with her mother. The mother talks to her daughter but her daughter does not want to listen to what she has to say. For that reason, she looks on the other side and she ignores her.

Card 8BM: The boy injured another person. He describes vividly the gun the boy used.

Card 13B: A boy is sitting in the entrance of a log cabin. He is alone and looks sad. I don't know why he is alone, this must be his parents' cabin. Where are they? They must be dead or something.

Card 19: That looks like a house in a forest. There is snow everywhere and a monster is lurking behind the house, I see his face and his claws, it is waiting for something and then will attack.

3.1.2. Kinetic Family Drawing

Michael's drawing depicts two parents whom he identifies as his, standing on the right side of the paper, along with his sister. He positioned himself on the left side of the paper, and drew himself much bigger than his family in size. The expression he drew on his face revealed aggressiveness; he drew an open mouth and two half-closed eyes. Michael is in his room playing video games and his family are trying to talk to him behind a closed door.

ASPECTS	
Stroke	Normal
Shadings	No shadings
Sequence	He, Mother, sister, father
Drawn figures	He, his parents and his sister

Continued

Characters' proportion	Abnormal
Size of the drawing	Big
Areas of conflict	Between Michael and his parents and sister
Scenario	Fighting
Sexual differentiation	Good
Additions	No
Omissions	No
Extra objects	No extra objects
Behavior during the task	Nervous

3.1.3. The Family Apperception Test (FAT)

Card 1: The parents argue. A child shuts his ears because he does not want to listen. He does not want to sit at the table with his parents. He is constantly annoyed by them.

Card 2: The child wants to watch TV. His mother asks for help but he does not want to help her. He'd rather watch TV, and feels that his mother is annoying.

Card 3: The child is angry and breaks the vase. His father shouts at him and demands that he pick up the pieces.

Card 4: I don't understand what this is—I'm tired—can I get some water? Or a break maybe?

Card 5: The parents are having a conversation with one of the kids. The second child is doing his homework, and the third has just entered the room. He did not want to join his family as he keeps fighting with his siblings.

Card 6: The boy does not want to tidy his room. He argues with his mother over this.

Card 7: It is 23:30, the parents tell their son that he must go to bed but he does not want to.

Card 8: The mother goes to the supermarket with her children. She is forcing the boy to join them, as he would rather stay at home by himself.

Card 9: The mother is cooking in the kitchen, the father is sitting at the table reading the paper. They asked of their son to help them set the table, and he does not want to, but he is afraid of the repercussions if he does not participate.

Card 10: A group of children are playing baseball, and one of the team players is accusing another member of the team of not playing well and causing the team to lose the champion.

Card 11: A boy shouts at his family because they did not allow him to go outside and play with his friends like he wants to.

Card 12: The girl does not want to do her homework. She doesn't like school.

Card 13: The child is angry with his father, as he did not want to go to bed and feels he is being forced.

Card 14: A group of boys are playing a weird game, I cannot tell what they are doing exactly, and a couple of girls are staring at them.

Card 15: A group of kids are playing a board game on the floor, but they won't let their friend play, so he is sitting by himself on the background.

Card 16: A boy is asking something of his dad but he won't give it to him, so the kid is pissed.

Card 17: Two girls are getting ready to go out and putting on makeup in front of the mirror.

Card 18: The family goes on holiday, and the children keep fighting.

Card 19: A teacher is giving feedback on a girl's assignment and the girl isn't happy with her grade.

Card 20: A boy is looking at himself in the mirror and is sad because he does not like what he is seeing.

Card 21: There is a family in this picture, and the dad is going away on a trip and saying goodbye to his family by the doorway.

3.1.4. Rosenberg Self-Esteem Scale

In an attempt to collect a plethora of information that would allow us to create a comprehensive profile of Michael, we administered the Rosenberg Self-Esteem Scale during our third session. The results of the scale were indicative of Michael's self-image, based on what he had already shared with us; his total score was 11 out of 30, which is under the average 15 - 25 score, which is the mark for Normal Self-Esteem.

3.1.5. Psychodynamic Psychotherapy

During the psychotherapy sessions, it became evident that the teenager retreated to a fantasy world to escape his real-life troubles and unpleasant emotions. More specifically, Michaels revealed that he faced many problems at school. He said that some children at school insulted him, used derogatory remarks, and teased him. He was being left out or ignored. These behaviors according to Michael were repetitive.

It was observed that Michael viewed gaming as an external extension of the self, which allowed him to exercise complete control in a fictional world. According to relevant theories, addicts are unable to exercise control over their life, thus turning to addiction, which is easier to control (Fonagy et al., 2002). Consequently, this leads to a regressive state, where the addict does not distinguish mental representations from external reality (Fonagy et al., 2002). The addict identifies with the humanoid avatar; this identification allowed Michael to express his feelings through the avatar, which is a clear form of projection. In other words, he projected his feelings and needs on the avatar.

During therapy, we also focused on Michael's low self-esteem. He mentioned that most of the time he was not sure about himself, that he found it hard to talk in front of the class, he was not proud of his school work, he was not popular with children of his age, he often felt upset in school, if he had something to say

he usually would not say it, children picked on him very often. A research by Al Ali, Gharaibeh, & Masadeh (2017) showed that students perceived victims of bullying as having low self-esteem (68.2%). Children facing bullying are more likely to become emotionally withdrawn. If a child is already quiet, shy and self-contained, bullying may escalate these tendencies to the point where the child may have trouble interacting with their peers. Regular exposure to hurt, humiliation, and social isolation may cause them to sink deeper into a world of their own.

Therapy also revealed that Michael's low self-esteem is linked to his ability to mentalize. Mentalization refers to an essential developmental acquisition that allows the individual to perceive and organize his or her own behaviors and those of others in the form of mental states (Fonagy & Target, 2006). This function leads the individual to interpret implicitly (unconsciously, automatically, expressed by gestures) or explicitly (consciously, reflexively and in words); what he feels and what he experiences in terms of underlying thoughts, beliefs, feelings, expectations, desires and intentions (Allen, Fonagy, & Bateman, 2008; Fonagy, Gergely, Jurist, & Target, 2002).

The ability to mentalize enables children to develop a sense of identity. That way, they develop a clearer understanding of their own feelings and motivations, as well as others'. Through this understanding, children's social and situational awareness is increased. In turn, this allows them to enhance their adaptation skills and face different situations more efficiently. Defined in this way, mentalization becomes a precondition of social skill, self-soothing, empathy, and other facets of emotional intelligence and social-emotional maturity. Lacking this capacity, they cannot accurately recognize their own feelings and those of other people. The end result is their interpersonal relationships are negatively impacted.

For instance, the ability of a person to identify their emotions provides them the information they need to better regulate, or simply tolerate, intense feelings. Accordingly, a clear understanding of their goals and motivation will prevent them from giving in to urges that are contrary to their ultimate goal, and will provide them the foundation for a more complete and internally consistent sense of self.

The development of mentalization is part of the social context of the family. Indeed, its acquisition would be influenced by the quality of the interactions between the young child and his parent, especially by mirroring procedure between the mother and her child (Fonagy & Target, 1997). When the mother reflects the emotional states of her child, he sees in his mother's face a representation of what he feels inside him, which helps him to recognize his own emotional states.

Fonagy (2008) explained that, in young children, the context of a secure attachment relationship is an optimal environment for the development of mentalization. A secure attachment between the parent and the child, and the sense of

being heard and understood that result from it, will foster in the child the development of trust and confidence in others as well as in his own beliefs and experiences and in his own judgment. However, an insecure or disorganized attachment can hinder this process and thus make it difficult for the individual to trust someone (Corriveau et al., 2009).

Attachment is seen as the main factor in the development of mentalization and the formation of internal representations of affective states. Secure attachment is a precondition for good enough affect regulation and guides the transition from coregulation in the mother-infant couple towards self-regulation of the child (Jurist, 2005). The child internalizes mother's empathic expression and this type of "intersubjectivity" is a milestone in the relation between attachment and affective self-regulation. Using language, children can name their feelings, receive verbal and emotional feedback about their adequacy, and thus become supported in the effort to think about themselves and others (Taylor, Bagby, & Parker, 1997).

Therefore, in our work with Michael, we focused on helping him develop healthier mental representations and improve his self-esteem, as we felt that this would allow him to develop more functional relationships with his family and peers and overcome his addiction to computer games.

3.2. Last Session Results

3.2.1. The Thematic Apperception Test (TAT)

Card 1: A boy stares at the violin in front of him. He wants to play and is waiting for the violin instructor to join him so the lesson can start.

Card 2: The girl portrayed here, who is the daughter of the family in the picture, is sent off to school after a fight she had with her mother about not finishing her homework. Her mother is unhappy with her daughter's performance and the daughter is angry at her mom for pushing her.

Card 3BM: The boy in this picture sits by his bed crying. He has had a fight with his parents and is upset about it. There is a gun next to him, which he owns but does not intend to use.

Card 4: There are two people in this picture, who are parents to a boy and a girl. They have just finished arguing over the way they treat their son, and the father does not agree with his wife. So, he is about to leave and the mother is trying to stop him by begging him to stay. He seems disappointed and wants to leave, even though he doesn't at the end.

Card 5: The mother in this picture opens the door of her son's room to wake him up for school. The son is still asleep and doesn't want to go to school, so he asks for five more minutes. The mother insists and the boy gets out of bed.

Card 6BM: The son has just returned home from school and shows his report card to his mother. The mother is not happy with his grades and the son feels bad for letting her down.

Card 7GF: A mother talks to her daughter about helping out more at home, as

she feels she is not supported by her children. The girl would rather play with her toys but agrees to help her.

Card 8BM: Something bad is happening behind the boy, someone is getting hurt. The boy doesn't want to see that so he is walking away.

Card 13B: There is a boy sitting in the doorway of a log cabin. He seems sad, probably because he wants to go play with his friends and his parents won't let him.

Card 19: I see a house in the woods, covered in snow. There are clouds in the sky, shaped like a wild bird, or like a craw or something.

3.2.2. Kinetic Family Drawing

Michael's drawing depicts two parents, whom he identifies as his, with his sister and him. He positioned all the family members, including himself, in the middle of the paper. He drew the parents bigger than the children. Behind the family he drew the family's house. According to Michael, the whole family goes for a walk. This time the expression he drew on his face was joyful, as him and the rest of his family were smiling.

3.2.3. The Family Apperception Test (FAT)

Michael was given the 21 cards that comprise the Family Apperception Test and was asked to create a sequence that would tell a story, with whichever cards he wanted to use. After staring at the cards and playing around with them, he started with the 14th card, where a group of kids are playing in the backyard and are having a good time. The boy then returns home and goes to the living room to watch TV (card 2). His mother asks him to go to bed and gives him a book. He continued his story with the card 13 for which he said that the father reads a book to the child who is now in bed. Moving on, (card 6) he said that the next day the mother asks of the child to tidy his room, and while the child does not really want to do, he does it anyway. According to Michael, later in the afternoon (card 3) the child is playing ball in the living room with his sibling. Unfortunately, he broke a vase with the ball. The father punished him because of that. After this evident, the child went to the market (card 8) with his mother and his sister.

3.2.4. Rosenberg Self-Esteem Scale

In terms of self-esteem, Michael completed the Rosenberg Self-Esteem Scale again, to determine potential changes in his self-image. Indeed, this time the scale demonstrated higher levels of Self-Esteem, as his score was 20 out of 30, which indicates a Normal Self-Esteem (15 - 25).

4. Discussion

During our first session, we posed a series of questions to Michael to determine his mental and emotional state. The answers he provided were indicative of his addiction to video games. Additionally, the results of the TAT test showed Mi-

chael's interpersonal conflict with his parents. Indeed, feelings of internalized anger and aggression towards his parents were present in many of his interpretations. In the first card he communicates his feelings of resentment towards his parents, who do not allow him to spend his time playing video games. In the second card a conflict with his parents and other children at school emerges. Feelings of aggressiveness are also highlighted in the third card (card 3BM) where the ambiguous object is identified by Michael as a gun, used to harm someone. Internalized and externalized aggression can be seen in most of his interpretations of the cards. Extra-aggression is also present at the 4th card where an aggressive behavior towards another person is clearly depicted. A violent behavior which leads to an injury or death is also mentioned at the card 8BM. Family conflict is again revealed at the card 5, 6BM and 7GF. Card 13B portrays his feelings of isolation from his family, and his fear of being deserted due to the constant fighting and arguing with his parents. Finally, card 19 demonstrates internal fear and anger, which are obvious in his interpretation of the clouds as a monster that is lurking behind a house.

Michael also revealed an aggressive behavior towards his family at the Kinetic Family drawing. The fact that he drew himself separated from the rest of family showed his attitude and feelings towards them. His much bigger size than the others and his facial expression revealed his aggressiveness towards his family. Additionally, the theme of addiction appears again as the closed door that separates him from his family and causes fighting between them. Finally, it is clear that Michael was experiencing a stage of isolation and withdrawal from his family.

Finally, the FAT results showed an aggressive behavior towards the family and problematic relationships with his peers. He mentioned that the parents annoy the child and that the child prefers to stay away from them (e.g. card 1, 2, 5, 8). At the card 3 the child's feelings of aggressiveness will lead him to an aggressive behavior as he will break the vase. We can thus remark that Michael's aggressive feelings will also lead to an aggressive behavior, which is obvious in his interpretations of card 11. Siblings fight is revealed at card 18. Michael's dismissing attitude towards his parents is shown at card 6, 7, 9, 12, 13. Besides this, based on card 16, we can assume that Michael needs acceptance from his parents and positive regard, and although he is subconsciously asking he feels he is not receiving any of that. Michael's unwillingness to provide a description of the 4th card could be indicative of his withdrawal and isolation in general. In line with this, on the 15 card these feelings are repeated, as we observe his inability to connect with his peers and the unpleasant feelings that follow this. Apart from that, his interpretation of card number 10, where he sees the boy as being blamed for the loss of the game, could be representative of his feelings of inferiority and inadequacy, signs of low self-esteem. On the 20th card, his self-image and self-esteem issues are portrayed, as we can see his dissatisfaction with himself and his physical appearance. Finally, it is clear that he is experiencing issues with authority, as he sees a teacher providing negative feedback to a student on the 19th card.

Moreover, the results of the first Rosenberg Self-Esteem Scale were in line with the above findings. The first time Michael completed the scale he scored 11 out of 30, which is lower than the normal 15 - 25 score, and indicates low self-esteem. This information on Michael is valuable in the present context, as it is in agreement with the profile of a teenager addicted to computer games, who is struggling with anger issues.

Upon completing two and a half years of therapy, Michael's general behaviour and relationship with his family and peers had changed. This became possible through the changes he underwent in terms of self-esteem and mental representation in his therapy. By changing his self-image and the schemas he had constructed, he was able to improve the way he viewed himself and the individuals in his immediate environment.

In regards to the results of the second TAT Michael completed, there was an obvious shift in the themes he brought up. Although an aggressive tendency is still present in his interpretations, he does not seem to resolve to violence on a symbolic level as much as he did in the first TAT he completed (e.g. card 2, 3BM). Similarly, he seems to have changed his behavioural pattern in terms of engaging in violent situations, which is evident in the card 8BM, where the boy chooses to differentiate from the violent scene that takes place behind him. Additionally, we can observe an improvement in his relationship with his family, as he now seemed to engage more in family activities (e.g. card 5, 7GF).

In contrast, the second time he completed the test, he drew a happier family, where a sense of healthy communication and intimacy is evident, as the family is positioned together and they are about to participate in a family-oriented, group activity.

Regarding the Family Apperception Test, the story he constructed the second time he completed the test is indicative of more stable family dynamics, as there seems to be a flow in the activities he describes and the way he relates and connects with his family seems rather healthy (card 2, 13). Indeed, there is no tension and fights between him and his parents, and they appear to be by his side and not opposed to him as in the first time (card 8). Moreover, he describes an improved relationship with his sibling which is obvious from the scene where he is playing joyfully (card 3). It is worth noting that the first card Michael chooses to construct his story is a card depicting a group of children playing together, which shows a positive development in the way he experiences socialization and peer relationships (card 14).

Accordingly, the second time he completed the Rosenberg Self-Esteem Scale, the results were indicative of a person with normal self-esteem; 25 out of 30.

The results of our last session are indicative of the positive effect of the psychodynamic psychotherapy on the 14 years old adolescent.

5. Conclusion

In conclusion, the present research focused on the case of a teenager who visited

our practice because he exhibited aggressive behaviour and withdrawal tendencies. Upon further investigation, it became evident that the teenager was addicted to online gaming, and he engaged in two and a half years of psychodynamic psychotherapy in order to overcome his addiction and improve his emotional well-being. Indeed, during therapy we observed that Michael suffered from low self-esteem and had problematic relationships with his family and peers, which were linked to his poor mental representations. A list of projective tests and a scale that were provided at the beginning of therapy and during the last sessions showed the improvement of Michael's mental health and the development of a healthier self-esteem.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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