ORIGINAL ARTICLE



In-session gaming as a tool in treating adolescent problematic gaming

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Funding information

Action Innocence, Grant/Award Number: n.a.; Fondation André et Cyprien; Fondation Divesa; Fondation Hans Wilsdorf; Fondation Isabelle Hafen; Loterie Suisse Romande

Abstract

For some adolescent gamers, playing online games may become problematic, impairing functioning in personal, family, and other life domains. Parental and family factors are known to influence the odds that adolescents may develop problematic gaming (PG), negative parenting and conflictual family dynamics increasing the risk, whereas positive parenting and developmentally supportive family dynamics protecting against PG. This suggests that a treatment for adolescent PG should not only address the gaming behaviors and personal characteristics of the youth, but also the parental and family domains. An established research-supported treatment meeting these requirements is multidimensional family therapy (MDFT), which we adapted for use as adolescent PG treatment. We report here on one adaptation, applying in-session gaming.

In-session demonstration of the "problem behavior" is feasible and informative in PG. In the opening stage of therapy, we use in-session gaming to establish an alliance between the therapist and the youth. By inviting them to play games, the therapist demonstrates that they are taken seriously, thus boosting treatment motivation.

Later in treatment, gaming is introduced in family sessions, offering useful opportunities to intervene in family members' perspectives and interactional patterns revealed in vivo as the youth plays the game. These sessions can trigger strong emotions and reactions from the parents and youth and give rise to maladaptive transactions between the family members, thus offering ways to facilitate new discussions and experiences of each other. The insights gained from the game demonstration sessions aid the therapeutic process, more so than mere discussion about gaming.

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KEYWORDS

adolescents, gaming disorder, multidimensional family therapy, treatment innovation

PROBLEMATIC GAMING IN ADOLESCENTS

For adolescents around the World, video gaming is a source of entertainment. For most of them, this pastime is pleasurable, but for some youth, game playing may become harmful. In 2019, the World Health Organization entered Gaming Disorder (GD) in its 11th revision of the International Classification of Diseases, ICD-11 (Reed et al., 2022; WHO, 2019). Including both offline and online gaming, GD is characterized by four criteria, to be met for 12 months: (1) impaired control over gaming, (2) increasing priority given to gaming over other activities, (3) continuation or escalation of gaming despite the occurrence of negative consequences, and (4) the gaming behavior impairs personal, family, social, educational, or occupational functioning.

Earlier, in 2013, the American Psychiatric Association listed Internet Gaming Disorder (IGD) in its fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) as a tentative disorder needing further research (APA, 2013). DSM-5 describes IGD in similar terms as Gambling Disorder, which in turn is defined in part by criteria adopted from the Substance Use Disorder field. To diagnose IGD, at least five out of the nine DSM-5 criteria must be met for 12 months. Four of the DSM-5 criteria are comparable to the four ICD-11 ones, but other DSM-5 IGD items do not feature in ICD-11, notably withdrawal symptoms, tolerance, deceiving others about gaming, and playing games to escape from negative feelings or moods.

There is debate about the diagnostic validity, clinical utility, and prognostic value of the GD and IGD criteria (Castro-Calvo et al., 2021). To steer away from the ongoing discussion about GD versus IGD, we use here the umbrella term "problematic gaming" (PG), which includes all gaming behavior having such an impact on the adolescent's functioning and development that they may need treatment. For well over a decade now, we have seen adolescents in our clinical practices in Geneva and Lausanne presenting with PG. This prompted us to develop a treatment approach, of which we describe here a key part, that is, the therapeutic use of in-session gaming.

PARENT AND FAMILY FACTORS IN PROBLEMATIC GAMING

Problematic gaming in adolescents is associated with parent and family (PF) factors and other social variables (Paulus et al., 2018; Richard et al., 2020; Sugaya et al., 2019). We reviewed the importance of PF factors (Nielsen et al., 2019; Nielsen et al., 2020), distinguishing six categories of risk and protective PF factors: (a) problems faced by the parent(s), (b) child abuse, (c) co-parental teamwork, (d) parenting style, (e) family attachment, and (f) family functioning (Table 1). Next, we collapsed these categories into four main classes of PF factors: (1) positive parenting (positive parenting style and positive co-parental teamwork), (2) negative parenting (negative style and teamwork; child abuse; problems of the parents), (3) positive family dynamics (secure family attachment and positive family functioning), and (4) negative family dynamics (insecure family attachment and negative family functioning). Across studies, positive parenting and positive family functioning were connected to lower rates of adolescent problematic gaming, and negative parenting and negative family functioning to higher PG rates (Nielsen et al., 2020).

The effect sizes of the links between PF factors and PG rate, mainly small to medium, were of similar magnitude as those of intrapersonal factors (characteristics of the youth). Intrapersonal risk factors correlating with PG rate include male gender, loneliness, low social competence,

TABLE 1 Parental and family factors associated with problematic gaming in adolescents

Category of factors	Risk factors	Protective factors
Problems faced by the parent(s)	Mental disorder (anxiety, depression)Substance use disorder	
Child abuse	Mental or physical abuseNeglect	
Co-parental teamwork	DiscordantConflictive	CollaborativeSupportive
Parenting style	UninvolvedNeglectfulPermissive/indulgentAuthoritarian	Authoritative
Family attachment	 Poor or conflictual attachment Low emotional availability	Secure parent–child relationship
Family functioning	 Lack of home rules Lack of family rituals Disorganized family Poor communication between family members 	 Endorsed home rules present Family rituals present Well-organized family Warm, supportive and frequent communication between family members

control/regulation difficulties, anger/hostility, depression and anxiety, sensation seeking, and ADHD (Nielsen et al., 2020).

THE RELEVANCE OF MULTIDIMENSIONAL FAMILY THERAPY

The evidence reviewed suggests that both negative parenting and negative family dynamics increase the risk of adolescents developing problematic gaming. Conversely, positive parenting and positive family dynamics may protect them from developing PG. Therefore, treatment for adolescent PG should focus on parenting and family dynamics, in addition to addressing adolescent intrapersonal factors. A therapy meeting these requirements is multidimensional family therapy (MDFT), which offers sessions with the individual adolescent, with parents, and with the family (Liddle, 2002).

MDFT is effective in reducing other adolescent problem behavior, notably substance use disorders and delinquency (Liddle, 2016; Van der Pol et al., 2017). To evaluate if MDFT mitigates PG as well, we conducted a randomized controlled trial comparing MDFT with Family Therapy as Usual (FTAU). The details of the methodology and the findings are reported in Nielsen et al. (2021) and Nielsen (2021).

Methods

The trial was carried out at an outpatient addiction treatment center in Geneva, Switzerland. It ran from 2017 until early 2020. The study participants were treatment-seeking adolescents, 12–19 years of age, and their parents. All youth with possible PG, as established at intake, filled out a question-naire based on the nine DSM-5 criteria for Internet Gaming Disorder. Of 71 assessed youth, 57 had IGD, and they also met the other inclusion criteria. Informed consent was refused by 13 adolescents and/or their parents and two cases were excluded for other reasons (Nielsen et al., 2021), leaving 42 adolescent-parent dyads as study participants. The dyads were randomly allocated to either MDFT or FTAU, the two major programs for PG therapy offered by the study's treatment center (Nielsen et al., 2021). Both treatments lasted 6 months.

In addition to the IGD screener, we administered questionnaires and structured interviews (adolescents and parents) to measure time spent on gaming, mental health comorbidity, and quality of life. Assessments were scheduled at baseline and at 6- and 12-month follow-ups (Nielsen, 2021; Nielsen et al., 2021).

Treatments

MDFT

MDFT comprises three stages. The first one includes (1) boosting the treatment motivation of the adolescent and the parents, (2) forging multiple therapeutic alliances, (3) conceptualization of the case (assessment of problems and potentials, of risk and protective factors, of ambitions and barriers), and (4) drafting the treatment plan. The second stage focuses on treatment interventions targeting the adolescent, the parents, the family, and significant systems outside the family. Outcomes pursued are increased self-control (adolescent) and improved parent and family conditions, including improved family communication and family relationships and more competent parental educational practices. In stage three, strategies for maintaining treatment gains are implemented and therapy is ended.

MDFT therapists work in teams, with two to five colleagues, supervised by one of the members. Team dynamics are cardinal in MDFT, and the supervisor works intensely with each therapist on each case. Treatment dosage is high, on average, two sessions per week per case.

FTAU

Family Therapy as Usual is an integrative approach, combining components of structural, strategic, narrative, and solution-oriented systemic therapy as taught in recognized family-systemic therapy schools in the French-speaking part of Switzerland.

Whereas MDFT is manualized, FTAU is not. In MDFT, the therapeutic process for each youth and family is minutely mapped out in terms of protective and risk factors, treatment goals, and processes. The therapists adopt a pro-active posture. In FTAU, the therapists are more reactive, adapting to the family's pace, and responding to events as they unfold. There are no distinct treatment stages in FTAU. Alliance-building and improving relations and communication within the family are common targets of FTAU treatment.

As in MDFT, sessions are held with the adolescent alone, the parents alone, and with the family as a whole. Treatment dosage is lower and averages around one session per week per case. FTAU teams of therapists do not have their own supervisor. Rather, an external supervisor meets the team once a month.

Sample and findings

Main referral sources were the parents (38%), schools (29%,) and other treatment centers (24%). The adolescents did not seek help on their own initiative; they may have felt coerced to see a therapist (Nielsen et al., 2021).

The average age of the adolescents (41 male, 1 female) was 14.9 years. They rarely drank alcohol or took drugs. All but three participants were enrolled in school. In almost half of the cases, the parents were divorced or separated (Nielsen, 2021).

The level of treatment completion was high in both groups: 70% completion for FTAU and 100% for MDFT. Both forms of family therapy decreased the prevalence of IGD and lowered the number of IGD criteria met. After correction for variation in treatment dose, MDFT outperformed FTAU in

reducing the number of IGD criteria endorsed. Both treatments reduced adolescent mental comorbidity, which was confirmed by the parents. Therapy improved the quality of life in relation to gaming but also overall across life domains. The two groups differed statistically on outcome measures for aggression, externalizing disorder symptoms, and school-related quality of life; the differences were in favor of MDFT (Nielsen, 2021; Nielsen et al., 2021).

From a therapeutic perspective, several findings stood out. First, at baseline, the adolescents, though meeting the criteria to establish IGD, judged their gaming problems to be small rather than worrisome. In contrast, their parents rated these problems as "big." Second, the time spent in gaming by the adolescents remained stable throughout the study, averaging about 3.6 h a day. Yet, despite this ongoing gaming activity, both the MDFT and the FTAU parents rated their children as being healthier at follow-up assessments, in terms of gaming behavior and mental well-being, than at baseline (Nielsen, 2021; Nielsen et al., 2021). Also, during the trial, the discrepancies in problem judgments between the adolescents and their parents grew smaller in both the MDFT and FTAU conditions (Nielsen et al., 2021). This pattern of results suggests that the youth were gaming in a less risky way, and/or that the parents' concerns about their child's gaming behavior had decreased and that they now perceived the gaming as being less harmful or pathological.

MDFT IN THE CONTEXT OF PROBLEMATIC GAMING

For the randomized controlled trial just discussed, we adapted regular MDFT (manual: Liddle, 2002) for gaming treatment purposes. First, we phrased the treatment goals in other terms than are common for substance use disorders and delinquency. In our view, the treatment goals for PG youth should not be achieving abstinence from gaming. The aim is rather to help the youth regain control over video game involvement and to integrate this activity more harmoniously into other activities and daily functioning.

Another adaptation – the focus of the present paper – was using in-session gaming as an assessment and intervention tool throughout the treatment stages. The therapist invites the youth to play their favorite game, and/or the game most unsettling for their parents, at the youth's home or at the office of the therapist. The therapist watches the youth play and may also participate, exploring the functions and reasons for gaming (see next section). Later, the parents are invited to attend a game demonstration session.

At the beginning of MDFT, we use in-session gaming to enhance the treatment motivation of the adolescents and to gain insight into why and how they play. Later, game demonstration helps the parents deepen their understanding of the cognitive, emotional, relational, and behavioral drives behind their child's gaming. As for the teens, in a game demonstration session, they are exposed differently to the parents' concerns and worries and may thus become more receptive to them. More importantly though, the approach draws out the underlying tensions between the youth and his parents more clearly than mere discussion would do. This provides the therapist with valuable insights to foster the enactment exercises needed to improve the communication between the family members (Bonnaire et al., 2020). Below, we focus on two of the advantages of in-session gaming, that is, boosting treatment motivation and tackling problems in family functioning.

IN-SESSION GAMING TO ENHANCE TREATMENT MOTIVATION

In our experience, the parents are generally well-motivated to engage in the treatment. However, it is hard to motivate the youth, who feels coerced to see the therapist and threatened in pursuing a favorite activity.

In MDFT, the therapist emphasizes the advantages for the adolescents of taking part in the therapy, including less fighting with the parents over gaming and an improved prospect of gaining

autonomy. In-session gaming may provide a powerful opportunity to engage the youth in treatment because it allows the therapist to enter their world, express curiosity, and interest, and explore, in a non-judgmental way, reasons for gaming. Not only negative reasons, like playing games to escape from troubling feelings or moods, but also potentially positive ones, for example, self-determination and autonomy, achievement, and social affiliation (Fernandez de Henestrosa et al., 2022; Granic et al., 2014). Acknowledging that there are positive reasons for playing games casts a favorable light on an otherwise highly stigmatized activity.

IN-SESSION GAMING AS A TOOL FOR TACKLING PROBLEMS IN FAMILY FUNCTIONING

In-session gaming can be used to elicit significant emotional reactions among family members which discussion about gaming cannot. The first time we noted this effect was in a session held late in MDFT. The therapy – conducted solely at the therapist's office and without the use of any gaming technology - had brought about positive change in the family concerned but worrisome flare-ups between the youth and his mother continued to occur at home, as soon as he started or stopped gaming. So far, the major concern discussed by the parents in office sessions was their son's "obsession" with playing games and how, in their opinion, they rendered him aggressive. The mother had mentioned that she did not like the violent nature of the favorite game and was worried that her son would "become a psychopath" if he continued this path. It was jointly decided to organize a family session at home, in front of the youth's video equipment, to achieve a more in-depth understanding of the deadlock. After a friendly and warm onset of the session, the interactions suddenly became tense and hostile between the mother and her son when he started playing. While the adolescent was explaining the intricacies of the game, the mother was fixated on the graphics and could not bear to watch the shooting which was taking place. She felt that this exposure to graphic violence was having a highly negative effect on him, coaxing out aggression and hostility. This could not be tolerated any longer, and without further ado, she left the room and put an end to the session. This sudden turn of events took us by surprise - especially coming from a family which was favorably wrapping up therapy. We had clearly underestimated the tremendous triggering effect actual exposure to gaming had in this family, and how it provoked a host of deleterious interactions in no time at all. Thus, we decided to intensify the home visits, and started integrating gaming into the therapeutic process.

This progressively led to the development of the here-presented three-step protocol for using in-session gaming in MDFT following the forging of therapeutic alliances (between therapist and youth, and therapist and parents) (Figure 1). The protocol describes how to prepare and conduct gaming sessions with the intent to evoke clinically relevant emotions and transactions among the family members. The overarching goal of these and later sessions is to replace maladaptive behaviors and emotions by more collaborative interactions and softer, more vulnerable expression of emotions, fostering closeness and mutual understanding and support between the teen and the parents. In low-conflict/low-risk families, all three steps may be taken within a single session. In high-conflict/high-risk families, the three steps are spread out across three or more sessions, with Steps One and Two serving as building blocks for the Step Three family (youth plus parents) session.

Step one: Session with the parents alone

Although the first session could be held with the adolescent, it is advisable to start with the parents, especially when the adolescent's treatment motivation is still low. By talking with the parents first, the therapist may grasp why they are stressed and worried and what makes them act in ways that trouble the youth. This insight helps the therapist in preparing the later session with the adolescent.

Step One: with parents alone

Goals (what)

- 1) Engage with parents
- 2) Identify areas of fear & concern which contribute to shutting down communication and hurting connection to teen
- 3) Develop coping strategies to listen in a way that the teen feels heard & only then explain reasons for concern

Process (how)

- 1) Therapist listens deeply and validates "parental hell", connecting with fear & concern through visitation of game
- 2) Therapist helps parents self-reflect on how their internal emotional state may hinder them from connecting with teen
- 3) Role-playing, simulating conflict-prone moments with the help of teen's favorite game



Step Two: with adolescent alone

Goals (what)

- 1) Engage with teen
- 2) Identify areas of anger, hurt & misunderstanding
- 3) Develop less reactive, defensive ways to express emotions and ideas

Process (how)

- 1) Explore favorite/current game: connect, show interest, validate teen's virtual world
- 2) Identify game-related themes that parents "don't understand" and connect to emotions
- 3) Role-play how this could be expressed without "lashing out"



Step Three: parents and adolescent together

Goals (what)

- 1) Reconnect (alliance), set agenda and rules
- 2) Teen presents game and talks about reasons for gaming, parents are listening deeply
- 3) Teen and parents identify "trigger moments" and share content and emotions in a pro-social and vulnerable rather than harsh and disruptive way

Process (how

- 1) Therapist welcomes each and all and reconnects with work of steps 1 and 2 and invites the adolescent to start gaming
- 2) Therapist makes sure the pace is slow, that teen expresses self in an acceptable way and that parents are making an effort that he feels understood
- 3) Through the enactment technique, the therapist helps the family mold new way of coping with "trigger moments"

Assessment and alliance-building are the first aims of the session with the parents. We determine and validate the views and beliefs the parents hold about gaming (Figure 1). Typically, parents will focus on specific themes, that is, the time ("He [the son] is playing too much" or "He is playing when he should be asleep"), the violence ("These games make him aggressive"), the addictive behavior ("He is addicted to gaming" or, "This can only lead to drug use"), or the dissociation from reality ("He has lost touch with reality").

In probing their thoughts and beliefs, the therapist will usually note that the parents feel shut out from the world of their child. This feeling is associated with discouragement, a sense of failure, blaming the spouse, and sometimes shame. A deep understanding of this "parental hell," as we term it in MDFT, includes validation and acceptance of their distress, which facilitates motivation to engage in treatment. Exploring the game-related triggers may also reveal underlying themes prompting parental outbursts. If the therapist puts little effort into understanding and validating their situation and position, the parents will be unwilling to question their current educational approaches. Even experienced therapists may be overly keen to propose solutions — which often take the form of suggesting a new set of rules, consequences, and contracts — before taking the time to grasp why things unfolded the way they did.

Once mutual trust and understanding have been established, therapist and parents can move on to the second goal of the session: identifying reactions of fear, anger, sense of powerlessness contributing to the breakdown of communication and connection to their child. Strong emotions are unavoidable, but when the parents realize that their reactions exacerbate the youth's existing feelings of blame, criticism, being misunderstood or not accepted, they may be open to developing new ways of dealing with these emotions and yet stay engaged with the adolescent. Hence, a joint effort is required to disentangle the internal reaction to the gaming – often a violent visceral one – from its external expression. This takes time and practice. Through this focused discussion with the therapist, parents are increasingly more likely to accept that this change of attitudes and behaviors will prompt better communication and a warmer relationship with their child. Among other things, the new strategy also requires better timing and improved methods of discussion with the youth. Parents often try to talk to their child while the teen is playing and does not want to be disturbed.

A final goal of the parents' session is to prepare them for the later family session. The therapist explains why a game demonstration is warranted to help them gain access to their child's world: the teen's dreams and ambitions, skills, friendships and social networks, joys, and pleasures. This rationale creates an important base. From here, the task (i.e., a new aspect of the change sequence) can move ahead without the recrimination and negative emotional tone that saturated most previous discussions or influence attempts. Step One concludes by preparing the parents for their part in this dialogue, using role-plays in which one of the parents or the therapist plays the role of the adolescent. Understanding the topics to be covered and the reasons for covering them will aid the parents to closely listen to what the youth has to say rather than getting engulfed by their emotions.

Step two: Session with the adolescent alone

This session starts with in-session gaming. The therapist again uses an authentically curious, non-judgmental posture during the presentation, which in fact is a guided tour through the inner world of the youth. Dialogue during this tour may be limited as most adolescents find it difficult to divide their attention between the game and the therapist. Also, they multi-task in so many cognitive and motor processes that expression of emotions may be shallow at this moment. Right after the gaming bout, however, the youth will usually be easier to "read" by the therapist. The adolescent may show relaxation, arousal, aggressiveness, fulfillment, or a sense of achievement (Leroux et al., 2021). Talking with the adolescent about these post-gaming sensations and emotions and about the therapist's impressions is useful in identifying the functional elements of the gaming experience. They also help the adolescent put words on intense internal experiences.

The Step Two conversation then naturally leads to discussing the adolescent's take on what his or her parents do not understand about his interest in gaming (Figure 1). This intentional side taking (i.e., "explain your point of view about the gaming") is meant to empower the youth. It parallels the strategy developed in MDFT used with the youth's drug taking (e.g., "Explain to your parents why the drugs have become important to you," "How they help you," "What's happening with you inside when you use them"). In the gaming situation, the therapist asks around which issues the teen and parents clash. "They believe I will become a psychopath," one adolescent said. This is an opportunity for the therapist to ask the youth how they feel hearing the views and predictions of the parents. Angry? Misunderstood? Sad? Disconnected? Helping the adolescent express the hurt these parental "misconceptions" cause in a less defensive way has a strong effect. Obviously, this requires preparation, and, here again, role-playing is a useful technique. This preparation serves to pave the way for the Step Three session, which is held together with the parents.

Step Three needs to be explained to the youth. The therapist may ask them how Step Three should proceed to be useful. "Well, if I respond to their questions calmly, that will blow their mind and they will see that I'm not as addicted to the games as they think I am!," was one adolescent's answer.

Step three: Family session

Before this session begins, the therapist makes sure that the needed equipment works properly. The therapist begins by building a content bridge back to the preparatory work done in first two steps, reminding the session participants of today's goal: helping the family move from impasse to dialogue in the presence of the problematic behavior (Figure 1). Once the family acknowledges this goal, the therapist invites the youth to start the game, emphasizing that the intention of today's demonstration is not to win the game but to show how it works. The playing pace should be moderate to prevent the parents from falling behind. A good starting point is the game menu. Another possibility is to have the adolescent present their avatars or characters with various appearances, virtues, and skills. This often prompts parental curiosity and may lead to some chatting about resemblances and differences between the adolescent and said avatars, offering an early-on opportunity to promote emotional reconnection (Bonnaire et al., 2020). When the actual gaming starts, the adolescents often get enraptured by the game. The therapist may need to reel them in, reminding them that this is not a competitive gaming session. The therapist may seize the opportunity to discuss with the parents the difficulty of engaging in a conversation while the gaming goes on. What also may happen when gaming takes off, is that the parents lock on to the graphics of a violent scene, showing signs of shock and disapproval. Here, the therapist can let the relational sequence play out to see if the parents and adolescent can work things through constructively. Often, though, the family interaction enters an impasse; a repetitive, circular, harmful back-and-forth, like the frequent exchanges at home (Diamond & Liddle, 1996; Diamond & Liddle, 1999). This highly emotional sequence of reactions is a research-supported focus for family therapists (Patterson, 2016). If family members continue to blame each other over day-to-day issues, sessions are likely to fail at this point. The therapist should help them shift their attention to discussing the painful lack of mutual attachment within the family. If this shift occurs, a breakthrough may follow, allowing the family to move past harmful interactions and to open up to new, healthier ways to relate (Diamond & Liddle, 1996; Diamond & Liddle, 1999). This approach has been adapted for PG treatment purposes (Bonnaire et al., 2020). The proposed approach distinguishes three levels of creating positive and self-perpetuating interchanges to combat dysfunctional family transactions. At the first level, when the transaction activates emotions, the therapist shifts the focus from content to emotions and encourages the family members to reconnect with each other rather than resorting to defensiveness. In this reconnection, the second level, the lead is taken by one of the parents, who with the therapist's support shifts from anger and frustration to fear of loss, fear for the future, and expression of love and sadness. If this shift succeeds, it serves not only as a reframing of the impasse, but more importantly creates a new emotional-relational in-session experience not only for the parent but

also for the adolescent. At the third level, the parents' just-mastered adaptive emotion and tone encourage the adolescent to talk about attachment-related topics, for instance, feeling rejected, constantly criticized, or unloved. This, in turn, will lead to more empathy and understanding on the part of the parents and to more confidence in the positive role they can play in the life of their child.

In our clinical experience, the emotional arousal created by the in-session gaming activities is higher than when the family merely has a *discussion* with the therapist about gaming. Therapists should keep this in mind as increased arousal may hamper the efforts to break through the impasse. The therapist's dual focus on content (suggestions and cues on how to change the deleterious patterns at a day-to-day level), and on process (the effect the specific conflict is having on emotional-relational dynamics) will be a precious guide in forging the conversation and enactments between here-and-now pragmatics and deeper family bonding layers. In high-conflict families, all this may not be achieved in a single session, so the therapist continues this line of work in further sessions, not discouraged by temporary lack of progress or periods of relapse.

Case report

Helping the family move from impasse to dialogue, as described, will enable the teen and the parents to understand and respect each other's points of view on gaming-related issues. They may not agree all the time, but their bond is strong enough to accept disagreements within limits, without engaging in the old habit of exhausting quarreling. The case report we present here illustrates the change in communication and attachment that occurred between a teen and her father during treatment.

CASE REPORT: LOLA AND HER FATHER.

When 12-year-old Lola first stepped into the office, she sat down between her parents. Her divorced mother and father rapidly described their core concern: their adopted child was destroying herself, her future, and her family through uncontrolled and unlimited playing of Internet games.

Lola, according to her mother Farah, was addicted to *Blablaland*, a now-defunct online chat-game. She had, in her mother's words, "all the traits of a heroin addict" and, if not stopped, would "end up in the gutter."

For father Mammad, the main concern was his daughter's difficulties in relationships. He portrayed her as a "primitive animal, like a monkey" in terms of social skills and behaviors. She was rarely invited to a friend's house. Although intelligent, her grades were dropping, and she was showing signs of disrespect toward some of her teachers.

Farah, a lawyer, and Mammad, a businessperson, lived within walking distance of each other and Lola spent equal weekly time at both homes. The precipitating event leading to therapy was a violent incident at Farah's home. On a recent evening, she had once again accused Lola of taking her credit card to buy gaming paraphernalia. Farah said that Lola had "snapped and become a monster" and that she had slapped her in the face and pushed her in the chest. Scared and shocked, Farah had locked herself up in the bathroom and called her ex-husband to the rescue. Mammad had immediately come over to calm the situation. Both parents agreed this episode had been one too many: they were losing their child who was being "sucked up into virtual reality."

Turning to Lola for the first time, the therapist (author PN) asked her if this was how things happened according to her, and whether this was why we should all be meeting up and talking together. "Not really," she answered. She continued with her own take on her gaming behavior. "If they just would trust me and let me play more, I could show them that I am not addicted and that I can manage my time. Right now, since they are always hovering over me, I just grab as much playing time as possible. They want me to connect with friends, but they don't realize that that is exactly what I am doing online. I have so many friends on *Blablaland*, they couldn't imagine. They treat me like a 5-year-old and not like a 12-year-old. Also, when I go to the bathroom at 2 a.m., I see my dad on his computer. So, why not me? And my mom? Well, she loves our dog more than she loves me. She says our previous dog committed suicide because of me – by "jumping off the balcony." That's not true. I love dogs."

During the session, it became clear that the challenges faced at the father's home differed from those faced at the mother's home. This case report will focus on three-step protocol interventions targeting the father-daughter relationship. Similar interventions were undertaken in the mother-daughter relationship.

Step One: with the father alone.

The therapeutic alliance with the father was strong from the outset, partly because Mammad was very appreciative of the trusting relationship the therapist had established with his daughter. Thus, in the Step One session with the father, PN was able to directly address the second goal: identifying areas of fear, distress, and concern surrounding the gaming activities which affected communication and connection. Mammad's "parental hell" comprised many concerns. Lola would play until late at night and this frayed her nerves but also his. He was not aware of which specific games she was on, and this alarmed him. She would be unresponsive when he tried to intervene. This made him think back to times when he had witnessed Farah trying to intervene in the same way. Feeling ignored as a parent led to rage. Yes, he also could become a monster. Mammad said he loved his daughter but felt disgust and rejection when she disengaged or flew into a rage. This triggered great anxiety in him. Would she perceive this, doubt his love, and feel rejected by him? Would she tell her mother who had accused Mammad of domestic violence? This state of turmoil, he recognized, was affecting Lola.

When PN emphatically mirrored back the tremendous burden of Mammad's struggle as he was simultaneously trying to cope with Lola and himself, with the past and the present, Mammad let out a sigh and relaxed in his chair. This seemed to signal the possibility of moving on to the third goal: seeking ways to deal with the gaming situation which would promote higher connectedness between his daughter and him.

Mammad did not really know the content of Lola's gaming. Although the first part of the session had drained him emotionally, he perked up and felt enthusiastic about the idea of her presenting her favorite games. He expressed genuine curiosity and eagerness to try this experiment. "Why hadn't I thought of this before?"

PN was appreciative of this eagerness and open curiosity and proposed that Mammad "reactivate and reclaim" this internal place when visiting the games with his daughter in the upcoming session.

Step Two: with the daughter alone.

The gaming session with Lola took place at her father's home, in her bedroom. Her room was tidy and PN and Lola sat together, shoulder-to-shoulder, at her worktable. She had a slow and aged computer but did not seem to mind. The session was framed as such, "I don't think your dad knows what's going on when you are gaming. I am wondering if it might not be important to share with him what you are up to. I suspect that he thinks you are just wasting time and getting yourself into bad business and becoming addicted to your computer. Could you walk me through your favorite game so that I can understand what happens for you, and why it is so important to you?"

Lola was thrilled at this proposal, and there was a relishing undertone to her enthusiasm, as though, through PN, she would be able to, at last, state her case to her parents. She logged in to her game and started playing, explaining the basic rules, the avatars, pointing out her acquaintances who were also playing and sending them brief messages. However, despite some probing by the therapist, her comments remained scant and superficial, the gaming activities seemed repetitive and stereotyped, the interactions with the co-gamers few. For PN, this was in stark contrast to other gaming sessions he had witnessed in other therapies. These were usually characterized by high emotional intensity, rapid multitasking, and deep commitment to team members. Here, it felt lonesome and boring.

When PN asked what Lola would like for her father to understand about the gaming, she stopped and thought. "I wish he would just accept this part of me so that I wouldn't have to play in my room alone," she eventually said.

PN: "You would rather play elsewhere?"

Lola: "Yes, in the living room, when Dad is there."

This last comment reminded PN of a fond memory which Mammad had shared in an initial family session. He longed for the days when Lola was younger, and they would spend time together drawing with crayons in the living room. She had grown into a teenager, and this was not age-appropriate anymore. Was she also missing these moments? Her answer to this question was nuanced. Yes, and no. According to her, neither of her parents had noticed that she had grown. They were not giving her the chance to prove this. She wanted to be close to her dad but not too close. But also, she missed cuddling up to him.

PN: "What would it take from you and your dad to be able to play in the living room while he is there?"

Lola: "If he understood that this game is harmless, it would work."

PN: "So, how about if we show him your game next time?"

Lola (enthusiastically): "Yeah, that would be great!"

PN: "Would it also help prove your point if you could stop gaming without blowing up? Should we also mention this?"

Lola (less enthusiastically): "Probably."

Step Three: Daughter and father.

When PN arrived at their home, Mammad and Lola were already sitting in the living room with the computer on. Lola was impatient to start. Mammad seemed more reserved about the exercise, starting the session by wondering aloud if this agenda would not be a green light for Lola to play incessantly. Lola tensed up immediately. PN cut in, reminding all with insistence that, on the contrary, this, he hoped, was a way to reclaim the relationship and prompt Lola to become more responsive to limits and deadlines. Lola was tearing up in rage and disappointment. "You never let me show you!" she screamed in anger.

This sudden outburst of frustration and grief caught Mammad by surprise and enabled him to snap out of his fears. Jumping on this opportunity, PN coaxed Lola to say more about how this made her feel, how she felt misunderstood by her father and how she wished she could be accepted by him also in this realm.

Lola: "I just want to show you that there is nothing dangerous in what I am doing." Mammad: "It's not the what, it's the how much!"

PN: "Mammad, remember our last conversation. I think Lola is aching for your approval. In fact, I think you both miss each other horribly. I recall what you said about the drawing sessions you had together not so long ago. There is something down those lines which is aching to be retrieved."

Mammad: "You're right. (Sighing). You see, sweetheart, sometimes I say that you turn into a small monster when you get angry with me. Well, the same happens with me also."

Lola: "Yes (giggling). OK, now can I show you?"

The wave of outrage and fear behind them, Mammad let himself be guided through *Blablaland* by Lola, showing curiosity, and clumsily trying to join in the gaming. This provoked jokes and teasing on behalf of Lola. She was evidently happy.

PN: "How do you feel, Lola?"

Lola: "This is cool. I wish it could happen more often."

PN: "How about you, Mammad? Are you still worried about the time issues?"

Mammad: "I really loved this. I am so proud of you, Lola, and you must know that when I become a monster, it's that I am just a very worried father. And when you don't respond to me, it makes me snap. I don't want that to happen anymore. How can we do this differently?"

Lola: "...".

PN: "Lola, you mentioned to me that you would maybe feel better if you played in the living room, in the vicinity of your dad. Remember that? Do you think that could help you listen better and obey more?"

Lola: "I don't know."

Mammad: "That's a great idea! Lola, how about we try this. We will revisit the authorized times for playing and you can do that with me. I'd love it if you came into the living room, and we did some gaming together. Shall we give it a shot?"

Lola: "Sure."

Follow-up.

This was one of several daughter-father sessions involving gaming. The relationship between Lola and her father became lighter and more carefree. At the end of therapy, Mammad told PN that he enjoyed her presence now and missed her when she was at Farah's place.

The mother—daughter relationship remained problematic. In-session gaming was tried and failed to produce any significant *détente*. Lola remained highly ambivalent toward her mother, oscillating between "I love you" and insult. Farah continued to swing between overly harsh and overly lax attitudes.

Four years later, the father visited PN to update him on his daughter's situation. The problematic gaming had ceased. Lola was into horse riding, and this had a soothing effect on her. Mammad and she were getting along well. This was not the case with the mother. Mother and daughter had physically fought again recently.

Lola was now in a private school and was the best student of the class. Although she still was shy, her social awkwardness had receded, and Lola was developing friendships.

DISCUSSION AND CONCLUSION

We present the case here that game demonstration is useful for various purposes, including assessment of parent—youth relationship dynamics, boosting the adolescent's treatment motivation, and creating in-session opportunities to target and shape family interactions directly. Most striking is the capacity of this intervention to elicit therapeutically relevant emotions and transactions among the family members. We find in-session gaming to be more powerful (an *immediacy effect*) than mere discussion (e.g., talking about past conflicts or events) in exposing emotional tensions and relational fissures between family members. The game demonstration method brings an immediacy to relevant content issues. This *here and now* focus, compared with a *there and then* recounting of past conflicts, brings problematic assumptions and attributions, as well as family interactions into the room, making them more subject to direct examination and modification.

Earlier (Nielsen et al., 2021), we reported on a study assessing the effect of two programs of family therapy (MDFT and FTAU) on problematic gaming in adolescents. It was one of the first controlled trials in the PG treatment field with an adequate follow-up period (1 year) and proper randomization procedures (Zajac et al., 2020). MDFT (with game demonstration sessions) decreased problematic gaming in teens. FTAU did the same but on some measures less strongly than MDFT. FTAU did not include game demonstration sessions. These findings suggest that family therapy is an appropriate treatment option in adolescent PG but do not prove that game demonstration is an active treatment ingredient. To address the latter research question, one would need to compare two MDFT conditions – one with game demonstration and one without – in a randomized controlled trial.

In our trial, both the adolescents and their parents felt that the treatment was helpful in decreasing problematic gaming and improving the quality of life and mental well-being (Nielsen, 2021; Nielsen et al., 2021). Yet, the adolescents did not cut down on the number of hours gamed each day. This is remarkable. With a better understanding between the adolescent and the parents, one would expect the teen to cut down on the time spent gaming (not playing after midnight, for instance) to alleviate some of the worries of the parents. There is another side to the coin, though. The positive change in family communication and relationships probably led to a reduction of family quarrel episodes. The time thus saved may have been spent by the adolescents on unproblematic gaming. This needs to be tested in further studies, using qualitative and quantitative research methods.

We examined game demonstration within the framework of MDFT. Further research is needed to determine if the technique is also applicable within other family therapy programs. One precondition for applicability would be that such a program includes sessions with the adolescent alone and with the parents alone, in addition to sessions with the teen and the parents together. Sessions with the adolescent alone and with the parents alone are helpful for the therapist to work on individual factors (adolescent) and parent factors, respectively. In our three-step protocol, the sessions with the youth alone and with the parents alone are also useful for gathering information on youth and parent issues, family interaction patterns, emotions, worries, and needs. The therapist uses this information to prepare the teen and the parents for the game demonstration family session, and second, to design enactments to be used in the latter session. In our view, there is no *a priori* reason why this three-step protocol developed for MDFT could not be adapted to other family-systems therapy approaches. Our goal here was to illustrate how a trial-and-error approach within a manualized therapy framework can lead to new, exciting, and above all, potentially powerful interventions.

Our clinical work with families of PG adolescents has had a humbling effect on the team of therapists. In some PG cases, treatment was more challenging than in families with substance abusing youth. Despite high commitment and effort, even the aid of pertinent clinical protocols may sometimes not be enough to help adolescents and their families move away from relational and emotional impasses. In those cases, the therapist should be willing to explore any avenue of change that may present itself.

Playing games during therapy has been advocated to help people with anxiety and depression develop new coping skills (Granic et al., 2014). However, this is to be distinguished from in-session

playing of games as a tool in the treatment of problematic gaming. In adolescent PG, it is feasible to introduce the "problem behavior" (gaming) into sessions, while this would be unthinkable in cases of adolescent substance use disorder or delinquency for evident legal and ethical reasons. Introducing the problem behavior into treatment sessions is not new to family therapy; the technique was introduced by Minuchin, whose original interventions included sharing meals with anorectic teens and their family members (Minuchin, 1974; Minuchin & Fishman, 1981). However, to our knowledge, it has not yet been examined for the treatment of adolescent PG.

When the adolescent is invited to play a game, in front of the parents and the therapist, the disputed behavior – gaming – is there for all to see, not to be shrugged off or to be played down. A game demonstration session brings the parents to the adolescent's domain. This may lead to overtures in stuck family discussions. Allowing the youth to present their "case" is in line with a major goal of MDFT, that is, to empower the adolescent's self-efficacy *vis-à-vis* their parents, and to develop autonomy and age-appropriate skills (Liddle, 2002). Ultimately, this technique may also provide the family an opportunity to de-pathologize the adolescent's leisure activity and motivate the youth to become more responsive to the parents' wishes and demands, which are both vital ingredients for a healthier way of playing games.

FUNDING INFORMATION

This work was financially supported by Action Innocence (actioninnocence.org), a non-profit agency promoting children's dignity and integrity on the Internet, Loterie Suisse Romande, and the private charities Divesa, André & Cyprien, Hans Wilsdorf, and Isabelle Hafen. The sponsors did not have any role in the treatment development process, the writing of the report, and the decision to submit the article for publication.

CONFLICT OF INTEREST

Howard A Liddle is the developer of MDFT and Philip Nielsen is an MDFT-certified therapist, supervisor, and trainer. Henk Rigter, Niels Weber, and Nicolas Favez declare no conflict of interest.

The authors thank MDFT supervisors/therapists Eva Cardenoso-Wark, and Cecilia Soria (Geneva), Céline Bonnaire and Olivier Phan (Paris) for helping to adapt MDFT for treating adolescents with problematic gaming, and Joël Billieux and Sarah Boyd for their proof-reads and helpful critiques in both content and form.

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How to cite this article: Nielsen P., Rigter, H., Weber, N., Favez, N., & Liddle, H. A. (2022). In-session gaming as a tool in treating adolescent problematic gaming. *Family Process*, 00, 1–16. https://doi.org/10.1111/famp.12846