



**An-Najah National University**  
**Faculty of Graduate Studies**

**THE EFFECT OF VIDEO GAME ADDICTION  
ON THE OPPOSITIONAL DEFIANT AND  
CONDUCT DISORDERS AMONG CHILDREN  
AND ADOLESCENTS IN THE SOUTHERN  
TRIANGLE AREA OF OCCUPIED PALESTINE**

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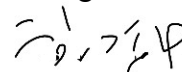
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## **Dedication**

This research is dedicated to my family, friends and everyone who joined me and supported me on this journey of knowledge.

## **Acknowledgment**

This thesis has been done not only for the purpose of pursuing a higher education degree, but also to broaden my knowledge and experience in this field, and to search for my place and where I stand amongst it. With this project complete, I would like to extend all my thanks and gratitude to Dr. Fakher Khalili, my academic supervisor and teacher throughout my pursuit of knowledge, for his invaluable patience and feedback. I am also grateful to my colleagues and classmates for their impactful support, encouragement, and feedback.

Lastly, my deepest appreciation goes to my family, especially my parents and siblings, for standing by me and being a source of motivation and inspiration during this process.

## Declaration

I, the undersigned, declare that I submitted the thesis entitled:


### **THE EFFECT OF VIDEO GAME ADDICTION ON THE OPPOSITIONAL DEFIANT AND CONDUCT DISORDERS AMONG CHILDREN AND ADOLESCENTS IN THE SOUTHERN TRIANGLE AREA OF OCCUPIED PALESTINE**

I declare that the work provided in this thesis, unless otherwise referenced, is the researcher's own work, and has not been submitted elsewhere for any other degree or qualification.

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22/1/2023

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# **THE EFFECT OF VIDEO GAME ADDICTION ON THE OPPOSITIONAL DEFIANT AND CONDUCT DISORDERS AMONG CHILDREN AND ADOLESCENTS IN THE SOUTHERN TRIANGLE AREA OF OCCUPIED PALESTINE**

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## **Abstract**

Video games are a form of recreational activity, that are commonly used today as an effective way to enjoy and pass time. However, with the increase in popularity, comes an increase in concern regarding mental health issues, caused by exposure to such games. The current study aims to investigate the effect of VGA, on both ODD and CD, among children and adolescents in the context of the southern triangle area of Occupied Palestine (1948), and the prevalence of VGA, ODD and CD in the area, as well as the effect of age and gender on each of VGA, ODD and CD.

A quantitative, cross-sectional, correlational descriptive design was used to achieve the objectives of this study. The population of this study consisted of all children and adolescents from 9 to 15 years old, and from both genders who live in the Southern Triangle area of Occupied Palestine (1948). A total of (147) children and adolescents (46% males and 54% females) were selected using an available sampling technique, this method was followed due to social distance and preventive procedures during COVID-19 pandemic. All participants responded to an online questionnaire using a google form, measuring VGA, ODD, and CD. Conducting the appropriate tests to measure validity and reliability of the questionnaire, showed sufficient validity across all items and an excellent reliability.

The results showed that in the southern triangle area, VGA has a higher effect on ODD than CD, as there was a moderate positive linear relationship between VGA and ODD ( $\beta = .248$ ,  $t = 4.17$ ,  $p < .01$ ). On the other hand, there was a weak positive linear relationship between VGA and CD ( $\beta = .112$ ,  $t = 3.14$ ,  $p < .01$ ). Additionally, VGA ( $2.42 \pm 1.00$ ), ODD ( $1.27 \pm 0.44$ ) and CD ( $2.24 \pm 0.76$ ) were significantly under the hypothetical means, indicating that the levels of aforementioned disorders are low in the

southern triangle area. Moreover, while all VGA, ODD and CD are more prevalent among males, VGA and CD have been observed to be more common among the youngest children, while ODD is more common among the oldest adolescents.

The results found connections between VGA and both ODD and CD, which indicated that in some cases ODD and CD can be attributed to the presence of VGA. In addition, the findings indicate that, although uncommon, the spread of video games in the southern triangle area can cause the emergence of video game addiction, resulting in the potential development of disruptive behaviors, such as oppositional defiant disorder and conduct disorder.

As a recommendation to maintain the low levels of VGA, ODD and CD, a periodic monitoring system can be implemented in the area by parents and teachers to detect unhealthy behavior and reward good behavior. This way will positively reinforce desired behavior, while giving an opportunity to redirect problematic behavior into other healthier activities, helping children and adolescents in the process.

**Keywords:** Conduct Disorder; Occupied Palestine; Oppositional Defiant Disorder; Southern triangle area; Video Game Addiction.

# Chapter One

## Introduction

### 1.1 Background of the study

Video games have been a commonplace practice for the last decade and continue to gain popularity, as it is a very common pass time and hobby for people of all ages. However, there are also many worries and concerns regarding the increasing popularity of video games (Saunders et al., 2017). One such concern is in regard to the addiction to video games, and how it affects children's and adolescents' behaviors, such as behaviors of impulsiveness and conduct (Holtz & Appel, 2011).

The primary reason for that seems to be the nature of video games and the violence present in them, due to the popularity of violence and action in video games increasing the tendency for aggressiveness in the players (Anderson & Dill, 2000). Some have proclaimed that addiction to video games may affect the child's and adolescent's behavior and development (Anderson et al., 2010). In this research, we'll explore that through studying the effects video game addiction has on Oppositional Defiant Disorder (ODD) and Conduct Disorder (CD), in the context of the southern triangle area of occupied Palestine. Conducting this research comes with great importance, for children's and adolescents' place in society and culture is undeniable; they are the future adults and leaders, so ensuring proper and healthy development for them during their earlier stages is necessary.

Over the years, video games have been integrated into our lives, and slowly began to replace other leisure activities to become the main source of pass time activity, as an increasing number of people spend hours playing video games as a part of their daily routine (Connolly et al., 2012). Due to the rising popularity of video games, the term "video game addiction" has been coined and used in studies, to describe the excessive periods and attachment to video games that surpass what is considered a healthy amount (Griffiths & Davis, 2002).

Many have taken interest in the research of video games over the years because it is a new modern concept that might require studies to increase the general understanding around it, as well as trying to connect it with as many known variables as can be, to

discover the effects they may pose over each other. One of the many approaches to video game research is addiction and the effects it has on children and adolescents. In this research specifically, the effect they have on oppositional defiant disorder and conduct disorder among children and adolescents is due to prior beliefs that video games increase the players' aggression and cause them to perform unhealthy conduct (Anderson & Dill, 2000).

The oppositional defiant disorder is defined by recurring behavior of defiance and disobedience that are developmentally inappropriate, usually appearing in preschool age (Hamilton & Armando, 2008). Preschool children that show oppositional behavior are likely to develop ODD and have a strained relationship with their parents, peers, and teacher. Moreover, they are likely to develop conduct disorder (Hamilton & Armando, 2008). On the other hand, conduct problems are defined as unwanted and destructive behavior, and goes against an established law (Barzman, 2017), with studies showing that many children and adolescents suffer from conduct problems, focusing on the significance of the issue and potential correlation to violent video games (Patel et al., 2018).

Many debates spawned regarding the effect of video game addiction on the behavior of children and adolescents, with research showing that video games do affect the tendencies of aggressive behaviors, including both hostile thoughts and actions, increasing the risk of oppositional defiant disorder and conduct disorder to occur among these children and adolescents (Anderson et al., 2010, Anderson & Bushman, 2001). In addition, misconduct and defiant behavior may affect not only the children or adolescents themselves, but the people around them in their social circle, which can be caused by having a higher peer attachment than teacher support or school belonging, potentially creating more defiant and conduct issues beyond the users of video games (Demanet & Van Houtte, 2012).

## **1.2 Literature Review**

In this section, the researcher presented and reviewed the subjects of the current study represented by VGA, ODD, and CD. In addition, he showed related previous studies.

## **Video game addiction (VGA)**

### **Concept of games**

The concept of playing and games in general has existed for a long time, as games are considered recreational activities with the main purpose of enjoyment, however, the term "game" has been used excessively to describe many recreational activities, making the definition of games broad and versatile in usage, although, they can still be categorized into a specific group of games, like board games, card games, ball games, Olympic games, and video games (Elias et al., 2012).

Even though there is no precise definition for a complex term like "games", Harteveld & Bekebrede (2011) concluded that an important distinction can be made between single-player games and multiplayer games, as in games that only require one player and games that require two or more players. The type of game that a child or adolescent chooses to play affects the way they adapt and learn, as single-player games are shown to be more effective, in terms of direct transfer and individual leaning, with the use of formal rules, meaning the ability to use previously acquired skill or knowledge in a new learning or problem solving situation. Multiplayer games, on the other hand, take more of a social approach in learning, and could require longer process time due to the presence of social elements and rules, being more complex in nature than single-player games (Harteveld & Bekebrede, 2011).

### **Concept of video games**

Video games as a global practice is still relatively new, only existing for around 50 years now, but has seen a significant increase in popularity in recent times (The Nielsen Company, 2017). Esposito (2005), identifies video games as a form of interactive entertainment that contains visual and auditory apparatus, that allows us to engage with the game and have a form of control over it, despite it being digital, it is characterized by the video platform on which the games are played. Unlike regular toys and physical activities, video games are computerized and rely on the player's reaction to stimuli in order to play the game. It is, also, possible for the game to be based on a story and follow a certain set progression depending on gameplay and achievements in-game (Esposito, 2005).

While general games are considered by researchers to be a form of activity, video games are suggested to be systemic artifacts, meaning that video games focus less on live performance and more on the material products and interactivity of the games, the main objective of which is similar to general games, where the player is required to achieve a certain goal, using only methods permitted by the rules or boundaries of the game, however, video games use a digital system or an artifact to simulate the game, and increasing the levels of interactivity between the players and the game, including the rules and systems, while causing a decrease in physical performance levels (Stenros, 2017).

Additionally, some researches look at video game from a cultural perspective and view it as a form of social practice, having a shared identity created within the sitting of the game, being a site where social interactions and discourses among the players occur (Shaw, 2010).

### **Concept of addiction**

Addiction is defined as a chronic condition of the motivational system, where the addict prioritizes activities that may be considered harmful to an unusual level; in other words, the addict feels a strong desire or need to perform a potentially self-damaging action, that might outweigh their desire for safety and to remain healthy (West & Brown, 2013). People with addiction will show dependence on their source of addiction, feeling heavily rewarded from taking or performing the source, while showing withdrawal and entering a negative state if the addiction source is blocked, such as a decrease in both mood and motivation, the lack of motivation in doing anything other than the source of addiction, stress and a state of anxiety that will last until the desire for the source is satisfied (Koob & Volkow, 2010).

The origin of the word "Addiction" refers to being highly devoted to a person or an activity, however, according to Sussman & Sussman (2011), the terms gained negative connotations in recent years, being associated with disease-like behavior, being supported with evidence of a neurobiological foundation in relation to addiction. The main factor of addiction is the presence of a series of complex and associated behavior, that work to continue achieving an appetitive effects, which later develop to contain negative side effects. Addicted people will later attempt to find new behaviors that lead

to the appetitive effect without the negative results, however, the addictive like behavior will persist despite the undesirable results, even if the negatives outweigh the positives, considering the behavior as a compromise between aspects of daily experience about which the participant feels a lack of control or accomplishment and aspects of experience the participant can manipulate (Sussman & Sussman, 2011).

Previously, the word "dependent" was used as a synonym to describe addiction in diagnostic manuals, however the term was questioned by clinicians and was later omitted, due to dependence meaning the tolerance or withdrawal of continued exposure to a certain item or concept, while addiction describes the compulsiveness of seeking the object of addiction (Zou et al., 2017).

### **Concept of video game addiction**

Addiction to video games follows a similar path to other forms of addictions, with the motivational system prioritizing video game usage in an abnormally or unhealthy manner, experiencing both feelings of negativity or withdrawal if the usage is prevented, and feeling rewarded or relieved from having an engagement with video games. Video game usage may be considered an addiction pathologically, if the excessive use and engagement negatively affects functions of the child's daily life, such as family life, school performances or social functions (Gentile et al., 2011).

Video game addiction is a subject of controversy among researchers for its identification as a form of addictions, as some classify VGA as more of an impulsivity based disorder, while others suggest that neurobiological evidence of addiction-like reactions in the transmitters and brain similar to drugs, is enough to qualify VGA as an addiction; however, both sides fully agree on the main criterion of video game addiction is the lack of self-control over playing video games, which can extend to unhealthy lengths of time (Zastrow, 2017).

### **Prevalence of video game addiction**

Video game addiction has gained the interest of researchers recently, with the many empirical studies significantly increasing, exploring different aspects of video game-related problems and the addiction related to it (Griffiths et al., 2012).



With the increase in the popularity of video games, the risk of video game addiction also increases, with a survey in the United States showing that almost all American teenagers play video games, with the finding that 97% of adolescents between the age of 12-17 partake in the activity (Lenhart et al., 2008).

In the case of problematic use, another survey shows that, among video game players in the United States aged 8-18, about 8% display a pathological pattern in their usage of video games, showing that the prevalence of video game addiction is relatively rare, but is still significant, especially among the younger generation (Gentile, 2009).

In addition, another research done by Wittek et al. (2016) on a randomly selected sample from the National Population Registry of Norway divided gamers into three different categories, being the addicted gamer, problem gamer, engaged gamer, and normal gamer. According to the results, young male gamers are positively associated with categories such as: addicted gamer, problem gamer and engaged gamer; Africa, Asia, South and Middle America are positively associated with the addicted gamer category and problem gamers category. The final findings of the research distributed the participants as follows: 1.4 % addicted gamers, 7.3 % problem gamers, 3.9 % engaged gamers, and 87.4 % normal gamers (Wittek et al., 2016).

While studies asserting video game addiction prevalence in the Arab world is limited, some research show that video games are gaining more prominence in the Arab regions, especially with modern video games being accessible through mobile device, and with the localization within the Arab regions; this is further supported by the studies showing that among all smartphone users in the middle east and north Africa, 75% play video games on their phones, additionally, players from some of the Arab countries spend a large amount of money on video games compared to global spending, with players from Saudi Arabia being the highest spenders in the world (Wilkins & Lee, 2022).

### **Causes of video game addiction**

As for the causes of such addiction, research has been conducted by Rehbein & Baier (2013) in order to discover the risk factors of video game addiction, which leads to the conclusion that the cause seems to be primarily environmental, as video games are easily accessible within the modern age. Although, studies show that children of single parent families, and students with low experiences in school life and a low social

integration, display a higher chance of being affected by video game addiction. Explanations for the higher risk rates in single parent families is attributed to the insufficient time and material resources to provide a balanced range of leisure time activities, as well as using video game as a substitute to the absent parent. For the low school experience and low social integration, the problematic use of video games appears in the form of a compensation for the lack of social involvement and limited well-being, thus children and adolescents use video game as an escape into virtual worlds in an inadequate attempt at self-regulation. It is also highly more prevalent in males, and would continue into adolescence, if problematic use of video games is present (Rehbein & Baier, 2013).

### **Effects of video game addiction**

Video game addiction is connected with various negative effects and afflictions that could harm the players, including a decrease in the level of satisfaction in their lives, loneliness, negative impact on their social life and social competence, and the ability to socialize in general (Lemmens et al., 2009).

VGA seems to negatively affect the player's school life as well, where people with VGA perform poorly in their academic activities compared to their peers, including homework and exams, and experience an increase in impulsivity (Gentile, 2009).

Additionally, children and adolescents affected by VGA seem to suffer an increase in depression, anxiety, and aggression, potentially due to all the effects above causing an unstable, unhealthy, and unhappy life for players with VGA (Mentzoni et al., 2011).

### **Symptoms of video game addiction**

VGA is generally characterized by self-control and bias issues associated with addiction, which can translate into an excessive use of video game, specifically the amount of time spent playing, alongside the negative effects such as social neglect (Greenberg et al., 2010).

VGA symptoms can be categorized as such:

1. Compulsive use: which relates to the irresistible urge among addicts to play video games, consisting of several core components of addiction, such as:
  - a. Withdrawal symptoms

- b. Loss of control
  - c. Salience
  - d. Conflict
  - e. Coping
2. Time spent playing: one of the defining factors of VGA is the amount of time players spend playing on their games, which can extend to a large, unhealthy amount of hours, even causing severe physical and psychological harm.
  3. Negative Psychosocial aspects: as is the case with other forms of addiction, children and adolescents suffer from a range of negative psychosocial aspects, including:
    - a. Depressive mood
    - b. Loneliness
    - c. Social anxiety
    - d. Negative self-esteem

As a result of these symptoms, many of the VGA children and adolescent suffer heavy damages to their social life, both in outside environments and at home (Van Rooij at al., 2011).

### **Video game addiction and DSM-5**

With the rise of popularity, the concern for video game addiction also rose. As of 2013, video game addiction has been classified and acknowledged by the American Psychiatric Association as a mental disorder under internet gaming disorder, in their latest version of the Diagnostic and Statistical Manual of mental disorders (American Psychiatric Association, 2013).

Video game addiction in the DSM-5 is defined by an excessive use of internet video games that leads to significant impairment or distress to a person's life, with symptoms of addiction including:

1. Preoccupation with Internet games. (The individual thinks about previous gaming activity or anticipates playing the next game; Internet gaming becomes the dominant activity in daily life).

2. Withdrawal symptoms when Internet gaming is taken away. (These symptoms are typically described as irritability, anxiety, or sadness, but there are no physical signs of pharmacological withdrawal.)
3. Tolerance—the need to spend increasing amounts of time engaged in Internet games.
4. Unsuccessful attempts to control the participation in Internet games.
5. Loss of interests in previous hobbies and entertainment as a result of, and with the exception of, Internet games.
6. Continued excessive use of Internet games despite knowledge of psychosocial problems.
7. Has deceived family members, therapists, or others regarding the amount of Internet gaming.
8. Use of Internet games to escape or relieve a negative mood (e.g., feelings of helplessness, guilt, anxiety).
9. Has jeopardized or lost a significant relationship, job, or educational or career opportunity because of participation in Internet games.

However, some researchers disagree with this classification, in terms of definition and criteria, due to exclusion of offline video games being susceptible to addictive use (Bean et al., 2017).

### **Theories of video game addiction**

There are several theories that attempt to explain video game addiction, such as the self-determination theory, where the cause of video game addiction stems from individuals' inability to fulfill some of their basic psychological needs, so they resort to video games as a way of fulfillment, since video games allow their players to complete in game goals and gives them the relatedness fulfillment, by interacting with other players online (Przyblyski et al., 2009). Similarly, in the school of thought of Humanistic Psychology approach by Abraham Maslow, highlighting the human as a whole, people must achieve specific needs in order to maintain a stability in mental health, failing to meet the necessary needs might cause issues and disorders to arise, including behavioral problems and addictions, as such, according to the Humanistic needs theory, while the focus is on Maslow's hierarchy of needs, specifically the need for esteem and belongingness, fundamentally the theory is the same in the aspect that players resort to

video games to fulfill the needs that they couldn't attain, leading to the development of video game addiction (Wan & Chiou, 2006).

## **Oppositional Defiant Disorder (ODD)**

### **Concept of ODD**

Oppositional defiant disorder is a disruptive behavior disorder characterized by anger or irritable mood, argumentative or defiant behavior and vindictiveness, as children and adolescents with ODD typically have trouble controlling their temper and often lash at others with disobedient behavior (Riley et al., 2016).

Despite being classified as an independent diagnosis, ODD is commonly comorbid with other disorders, specifically with mood disorder, ADHD and CD, and while ODD shares a category with CD under the name disruptive behavior disorders (DBD), in previous diagnostic manuals and aids, ODD was classified as a conduct disorder because of the nature of the defiant behaviors; some researchers have even proposed the idea of making ODD a subtype of ADHD due to the frequency of the comorbidity between the disorders (Poulton, 2011).

Additionally, the oppositional, defiant, and disobedient behavior in ODD is typically directed at a figure of authority, and that severely harms the child's relationships with those in their immediate environment who may have authority over them, such as their parents and teachers. (Hamilton & Armando, 2008).

### **Prevalence of ODD**

While there is no nation-wide data regarding the prevalence of ODD, some research found that the lifetime prevalence of ODD was estimated to be around 10.2% in an adult community sample, with an advantage to men at 11.2%, while women had a prevalence of 9.2% (Nock et al., 2007).

ODD, according to DSM-5, has a prevalence of 1% to 11%, with the average being about 3.3%, and is more likely to occur among male children, with a ratio of 1.4:1 of males to females, although it is not statistically proven to be the case with adolescents (American Psychiatric Association, 2013).

## **Causes of ODD**

Steiner & Remsing (2007) have delved into the etiology and causes of ODD, with findings pointing to genetic factors to being the main reason, even though the specific genes connected to ODD are still in question, due to inconsistent results. Neurobiology has also been ruled out of the potential causes, as no neurotransmitter or neurological pathway has been identified as the main source of the problem. To understand the cause of ODD, a biopsychosocial approach can be taken, which explains the fact that the likelihood of the disorder increases, when the child's biological vulnerabilities and protective factors interact, in a complex manner with the protective and harmful aspects of their environment (Steiner & Remsing, 2007).

## **Symptoms of ODD**

Children and adolescents with ODD are characterized not only by their behaviors of defiance and hostility towards figures of authority, but are also known for the impairments in their relationships with these figures, due to their defiance, these relationship issues can extend further to their parents, teachers, and even peers; people with ODD suffer from social adjustment issues, that can become more severe and surpass the social impairments in bipolar disorder, major depressive disorder and several anxiety disorders (Greene et al., 2002).

Furthermore, children with ODD will likely develop an oppositional defiant disorder behavior, an affective disorder or an ODD with coexisting attention-deficit/hyperactivity disorder (ADHD), some of which might later be diagnosed with ADHD, anxiety and depression (Lavigne et al., 2001).

## **ODD and DSM-5**

According to APA's DSM-5, these are the diagnostic criteria for oppositional defiant disorder:

1. A pattern of angry/irritable mood, argumentative/defiant behavior, or vindictiveness, lasting at least 6 months, as evidenced by at least four symptoms from any of the following categories, and exhibited during interaction with at least one individual who is not a sibling.

2. The disturbance in behavior is associated with distress in the individual or others in his or her immediate social context (e.g., family, peer group, work colleagues), or it impacts negatively on social, educational, occupational, or other important areas of functioning.
3. The behaviors do not occur exclusively during the course of a psychotic, substance use, depressive, or bipolar disorder. Also, the criteria are not met for disruptive mood dysregulation disorder.

And the categories that were mentioned in criterion A are as following:

**a. Angry/Irritable Mood:**

1. Often loses temper.
2. Is often touchy or easily annoyed.
3. Is often angry and resentful.

**b. Argumentative/Defiant Behavior:**

1. Often argues with authority figures or, for children and adolescents, with adults.
2. Often actively defies or refuses to comply with requests from authority figures or with rules.
3. Often deliberately annoys others.
4. Often blames others for his or her mistakes or misbehavior.

**c. Vindictiveness:**

Has been spiteful or vindictive at least twice within the past 6 months.

**Theories of ODD**

Based on current knowledge of ODD, McKinney & Renk (2007) discuss the genotype-environmental effect theory, which states that ODD is caused by both genetic and environmental factors. Children and adolescents create their own environment that correlates uniquely with their own genetic individual differences, which can cause a passive, evocative, and active genotype-environmental correlations to occur. Passive effects associate with parents that provide both genetic and a home environment, evocative effect is the response of other individuals that are correlated to specific characteristics of the children, and active effect is the choice of the child relating to what environment to live in based on their genetic factors. Furthermore, studies revealed

that parents of children with ODD experience behavioral problems themselves, as well as exhibit negative parental behaviors, alongside the child's actions evoking negative interaction, creating a potential for both a genetic and environmental based causations for ODD (McKinney & Renk, 2007).

Alternatively, some suggest that ODD can develop through parental styles and learning, with specific emphasis on operant conditioning. In some cases of defiance or disobedience, a parent may present the child with treats or toys in order to limit their behavior, this way the parent may be reinforced negatively by having the problem behavior removed, however the child would be positively reinforced by having their behavior rewarded, causing the behavior to occur again or increase in frequency (Matthys et al., 2012).

Another Recent theory claims that the cause of ODD may be due to a deficit in a specific skill, that may lead the child to oppositional behavior. Such behavior can occur when the parents demand competence in the particular skill that the child is weak in, and with the child being unable to respond in a healthy or mature way, tend to show defiance and opposition to the parents (Greene et al., 2002).

## **Conduct Disorder (CD)**

### **Concept of CD**

As for conduct disorder, the core problem is aggressive or destructive behavior, as children and adolescents who suffer from conduct disorder often display aggressive behavior that opposes an established law in their environment (Barzman, 2017).

CD is considered a repetitive and persistent pattern of behavior that violates the rights of other people or break a major age-appropriate societal rule.

The major defining traits of CD are as follows:

1. Aggression to people and animals
2. Destruction of property
3. Deceitfulness or theft
4. Serious violations of rules



CD is highly related to crimes and violent behavior in general, as well as adjustment problems, such as:

1. Mental health problems
2. Legal problems
3. Educational problems
4. Social problems
5. Occupational problems
6. Physical health problems

Methods of identifying CD are currently well established, however due to the variety of the behaviors, children and adolescents with CD can experience different courses throughout their diagnosis. Opening way for further advancing the definitions of CD (Frick & Nigg, 2012).

### **Prevalence of CD**

The prevalence of conduct disorder seems to be consistent across different countries that differ in both race and ethnicity, which is from 2% to 10%, with a median of 4%. CD is also more prevalent among adolescents than children, and among males than females (American Psychiatric Association, 2013).

### **Causes of CD**

Conduct Disorder usually starts in childhood and adolescence and is frequently co-occurring with other disorders, such as attention-deficit/hyperactivity disorder, and often leads to antisocial personality disorder as they grow older, the cause of which is a mix of both genetic and environmental elements, as well as an association with other biological conditions, like neurocognitive impairment (Fairchild et al., 2019).

### **Symptoms of CD**

The characteristics of CD consist of a variety of antisocial behaviors, all of which share in common the nature of social rule violation, including stealing, lying and fighting, and even though illegal and delinquent acts can occur with many children and adolescents, what differentiates CD from the normative and occasional behavior is the frequency of the acts, as well as the intensity and chronicity, where children and adolescents with CD

exhibit behaviors on a much more severe and consistent scale than others (Kazdin & De Los Reyes, 2007).

Additionally, children and adolescents with CD seem to have significantly lower verbal skills than their peers, which can translate into the antisocial behaviors characterized by CD (Déry et al., 1999).

### **CD and DSM-5**

As for diagnostic criteria, according to DSM5, is as following:

**A.** A repetitive and persistent pattern of behavior, in which the basic rights of others or major age-appropriate societal norms or rules are violated, as manifested by the presence of at least three of the following 15 criteria in the past 12 months from any of the categories below, with at least one criterion present in the past 6 months:

**a.** Aggression to People and Animals:

1. Often bullies, threatens, or intimidates others.
2. Often initiates physical fights.
3. Has used a weapon that can cause serious physical harm to others (e.g., a bat, brick, broken bottle, knife, gun).
4. Has been physically cruel to people.
5. Has been physically cruel to animals.
6. Has stolen while confronting a victim (e.g., mugging, purse snatching, extortion, armed robbery).
7. Has forced someone into sexual activity.

**b.** Destruction of Property:

1. Has deliberately engaged in fire setting with the intention of causing serious damage.
2. Has deliberately destroyed others' property (other than by fire setting).

**c.** Deceitfulness or Theft:

1. Has broken into someone else's house, building, or car.
2. Often lies to obtain goods or favors or to avoid obligations (i.e., "cons" others).

3. Has stolen items of nontrivial value without confronting a victim (e.g., shoplifting, but without breaking and entering; forgery).

d. Serious Violations of Rules:

1. Often stays out at night despite parental prohibitions, beginning before age 13 years.
2. Has run away from home overnight at least twice while living in the parental or parental surrogate home, or once without returning for a lengthy period.
3. Is often truant from school, beginning before age 13 years.

**B.** The disturbance in behavior causes clinically significant impairment in social, academic, or occupational functioning.

**C.** If the individual is age 18 years or older, criteria are not met for antisocial personality disorder.

### **Theories of CD**

The factor that most CD theories share in common is the presence of emotional distress, that are activated by environmental stimuli, usually in a social setting, as children and adolescents with CD have difficulty adapting to the negative environmental situation, which leads them to respond in a hostile manner as a way of coping with their inability to solve the problem they're facing, with the aggressive responses that children use could be learned from their own personal hard experiences, for instance; difficult family life or traumatic events (Krol et al., 2004).

### **Relation between VGA, ODD and CD**

Oppositional defiant disorder and Conduct disorder are commonly associated with each other, alongside ADHD, they're some of the most common co-occurring disorders alongside each other; ODD and CD are heavily connected due to their nature of being conduct based issues, that brings the person into conflict with an adult or authority figure, although, in the case of ODD, the focus is more on emotional dysregulations, while the presence of aggressive behavior in CD differentiates the two disorders from each other (American Psychiatric Association, 2013).

VGA can be linked to ODD and CD in different ways, one being that the cause for these issues can be attributed to environmental factors, specifically poor experiences in social settings, and the inability to adapt or adjust. Therefore, there is room to study a possible connection between all three variables (Rehbein & Baier, 2013).

Despite the fact that the research connecting VGA, ODD, and CD is scarce, there has been some evidence of such a link between the three elements, where the presence of ODD and CD can contribute to the increase of risk for VGA (Gunes et al., 2018).

Moreover, studies have shown that there is a relation between extended usage of video games and impulsivity, that connects to impulsiveness based disorders like ODD and CD (Puerta-Cortés, 2017).

### **The Southern Triangle Area (1948)**

The triangle area is a land located in occupied Palestine, consisting of towns and cities of Muslim Arabs, with an estimated population of 260,000 (Staff, 2020).

The Southern Triangle Area, specifically, contains Tayibe, Qalansawe, Tira, Kafr Qasim, Kafr Bara, and Jaljulia. It is considered one of the main strongholds of Muslim Arabs in occupied Palestine, with movements and resistance against the occupation.

Due to the difficult history of wars and conflicts, the people of the southern triangle area formed a strong sense of belonging and commitment to their land, and each other, with the feeling of unity and bond among the communities, and the will to protect their causes and ideals. This, however, created a bubble around these communities that deflects some of the newer and westernized cultures, and rooting a more traditional belief system with traditionalized rules, expectations, and views, thus affecting the perception of concepts, such as video games and mental disorders, more commonly in a negative way. An example of these traditional views come in the form of gendered rules, where the man is the strong provider while the woman is expected to be a housewife, and that video games are trivial and at best recreational hobbies for young children.

The southern triangle area has strong religious beliefs and views. Because of the nature of the conflict, Islamic practices are strengthened and are considered one of the binding elements of the community. These views have a strong imprint on the people of this

area, and have helped regulate some of the acceptable rules and mannerisms expected from the residents. It has also contributed in controlling the behavior or misbehavior of children and adolescents, potentially lowering the rate of conduct related problems, as they are subject to extensive punishment.

### **1.3 Previous Studies**

Video games are a popular topic of research, being a growing subject of interest for many people all over the world, both young and adult. Even though there is a fair amount of research into video game addiction, and the effects it has on children and adolescents, there does not seem to be much research connecting all variables in video game addiction to oppositional defiant disorder and conduct disorder.

#### **The Previous Studies Related To Video Game Addiction**

The research titled "Addiction to electronic games among middle school students" was conducted by Nasir (2022), for the purpose of examining the habits and the motives of video gaming, as well as to provide data and awareness for the educational system and parents. This research used a social survey method and was located in the middle schools in Baghdad. The population of the study consists of 121 middle schools in Baghdad, 67 of which are boys' schools and 54 are girls' schools. For the sample, 5 boys' schools and 5 girls' schools were chosen, each receiving 10 questionnaires for a total of 100 participants; 50 males and 50 females. The questionnaire used is designed to examine the children by asking them about the topic of the study. The results show that both boys and girls agree in their view of video games, that it being primarily a fun hobby, and that addiction related to it can be caused due to the engrossments in this hobby.

A recent study by Coyne et al. (2020) titled "Pathological video game symptoms from adolescence to emerging adulthood: A 6-year longitudinal study of trajectories, predictors, and outcomes", took place over 6 years with the aim of examining the trajectories of pathological video game symptoms, and the long term impact of particular video game usage. Located in Utah in the United States, a sample of 385 adolescents with the mean age of 15 were selected for this study, and were presented with multiple questionnaires on yearly basis for 6 years. These questionnaires contained measures for depression, anxiety, aggression, delinquency, empathy, prosocial behavior,

shyness, sensory reactivity, financial stress, and problematic cell phone use. The initial results displayed a large 72% of the participants had low levels of addiction symptoms, 18% showing moderate symptoms, and only 10% having symptoms of pathological video game usage. In addition, the 10% adolescents with high addiction rates also had a higher level of depression, aggression, shyness, problematic cell phone use, and anxiety compared to the non-addicted group. The research's finding helps in establishing VGA predictors to aid in potential treatment development and future studies. The two predictors were being male, and lower levels of prosocial behaviors, which aligns with VGA, ODD and CD having connections to social related issues, and being male dominated.

An additional recent study by Gros et al. (2020) titled "Video Game Addiction and Emotional States: Possible Confusion Between Pleasure and Happiness?" explored the possible confusion of pleasure and happiness among VG players. The study, located in Belgium, used an online survey to find participants interested in the research, using a French version of a gaming addiction scale, to determine suitable players for the study. Out of the 163 respondents, 29 were chosen for the experiment, with the mean age of 23. The chosen players were divided into 2 groups, addict users containing 12, and non-addict users with the remaining 17. The participants were asked to fill a Pleasure and/or Happiness and VG, then determine their craving for video games after watching 2 separate clips; one being neutral and other being video game related. The results showing that the addict users associate happiness more with VG, while having lower level of relaxation and higher level of craving to VG, proving the coexistence of both happiness and pleasure in the relation to VG.

Nasreddin & Abdulrahim (2019) carried out a study called "Addiction to electronic games and its relationship to aggressive behavior among students of the fifth year of primary school, a field study of some elementary schools in the municipality of Bordj Bou Arreridj", where the researchers wanted examine video game addiction among primary school children, and the connection it has with aggression. The method used in the study was a descriptive analytic with a population of 3 elementary schools in Bordj Bou Arreridj. The sample chosen were 37 boys and 24 girls, totaling 61 fifth grade children. The tools used were 2 scales measuring both video game addiction, and aggressive behaviors. The research found that there is a strong connection between

video game addiction and aggressive behaviors. Both verbal and physical forms of these aggressive behaviors have a moderate connection, but aggression increases with the presence of VGA. Additionally, it concluded that males are more susceptible to VGA than females.

Lemmens et al. (2011) provided a study titled "Psychosocial causes and consequences of pathological gaming", with the attempt to identify the nature of the connection between pathological gaming and psychosocial wellbeing, namely loneliness, low self-esteem, low social competence, and low life satisfaction. Sampling process required a conducted two-wave longitudinal survey study among Dutch adolescents. Of the original 1024 respondents, 851 were able to participate in the study, with 51% of them being male and 49% female, all aged between 11-17. However, during the survey it was found that 169 of the participants had not played a video game in the past month, and were exempt from taking game related questions. Only 543 of the participants were video game players, and thus were the adolescent video game players used in the analysis. Several scales were used as tools in this study, including questionnaires about pathological gaming, time spent on games, loneliness, life satisfaction, social competence, and self-esteem. Using autoregressive structural equation models, the analysis show that social competence, self-esteem, and loneliness were significant predictors of pathological gaming six months later. This means that lower psychosocial wellbeing can be considered a cause, or an antecedent to pathological use of video games among adolescents. Furthermore, loneliness was found to be a consequence of pathological gaming, potentially due to the isolation of pathological video game players, and the disconnect from the real world social interactions for a prolong periods of time, causing damage to their relationships.

The research by Van Rooij et al. (2011) titled "Online video game addiction: identification of addicted adolescent gamers" is a repeated cross-sectional study, that aims to provide empirical data in regards to online video game addiction. This study consists of two large samples across multiple secondary schools in the Netherlands, the first sample being a total of 4559 students from 12 schools, while the second sample is 3740 students from 10 schools, all students aged between 13-16. A 14 item version of the Compulsive Internet Use Scale was used to measure the level of online VGA. The questionnaire was distributed in the participating classes with instructions given to the

teachers, and consent gained from the adolescent's parents. Findings show that of all participants, 3% have been grouped as "addicted heavy online video gamers", some of which have higher levels of depressive mood than non-addicts. These results of identifying an addicted group of players, paired with the nature of the study having large sample sizes, can help contribute in the exhibition of non-substance addictions related research, in particular, the addiction to video games.

Choo et al. (2010) conducted a research titled "Pathological Video-Gaming among Singaporean Youth", to find the prevalence of pathological symptoms in the use of video game among Singaporean youth, and the psychometric properties of instruments measuring these pathological symptoms. A selection of 2998 children and adolescents were chosen from 6 primary and 6 secondary schools in Singapore as the sample of this study. The participants were handed questionnaires that examines sociodemographic characteristics, video gaming habits, school performance, somatic symptoms, various psychological traits, social functioning, and pathological symptoms of video-gaming. Of the 2998 participants, 8.7% were found to be pathological video game players, most of them being boys, with a 3 to 1 ratio. Pathological players were also significantly connected to variables like impulse control problem, social competence, hostility, academic performance, and damages to social functioning. This study confirms that the results are comparable to results from other countries that conducted similar studies.

The research titled "Identifying video game addiction in children and adolescents" by Fisher (1994) studies the potential addiction to arcade video games, which were more prevalent before the emergence of home consoles and gaming computers. The primary purpose of this research was to address the rising issue of video game addiction, especially with children and adolescents being more impressionable while in contact of violent media, and the concern regarding this issue mirroring other forms of addiction. To identify VGA, the research developed a scale based on the DSM-IV criteria relating to gambling addiction. The study's population was a small coastal town in south west England with a population of approximately 6000, for the reason of being industrially focused on tourism and hosting multiple leisure spots with arcades. The scale was distributed to a sample of 467 children and adolescents in the age of 11-16. The results show that of the participating players, 6% or 28 have scored highly and categorized as



"pathological players", while 60% or 275 answered to playing video games but scored lower to be categorized as "social players", majority of which are male. These results can signify the existence of VGA, although rare, is still significant enough to warrant attention from researchers and appropriate parties.

### **The Previous Studies Related To Oppositional Defiant Disorder**

The study titled "The cognitive page of a sample of children with ODD on the Stanford-Binet Intelligence Scale (fifth edition)" by Abbasi (2022) aimed to examine the cognitive and intellect levels of children with ODD compared to healthy children. 40 male children aged 8-12 were selected from a school in kfar al-shekh, and then separated into 2 groups containing 20 participants each, a group of children with ODD and a group of healthy children. An Arabic version of an ODD scale and Stanford-Binet Intelligence Scale were then handed to all participants to answer. The study yielded results that favors the healthy children, where the levels of verbal intelligence, non-verbal intelligence, and overall intelligence were higher among healthy children compared to ODD children.

Sharifi et al. (2021) performed a qualitative research named "Contributing Factors of Oppositional Defiant Disorder: Qualitative Research", to determine the contributing factors of ODD among children. The population of the research was the parents of ODD children aged between 6 to 12 from Isfahan, in 2019. The sample selection process included targeted convenience sampling, having 2 questionnaires for children symptom inventory, with 12 parents being selected for the study. The finding concluded that a set of individual, interpersonal and external factors play a crucial role in the interpretation of the onset and persistence of ODD, matching other studies with the statement that the cause of ODD can be a combination of various biological, environmental, social, cultural and family factors.

"Parental Stress of Preschool Children with Generalized Anxiety or Oppositional Defiant Disorder" by Manti et al. (2019) investigated the symptom rate, and perception of the child's disorders, in parents of preschool children with generalized anxiety disorder or ODD. The sample consisted of 124 Italian preschool children, 80 males and 44 females, with a mean age of 54.35 months, as well as their parents. The children were recruited between the years of 2013–2018. In addition, 42 children with typical

development were recruited through advertisements among nursery school, to act as a control group. All the children and their parents were evaluated by trained clinical psychologists and child psychiatrists, using specific tools like anamnesis, psychiatric assessment, symptom checklist-90 revised, and child behavior checklist for 1½–5 years. The parents of children with ODD reported symptoms rate higher than parents of children from other the groups on most of the SCL-90-R. Also, children with a psychiatric diagnosis were more likely to have at least one parent with psychopathology than traditionally developed children.

As the name suggests, " Dimensionality of oppositional defiant disorder" by Hukkelberg & Ogden (2018) aimed to examine the dimensionality and the network of ODD, as well as testing different factor models, to investigate the ODD as a latent construct with reflective indicators. The participants included sub-clinical sample of 551 Norwegian children and their parents, which were recruited from 5 healthy regions in Norway. The children aged between 2 to 12 years old, 158 of them being girls. The tool used in this study was the Home and Community Social Behavior Scales, which consisted of a social competence scale, and an antisocial behavior scale, then 10 items were selected from the latter for this study. The items were handed to the parents to assess the children's ODD symptoms. The Network analysis showed that symptoms in general were positively connected within the ODD network. Additionally, the results found a strong connection between several symptoms within the irritable and hurtful cluster.

Noordermeer et al. (2017) attempted to examine the relation between ODD and ADHD with the study "Risk factors for comorbid oppositional defiant disorder in attention-deficit/hyperactivity disorder". The population was children and adolescents of European decent, and above 80 IQ, with no diagnosis of conduct disorder, autism, anxiety disorder, depression, epilepsy, general learning difficulties, neurological disorders or known genetic disorders. The sample consisted a total of 246 participants separated into 3 groups, each containing 82; participants with ADHD and ODD, participants with ADHD only, and a control group. Each group had 55 boys and 27 girls, the mean age of 16. The study tools consisted of questionnaires and interviews to assess the risk factors. The findings show ODD risk factors include the adverse life events and parental ADHD, contributing to ADHD with ODD and ADHD only, although more adverse life events were an even stronger risk factor for comorbid ODD,

compared to ADHD only. Parental criticism, deviant peer affiliation, and parental SES also affected the prevalence of comorbid ODD.

The research by Emerley Moreno & Pelegrina del Río (2011) titled "Prevalence, symptoms and distribution of oppositional defiant disorder" was done on the course of 2 studies, with the aim of determining the epidemiological evolution of ODD in adolescents. The population of the study were secondary school students aged 12-16 from the region of Campo de Gibraltar in Cadiz. The first study took place in the school year of 2001-2002, with a sample of 2310, while the second study was in the school year of 2006-2007, with a sample of 2351. In each study, the teachers were given a disruptive behavior scales based on DSM-IV criteria for ODD. The results revealed a prevalence ranging from 3.77% to 3.83%, with the main symptoms having been maintained, some changes in its distribution was noted in the different studies. Moreover, the distribution of ODD among genders was 3.5 to 1 in favor of boys from the first study, while the ratio increased to 4 to 1 in the second study.

"Atomoxetine for the Treatment of Attention-Deficit/Hyperactivity Disorder and Oppositional Defiant Disorder" by Bangs et al. (2008) attempted to examine the effectiveness of the medication Atomoxetine, which can help in decreasing impulsivity. The study was conducted in 17 sites in Europe and Australia, and used a sample of 226 randomly assembled patients aged 6-12, who met the DSM-IV diagnostic criteria for ADHD with a Swanson, Nolan, and Pelham Rating Scale-Revised ADHD subscale score above age and gender norms, a Clinical Global Impressions-Severity Scale score of  $\geq 4$ ; and Swanson, Nolan, and Pelham Rating Scale-Revised oppositional defiant disorder subscale score of  $\geq 15$ . All of the criteria are assessed with the appropriate necessary scales. While the results show that the effectiveness of the medicine is great than the placebo effect in the reduction of ADHD and ODD symptoms, it also confirms that ODD can be reduced via treatment or a placebo, as the results indicate significant difference in the scale rating between the initial point of the study and the end.

Rowe et al. (2005) conducted a study with the name "Defining oppositional defiant disorder" for the purpose of differentiating between ODD in ICD-10 and DSM-IV, where the former treats ODD as a joint disorder with conduct disorder, while the latter considers them separate disorders. The study was based in a predominantly rural area of the southern United States, where the great smoky mountain study was used to

determine the sample. After performing a selection process, containing a household equal probability design, a questionnaire, and an interview, 1420 children and adolescents between the ages of 9-15 were chosen, including Americans and American Indians. The participants provided data for 4965 observations. For this study, the Child and Adolescent Psychiatric Assessment scales were used, to measure the child's psychiatric status over the preceding 3 months, using DSM-IV criteria. Both children and their caretakers were interviewed separately. The main results indicate that Children that received an ICD-10 diagnosis but did not receive a DSM-IV diagnosis showed a very similar level of psychiatric comorbidity, delinquent activity, and psychosocial impairment to the children that met the DSM-IV criteria in both cross-sectional and longitudinal analyses.

In addition to this, prevalence stats show that 1.8% of children met DSM-IV criteria for ODD, 2.1% met the criteria for DMS-IV CD and 1.5% received an ICD-10 diagnosis for ODD, but not from DSM-IV. In all categories, boys outnumber the girls.

The study titled "The distribution of symptoms of attention-deficit/hyperactivity disorder and oppositional defiant disorder in school age children in Turkey" by Erşan et al. (2004) was designed to find the prevalence rates of ADHD and ODD among Turkish children. A total of 1425 children, aged 6-15, were selected via random sampling method in Sivas province centre in Turkey. The participating students were handed a questionnaire containing DMS-IV criteria for ADHD and ODD, which was completed by their parents or teachers. Findings show that a prevalence of 11.5% was found for ODD, mostly among boys. Furthermore, 52.2% of those with ADHD were established as having ODD at the same time.

### **The Previous Studies Related To Conduct Disorder**

"Sex differences in psychiatric comorbidity and clinical presentation in youths with conduct disorder" by Konrad et al. (2022) aimed to investigate sex differences in comorbidity pattern in CD, and to systematically explore the gender paradox and delayed-onset pathway hypotheses of female CD. The study consisted of 749 youths with CD, 454 being female and 295 males, and 864 typically developing controls, both groups were 9–18 years of age. The sample was collected from the FemNAT-CD consortium, which is European multisite study with the purpose of examining CD

among female children and adolescents across Europe. Semi structured clinical interviews and rating scales were used to perform a comprehensive phenotypic characterization, such as psychiatric diagnoses, CU traits, dimensional assessment of psychopathology, and reactive and proactive aggression. Results show that girls with CD exhibited higher rates of current major depression, anxiety disorders, post-traumatic stress disorder, and borderline personality disorder, whereas boys with CD had higher rates of current attention-deficit/hyperactivity disorder. Additionally, female and male youths with CD also differed significantly in their CD symptom profiles, and distribution of age-of-onset subtypes of CD.

Tor et al. (2021) attempted to examine methods of discerning between CD and ADHD using a novel automated system, in a research titled "Automated detection of conduct disorder and attention deficit hyperactivity disorder using decomposition and nonlinear techniques with EEG signals". The data was collected using anonymized EEG signals of 123 Singaporean children, from the child psychiatric outpatient clinic, in Singapore. Out of these participants, only 16 belonged to the CD group, while 62 were diagnosed with ADHD+CD, and 45 with ADHD. In order to examine the differences between the present disorders, this study used specific methods to examine the EEG signals, using specific methods, such as signal transformation, extraction of nonlinear features, ADASYN, Z-score normalization, feature selection, and classifiers and validation. The results show that CD consistently had the highest scores among entropy features. This finding means that, compared to ADHD and ADHD+CD, CD presents the highest level of disorder in the system, making the features of CD more extreme than that of the other disorders in the study.

The study of Ackermann et al. (2019) had the intention of finding sex differences in CD adolescents in regards to relational aggression, with the title of "Relational Aggression in Adolescents with Conduct Disorder: Sex Differences and Behavioral Correlates". The study contained a sample of 1511 children and adolescents aged between 9 to 18 years old. The sample comprises a CD group with 662 children and adolescents, 403 of them being female, and a control group consisting of 849 children and adolescents, with 568 females. The participants took part in the European study "Neurobiology and Treatment of Adolescent Female Conduct Disorder" and were recruited in Aachen (294), Amsterdam (181), Athens (120), Barcelona (39), Basel (101), Bilbao (106),

Birmingham (179), Dublin (3), Frankfurt (245), Southampton (181), and Szeged (62). The study used several tools and scales to assess levels of features, such as psychopathology, IQ, medical history and parental education, relational aggression and relational victimization, physical and overt verbal aggression, CU traits, and cognitive and affective empathy. Findings show that females with CD showed significantly higher levels of relational aggression compared to males with CD, whereas no sex differences were seen in controls. Subsequent results show that relational aggression was only partly related to correlates of proactive aggression in CD, and CU traits showed a positive association with relational aggression, regardless of gender. Cognitive empathy was negatively associated with relational aggression among females, while relational victimization was more strongly associated with relational aggression in males.

Al-Najjar & Abu Ghaly (2017) conducted a study titled "Traumatic Experiences and Conduct Disorder among Children from Destroyed Homes in the Border Areas East of Khan Younis Governorate. Bethlehem University Journal.", with the aim to identify the extend of Conduct Disorder among Palestinian children with destroyed homes in the border areas of the Khan Younis Governorate. The study population consists of all children living in the border areas in the eastern district of Khan Younis, who number 460 boys and girls whose homes were completely, severely or partially destroyed; 260 males and 200 females. Using the descriptive method of study, the researchers picked a sample of 200 children of both genders with another group of 200 containing the children's parents. All participants filled scales for traumatic experience and scales for CD. The results showed that the prevalence of CD as perceived by parents was 5.5%.

An investigation on the latent structure of CD was conducted by Lacourse et al. (2010) in the research "Two-year predictive validity of conduct disorder subtypes in early adolescence: a latent class analysis of a Canadian longitudinal sample", with the aim of studying subtypes of CD. Participants were chosen from among the 6168 12–13-year-olds that were in cycles 2, 3, and 4 of the National Longitudinal Survey of Children and Youth, using a clustered probability sample of private households in the 10 Canadian provinces, excluding children living in remote areas, institutional settings, and on First Nations reserves. The final sample tally was 4125, almost evenly divided by gender. DSM-IV CD symptoms, the Child Behavior Checklist, and the Antisocial Behavior Questionnaire were used to make the research tools, including a CD scale, age 14–15

deviant lifestyle outcomes, and age 10–11 disruptive behaviors control variables. Sociodemographic characteristics were measured through a Statistics Canada index based on parental education, parental professional attainment, and household income. The research yielded results that helps identify 4 distinct subtypes, those being No CD at 82.4%, Non-Aggressive CD at 13.9%, Physically Aggressive CD with 2.3%, and Severe-Mixed CD 1.4%. This helps predict violent and non-violent outcomes of CD in early adolescence, even if the disorder is qualitatively and quantitatively heterogeneous at this age range.

Subgroups of CD was the subject of the study in the research title "Neuropsychological subgroups of adolescents with conduct disorder" by Närhi et al. (2010). This cross-sectional study's aim is to assess the psychiatric morbidity and comorbidity, learning disabilities and neuropsychological assets, and deficits among adolescents placed in reform schools and adolescent psychiatric clinics. The study took place in Finland, at three reform schools during the period 1 April 1997 to 31 March 1998, and in one inpatient adolescent psychiatric unit during the period 1 April 1997 to 31 January 2000. Consisting of 2 groups, the CD group contained 77 participants, while the control group had 48, all aged 12-18, with slight majority to females. Study tools consisted of structured clinical interview for the purpose of diagnosis, neuropsychological tests, Finnish version of Wechsler scales for general intelligence, auditory verbal learning test, and multiple executive functions test. Results show that participants with CD had no diffuse, verbal and executive function deficits, and had none with specific memory or visuospatial deficits. Adolescents with CD had more neuropsychological and specific verbal deficits compared to the control group.

A study testing the theory of mind named "Characteristics of theory in conduct disorder" was performed by Gómez Botero et al. (2010) in Colombia and targeted children and adolescents with CD in that region. A total of 60 participants were selected for this study, all aged 10-16. The participants were separated into 2 groups of 30, one group consisting of children that met the CD criteria for DSM-IV, and a control group of normal children and adolescents. The tools used consisted of a diagnosis criterion for CD and a semi-structured interview, as well as an Eye Task Test and a Faux Pass Test, to determine the empathetic development of participants. There were significant statistical differences between the groups, with a worse performance in the CD group.

The findings suggest a particular theory of mind structure in children and adolescents with CD, showing that CD can interfere with the development of empathic behavior.

Fairchild et al. (2009) investigated decision making under varying motivational conditions in CD with the study "Decision Making and Executive Function in Male Adolescents with Early-Onset or Adolescence-Onset Conduct Disorder and Control Subjects". Diagnostic interviews were conducted to assess participants in this study, which were male adolescents aged 14 years to 18 years, recruited from mainstream schools and colleges, pupil referral units, and the Cambridge Youth Offending Service. 156 adolescents in total were chosen, 84 control subjects, 34 with adolescence-onset CD, and 38 with early-onset CD. Risk Choice Tasks, Decision-Making Tasks, and the Wisconsin Card Sorting Test were used as tools in this study, with stress induction between phases of study. Analyzing the performances showed that increased motivation and stress led to more cautious decision making and changes in framing effects on the RCT in all groups, however, these effects were least apparent in the early-onset CD group. Participants from the 2 CD subgroups selected the risky choice more frequently than control subjects, but under normal motivational conditions, early-onset CD participants chose the risky choice more frequently after small wins. The groups did not differ significantly in their performance in WCST.

CD research that focuses specifically on girls can be insightful, like the research titled "Neuropsychological Function in Adolescent Girls with Conduct Disorder" by Pajer et al. (2008), which looks into the neuropsychological functions of girls with CD compared to girls without any psychiatric disorder. Having been approved by the Allegheny University of the Health Sciences, and University of Pittsburgh Medical School Institutional review boards, the researcher recruited 93 girls between the ages of 15-17, of which 52 were girls with CD and 41 as the control group. Each of the participants then received a neuropsychological battery examining motor/laterality, general intelligence, language, visuospatial, visual-motor, executive function, and academic achievement domains. The findings show that girls with CD had lower general intelligence and poorer performance on visuospatial, executive function, and academic achievement domains. The results were even worse after adjusting for demographic factors.



The family environment can be an important factor in the development of CD, as shown by the study of Jewell & Stark (2003) titled "Comparing the family environments of adolescents with conduct disorder or depression". Participants were 34 youth at a residential treatment facility in the Southwestern United States, 20 of them are male and 14 females, ranged in age from 13 to 16 years old. Participants were divided into 2 groups, one for Major Depressive Disorder or Dysthymic Disorder, which contained 19 of the sample, and one for CD with 15 participants. Instrumentation included Self Report Measure of Family Functioning for Children, to assess the family and environment, and Schedule for Affective Disorders and Schizophrenia Present Episode Version, to determine the youth's diagnosis. Results indicate that adolescents with CD described their parents as having a permissive and ambiguous discipline style.

The study by Tranah et al. (1998) named "Conduct disorder and personality" was conducted to examine personality aspects of adolescents with CD. The study focused on children and adolescents from South London, where 40 participants were chosen; 20 boys with CD between the age of 12 and 16 from Regional Resource Center in South London, and a control group of 20 healthy boys in their 3<sup>rd</sup> and 4<sup>th</sup> year of secondary schools from South London. All participants completed scales related to general intelligence, personality, impulsiveness, and anxiety. Moreover, the teachers were asked to complete Children's Behavior Questionnaire. Although there was no significant difference in the general intelligence and anxiety scores of the 2 groups, there were significant differences in multiple sections of the personality scales. The CD groups scored higher on the psychoticism and impulsiveness scales, while scoring lower in the lie and empathy scales. Additionally, CD group had a higher mean in the Neuroticism scale and had significantly higher scores on all behavior questionnaires.

### **The Previous Studies Related To VGA, ODD and CD**

Verma et al. (2022) investigated the connection between VGA and both ODD and CD, in the research named "Gaming addiction in children and adolescents with attention-deficit hyperactivity disorder and disruptive behavior disorders". The study was cross-sectional and observational, and was conducted at the child and adolescent psychiatry outpatient department of a tertiary care hospital in India. Samples were recruited via the purposive method, and contained 70 children and adolescent aged 6-16, that fulfilled the criteria of either ADHD, or DBD, or both, alongside a control group of 40 children and

adolescents. Results show that the use of video games for more than 4 hours was found to be significantly higher in children and adolescents with ADHD and/or DBD, compared to the normal children and adolescents. 37.1% of the groups with ADHD and/or DBD also fulfilled criteria for VGA, the numbers being the highest in ADHD + DBD groups. These findings indicate that the level of VGA is significantly higher in ADHD and/or DBD than normal children and adolescents.

Nagata et al. (2022) performed the research "Contemporary screen time modalities and disruptive behavior disorders in children: a prospective cohort study", with the objective of determining the prospective associations of contemporary screen time modalities with conduct and oppositional defiant disorder, in a national cohort of 9–11-year-old children. This study analyzed data from the ABCD Study, which is a longitudinal study of brain development and adolescent health in 11,875 children, recruited from 21 sites around the United States. Data analyzed consisted of the baseline of 2016–2018, 9–10-year-old and 1-year follow-up 2017–2019, 10–11-year-old assessments. Tools included used to measures exposures: screen time, outcome: conduct disorder and oppositional defiant disorder and confounders. Findings show that participants had an average of 4□ hours of total screen time per day at baseline, with each hour of total screen time per day being associated with a 7% higher prevalence of CD and a 5% higher prevalence of ODD at 1-year follow-up. Each form of screen time hour per day was associated with a higher prevalence of the ODD, including video games, while CD had higher prevalence with social media.

The study by Abd El-Aal (2019) was conducted to examine the effects of VGA on some disorders, in the research titled "An addiction to electronic games and its effects on some mental and social diseases of adolescents (A field study on some school's student in a village, Damietta governorate)". Due to the lack of data regarding video game players, the researcher used an intentionally picked sample of 47 video game playing children from primary schools and high schools from one of the villages in the Damietta governorate. 27 of the children were male, while 20 were females. The measuring tools include questionnaires that were handed to the children during a personal interview, which the child had to fill in order to examine their level of depression, aggression, and isolation. The results show that VGA is related to higher levels of aggression and isolation, that can be identified in CD and ODD. Furthermore, VGA is also correlated to

lack of social support from the family, forming a connection between the environmental causes of CD and ODD with VGA.

Gunes et al. (2018) studied the effect that oppositional defiant disorder or conduct disorder may have on video game addiction, among adolescents with ADHD in the research titled "Oppositional defiant disorder/conduct disorder co-occurrence increases the risk of Internet addiction in adolescents with attention-deficit hyperactivity disorder". This is an interesting concept because it takes ODD and CD as a co-occurring disorder alongside ADHD, and focuses on the possibility of a video game addiction because of this co-occurrence. The participants were recruited from a clinical sample of adolescents aged 12 to 17 years from clinics in Istanbul, Turkey between March 2013 and September 2014, and diagnosed with ADHD, totaling 119 adolescents; 30 females and 89 males. Of the 119 participants, 27 had comorbid CD, 76 had comorbid ODD and 41 had comorbid ODD/CD. ADHD, ODD, and CD diagnoses were based on the DSM-IV criteria and comprehensive information from a clinical examination. The study data were collected using a sociodemographic information from the Turgay DSM-IV Based Child and Adolescent Disruptive Behavioral Disorders Screening and Rating Scale, and the Internet Addiction Scale. The results indicated that 63.9% or 76 of the participants were addicted to internet use. Subjects with ODD and CD returned significantly higher scores on the IAS, meaning that they're at more risk.

There is an abundance of research exploring the nature of violent video games and how they may affect their users, similar to the research done by Greitemeyer (2018) titled "The spreading impact of playing violent video games on aggression", which gives insight not only on the aggressiveness produced by video games, but the potential effect on the social circle of those affected by it, bringing the spread of aggressiveness among people connected to violent video game players to light. The participants numbering 998 were outsourced via MTurk service, and handed questionnaires to assess their aggressive behaviors, and frequency of violent video game play time, then were asked to answer questions about their 5 closest individuals, as well as assessing the same aggressive behavior and violent video game play time. Results indicate that violent video game usage was related to aggression, both for the participant and the friends. The usage of violent video games among participants and their friends, as well as their level

of reported aggression, were positively related. The relationship between the participant's aggression and the friends' violent video game usage was significant.

The study done by Puerta-Cortés (2017) titled "How passion and impulsivity influence a player's choice of videogame, intensity of playing and time spent playing" is one of the few articles attempting to research impulsiveness directly in the context of video games. A sample of 630 university students, 40.7% of which are Colombian, 59.3% being Spanish, responded to a questionnaire on gaming habits, the Passion scale, and the Inventory of Impulsivity. The results found distinguishable difference in male and female preferred genre of games, which found that the male preferred genre is more associated with playing hours and intensity. Even though the articles give more focus on particular genres of video games, the research did provide evidence connecting impulsiveness to video game addiction, relating dysfunctional impulsivity to more hours of playing, and intensity in video games. These findings can contribute to understanding the relation between VGA and both ODD and CD, due to both disorders' associations with impulsivity.

The notable study "Prospective Investigation of Video Game Use in Children and Subsequent Conduct Disorder and Depression Using Data from the Avon Longitudinal Study of Parents and Children" by Etchells et al. (2016) studies the correlation to conduct disorder to the use of video games, in addition to the study into depression. The sample consists of 5400 young people from the UK, who completed the Development and Well-Being Assessment semi-structured interview, at the Avon Longitudinal Study of Parents and Children clinic, at 15 years of age, where 4745 responded to conduct questions. Children's self-report questionnaire was used to measure video game use at age 8/9 years, including genre of games played. Conduct disorder was assessed via parental report at age 15. The results concluded that there is no correlation between video game usage and conduct disorder, nor can the genre be proven to determine the risk of CD among children.

A study examining the social, family background, individual antecedents, predictors, and comorbidity of CD and ODD was conducted by Boden et al. (2010) in the research "Risk factors for conduct disorder and oppositional/defiant disorder: evidence from a New Zealand birth cohort". The study used data of 926 of adolescents born in the Christchurch urban region of New Zealand, where they participated in longitude study,

but this research focuses on the ages of 14-16. Disruptive Childhood Behaviors were measured by the participants and their mothers taking an interview on a comprehensive mental health interview, that examined aspects of mental health and adjustment over the previous 12 months. Other elements were then measured, like predictors of disruptive childhood behaviors, exposure to family socioeconomic disadvantage during childhood, exposure to parental maladaptive behavior, family instability, exposure to abuse and interparental violence in childhood, Maternal smoking during pregnancy, child cognitive ability, deviant Peer Affiliations, and gender. Results showed that each of the predictors was significantly associated with CD and ODD, with the exception of gender and ODD, with an approximately 40% comorbidity between disorders explaining the common factors.

Examining the developmental relationship between ODD and CD, Rowe et al. (2010) conducted a study titled "Developmental pathways in oppositional defiant disorder and conduct disorder", using data from the Great Smokey Mountain Study. The longitudinal study collected data over 8000 observations of 1420 individuals, 56% being male, in the ages 9–21 years. The data examined featured characteristics and outcomes of children with pure ODD, pure CD and combined CD and ODD, which yielded results showing that ODD was a significant predictor of later CD in boys but not in girls, after control for comorbid CD and subthreshold CD symptomatology. However, the transitions between ODD and CD were lower than expected, especially in adolescence. Both disorders showed several similarities in childhood and adolescent, but there were still important differences, including that CD largely predicted behavioral outcomes, while ODD more so predicted emotional disorders in early adult life. Additionally, analysis concluded that the irritable and headstrong dimensions in ODD symptoms showed differential prediction to later behavioral and emotional disorders.

The connection between CD and ODD was examined by Maughan, et al. (2004) in "Conduct disorder and oppositional defiant disorder in a national sample: developmental epidemiology" labeling them as antisocial disorders. The study used a cross-sectional data on a nationally representative sample of 10,438 children, aged 5–15 from England, Scotland, and Wales. The participants were drawn from the 1999 British Child Mental Health Survey from a total of 6,422,202 children, to research age trends, gender ratios, and patterns of comorbidity in DSM-IV CD and ODD. Demographic data

were collected in the parent interview, while psychiatric disorder was assessed using the Development and Well-Being Assessment, including DSM-IV criteria of CD and ODD. The findings of the study show that CD was significantly more common in boys than girls, and increased in prevalence with age. Status violations and other non-aggressive conduct problems increased with age among children with CD, while aggressive symptoms became less common. Gender differences in ODD was varied from case to case. Estimates of age trends in ODD depended heavily on treatment of overlaps with CD. In addition, CD and ODD showed high levels of overlap, and both diagnoses showed substantial comorbidity with other non-antisocial disorders.

#### **1.4 Critique of The Previous Studies**

The previous studies showed a multitude of data cementing the prevalence of Video Game Addiction, showing that the issue, while rare, is still significantly prevalent to be seriously considered by researchers and appropriate parties. Data also compared all VGA, ODD, and CD among genders and age groups, confirming that male children and adolescents are at greater risk, and noting behaviors or trends associated with different age ranges, like the genre and intensity of play.

Many of the previous studies took CD and ODD in contexts of other associated disorders, such as ADHD and depression, and most importantly, in the context of each other. Previous studies examine the relationships between CD and ODD, being impulsiveness based antisocial disorders, and having a higher rate of comorbidity and similarities, as well as being developmentally connected. Regarding their similar behaviors, many are also found to be connected to VGA.

There is, however, a distinct lack of research regarding video game addiction among younger children, and especially in relation to oppositional defiant disorder and conduct disorder, as most studies focus on aggressiveness and violent video games, with some taking competitive and multiplayer games. Research on the general effect of addiction seems to be lacking.

A lot of research seems to focus on specific genres of video games when assessing addiction and behavioral problems, which is the aggressive type of video games, such as first person shooters. Research, also, tends to focus on internet gaming which gives the

player access to other gamers across the world, which may influence and cause children's and adolescents' behavioral issues, rather than the game or the addiction.

Additionally, studies that focus on mental wellbeing and behavioral patterns of children and adolescents rarely talk about mobile gaming, which is a form of video game present on the person's phone or other mobile devices, as it has gained a large amount of popularity over the years, and even became the most used type of gaming (The Nielsen Company, 2017).

This study takes video games as a blanket term instead of constraining it to a specific genre, in order to allow a broader assessment of VGA effects. This study will also focus primarily on ODD and CD, separating them from other associated disorders, such as ADHD, that were present in many of the studies concerning ODD and CD, due to their close relation. Lastly, as far as the researcher knows, not many studies were conducted in the southern triangle area regarding VGA, and its connection to ODD and CD.

### **1.5 Statement of the Problem**

The study revolves around the effects that video game addiction has on young children and adolescents in terms of the oppositional defiant disorder and conduct disorder, due to the lack of previous studies on this subject in a Palestinian context. Furthermore, the prevalence of VGA, ODD and CD in other regions highlights a need for research into this topic in areas with less studies, such as the Southern Triangle Area. Many have taken interest in behavioral problems among children and adolescents with video game addiction, while conducting research to find correlations between these behavioral problems and video games, although not many combine oppositional defiant disorder and conduct disorder, and many of the research focuses on particular type of games, namely violent games and online games, so this study aims to combine both ODD and CD with the general addiction to video games of all genres.

### **1.6 Questions of Study**

This study mainly attempted to answer the following questions:

1. What is the level of videogames addiction among the Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948)?

2. What is the level of conduct disorder among the Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948)?
3. What is the level of oppositional defiant disorder among the Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948)?
4. Does gender affect the videogames addiction, conduct disorder, and oppositional defiant disorder among Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948)?
5. Does age affect the videogames addiction, conduct disorder, and oppositional defiant disorder among Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948)?
6. What are the impacts of videogames addiction on conduct disorder and oppositional defiant disorder among Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948)?

### **1.7 Objective of Study**

The aim of the study is to determine the level of video game addiction among children and adolescents in the southern triangle area and to test the effects such addition may have on the risk of conduct disorder and oppositional defiant disorder, as well as determine the external factors that might affect the level of video game addictions and the possibilities of developing conduct disorder and oppositional defiant disorder.

### **1.8 Significance of Study**

This study aimed to shed light on video game addiction and the effect it has on the development of conduct disorder and oppositional defiant disorder among children and adolescent in an area that may lack the awareness, in order to help establish a new understanding to the problems of the study. The results of this research can provide important information regarding VGA, ODD and CD in terms of attributing cultural and environmental factors to their prevalence in this area, as well as expanding upon the connections between VGA with both ODD and CD. This study also provide useful information that might help people in their parenting, by gathering data and studying the elements of the study to find potential correlations, and improve the perception and treatment around VGA, ODD and CD.



## **1.9 Limitations**

1. Data gathering is limited to locations near the researcher due to the timeframe of this research, as the health safety regulations may disrupt further movement and access to other regions.
2. The sample of the study is 100 elementary school children aged 9-15 of both genders chosen at random.
3. The study instruments, which consists of Videogame Addiction Scale For Children (VASC) and Disruptive Behavior Disorders Inventory (DBDI)

## **1.10 Terms Definitions**

### **Video game addiction**

Is generally identified as the compulsive and problematic use of video games that results in significant impairment to the person's ability to function in various life aspects over a prolonged period of time. The concept of video game addiction sparks controversy and debate among several communities, but according to the 11<sup>th</sup> edition of the International Classification of Diseases, video game addiction is characterized the lack of self-control in gaming (Krishna, 2017).

### **Oppositional defiant disorder**

Is a disorder characterized by problematic behavior of opposition, defiance and disobedience, usually appearing as early as preschool level, and develops as the child grow, causing a strain in relationships between them and figures of authority such as parents and teachers, as well as even peers (Hamilton & Armando, 2008).

### **Conduct disorder**

Is the persistent occurrence of undesirable behaviors such as theft, violence and lying that results in breaking the rules or the order (Barzman, 2017). Similar to impulsiveness, the undesirable actions of conduct problem leading to rule breaking is a behavior problem that people wish to remove, and if sustained can lead to direr consequences.

### **The Southern Triangle Area (1948)**

Is a land located in occupied Palestine, consisting of towns and cities of Muslim Arabs, with an estimated population of 260,000 (Staff, 2020), and contains the cities and towns of Tayibe, Qalansawe, Tira, Kafr Qasim, Kafr Bara, and Jaljulia. It is considered one of the main strongholds of Muslim Arabs in occupied Palestine, with movements and resistance against the occupation.

### **Videogame addiction scale for children**

Is an Italian questionnaire designed by Monacis et al (2020) for the purpose of assessing the level of video game addiction among children and adolescents, the original test used a five-point Likert system and consisted of (21) items separated by subcategories being: Self-control deficit, Reward / Reinforcement, Problems, and Involvement.

### **Disruptive Behavior Disorder Inventory**

Is a parent/teacher scale designed as a screening tool to measure ADHD, ODD and CD among children and adolescents. This is done through the parent/teacher being asked to indicate the degree of which a stated behavior describes the child's behavior or frequency. The questionnaire was originally constructed by Pelham et al. (1992) to add further to existing measuring tools for disruptive behaviors, it has been revised and updated to include newer diagnostic criteria.

## **Chapter Two**

### **Research Methodology**

#### **2.1 Introduction**

This chapter describes the methods, statistical techniques, research tool, variables, and procedures which were followed by the researcher to achieve the study objectives. Moreover, this chapter shows the study design and description of the sample of the study.

#### **2.2 Study Design**

A quantitative, cross-sectional, correlational descriptive design was used to achieve the aims of the study to discover the levels and prevalence of video games addiction (VGA), conduct disorder (CD), and oppositional defiant disorder (ODD) among the Palestinian children and adolescents. Furthermore, this study tested the impact of VGA on CD and ODD, in addition it investigated the effects of gender and age on VGA, CD, and ODD levels.

#### **2.3 Study Population**

The population of this study consisted of all children and adolescents from 9 to 15 years old and from both gender who live in the Southern Triangle area of Occupied Palestine (1948).

#### **2.4 Sampling and Sample Size**

The researcher used an available sampling technique, this method was followed due to social distance and preventive procedures during COVID-19 pandemic. The researcher designed an online questionnaire via google form service, and that resulted in selecting (147) children and adolescents. Table below shows the description of the study sample in light of gender and age.

**Table 1***Participant demographics (n = 147)*

Demographic Variables		Frequency	Percentage
Gender	Male	67	45.6
	Female	80	54.4
Age Group	9 years	9	6.1
	10 years	13	8.8
	11 years	12	8.2
	12 years	24	16.3
	13 years	25	17.0
	14 years	17	11.6
	15 years	47	32.0
Total		147	100

**2.5 Instrumentation**

Three self-report questionnaires were presented to the participants. These are: (a) Videogame Addiction Scale for Children (VASC) and (b) The Disruptive Behavior Disorder Inventory (DBDI) which contains three subscales; attention-deficit hyperactivity disorder (ADHD), oppositional-defiant disorder (ODD), and conduct disorder (CD). Whereas, the current study utilized ODD and CD subscales. It is worth mentioning that the DBDI was constructed based on DSM-III-R criteria.

**2.5.1 Videogame Addiction Scale for Children (VASC)**

VASC was constructed by Monacis et al. (2020) in order to assess the level of videogames addiction among children. The original version of the scale consisted of (21) five-point Likert scale items (ant at all = 1, rarely = 2, sometimes = 3, mostly = 4, and always = 5). According to Monacis et al. (2020) VASC has good psychometric properties in terms of reliability and predictive, convergent and construct validity. In the current study, the researcher selected (14) items that are suitable for the study sample and the Palestinian context. The researcher adapted the VASC to Arabic culture and they benefited from the recommendations of Pan & De La Puente (2005) method in translating and adapting questionnaires. They recommended five steps for translating questionnaires' research: prepare, translate and back translate, pretest, revise, and document.

The translated (Arabic) of VASC was reviewed by six experts working at An-Najah National University (ANNU) from the psychological, Arabic, and English languages fields. Then the translated Arabic version of VASC was distributed to an exploratory

sample of (50) children and adolescents living in the Southern Triangle area of Occupied Palestine (1948), that in order to check the clarity of the items for the readability and the understandability of the instrument.

### **The Arabic version of VASC validity**

- a. The judge's validity: The Arabic version of VASC was reviewed by six experts in the department of psychology and counseling at ANNU. The judges suggested rephrasing some unclear items and to paraphrase some text to be more understandable for the study sample. In addition, no item was eliminated based on the judges' recommendations; therefore the Arabic version of VASC has kept all the scale items
- b. The construct validity: To check the validity of the Arabic version of VASC, the corrected item-total correlations (CITCs) were calculated by applying the scale to an exploratory sample of (50) children and adolescents (38% males and 62% females). The Pearson correlation coefficients were calculated between each item and the total score. All items significantly correlated with the total score ( $p < .01$ ) and correlation coefficients ranged from (.83 to .97). Accordingly, the Arabic version of VASC has kept all the scale items which indicating sufficient construct validity of the scale and adequately assesses the underlying construct that it is supposed to measure. The table below shows the CITCs results.

**Table 2**

*The construct validity of the Arabic version of VASC*

Item number	CITCs
1.	.91**
2.	.92**
3.	.91**
4.	.92**
5.	.83**
6.	.92**
7.	.85**
8.	.90**
9.	.88**
10.	.87**
11.	.90**
12.	.85**
13.	.91**
14.	.97**

\*\*( $p < .01$ ).

### **The Arabic version of VASC reliability:**

The current study checked the internal consistency reliability of the Arabic version of VASC by using Chronbach Alpha equation that resulting in coefficient of (.98) which indicating excellent reliability.

### **2.5.2 Disruptive Behavior Disorder Inventory (DBDI):**

In order to assess and diagnose some external disorders among children and adolescents Pelham et al. (1992) constructed DBDI. The original version of the scale measures three disorders; (a) CD measured by (16) items that assess symptoms of CD, (b) ODD measured by (8) items that assess symptoms of ODD, and (c) ADHD measured by (9) items that assess symptoms of ADHD. Since the current study is interested in measuring CD and ODD, consequently ADHD was not assessed because it is out of the current study scope. The DBDI was constructed based on DSM-III-R criteria; therefore, it is a good tool to assess OC and ODD.

The DBDI was translated into different languages and utilized in many studies conducted in diverse contexts because this tool is considered valid and reliable (Waschbusch et al., 2002).

Out of (16) items, eleven items were selected to assess CD, that are suitable for the study sample and the Palestinian context. Meanwhile, ODD was assessed by all items in the original version of the DBDI. Consequently CD and ODD were assessed by (19) five-point Likert scale items (ant at all = 1, rarely = 2, sometimes = 3, mostly = 4, and always = 5). In the current study, the researcher adapted the DBDI to Arabic culture and they benefited from the recommendations of Pan & De La Puente (2005) method in translating and adapting questionnaires.

The translated (Arabic) of DBDI was reviewed by six experts working at An-Najah National University (ANNU) from the psychological, Arabic, and English languages fields. Then the translated Arabic version of DBDI was distributed to an exploratory sample of (50) children and adolescents living in the Southern Triangle area of Occupied Palestine (1948), that in order to check the clarity of the items for the readability and the understandability of the instrument.

### The Arabic version of DBDI validity

- a. The judge's validity: The Arabic version of DBDI was reviewed by six experts in the department of psychology and counseling at ANNU. The judges suggested rephrasing some unclear items and to paraphrase some text to be more understandable for the study sample. In addition, no item was eliminated based on the judges' recommendations; therefore the Arabic version of DBDI has kept all the scale items
- b. The construct validity: To check the validity of the Arabic version of DBDI, the CITCs were calculated by applying the scale to an exploratory sample of (50) children and adolescents (38% males and 62% females). The Pearson correlation coefficients were calculated between each item in its domain with the corresponding subscale total score. All items significantly correlated with their subscales ( $p < .01$ ). In the CD subscale, the correlation coefficients ranged from (.64 to.91) and In the ODD subscale, the correlation coefficients ranged from (.75 to.89). Accordingly, the Arabic version of DBDI has kept all the scale items which indicating sufficient construct validity of the scale and adequately assesses the underlying construct that it is supposed to measure. The table below shows the CITCs results.

**Table 3**

*The construct validity of the Arabic version of DBDI*

<b>The CD Subscale</b>			
<b>Item number</b>	<b>CITCs</b>	<b>Item number</b>	<b>CITCs</b>
1.	.74**	7.	.86**
2.	.72**	8.	.65**
3.	.91**	9.	.78**
4.	.79**	10.	.72**
5.	.75**	11.	.64**
6.	.88**		
<b>The ODD Subscale</b>			
<b>Item number</b>	<b>CITCs</b>	<b>Item number</b>	<b>CITCs</b>
1.	.79**	5.	.87**
2.	.84**	6.	.75**
3.	.80**	7.	.89**
4.	.80**	8.	.79**

\*\*( $p < .01$ ).

### **The Arabic version of DBDI reliability**

The current study checked the internal consistency reliability of the CD and ODD subscales by using Chronbach Alpha equation that resulting in coefficient of (.93 and .94) respectively which indicating excellent reliabilities.

### **2.6 The Procedures**

The following section describes the procedures followed to translate and prepare the study instruments, and to collect data:

#### **Translation of the instruments**

The current study preferred to benefit from the recommendations of Pan & De la Puente (2005) method in translation psychological scales because they are more practical and easy to apply it in the reality. Pan & De la Puente (2005) method recommended five steps for translating surveys: prepare, translate, pretest, revise, and document.

#### **The pilot study**

The researcher conducted a pilot study, and the translated and reviewed scales was administered to a sample of (50) children and adolescents in order to check the appropriateness of the Arabic version of the instruments.

#### **The final data collection**

The data collection was conducted through an online questionnaire via google form service, and that resulted in selecting (147) children and adolescents living in the Southern Triangle area of Occupied Palestine (1948). Since it was difficult to reach the intended children and adolescents physically and directly because of the social distancing of the COVID-19 pandemic. The data were collected over a period of one month. Via a google form, the online questionnaire was sent to students and their parents by social media tools. The online survey included parental informed consent, demographic questionnaire, Arabic VASC, and DBDI.



## **Data analyses**

After data collection, the researcher digitally coded the data and conducted statistical analysis SPSS. Statistical measures calculated were:

- Frequencies and percentages were calculated to describe the demographic data in terms of gender and age.
- Pearson Product-Moment Correlation coefficient was used to check construct validity and to test the association between VGA, CD, and ODD.
- Chronbach alpha coefficient was used to calculate the reliability of instruments.
- Items' means and standard deviations were calculated, and one sample t-test was conducted to compare sample means with the corresponding cut points regarding VGA, CD, and ODD in order to assess levels of these variable among participants.
- Independent sample t-test was conducted to test the effect of gender on study variables (VGA, CD, and ODD).
- Wilks' lambda test was conducted to test the effect of age on study variables (VGA, CD, and ODD).
- Simple linear regression was used to test the effect of VGA on CD and ODD.

## **2.7 Study Variables**

### **Independent Variables**

Gender with two levels (male and female) and age group with seven levels (9, 10, 11, 12, 13, 14, and 15).

### **Dependent variables**

VGA, CD, and ODD.

## **Chapter Three**

### **The Results**

The main goals of this study was to investigate the levels of VGA, CD, and ODD among the Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948). Furthermore, this study tested the impact of VGA on CD and ODD, in addition it investigated the effects of gender and age on VGA, CD, and ODD levels. Accordingly; this chapter answered questions related to the above objectives:

#### **3.1 The Results of the First Question**

**What is the level of videogames addiction among the Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948)?**

To answer this question VGA items' means and standard deviations were calculated, and the VGA items were arranged in descending order according to their means. To assess items, three interval levels were established (high, moderate, and low) where the range of responses was computed ( $5-1 = 4$ ) then the product was divided by 3 ( $4/3 = 1.33$ ) consequently every interval length is (1.33). Accordingly, the researcher adopted the following estimate to separate the scores.

- 1 to 2.33 is low.
- 2.34 to 3.67 is moderate.
- 3.68 to 5.00 is high.

**Table 4**

*VGA items' means and standard deviations among the Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948)*

<b>Item order</b>	<b>The items</b>	<b>Means</b>	<b>Standard deviations</b>	<b>Estimates</b>
8	In video games, my self-esteem increases when I defeat my enemies or pass a level.	3.34	1.49	Moderate
7	I forget about my problems while playing video games.	3.21	1.51	Moderate
2	Even if I control the amount of time I spend playing video games, after a while I start playing uncontrollably.	2.62	1.27	Moderate
13	I always talk about video games with my friends.	2.61	1.47	Moderate
1	I can't resist not playing video games even though these games can hurt me.	2.58	1.21	Moderate
5	I'm not interested in anything else while I play video games.	2.53	1.39	Moderate
4	I can't stop playing video games, even though I think I've spent a lot of time playing with them.	2.49	1.37	Moderate
3	I guess whatever I do, I can't control the time I spend playing video games.	2.37	1.28	Moderate
11	Playing video games prevents me from spending time with my family.	2.26	1.27	Low
6	Although I want to reduce the amount of time I spend playing video games, I fail every time.	2.22	1.33	Low
9	Playing video games does not allow me to complete my homework.	2.13	1.15	Low
12	I have trouble sleeping from video games.	2.08	1.11	Low
10	Playing video games prevents me from eating regular meals.	1.91	1.08	Low
14	I behave like video game characters in my daily activities.	1.59	1.02	Low
<b>The VGA total score</b>		<b>2.42</b>	<b>1.00</b>	<b>Moderate</b>

As shown in the table above, the estimates of VGA items ranged between low and moderate, where the highest score was for the item (8) with a moderate estimate and the mean was (3.34) and the standard deviation was (1.49). Item (8) says, "In video games, my self-esteem increases when I defeat my enemies or pass a level". On the other hand, the lowest score was for the item (14) with a low estimate and the mean was (1.59) and the standard deviation was (1.02). Item (14) says, "I behave like video game characters in my daily activities".

In order to assess responses on the VGA among the Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948), and to discover the position of the participants on the VGA, the researcher compare the VGA total score with appropriate cut point value, based on mid-point between the minimum and the maximum values. To test the difference between the sample score and its cut point value which represents the hypothetical mean, the researcher used a one-sample t-test. The table below shows the result.

**Table 5**

*Results of one sample t-test for the difference between the VGA sample mean and the hypothetical mean*

<b>The sample</b>		<b>The population</b>		<b>T value</b>	<b>d.f.</b>	<b>Sig.</b>
<b>Mean</b>	<b>Standard deviation</b>	<b>Mean</b>	<b>Standard deviation</b>			
2.42	1.00	3	1.00	-6.91	146	000.**

\*\*( $p < .01$ ).

As illustrated in the table above, the result indicates that there is a negative significant difference ( $p < .01$ ) between the VGA sample mean ( $2.42 \pm 1.00$ ) and the hypothetical mean ( $3 \pm 1.00$ ), in favor of the hypothetical mean ( $t = -6.91$ ,  $p < .01$ ). In other words, there is a low level of videogames addiction among Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948).

### **3.2 The Results of the Second Question**

#### **What is the level of conduct disorder among the Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948)?**

To answer this question CD items' means and standard deviations were calculated, and the CD items were arranged in descending order according to their means. To assess items, three interval levels were established (high, moderate, and low) where the range of responses was computed ( $5-1 = 4$ ) then the product was divided by 3 ( $4/3 = 1.33$ ) consequently every interval length is (1.33). Accordingly, the researcher adopted the following estimate to separate the scores.

- 1 to 2.33 is low.
- 2.34 to 3.67 is moderate.
- 3.68 to 5.00 is high.

**Table 6**

*CD items' means and standard deviations among the Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948)*

<b>Item order</b>	<b>The items</b>	<b>Means</b>	<b>Standard deviations</b>	<b>Estimates</b>
2	I often lies to obtain goods or favors or to avoid obligations (i.e., "cons" others).	1.78	0.93	Low
3	I have been physically cruel to people.	1.57	0.87	Low
6	I often initiates physical fights with others who do not live in my household (e.g., peers at school or in the neighborhood)	1.37	0.75	Low
4	I have stolen items of nontrivial value without confronting a victim (e.g., shoplifting, but without breaking and entering; forgery).	1.27	0.67	Low
7	I often bully, threaten, or intimidate others.	1.27	0.62	Low
5	I have deliberately destroyed others' property (other than by fire setting).	1.23	0.61	Low
1	I ran away from home overnight at least twice while living in parental or parental surrogate home (or once without returning for a lengthy period).	1.12	0.45	Low
8	I have stolen while confronting a victim (e.g., mugging, purse snatching, extortion, armed robbery).	1.12	0.46	Low
9	I have deliberately engaged in fire setting with the intention of causing serious damage.	1.12	0.48	Low
11	I have used a weapon that can cause serious physical harm to others (e.g., a bat, brick, broken bottle, knife, gun).	1.12	0.50	Low
10	I have broken into someone else's house, building, or car.	1.08	0.37	Low
The CD total score		1.27	0.44	Low

As shown in the table above, the estimates of CD items were low, where the highest score was for the item (2) with a low estimate and the mean was (1.78) and the standard deviation was (0.93). Item (2) says, "I often lies to obtain goods or favors or to avoid obligations (i.e., "cons" others)". On the other hand, the lowest score was for the item (10) with a low estimate, the mean was (1.08), and the standard deviation was (0.37). Item (10) says, "I have broken into someone else's house, building, or car".

In order to assess responses on the CD among the Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948), and to discover the position of the participants on the CD, the researcher compare the CD total score with appropriate cut point value, based on mid-point between the minimum and the maximum values. To test the difference between the sample score and its cut point value which represents the hypothetical mean, the researcher used a one-sample t-test. The table below shows the result.

**Table 7**

*Results of one sample t-test for the difference between the CD sample mean and the hypothetical mean*

<b>The sample</b>		<b>The population</b>		<b>T value</b>	<b>d.f.</b>	<b>Sig.</b>
<b>Mean</b>	<b>Standard deviation</b>	<b>Mean</b>	<b>Standard deviation</b>			
1.27	0.44	3	0.44	-46.86	146	000.**

\*\*( $p < .01$ ).

As illustrated in the table above, the result indicates that there is a negative significant difference ( $p < .01$ ) between the CD sample mean ( $1.27 \pm 0.44$ ) and the hypothetical mean ( $3 \pm 0.44$ ), in favor of the hypothetical mean ( $t = -46.86$ ,  $p < .01$ ). In other words, there is a low level of conduct disorder among Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948).

### **3.3 The Results of the Third Question**

#### **What is the level of oppositional defiant disorder among the Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948)?**

To answer this question ODD items' means and standard deviations were calculated, and the ODD items were arranged in descending order according to their means. To assess items, three interval levels were established (high, moderate, and low) where the range of responses was computed ( $5-1 = 4$ ) then the product was divided by 3 ( $4/3 = 1.33$ ) consequently every interval length is (1.33). Accordingly, the researcher adopted the following estimate to separate the scores.

- 1 to 2.33 is low.
- 2.34 to 3.67 is moderate.
- 3.68 to 5.00 is high.

**Table 8**

*ODD items' means and standard deviations among the Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948)*

<b>Item order</b>	<b>The item</b>	<b>Means</b>	<b>Standard deviation</b>	<b>Estimates</b>
6	I'm often touchy or easily annoyed by others.	2.88	1.24	Moderate
7	I often lose my temper.	2.74	1.11	Moderate
5	I'm often angry and resentful.	2.70	1.16	Moderate
2	I'm often spiteful or vindictive.	2.14	1.11	Low
4	I often actively defies or refuses to comply with adults' requests or rules.	1.97	0.98	Low
3	I often blames others for my mistakes or misbehavior.	1.91	1.04	Low
1	I often argues with adults.	1.84	0.96	Low
8	I often deliberately annoy people.	1.74	1.00	Low
<b>The ODD total score</b>		<b>2.24</b>	<b>0.76</b>	<b>Low</b>

As shown in the table above, the estimates of ODD items ranged between low and moderate, where the highest score was for the item (6) with a moderate estimate, the mean was (2.88) and the standard deviation was (1.24). Item (6) says, "I'm often touchy or easily annoyed by others". On the other hand, the lowest score was for the item (8) with a low estimate and the mean was (1.74) and the standard deviation was (1.00). Item (8) says, "I often deliberately annoy people."

In order to assess responses on the ODD among the Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948), and to discover the position of the participants on the ODD, the researcher compare the ODD total score with appropriate cut point value, based on mid-point between the minimum and the maximum values. To test the difference between the sample score and its cut point value which represents the hypothetical mean, the researcher used a one-sample t-test. The table below shows the result.

**Table 9**

*Results of one sample t-test for the difference between the ODD sample mean and the hypothetical mean*

<b>The sample</b>		<b>The population</b>		<b>T value</b>	<b>d.f.</b>	<b>Sig.</b>
<b>Mean</b>	<b>Standard deviation</b>	<b>Mean</b>	<b>Standard deviation</b>			
2.24	0.76	3	0.76	-12.04	146	000.**

\*\*( $p < .01$ ).

As illustrated in the table above, the result indicates that there is a negative significant difference ( $p < .01$ ) between the ODD sample mean ( $2.24 \pm 0.76$ ) and the hypothetical mean ( $3 \pm 0.76$ ), in favor of the hypothetical mean ( $t = -12.04, p < .01$ ). In other words, there is a low level of oppositional defiant disorder among Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948).

### 3.4 The Results of the Fourth Question

#### **Does gender affect the videogames addiction, conduct disorder, and oppositional defiant disorder among Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948)?**

To answer this question, VGA, CD, and ODD means and standard deviations in light of gender were calculated, and the table below shows the results.

**Table 10**

*VGA, CD, and ODD means and standard deviations in light of gender among Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948)*

<b>Dependent Variable</b>	<b>Gender</b>	<b>Frequency</b>	<b>Mean</b>	<b>Standard deviation</b>
VGA	Males	67	2.82	0.82
	Females	80	2.10	1.03
CD	Males	67	1.40	0.56
	Females	80	1.17	0.28
ODD	Males	67	2.26	0.72
	Females	80	2.22	0.80

As shown in the table above, there were apparent differences between VGA, CD, and ODD means in light of gender among Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948). In order to test the differences between these means according to gender, the researcher used independent sample t-test and the table (11) in Appendix (D) shows the results.

As illustrated in the table above, there is a significant difference between the males and females in VGA in favor of males ( $p < .01$ ), where males' mean was (2.82) and with a standard deviation of (0.82) meanwhile, females' mean was (2.10) and with a standard deviation of (1.03). Consequently, males are more addicted to videogames than females.



Furthermore, there is a significant difference between the males and females in CD in favor of males ( $p < .01$ ), where males' mean was (1.40) and with a standard deviation of (0.56) meanwhile, females' mean was (1.17) and with a standard deviation of (0.28). Consequently, the prevalence rate of CD is higher among males than among females.

Moreover, there is an insignificant difference between the males and females in ODD ( $p > .05$ ), where males' mean was (2.26) and with a standard deviation of (0.72) meanwhile, females' mean was (2.22) and with a standard deviation of (0.80). Consequently, the prevalence rate of ODD among males and females is similar.

### **3.5 The Results of the Fifth Question**

#### **Does age affect the videogames addiction, conduct disorder, and oppositional defiant disorder among Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948)?**

To answer this question, VGA, CD, and ODD means and standard deviations in light of age were calculated, and the table (12) in Appendix (D) shows the results.

As shown in the table above, there were apparent differences between VGA, CD, and ODD means in light of age among Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948). In order to test the differences between these means according to age, the researcher used a one-way ANOVA test and the table (13) in Appendix (D) shows the results.

As illustrated in the table above, there are significant differences between VGA, CD, and ODD means according to age factor ( $p < .01$ ). In order to discover the sources of these differences LSD post hoc test was performed and the table (14) in Appendix (D) shows the results.

As shown in the table above, there is a significant difference between the age of (9) years old and the age of (14) in VGA means ( $p < .05$ ) in favor of (9) years old, which indicated the youngest children are more addicted to video games comparing with the older children. In addition, there is a significant difference between the ages of (9) years old and the age of (14) in CD means ( $p < .05$ ) in favor of (9) years old, which indicated the CD is higher among youngest children comparing with the older children.

Furthermore, there are significant differences between the ages of (10) and (15), (11) and (15), and (13) and (15) years old in ODD means ( $p < .05$ ) in favor of (15) years old, which indicated the ODD is higher among oldest children comparing with the younger children.

### 3.6 The Results of the Sixth Question

#### **What are the impacts of videogames addiction on conduct disorder and oppositional defiant disorder among Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948)?**

To answer this question, Pearson Product-Moment Correlation Coefficients for VGA, CD, and ODD were computed, and the table (15) in Appendix (D) shows the results.

As shown in the table above, there are significant positive correlation coefficients between VGA and CD ( $r = .25, p < .01$ ), between VGA and ODD ( $r = .32, p < .01$ ), and between CD and ODD ( $r = .62, p < .01$ ). Accordingly increasing video games addiction is accompanied by increases in CD and ODD. In order to determine the impact of VGA in CD and ODD simple linear regression test was performed. Results showed that VGA could predict both CD and ODD among Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948), and the table (16) in Appendix (D) shows the results.

Simple linear regression was carried out to investigate the impact of VGA on both CD and ODD. The results showed that there was a moderate positive linear relationship between VGA and ODD ( $\beta = .248, t = 4.17, p < .01$ ). Simple linear regression showed a significant effect of VGA on ODD, where the adjusted  $R^2$  value was .101 so 10.1% of the variation in ODD can be explained by VGA. Furthermore, the model is valid to predict ODD by VGA ( $F = 17.45, p < .01$ ). Accordingly the prediction equation as follow:

$$\text{ODD} = 1.64 + \text{VGA} (.248) \dots \dots \dots (1)$$

On the other hand, the results showed that there was a weak positive linear relationship between VGA and CD ( $\beta = .112, t = 3.14, p < .01$ ). Simple linear regression showed a significant effect of VGA on CD, where the adjusted  $R^2$  value was .057 so 5.7% of the

variation in CD can be explained by VGA. Furthermore, the model is valid to predict CD by VGA (F = 9.88, p <.01). Accordingly the prediction equation as follow:

$$CD = 1.006 + VGA (.112) \dots\dots\dots (2)$$

## Chapter Four

### Discussion and Recommendations

The main objective of this research was to identify and discover levels of video games addiction, oppositional defiant, and conduct disorders among children and adolescents in the Southern Triangle area of Occupied Palestine (1948), and the effect it may have on the prevalence of oppositional defiant disorder and conduct disorder, as well as the possible connections to age and gender. Furthermore, the study tested relationships between video games addiction, oppositional defiant, and conduct disorders. In addition, the study checked the effects of gender and age on these variables. In this chapter we will discuss the results found and provide recommendations.

#### 4.1 Discussion of the First Question's Results

##### **What is the level of videogames addiction among the Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948)?**

As shown in table (4), the estimations of the VGA items in the questionnaire ranged between low and moderate, with the highest being item (8): "In video games, my self-esteem increases when I defeat my enemies or pass a level." with mean of (3.34) and SD of (1.49). On the contrary, item (14): "I behave like video game characters in my daily activities." Scored the lowest with mean of (1.59) and SD of (1.02).

After conducting a one sample t-test, table (5) shows that there is a negative significant difference ( $p < .01$ ) between the VGA sample mean ( $2.42 \pm 1.00$ ) and the hypothetical mean ( $3 \pm 1.00$ ). This finding indicates that the level of video game addiction among Palestinian children and adolescents involved in this study is low, as it scored below the hypothetical mean.

A possible explanation for the results can be attributed to: cultural, political and religious reasons that may affect the prevalence of video games in the Palestinian areas. Rehbein & Baier (2013) explain that the cause of video game addiction is primarily environmental. Looking at the Palestinian environment, there are cultural conflicts regarding video games; the older generations and their teaching view video games in a more negative light and push for a more productive activity that align more with the Palestinian culture, such as outdoor hobbies and helping their parents in familial

businesses. The political instability also contributes to the lower addiction rate in Palestinian areas, as it falls under environmental reasons. As for the religious aspect, Palestinian areas are more spiritually inclined, and highly value religious teaching and beliefs. Some of these teachings and beliefs view video games as a harmful activity, and discourages children and adolescents from indulging in them. Other environmental factors include single parent families, low school life experience and low social integration, all which are less common in Palestinian areas. An additional factor that contributes to this study's results is the parental control in the Palestinian society. Palestinian parents in these areas often have higher level of control over how their children spend their time, are able to detect problematic behavior, and manage them in order to reduce the potential complications that their children may develop. One of such problematic behavior can be the extended periods of time that children can spend playing video games. All these elements may restrict children and adolescent from partaking in video games, and limit their availability or time allowed to play.

In the Southern Triangle area, people generally view video games in a more negative light, and connect it to many of the problems that the youth may exhibit. The problem that stands out the most is their performance at school; there is a belief among parents that video games cause their children to become lazy and neglect their schoolwork, thus limiting or outright prohibiting the use of video games.

In addition to the parents, some of the children and adolescents think negatively of video games. Viewing it through a stereotype, they think that only young kids should play video games, because it's only made for them. Meanwhile, adults enjoy other more mature, sometimes harmful, activities, prompting many to abandon video games, in order to seek a more mature image to gain the respect of their peers, and thus be more socially acceptable, lovable and popular.

The fact that Item (8): "In video games, my self-esteem increases when I defeat my enemies or pass a level." has the highest score can be explained by the nature of video games. Since the main goal of games in general is to surpass the obstacle and win the game, it brings the feeling of satisfaction to the players. In the Southern Triangle area, it may be connected to pride as well, as many seem to enjoy the sense of achievements and the feel of superiority or masculinity, which is valued highly in this area.

Meanwhile, item (14): "I behave like video game characters in my daily activities." Having the lowest score can be attributed to the social view to video games. Some children and adolescent may not want to associate themselves publicly with the image portrayed in video game characters, or simply due to many video games originating in fantasy, making these personalities unrealistic and difficult to interpret into reality.

Looking at previous studies like Przyblyski et al. (2009) and Wan & Chiou (2006) can also help explain the results, as the research states that video game addiction stems from lack of fulfillment and the need to find an alternative way to meet unfulfilled desires. This finding indicates that the level of fulfillment among children and adolescents in the researched area is adequate enough.

#### **4.2 Discussion of the Second Question's Results**

##### **What is the level of conduct disorder among the Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948)?**

As shown in table (6), the estimations of the CD items in the questionnaire were low, with the highest being item (2) "I often lie to obtain goods or favors or to avoid obligations (i.e., "cons" others)." With mean of (1.78) and SD of (0.93). On the contrary, item (10) "I have broken into someone else's house, building, or car." Scored the lowest with mean of (1.08) and SD of (0.37).

After conducting a one sample t-test, table (7) shows that there is a negative significant difference ( $p < .01$ ) between the CD sample mean ( $1.27 \pm 0.44$ ) and the hypothetical mean ( $3 \pm 0.44$ ), meaning that the level of Conduct Disorder among Palestinian children and adolescents living in the Southern Triangle area of occupied Palestine (1948) is low, as it scored below the hypothetical mean.

Item (2): "I often lie to obtain goods or favors or to avoid obligations (i.e., "cons" others)." Shows that some children and adolescents are willing to use lies for personal gain. Although scoring low, some might perceive lying as the weakest of sins and have no issue using such methods.

On the other hand, Item (10): "I have broken into someone else's house, building, or car." presents a rare case of conduct behavior, as shown by the item being the lowest

scoring; only a small amount of children and adolescent preform this type of behavior, possibly due to the religious reasons preventing it.

The low levels of conduct disorder among children and adolescents in this area can be mostly attributed to cultural and religious reasons. Religion plays an important role in the area, and children are brought up with religious teaching from a young age, that instructs them to be well mannered, well behaved and to treat others kindly.

Awareness also plays an important role in the behavior of children and adolescents in the Southern Triangle area. Especially in recent years, the awareness towards misbehavior has been rising, both from parents and their children; the parents having awareness and more control regarding misconduct and undesirable behaviors in schools, due to the improving development of the educational systems in the area. While children and adolescents are also experiencing an increase in awareness and condemning bullying, which helps limit such behaviors and lower the levels of conduct disorder.

In addition, many of the children and adolescents in the researched area are partaking in productive activities, such as community works, which includes trash picking and cleaning, most of which are organized by the school and other educational facilities. The purpose of these activities is to help in teaching and developing the children and adolescents and fill their free time with productive activities instead of resorting to unhealthy behavior.

All the reasons above provide an explanation to why the levels of conduct disorder are low, which follows in line with the statistics brought by the American Psychiatric Association (2013) that the prevalence of conduct disorder varies depending on country and ethnicity, ranging from 2% to 10% with a median of 4%. As shown by the study of Fairchild et al. (2019), the causes of CD can be both genetic and environmental elements, as discussed previously, the environmental elements in Palestine can affect the levels of CD among children and adolescents, which can be reflected in the results of this study. Moreover, the study done by Etchells et al. (2016) shows weak association between video game addiction and Conduct Disorder, meaning that the low levels of CD in this study can coexist with other results.

While it's important for children and adolescents to be aware of the dangers of CD, it's also necessary for the parents to help keep the levels of CD low in their area.

#### **4.3 Discussion of the Third Question's Results**

##### **What is the level of oppositional defiant disorder among the Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948)?**

As presented in table (8), the estimations of the ODD items in the questionnaire ranged between low and moderate, with the highest being item (6) "I'm often touchy or easily annoyed by others." with mean of (2.88) and SD of (1.24). On the contrary, item (8) "I often deliberately annoy people." Scored the lowest with mean of (1.74) and SD of (1.00).

After conducting a one sample t-test, table (9) shows that there is a negative significant difference ( $p < .01$ ) between the ODD sample mean ( $2.24 \pm 0.76$ ) and the hypothetical mean ( $3 \pm 0.76$ ), meaning that the level of Oppositional Defiant Disorder among Palestinian children and adolescents living in the southern triangle area of occupied Palestine (1948) is low, as it scored below the hypothetical mean.

The result of Item (6): "I'm often touchy or easily annoyed by others." is the highest rated of the ODD items, may be due to the fact that the respondents of the questionnaire are all children and adolescents, who are experiencing sensitive and temperamental stages of development, prompting them to be more susceptible to annoyance.

The finding of Item (8): "I often deliberately annoy people." goes back to the same reasoning mentioned above, to support the result of being the lowest scoring on the ODD list, being more sensitive at the stage of childhood and adolescent perhaps gives incentive not to annoy others. Additionally, the religious teachings of high manner and being kind to others, which is prominent in the Southern Triangle area.

One of the main reasons for the low levels of ODD refers back to the strong sense of comradery in the researched area, with a feeling of belonging between the residents, being one strong unit to defend themselves from outside influence and danger. With ODD, this sense of belonging and comradery can be shaken, and their relationship with figures of authority is damaged due to their defiance (Hamilton & Armando, 2008).



There are strong relationships and connections between many of the southern triangle people because of the sense of unity and solidarity in the area. For that reason, children and adolescents may fear being alienated by the people of the area, or even being antagonized by them for defiant behavior. Therefore, they refrain from such damaging actions, leading to lower levels of ODD.

Recently, the Southern Triangle area has seen a decrease in birthrate, with many households having less children. Alongside the general increase in awareness among parents, the parental control has also increased. Parents are able to more effectively monitor their children and control their problematic behaviors, which helps in the decrease in these manners, including defiance.

According to American Psychiatric Association (2013), Oppositional Defiant Disorder is prevalent in 1% to 11% of children, with a mean of 3.3%, proving to be a rare disorder with low level of prevalence, similar to the case in this study, which again can be explained in cultural and religious context. Due to the teachings of Islam, well-mannered and good behavior are imbedded and rooted deeply into the culture of Palestinian children and adolescents, that in turn helps in lowering the rates of behavioral problems such as ODD and CD. In a study by Greene et al (2002), the cause of the ODD can be attributed to a child's failure in achieving the expectations set by their parents, meaning that the results of this study indicates that parents have a better understanding of their children's abilities, and the children can find healthier ways of coping with their parents' expectations. Hamilton & Armando (2008) explain that ODD severely damages the relationship between the child and their parents, in part due to miscommunications between the child and the parent. However, the parental control in this area is high, leading to a stronger connection between child and parent. This can align with the finding that the levels of ODD in this area is moderate to low.

The levels of ODD are slightly higher than the levels of CD in the southern triangle area.

#### **4.4 Discussion of the Fourth Question's Results**

##### **Does gender affect the videogames addiction, conduct disorder, and oppositional defiant disorder among Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948)?**

Table (10) shows that there are differences between males and females' means in all of VGA, CD and ODD scores. After conducting an independent sample t-test, table (11) shows a significant difference males and females in all three variables of VGA, CD and ODD.

In VGA, males' mean was (2.82) and with SD of (0.82). Meanwhile, females' mean was (2.10) and with SD of (1.03). In CD, males' mean was (1.40) and with SD of (0.56). Meanwhile, females' mean was (1.17) and with SD of (0.28). In ODD, males' mean was (2.26) and with SD of (0.72). Meanwhile, females' mean was (2.22) and with SD of (0.80).

All of the above means that video game addiction, Conduct Disorder and Oppositional Defiant Disorder are all more prevalent in males compared to females.

Perhaps the early perception of video game, being primarily targeted to male audience, has formed a stigma around female players, and encouraged the male players participate even further.

In the Southern Triangle area, similarly, playing video games is primarily viewed as a male oriented activity, and is considered out of the ordinary for a young girl to show any interest in them, as they are expected to prefer feminine activities that do not include playing video games, resulting in a decrease of interest in playing video games among them.

As for Conduct Disorder and Oppositional Defiant Disorder, the studied area highly values masculinity, and young boys are taught to become traditional men with a strong image and commanding presence. These expectations can translate into different forms depending on the child's interpretation of the traditional man, such interpretation is the view of power and charisma, and in many cases, associate unhealthy and unwanted behavior with the concept of masculinity. as a result, many young boys try to prove

their masculinity through the acts of strength and defiance that are considered inappropriate, and potentially lead to CD and ODD.

Additionally, many of the children and adolescents have a role model that they will attempt to identify with and act similarly to, which is usually a figure of masculinity for males and a figure of femininity for females, leading children to act in exaggerated manners to feel more connected to their role models and act more like them. In the boys' case, it can become a misconception of strength and turn into misconduct and defiance.

In contrast, many of the young girls in southern triangle area are raised in a reserved manner for religious purposes, leading many of them to refrain from inappropriate or harmful behavior to comply with their teachings, thus leading to lesser prevalence in CD and ODD.

These results coincide with previous research such as Rehbein & Baier's study (2013) that found video game addiction to be highly more prevalent in males, while according to DSM-5, both ODD and CD are likelier to occur among males (American Psychiatric Association, 2013). In Greitemeyer's study (2018), the focus was on the aggressiveness relating to violent video games, a genre stereotypically dominated by male players. Violent video games affect not only the players, but the environment around them. Such increase in aggressiveness can lead to both CD and ODD as a possibility, which can provide a possible explanation to the results of this study. Said results refer to the increase of VGA among males, that can hint to an increase in CD and ODD, because of the aggression factor connecting all elements.

#### **4.5 Discussion of the Fifth Question's Results**

##### **Does age affect the videogames addiction, conduct disorder, and oppositional defiant disorder among Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948)?**

After finding the means in table (12) and performing a one-way ANOVA, table (13) shows that there are significant differences in the means of the VGA, CD and ODD items according to age.

After performing a LSD post hoc test, table (14) shows the source of the difference in the age factor for all three of the VGA, CD and ODD items, with VGA and CD being

more prevalent in the younger generation of age 9, while ODD is more prevalent in the older generation of the age 15.

Video game addiction among the younger ages seem to be more prevalent, potentially because of the different restrictions that children and adolescents have in different age periods in the southern triangle area. For adolescents, it might be harder to find time to play video games due to school restrains, being in a more life defining stage where they have to focus more on studies and career choices, as well as having a more active role in their family's responsibilities. While the younger generation might have an easier time finding opportunities to participate in video games because of the greater freedom compared to the older ones.

As mentioned in study conducted by Rehbein & Baier (2013), video game addiction appears to be more common in younger males, and would continue in adolescents if the problematic behaviors are not addressed. This matches the results of this study, showing that video game addiction is more prevalent in younger generation of players. Additionally, these results also show a decreased level of VGA among adolescents, which can mean that problematic behavior related to VGA are addressed to a degree in the researched area. However, Conduct Disorder being more prevalent among younger children is an interesting result, because it contradicts the findings of DSM5, which states that conduct disorder is more prevalent among adolescents than children (American Psychiatric Association, 2013). The results of this study conflict with the findings of Hamilton & Armando (2008), stating that ODD may develop in children of a younger age, as it starts with oppositional behavior that may become ODD, and if not treated, could develop further into CD as a later age. This current study's results show that CD occurs more frequently in younger children, while ODD is more common among the older adolescents.

Such conflicting results can be due to cultural and environmental reason, and the unique conditions of living in occupied Palestine, forcing a change in behavior among adolescents, and the researched area in this study is no different; as adolescents have more responsibilities and roles demanded of them in our society, particularly to be mature and an aid to their family.

As for children in this area, having higher conduct issues can be related to the factors tying their developmental stage and the environment they grew up in. Similarly, to adolescents, children will learn about their history and the position they are in as Palestinians, and as a result display undesirable behavior in response.

For oppositional Defiant Disorder being more prevalent in adolescents, the results could also reflect the condition of living in occupied Palestine, it shows a nature of defiance among adolescents as they become aware of their state and learn their history. With the southern triangle area being located in a position that makes it susceptible to conflict, it leads the adolescents to take a more defensive and defiant position in anticipation of possible danger, potentially leading this defiance into becoming ODD.

#### **4.6 Discussion of the Sixth Question's Results**

##### **What are the impacts of videogames addiction on conduct disorder and oppositional defiant disorder among Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948)?**

After performing a Pearson Product-Moment Correlation Coefficients for VGA, CD, and ODD, table (15) shows that there is a significant positive correlation coefficient between VGA and CD, VGA and ODD and CD and ODD, meaning that the correlation of video game addiction on both Conduct Disorder and Oppositional Defiant Disorder is positive, as in the increase of video game addiction in turn increases the possibility of conduct disorder and oppositional defiant disorder appearing.

The results of the simple linear regression test shown in table (16) reveals that there was a moderate positive linear relationship between VGA and ODD, showing a significant effect of VGA on ODD, where the adjusted  $R^2$  value was .101 so 10.1% of the variances in ODD can be explained by VGA. As well for CD, there was a weak positive linear relationship between VGA and CD, showing a significant effect of VGA on CD, where the adjusted  $R^2$  value was .057 so 5.7% of the variances in CD can be explained by VGA.

From these results we can see that the effect of VGA is greater on the presence of ODD, having a moderate positive linear relationship. This could be explained with the nature of addiction, combined with the prominent behavior in ODD being defiance. It could

lead to children and adolescents defying figures of authority in order to seek the object of their addiction, that being video games, and developing rebellious tendencies in the process, being accompanied with it from earlier, leading to the combination of VGA and ODD.

This finding is supported by the study of Puerta-Cortés (2017), which suggested that there is a connection between video game addiction and impulsiveness that appear in ODD, stating that children and adolescents with more hours of video games having a higher chance of showing dysfunctional impulsive behaviors.

In terms of conduct disorder, the relation to VGA was found to be a weak positive linear relationship, which is also supported by the answer of the second question about CD having low levels in the triangle area of occupied Palestine (1948). It follows the same line of reasoning as to the cultural, environmental and religious elements, affecting the behaviors of Palestinian children and adolescents, causing a decrease in the level of CD in general, and now showing that the effect of video game addiction is similarly weak.

These results are also supported by the study conducted by Etchells et al. (2016), with the purpose of finding the effect of video game usage on depression and conduct disorder in children, the finding of which shows that there is no correlation between CD and usage of video games. While research like Greitemeyer (2018) focused primarily on violent video games and violence in children and adolescents. However, the study focused on narrow and specific elements, which are violence and violent video games, while the results from this study focused on the broader genres of video games and the addiction not only pertaining to one specific type of video game, as well as targeting more than the behavior of violence, but oppositional defiant and conduct disorders.

With this study we aimed to find the effect of video game addiction on both oppositional defiant and conduct disorders in children and adolescents of the triangle area of occupied Palestine (1948).

#### **4.7 Recommendations**

1. A periodic monitoring system can be implemented in the area by parents and teachers to detect unhealthy behavior and reward good behavior, to help maintain the low levels of Conduct Disorder. Additionally, while the score is still low, lying is the most common form of misconduct among children and adolescents, therefore a stricter monitoring for lying can help reduce the levels even further.
2. Awareness campaigns more focused on ODD is recommended, in addition to teaching children more acceptable methods and activities in place of their problematic behavior, in a healthier manner.
3. It's important for future studies and psychological evaluations to consider these findings for future cases involving similar research, and take into consideration the gender differences when it comes to VGA, CD and ODD being higher among males.
4. A research focusing specifically on the causes of higher levels of VGA, CD and ODD among males, and finding the difference between males and females, can contribute to both studies and evaluations, potentially finding solutions to the high levels.
5. Due to some contradictory findings with past studies, a more representative study is recommended, conducted across multiple regions then compared, in order to have more conclusive and accurate results, and if the findings remain similar to this study, another research is recommended to identify the reasons for the results.
6. From the results, it's important to take into consideration both CD and ODD when considering VGA as an element in future studies, as well as considering the environment in which the study is conducted. It's also important to conduct the same study in different regions to find differences and help in distinguishing potential issues, to further increase awareness, and to help with effectively managing any region specific problems that can arise in this subject.

## **4.8 Suggestions**

1. This research suggests a larger sample across wider areas and ages groups, to compare the level of addiction for children and adolescents to a more general audience.
2. Expanding the concept of video game addiction, and separate it into different categories that include genres and online gaming, to further our understanding of video game addiction.
3. The study recommends conducting this research with a larger and representative sample.
4. To encourage conducting this research in different locations across Palestine with the comparison of results.
5. The study encourages awareness campaigns regarding video games and their effect in Palestine for both children and parents.
6. Conducting more research on video game addiction and its effect on different group of disorders and samples, with different age groups to this study, in order to understand the effect of video games in general.
7. More studies into video game addiction from a mental health perspective, to improve its representation in diagnostic manuals.



## **List of Abbreviations**

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<b>Abbreviations</b>	<b>Meaning</b>
VGA	Video Game Addiction
ODD	Oppositional Defiant Disorder
CD	Conduct Disorder
DSM	Diagnostic and Statistical Manual of Mental Disorders
APA	American Psychiatric Association
VG	Video Games
ADHD	Attention deficit/Hyperactivity Disorder
DBD	Disruptive Behavior Disorders
VASC	Videogame Addiction Scale for Children
DBDI	The Disruptive Behavior Disorder Inventory

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## Appendices

### Appendix A

#### Video Game Addiction and Disruptive Behavior Questionnaire

The researcher is conducting a study on video game addiction, and the effect of it on disruptive behavior, among children and adolescents, in the Triangle area, because of the wide spread of video games, and the lack of studies concerning the effects in this area. Please fill out the questionnaire below. The confidentiality of the participants is preserved, and the results will be used for research purposes only.

Gender: \_\_\_\_\_

Age: \_\_\_\_\_

Write (x) for the answer most suitable for you, keeping in mind that there are no wrong answers.

No.	Item	Never	Rarely	Sometimes	Often	Always
1.	I can't resist not playing video games even though these games can hurt me					
2.	Even if I control the amount of time I spend playing video games, after a while I start playing uncontrollably					
3.	I guess whatever I do, I can't control the time I spend playing video games					
4.	I can't stop playing video games, even though I think I've spent a lot of time playing with them					
5.	I'm not interested in anything else while I play video games					
6.	Although I want to reduce the amount of time I spend playing video games, I fail every time					
7.	I forget about my problems while playing video games					
8.	In video games, my self-esteem increases when I defeat my enemies or pass a level					

No.	Item	Never	Rarely	Sometimes	Often	Always
9.	Playing video games does not allow me to complete my homework					
10.	Playing video games prevents me from eating regular meals					
11.	Playing video games prevents me from spending time with my family					
12.	I have trouble sleeping from video games					
13.	I always talk about video games with my friends					
14.	I behave like video game characters in my daily activities					
15.	I often argues with adults					
16.	I'm often spiteful or vindictive					
17.	I often blame others for my mistakes or misbehavior					
18.	I often actively defy or refuse to comply with adults' requests or rules					
19.	I'm often angry and resentful					
20.	I'm often touchy or easily annoyed by others					
21.	I often lose my temper					
22.	I often deliberately annoy people					
23.	I ran away from home overnight at least twice while living in parental or parental surrogate home (or once without returning for a lengthy period)					
24.	I often lie to obtain goods or favors or to avoid obligations (i.e., "cons" others)					
25.	I have been physically cruel to people					
26.	I have stolen items of nontrivial value without confronting a victim (e.g., shoplifting, but without breaking and entering; forgery)					

<b>No.</b>	<b>Item</b>	<b>Never</b>	<b>Rarely</b>	<b>Sometimes</b>	<b>Often</b>	<b>Always</b>
27.	I have deliberately destroyed others' property (other than by fire setting)					
28.	I often initiate physical fights with others who do not live in my household (e.g., peers at school or in the neighborhood)					
29.	I often bully, threaten, or intimidate others					
30.	I have stolen while confronting a victim (e.g., mugging, purse snatching, extortion, armed robbery)					
31.	I have deliberately engaged in fire setting with the intention of causing serious damage					
32.	I have broken into someone else's house, building, or car					
33.	I have used a weapon that can cause serious physical harm to others (e.g., a bat, brick, broken bottle, knife, gun)					

## Appendix B

### استبيان ادمان العاب الفيديو والسلوك التخريبي

يقوم الباحث بعمل دراسة حول ادمان العاب الفيديو وتأثيرها على السلوك التخريبي عند الأطفال والمراهقين في منطقة المثلث، وذلك بسبب انتشار الألعاب وقلة الدراسات المجرية حول تأثيرها على سكان هذه المنطقة، فمع ذلك يرجى تعبئة الاستبيان، مع المعرفة ان سرية المشاركين محفوظة، وان النتائج سوف تستخدم فقط لأسباب علمية ولدراسات.

الجنس: \_\_\_\_\_

العمر: \_\_\_\_\_

ضع إشارة (X) في المربع الأكثر مناسب لك ولخبرتك، مع العلم انه لا توجد أجوبة خاطئة

الرقم	الفقرة	ابدا	نادراً	أحياناً	غالباً	دائماً
1.	لا يمكنني مقاومة التوقف عن ممارسة ألعاب الفيديو					
2.	أفقد القدرة على التحكم بالزمن الذي أقضيه في ممارسة العاب الفيديو					
3.	أعتقد أنه مهما فعلت، لا يمكنني التحكم في الوقت الذي أقضيه في لعب ألعاب الفيديو					
4.	لا يمكنني التوقف عن ممارسة ألعاب الفيديو حتى لو قضيت الكثير من الوقت في ممارستها					
5.	لست مهتمًا بأي شيء آخر أثناء لعب ألعاب الفيديو					
6.	على الرغم من أنني أرغب في تقليل مقدار الوقت الذي أقضيه في ممارسة ألعاب الفيديو، إلا أنني أفضل في كل مرة					
7.	أنسى مشاكلني أثناء لعب ألعاب الفيديو					
8.	في ألعاب الفيديو، يزداد تقديري لذاتي عندما أهزم أعدائي أو تجاوز مستوى معين في اللعبة					
9.	ممارسة ألعاب الفيديو لا تسمح لي بإكمال واجباتي المنزلية أو المدرسية					
10.	ممارسة ألعاب الفيديو تمنعني من تناول وجبات الطعام بشكل منتظم					



الرقم	الفقرة	ابدا	نادراً	أحياناً	غالباً	دائماً
11.	ممارسة ألعاب الفيديو تمنعني من قضاء الوقت مع عائلتي					
12.	أجد صعوبة في النوم بسبب ألعاب الفيديو					
13.	أتحدث دائماً عن ألعاب الفيديو مع أصدقائي					
14.	أتصرف مثل شخصيات ألعاب الفيديو في أنشطتي اليومية					
15.	أتجادل مع الكبار وأتمرد عليهم					
16.	أحقد بسهولة على الآخرين					
17.	ألوم الآخرين على أخطائي أو سوء تصرفي					
18.	أتحدى بشدة أو أرفض الامتثال لطلبات أو توجيهات الكبار					
19.	أشعر بالغضب والاستياء					
20.	أكون حساساً أو منزعجاً بسهولة من الآخرين					
21.	أفقد أعصابي بسرعة					
22.	أزعج الناس عمداً					
23.	هربت من المنزل ليلة كاملة مرتين على الأقل (أو مرة واحدة دون العودة لفترة طويلة)					
24.	أكذب للحصول على أشياء أو خدمات أو لتجنب الالتزامات					
25.	أكون عنيفاً مع الآخرين					
26.	أقوم بسرقة الأشياء البسيطة دون انتباه الآخرين					
27.	لقد دمرت عمداً ممتلكات الآخرين					
28.	أبدأ معارك جسدية مع آخرين لا يعيشون في منزلي (على سبيل المثال، زملائي في المدرسة أو في الحي)					
29.	أنتمر على الآخرين أو أهددهم أو أخيفهم					
30.	لقد سرقت أثناء مواجهة ضحية (على سبيل المثال، سرقة، سرقة نقود، ابتزاز)					
31.	لقد انخرطت عمداً في إشعال النيران بنية التسبب في أضرار كبيرة					
32.	لقد اقتحمت منزل أو مبنى أو سيارة شخص آخر					
33.	لقد استخدمت سلاحاً يمكن أن يسبب ضرراً خطيراً للآخرين (على سبيل المثال، مضرب، زجاجة مكسورة، سكين)					

## Appendix C

### لجنة تحكيم للنسخة العربية من استبيان VASC و DBDI

رقم	الاسم	الجامعة	التخصص
1	د. وائل أبو الحسن	الجامعة العربية الامريكية	علم النفس الاكلينيكي
2	د. اياد أبو بكر	جامعة القدس المفتوحة	صحة نفسية
3	د. إبراهيم مصري	جامعة الخليل	ارشاد نفسي
4	د. شادي أبو الكباش	جامعة النجاح الوطنية	ارشاد نفسي
5	د. فلسطين نزال	جامعة النجاح الوطنية	ارشاد نفسي
6	د. عمر غنام	جامعة النجاح الوطنية	القياس النفسي التربوي

## Appendix D

### Tables

**Table 11**

*The Results of independent sample t-test for the Differences in VGA, CD, and ODD in light of gender among Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948)*

<b>Dependent variable</b>	<b>T value</b>	<b>d.f.</b>	<b>Sig.</b>
VGA	4.52	145	.000**
CD	3.19	145	.002**
ODD	0.39	145	.753

**Table 12**

*VGA, CD, and ODD means and standard deviations in light of age among Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948)*

<b>Age</b>	<b>Statistics</b>	<b>VGA</b>	<b>CD</b>	<b>ODD</b>
9 years	Mean	3.00	2.31	1.47
	Standard deviation	1.02	1.19	0.61
10 years	Mean	2.90	2.04	1.24
	Standard deviation	0.95	0.51	0.25
11 years	Mean	2.41	2.08	1.26
	Standard deviation	1.07	0.83	0.46
12 years	Mean	2.30	2.23	1.31
	Standard deviation	0.96	0.64	0.50
13 years	Mean	2.25	2.02	1.23
	Standard deviation	0.90	0.60	0.43
14 years	Mean	2.20	2.27	1.21
	Standard deviation	1.12	0.65	0.30
15 years	Mean	2.41	2.42	1.27
	Standard deviation	1.01	0.85	0.47

**Table 13**

*The Results of one-way ANOVA for the Differences in VGA, CD, and ODD in light of age among Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948).*

<b>Dependent variables</b>	<b>Source</b>	<b>Type III Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
VGA	Between groups	18.630	6	3.105	3.361	0.004**
	Within groups	129.344	140	0.924		
	Total	147.974	146			
CD	Between groups	7.988	6	1.331	8.875	0.000**
	Within groups	21.000	140	0.150		
	Total	28.988	146			
ODD	Between groups	9.761	6	1.627	3.032	0.008**
	Within groups	75.121	140	0.537		
	Total	84.882	146			

\*\*p <.01

**Table 14**

*The Results of LSD post hoc test to test the differences in VGA, CD, and ODD means according to age among Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948)*

<b>VGA</b>						
Age	10 years	11 years	12 years	13 years	14 years	15 years
9 years	.09	.58	.69	.74	<u>.79*</u>	.58
10 years		.49	.60	.64	.71	.49
11 years			.10	.15	.20	-.01
12 years				.05	.10	-.11
13 years					.05	-.17
14 years						-.21
<b>CD</b>						
Age	10 years	11 years	12 years	13 years	14 years	15 years
9 years	.23	.21	.16	.24	<u>.25*</u>	.20
10 years		-.02	-.07	.01	0.03	-.03
11 years			-.05	.03	.05	-.01
12 years				.08	.10	.04
13 years					.02	-.04
14 years						-.06
<b>ODD</b>						
Age	10 years	11 years	12 years	13 years	14 years	15 years
9 years	.27	.24	.08	.29	.04	-.11
10 years		-.04	-.19	.02	-.22	<u>-.38*</u>
11 years			-.15	.06	-.19	<u>-.34*</u>
12 years				.21	-.04	-.19
13 years					-.24	<u>-.40*</u>
14 years						-.16

\* p <.05

**Table 15**

*Bivariate correlations between VGA, CD, and ODD among Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948)(n = 147)*

<b>Variables</b>	<b>VGA</b>	<b>CD</b>	<b>ODD</b>
VGA		.25**	.32**
CD			.62**

\*\* p < .01

**Table 16**

*Simple linear regression of the VGA impact on CD and ODD among Palestinian children and adolescents in the Southern Triangle area of Occupied Palestine (1948)*

<b>Dependent variables</b>	<b>Independent variable: VGA</b>						
	<b>R<sup>2</sup></b>	<b>Adjusted R<sup>2</sup></b>	<b>β</b>	<b>T value</b>	<b>Constant</b>	<b>F value</b>	<b>Sig.</b>
CD	.253	.057	.112	3.14**	1.006	9.88	.002**
ODD	.328	.101	.248	4.17**	1.64	17.45	.000**

\*\* p < .01



جامعة النجاح الوطنية  
كلية الدراسات العليا

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الجنوبي من فلسطين المحتلة

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علاء عنان جابر

إشراف  
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قدمت هذه الرسالة استكمالاً لمتطلبات الحصول على درجة الماجستير في علم النفس الإكلينيكي من كلية الدراسات العليا في جامعة النجاح الوطنية، نابلس، فلسطين.

# تأثير إدمان ألعاب الفيديو على اضطراب المعارض المتحدي واضطراب المسلك لدى الأطفال والمراهقين في منطقة المثلث الجنوبي من فلسطين المحتلة

إعداد

علاء عنان جابر

إشراف

د. فاخر الخليلي

د. محمد مرشود

## الملخص

ألعاب الفيديو هي شكل من أشكال النشاط الترفيهي، والتي تستخدم بشكل شائع اليوم كوسيلة فعالة للاستمتاع وتمضية الوقت. ومع ذلك، مع زيادة الشعبية، تأتي زيادة القلق بشأن مشاكل الصحة النفسية، الناجمة عن التعرض لمثل هذه الألعاب. تهدف الدراسة الحالية إلى التحقيق من تأثير إدمان ألعاب الفيديو على كل من اضطراب التحدي المعارض والسلوك بين الأطفال والمراهقين في سياق منطقة المثلث الجنوبي من فلسطين المحتلة (1948)، وانتشار إدمان ألعاب الفيديو، اضطراب التحدي المعارض واضطراب المسلك في المنطقة، وكذلك تأثير العمر والجنس على كل من إدمان ألعاب الفيديو، اضطراب التحدي المعارض، اضطراب المسلك.

تم استخدام التصميم الوصفي الكمي المقطعي والارتباطي لتحقيق أهداف هذه الدراسة. يتألف مجتمع هذه الدراسة من جميع الأطفال والمراهقين من سن 9 إلى 15 عامًا، ومن كلا الجنسين الذين يعيشون في منطقة المثلث الجنوبي من فلسطين المحتلة (1948). تم اختيار مجموعه (147) من الأطفال والمراهقين (46% ذكراً و54% أنثى) باستخدام تقنية أخذ العينات المتاحة، تم اتباع هذه الطريقة بسبب المسافة الاجتماعية والإجراءات الوقائية أثناء جائحة COVID-19. استجاب الجميع لاستبيان من جوجل فورم، التي تقيس كلا من إدمان ألعاب الفيديو، واضطراب التحدي المعارض، واضطراب المسلك. وقد أظهر إجراء الاختبارات المناسبة لقياس صدق وثبات الاستبيان صدق كافٍ في جميع البنود وثبات ممتازة.

أظهرت النتائج أنه في منطقة المثلث الجنوبي، يكون لإدمان ألعاب الفيديو تأثير أكبر على اضطراب التحدي المعارض من اضطراب المسلك، حيث كانت هناك علاقة خطية إيجابية معتدلة بين إدمان ألعاب الفيديو واضطراب التحدي المعارض ( $\beta = 0.248, t = 4.17, p > 0.01$ ). من ناحية أخرى، كانت هناك علاقة خطية إيجابية ضعيفة بين إدمان ألعاب الفيديو واضطراب المسلك ( $\beta = 0.112, t = 3.14, p > 0.01$ ). بالإضافة إلى ذلك، فإن إدمان ألعاب الفيديو ( $1.00 \pm 2.42$ ) واضطراب التحدي المعارض ( $1.27 \pm 0.44$ ) واضطراب المسلك ( $0.76 \pm 2.24$ ) لم يلبي قيمة نقطة القطع للوسائل الافتراضية، مما يشير إلى أن مستويات الاضطرابات المذكورة أعلاه منخفضة في منطقة المثلث الجنوبي. علاوة على ذلك، في حين أن كل من إدمان ألعاب الفيديو واضطراب التحدي المعارض واضطراب المسلك أكثر انتشاراً بين الذكور، فقد لوحظ أن إدمان ألعاب الفيديو واضطراب المسلك أكثر شيوعاً بين الأطفال الصغار، في حين أن اضطراب التحدي المعارض أكثر انتشاراً لدى المراهقين الأكبر سناً.

تساعد النتائج في إقامة علاقة بين إدمان ألعاب الفيديو وكل من اضطراب التحدي المعارض والمسلك. بعد العثور على علاقة خطية بسيطة، يمكن أن تُعزى بعض حالات اضطراب التحدي المعارض والمسلك إلى وجود إدمان على ألعاب الفيديو. بالإضافة إلى ذلك، تشير النتائج إلى أنه على الرغم من أن انتشار ألعاب الفيديو في منطقة المثلث الجنوبي غير شائع، يمكن أن يتسبب في ظهور إدمان ألعاب الفيديو، مما يؤدي إلى تطور محتمل للسلوكيات التخريبية، مثل اضطراب التحدي المعارض واضطراب المسلك.

كتوصية للحفاظ على المستويات المنخفضة من إدمان ألعاب الفيديو واضطراب التحدي المعارض والمسلك، يمكن تنفيذ نظام مراقبة دوري في المنطقة من قبل الآباء والمعلمين للكشف عن السلوك غير الصحي ومكافأة السلوك الجيد. ستعزز هذه الطريقة بشكل إيجابي السلوك المرغوب، مع إعطاء فرصة لإعادة توجيه السلوك الإشكالي إلى أنشطة صحية أخرى، ومساعدة الأطفال والمراهقين في هذه العملية.

**الكلمات المفتاحية:** إدمان ألعاب الفيديو، اضطراب التحدي المعارض، اضطراب المسلك، منطقة المثلث الجنوبي، فلسطين المحتلة.