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The Rising Prevalence of Intermittent Explosive Disorder in Young Adults: A Study Based on Albert Bandura's Social Theory

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Abstract: Repeated failure to resist or control sudden bouts of aggressiveness or violent impulses resulting in major outbursts, which may lead to disastrous consequences involving daily life or property is termed as Intermittent Explosive Disorder. These violent episodes may be independent and any other mental or physical ailment may not be held accountable for these. Since young adults are going through a crucial period of their life, they easily fall vulnerable to these disproportionate outrage and resentment. There are many studies involving the physiological and psychological aspect of IED, the social aspects are also needed to be studied in this modern times. Bandura's Social Learning Theory states that this disproportionate impulsive behaviour is acquired through observation, imitation, reinforcement, and reciprocal interactions between personal factors and the environment surrounding us.

Keywords: *Intermittent Explosive Disorder; Impulsive Aggression; Social Learning Theory; Aggressive Modelling; Young Adults; Emotion Regulation.*

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I. INTRODUCTION

➢ *Intermittent Explosive Disorder-*

According to ICD10, Intermittent Explosive disorder (IED) can be termed as sudden bouts of extreme form of anger, resulting in disproportionate outbursts. It can also be a chronic and disruptive impulse-control disorder characterised by recurrent episodes of impetus, wrath or fury that result in physical assault, property destruction, or verbal aggression and even escalate to death of those people involved. Although aggressive behaviours form part of normal human emotional expression, individuals with IED exhibit extreme reactions that generally go out of control to the slightest of provocation or triggers, often accompanied by a subjective sense of losing hold on one's own self. These explosive episodes are typically brief, impulsive, and unplanned, differentiating IED from the other calculated forms of aggression. These temper tantrums may go on for years or be lessened over a period of time. The duration of this type of episodes are generally 30 minutes at max, followed by sense or relief and tiredness. The person involved may feel embarrassed or guilty but is usually incapable of controlling or going through another episode at some other time. The feeling of shame stays along and it affects the mood and behaviour of the person having IED and those related.

Over the past decade, research has increasingly recognised IED as a significant health concern due to its association with interpersonal conflicts, relationship issues, academic and workplace impairment, damage to public property, legal consequences, and giving rise to other psychopathological conditions such as depression, anxiety, and substance-use disorders.

Young adulthood in this modern times can be, an age ranging between 18 and 30 years. This is marked by unique developments characterised by rapid physical, emotional, cognitive, and social transitions. During this period, individuals navigate between emerging responsibilities related to self identity, career exploration, and personal relationships and how they behave in society. These developmental shifts often collide with intensified vulnerability to emotional imbalance, impulsivity, and risk-taking behaviours. Studies indicate that aggressive behaviours is generally at its peak during late adolescence and early adulthood, making this population particularly susceptible to impulse-control disorders such as IED. Furthermore, young adults are often exposed to a broad spectrum of social influences, like family dynamics, intimate relationships, peer pressures, institutional environments, ever changing digital media, that shape behavioural patterns and the way one responds to emotional factors. Understanding IED, in today's times within these developmental areas, has become essential for effective

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detection, intervention and prevention, so that one's own self and the society at large is saved from its disastrous consequences.

➢ *What does Albert Bandura's Social Theory Say-*

Bandura's Social Learning Theory, moves beyond the Behavioural School of psychology. Behavioural school states that learning is entirely based on environment and association, which may be reinforcement or punishment. It also explains the theory of classical conditioning. According to this theory, actions which are rewarded are repeated or imitated and those which are punished for are less likely to be repeated. But Bandura's social theory states that learning occurs through observation, imitation and modelling. This is not influenced by reinforcement and punishment alone, but by attention, motivation, attitudes and emotions. He suggested that learning is not only observational but one's mental state is also responsible. Just because something is learned, it does not mean it will change a person's behaviour.

In this study we will explore the fact that aggression is just a part of learned behaviour or it can be a sudden, eruptive, uncontrolled emotion due to the social environment and the internal mental crisis one goes through in that particular time span, on one hand. On the other hand aggression may not be the result of innate predispositions but often a learned response internalised through repeated exposure to aggressive triggers. These triggers may be in the form of parents, siblings, peers, community members, or symbolic such as characters in films, television, or digital platforms or an open community setting.

Bandura divided his theory of observational learning into three basic components, they are-

- Live model- when behaviour is learnt directly by observing
- Symbolic model- When behaviour is learnt through observing symbols, for example- child learning through cartoon characters, the young adults learning through the real life or fictional characters depicted in television, movies or online media.
- A verbal instructional model- in this model learning occurs via instructions, teaching, demonstrating or in the form of display.

Another key component of Bandura's model is self-efficacy, specifically emotion-regulation which refers to an individual's belief in their strength and their ability to manage their cognitive issues. Persons with higher self efficacy manage their emotions better, take difficulties of life as challenges, whereas those with low-efficacy see these challenges as threats and use aggression as a response to failures. To understand IED better, we also have triadic reciprocal determinism proposed by Bandura in his social theory. This theory posits that there is a continuous vigorous and effective interaction between personal factors like confidence level or personality trait of a person along with behavioural outcomes like aggressive or explosive acts, influenced by the environment of the person involved.

Now let's see IED in young adults in India's sociocultural context. In India aggression is seen mostly as a behavioural issue, which also has a gender discrimination angle. High levels of academic stress, intense competition among peers, uncertainty about the future, staying in family units and facing intergenerational conflicts, also the rapidly changing social norms may increase unguarded emotions among youth. At the same time, aggressive modelling can be reinforced through domestic conflicts, community violence, and media portrayals of aggression in films and digital platforms. Despite the rising mental-health challenges faced by young adults in India, empirical research on IED is not commonly found and there is a need for proper investigation, with many cases mistaken as anger issues, conduct problems, or personality disorders. The lack of awareness and undiagnosed symptoms hinder the development of evidence-based interventions targeting impulsive aggression in this demographic context.

Investigating IED through Albert Bandura's Social Learning Theory offers both theoretical and practical approaches to deal with this disorder. It allows us to identify the social and cognitive processes that aid in explosive aggression and highlights the risk factors and triggers such as exposure to aggressive models, reinforcement patterns, and deficits in emotion regulation. Understanding these mechanisms can guide the primary- care physicians, educators, and policymakers in creating targeted interventions, for example, anger management training, emotional self-efficacy enhancement, developing effective parent–youth communication programmes, and media literacy initiatives. Such efforts can play a crucial role in reducing the burden of IED and improving the psychosocial well-being of young adults.

II. REVIEW OF LITERATURE

Coccaro, E. F. (2016). " Social cognition in Intermittent Explosive Disorder and aggression." Reviews social-cognitive deficits in IED as hostile attribution bias, poor emotion regulation and proposes a biopsychosocial model where social information processing abnormalities lower the threshold for explosive responses. Hostile attributions and learned scripts for responding aggressively map onto Bandura's cognitive mediation. Fanning, J. R., et al. (2018). "Subtypes of aggression in Intermittent Explosive Disorder. Journal of Psychiatric Research." This study differentiates impulsive/reactive versus premeditated aggression in IED samples, which states reactive aggression predominates and is linked to situational provocation. Paliakkara, J. (2024)**.**" A systematic review of the etiology and neurobiology of IED. (systematic review)". Synthesises biological reactions like serotonin, neural circuitry, psychological, and environmental contributors to IED, emphasising interaction between neurobiology and social experience. It supports Bandura's reciprocal determinism that states biology, environment (models), and behaviour interact to produce aggressive outbursts. Su, W., et al. (2010)**. "**Social cognitive and emotional mediators link violence exposure to adolescent aggression". It explains. longitudinal evidence that exposure to violence predicts

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later aggression via social-cognitive mediators like, norms, scripts, expectancies etc. It provides direct empirical support for observational learning, exposure and internalised scripts which results in aggressive action. Bandura, A. (1961-1963). "Bobo doll studies and subsequent reviews." His classic experiments and analyses. In this he shows experimental demonstration that children imitate aggressive adult models, especially when models are rewarded; established role of vicarious reinforcement in learning aggression. Bertsch, K., et al. (2020). "Understanding brain mechanisms of reactive aggression." This study reviews neural correlates, amygdala-prefrontal circuitry of reactive aggression and their interactions with environmental triggers. We can link this study to Bandura theory saying that neurobiological sensitivity creates a lower threshold where socially learned aggressive scripts are more readily executed. Fanning, J. R., et al. (2019). ''Aggression subtypes and clinical correlates in IED''. Clinical sample data showing associations among trait impulsivity, hostile attribution bias, and frequency or severity of explosive episodes. Ciesinski, N. K., et al. (2024). Personality disorder symptoms in IED. Examines comorbidity with personality pathology (e.g., borderline, antisocial traits) that modulate aggression expression. Personality traits influence self-regulatory capacity and they moderate how learned aggressive scripts are applied. Cambridge Handbook chapter: Intermittent Explosive Disorder (book chapter). Comprehensive clinical overview definition, epidemiology and treatment with emphasis on reactive aggression as the disorder's core. Clinical description highlights learned behavioural patterns and situational triggers which are consistent with Social Learning Theory explanations.

III. RESEARCH GAPS

Intermittent Explosive Disorder is recognised as a serious impulse-control disorder worldwide as well in India. Bandura's Social Learning Theory is also widely studied but to establish a concrete explanation about how to understand IED on the basis of the theory remains extremely limited. There is very limited empirical research that examines observational learning, reinforcement patterns, and social modelling in individuals exhibiting explosive anger.

- There are very few studies applying Social Learning Theory directly to Intermittent Explosive Disorder.
- There is very little evidence on whether individuals with IED, have been observed for aggressive models in childhood, experienced reinforcement for aggressive behaviours or it was a learned behaviour from family or peers.
- It has been found that IED has been an understudied domain in India and South Asia.
- Most of the studies explore the neurobiological aspect, but very few of them are based on Social Learning Theory.
- In Indian media where violent news are heavily publicised, very less research points towards the role of media in aggression modelling.
- IED episodes are typically triggered by minor provocations. However, researchers have not examined whether these "minor triggers" are conditioned or learned responses, as Social Learning Theory would suggest.

IV. AIMS AND OBJECTIVES OF THE STUDY

- To understand the prevalence and severity of Intermittent Explosive Disorder symptoms in young adults.
- To examine the role of observational learning from family, peers, and community aggression in predicting IED tendencies.
- To analyse how media exposure—news reports, social media videos, OTT content, YouTube violence, and viral clips—models aggressive behaviour for young adults.
- To identify whether repeated exposure to media-reported anger incidents shapes aggressive scripts, attitudes, and behavioural responses aligned with SLT.
- To study the reinforcement mechanisms, positive or negative, if they encourage or maintain explosive anger episodes in young adults.
- To explore socio-cultural factors influencing the learning and expression of reactive aggression within the Indian context.

V. CASE STUDIES

Before starting the case studies, we must look into the past history of intermittent explosive disorders, which happened in India decades earlier. Without naming the places or persons, I would like the readers to recall the incidents where a person is killed, just for refusing a drink, or an impatient driver shoots a person, asking for toll tax, a delivery boy is chased and killed by a couple, merely because of a minor accident. These are a few incidents which show that anger can rise to a level where it becomes explosive and within a few minutes can cause ultimate damage. Though the person having IED, regrets later, feels guilty or shame but irreversible damage is already done in some cases.

We will discuss ten case studies below which show how intermittent explosive disorder is displayed in our daily life and how we are influenced by our social learning. All the cases are from real life settings and have been taken from the ongoing counselling sessions but since this research is purely academic, the names of persons and places have not been mentioned, to respect the ethical guidelines.

- A 30-year-old man exhibits sudden verbal and physical aggression even during minor conflicts. He grew up observing his father and other male members of the family, frequently resolving disputes through shouting and intimidation.
- A 36-year-old woman reports extreme anger at home, if someone refuses to comply with her demands, after

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which family members try to compensate and ease her by giving in.

- A 42-year-old supervisor displays episodic rage and violent outbursts at work. Early in his career, he observed senior managers using aggression to maintain authority without leading to any serious consequences.
- A 24-year-old male reports uncontrollable anger during interpersonal disagreements with peer groups or siblings. He is reported to have been exposed to extensive violent films and video games during adolescence.
- A 38-year-old woman experiences sudden aggressive reactions to frustration. She grew up in a family where the environment had never given importance to demonstration of healthy emotional regulation. Emotions were considered a sign of weakness.
- A 27-year-old male shows explosive aggression and destructive behaviour in social settings. During adolescence, his close friends and peers praised and admired his aggressive reactions towards social injustice and hailed him as a hero.
- A 33-year-old individual experienced chronic childhood bullying. Observing that those who were aggressive and repulsive gained power while non-aggression led to victimisation, the individual learned that being aggressive and blunt is necessary for self-protection.
- A 45-year-old man presents with recurrent rage episodes. In his socio-cultural environment, loud and aggressive expressions of emotion are accepted, applauded and considered masculine.
- A 29-year-old woman experiences explosive anger only when she is going through high stress. Early in life she was exposed to caregivers who found it natural to react aggressively under stress.
- A 40-year-old male exhibits frequent impulsive outbursts, in his work place, road and even when he is at home. He believes he cannot manage anger without aggression.
- A 21 year old college student engages in vehement confrontations during group projects. Peers often back down, allowing him to dominate decisions, reinforcing his aggressive responses.
- A professional athlete shows explosive anger every time during matches. Coaches previously praised him for aggressive intensity, required for winning the match indirectly reinforcing uncontrolled outbursts.

Intermittent Explosive Disorder (IED) is characterised by recurrent, impulsive episodes of verbal or physical aggression that are disproportionate to the triggering situation. While biological and neurological factors contribute to IED, psychosocial theories, particularly Bandura's Social Learning Theory, offer a strong explanatory framework for understanding how aggressive behaviours are acquired, maintained, and expressed.

If we go through the cases above we can see that we deal with this type of personality on a daily basis, in our day to day life. We can find numerous cases around us which are very similar. The presented cases illustrate that aggressive outbursts in IED are often learned behaviours rather than purely instinctive reactions. According to Bandura, individuals learn behaviour through observation, imitation, reinforcement, and modelling within their social environment.

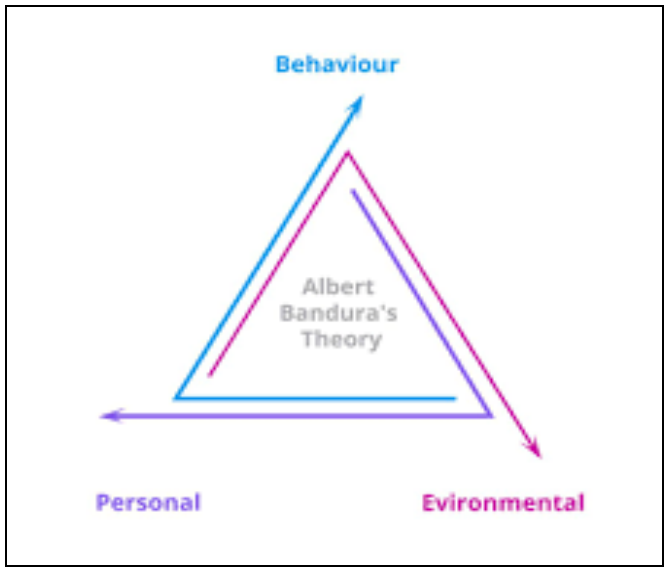

Fig 1 Albert Bandura's Social Learning Theory (Image- Simply Psychology)

VI. METHODOLOGY

The study adopts a qualitative exploratory case study design. This approach allows for an in-depth examination of aggressive behaviour patterns as portrayed in real-life contexts and facilitates theoretical interpretation using Bandura's Social Learning Theory.

➢ *Albert Bandura's Social Learning Theory Provides the Conceptual Foundation for the Study. The Analysis Focuses on:*

- Observational learning of aggressive behaviour
- Influence of family, peer, and media models
- Reinforcement and normalisation of aggression
- Deficits in self-regulation and cognitive control

➢ *Data Sources-*

The study utilises secondary qualitative data, including:

- Newspaper articles reporting aggressive incidents
- Follow-up news reports and editorials
- Publicly available interviews or statements related to the incident

Where available, multiple reports of the same incident were reviewed to ensure accuracy and depth.

➢ *Data Analysis*

The collected data were analysed using thematic content analysis. The process involved:

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- Repeated reading of articles to familiarise with content
- Coding of behavioural patterns, triggers, and contextual factors
- Identification of themes related to social learning processes
- Mapping of themes onto Bandura's theoretical constructs

The analysis culminated in a theory-driven case formulation, explaining aggressive behaviour through learned patterns, environmental reinforcement, and cognitive modelling.

➢ *Ethical Considerations*

As the study is based entirely on publicly available secondary data, formal ethical approval was not required. However, ethical rigour was maintained by:

- Avoiding identification of individuals
- Ensuring respectful and non-judgmental interpretation
- Using data strictly for academic purposes.

Table 1 Ethical Considerations

Case No	Core Case Study	Social Learning Theory	Explanation of the theory	IED Behavioural Outcomes
1	Parental modelling of aggression	Observational learning; Modeling	Aggressive behavior is learned through repeated observation of a primary caregiver	Impulsiveness, verbal and physical outbursts
2	Reinforcement through compliance	Direct & negative reinforcement	Aggression reduces demands and gains compliance, strengthening the behavior	Recurrent explosive anger episodes
3	Authority figure aggression	Modelling; Vicarious reinforcement	Authority figures' aggression appears effective and consequence-free	Workplace rage and intimidation
4	Media violence exposure	Symbolic modelling	Violent media provides aggressive scripts for emotional response	Sudden aggressive reactions
5	Emotional neglect	Absence of prosocial modeling	Lack of exposure to adaptive emotion regulation skills	Poor impulse control and anger bursts
6	Peer admiration for aggression	Social reinforcement	Peer approval reinforces aggressive expression	Explosive aggression in social contexts
7	Childhood victimisation	Outcome expectancy learning	Aggression perceived as necessary for self-protection	Disproportionate retaliatory anger
8	Cultural normalisation	Normative modelling	Aggressive expression socially accepted and encouraged	Habitual explosive anger
9	Stress-triggered aggression	Conditional learning	Aggression activated in high-stress contexts	Episodic rage under stress
10	Low coping self-efficacy	Self-efficacy beliefs	Individual believes aggression is the only effective coping method	Chronic impulsive outbursts
11	Dominating, imperious personality	Submissive, complaint parental upbringing	Aggressive responses are reinforcing and satisfying	Vehement, angry confrontations
12	A professional athlete is praised for explosive anger during matches, indirectly reinforcing uncontrolled outbursts.	Reinforcement & Observational Learning	Social reinforcement shaped his emotional expression and reduced self-regulation.	Recurrent aggressive outbursts, interpersonal conflict with teammates and officials.

VII. MAJOR FINDINGS

Analysis of the presented cases reveals consistent psychosocial patterns underlying aggressive outbursts characteristic of Intermittent Explosive Disorder (IED). The findings strongly support the explanatory power of Social Learning Theory in understanding how such behaviours develop and persist.

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➢ *Aggression is Frequently Learned Through Observation*

Several individuals like in cases 1, 3, 5, 7 and 9 developed aggressive responses after prolonged exposure to aggressive role models such as parents, authority figures, or caregivers. This supports Bandura's concept of observational learning, where behaviour is acquired by watching others.

➢ *Reinforcement Strengthens Aggressive Behaviour*

Many cases as 2, 6, 11 and 12 demonstrate that aggressive outbursts were positively reinforced and supported by family members giving in, peers admiring aggression, or coaches praising intensity intentionally, as it is needed to win some matches. These unknowingly strengthened maladaptive behaviour and the reinforcement increased the likelihood of repeating the behaviour.

➢ *Social Approval Normalises Maladaptive Aggression*

In cases involving workplace, sports, and socio-cultural environments such as 3, 8 and 12 aggression was culturally or socially accepted. This reflects social normalisation, where behaviour becomes normal and accepted due to repeated approval.

➢ *Media and Environmental Exposure Shapes Behaviour*

Case no 4 highlights the role of violent media exposure in shaping aggressive cognitive thoughts. This supports Bandura's social learning theory on symbolic modelings, where individuals learn behaviour from media sources and find it adaptable in practical settings.

➢ *Deficits in Emotional Regulation Are Environmentally Conditioned*

Cases like 5 and 10 reflect poor development of healthy emotional expression. Where emotional regulation was neither modelled nor encouraged, individuals failed to develop adaptive coping skills.

➢ *Aggression Becomes a Learned Coping Strategy*

In cases involving bullying or power dynamics like 7 and 11 aggression was learned as a tool for survival, dominance, or self-protection. This reflects the development of maladaptive beliefs such as aggression is necessary to gain control. These types of beliefs are gaining momentum in our society, in every aspect of life.

➢ *Cognitive Beliefs Maintain the Behaviour*

Case 10 illustrates self-efficacy beliefs related to aggression, where the individual believes they are incapable of controlling anger without aggression. Such beliefs perpetuate the cycle of explosive behaviour and in the initial phase, the person feels embarrassed, thinks that next time he or she will have better control, but slowly it becomes a permanent trait.

VIII. DISCUSSIONS AND CONCLUSION

The analysis of the presented cases suggests that aggressive behaviour characteristic of Intermittent Explosive Disorder is often shaped by social and environmental learning experiences rather than arising solely from innate impulsivity. Across the cases, repeated exposure to aggressive role models, reinforcement through praise, compliance, or social approval, and normalisation of anger within families, peer groups, workplaces, and cultural contexts contributed to the development and maintenance of explosive outbursts. These patterns highlight the powerful role of observational learning, modelling, and reinforcement, as outlined in Bandura's Social Learning Theory. The findings further underscore the importance of early psychosocial influences in shaping emotional regulation and coping strategies, as many individuals failed to acquire adaptive ways of expressing distress. Taken together, the cases demonstrate that maladaptive aggression is not only learned but also potentially modifiable. Psychotherapeutic interventions that focus on unlearning reinforced behaviours, strengthening emotional regulation skills, and restructuring dysfunctional beliefs about anger are therefore essential. Overall, Bandura's Social Learning Theory provides a coherent and valuable framework for understanding the origins, persistence, and treatment of aggressive behaviour in Intermittent Explosive Disorder.

- Observational learning plays a central role, as many individuals modelled their behaviour after parents, authority figures, peers, or media influences.
- Repeated exposure to aggressive role models during childhood and adolescence appears to significantly increase vulnerability to maladaptive anger expression.
- The presented cases demonstrate that aggressive behaviour in Intermittent Explosive Disorder (IED) is often learned rather than purely instinctive.
- Positive reinforcement like praise, attention, compliance from others, consistently strengthened aggressive responses across multiple cases.
- In several cases, aggression became a functional tool for control, dominance, or self-protection, reinforcing its continued use.
- Social environments that normalise aggression such as family, workplace, sports, or cultural settings, contribute to the internalisation of aggression as acceptable behaviour.
- Many individuals developed cognitive beliefs supporting aggression, such as "anger is necessary to be respected" or "I cannot control myself without aggression."
- Exposure to violent media like films, video games, contributed to the development of aggressive nature in some individuals.
- A lack of healthy emotional role models led to deficits in emotional regulation skills, increasing reliance on impulsive outbursts.
- Several cases highlight how aggression can become situationally reinforced, especially when others withdraw, submit, or attempt to pacify the individual.
- Childhood adversity, such as bullying or invalidation, shaped aggression as a learned survival strategy rather than a deliberate choice.
- The findings emphasise the importance of viewing IED not only as a clinical diagnosis but also as a behaviour shaped by psychosocial learning histories.

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- Psychotherapeutic approaches should focus on unlearning maladaptive behaviours, strengthening emotional regulation, and reshaping core beliefs about anger.
- Overall, Bandura's Social Learning Theory provides a powerful explanatory framework for understanding the development, maintenance, and potential modification of aggressive behaviour in IED.

IX. LIMITATIONS OF THE STUDY

This study is based primarily on illustrative case vignettes and theoretical interpretation, which limits the generalisability of the findings. The absence of direct clinical assessment, standardised diagnostic instruments, and empirical data restricts diagnostic certainty and precludes causal conclusions. The analysis is largely grounded in Bandura's Social Learning Theory, which may introduce interpretative bias. Additionally, biological, cultural, and co-morbid influences were not systematically examined. Future research using empirical, longitudinal, and multi-method designs is needed to strengthen the evidence base.

SCOPE OF FUTURE RESEARCH

Future research should employ empirical and longitudinal designs to examine the developmental pathways of Intermittent Explosive Disorder and the role of social learning mechanisms across the lifespan. The use of standardised diagnostic tools and validated psychometric measures would enhance methodological rigour. Studies integrating psychosocial models with biological and neurocognitive markers may offer a more comprehensive understanding of IED. Additionally, culturally sensitive research is needed to explore how social norms and contextual factors shape the expression and reinforcement of aggression. Intervention-based studies evaluating the effectiveness of therapies targeting learned aggressive behaviours and emotional regulation would further inform clinical practice.

REFERENCES

[1]. Anderson, C. A., & Bushman, B. J. (2002). Human aggression. *Annual Review of Psychology*, *53*, 27–51. https://doi.org/10.1146/annurev.psych.53.100901.135231

[2]. Bandura, A. (1973). *Aggression: A social learning analysis*. Prentice-Hall.

[3]. Bandura, A. (1999). Social cognitive theory of personality. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 154–196). Guilford Press.

[4]. Bottiroli, S., et al. (2023). Personality in chronic headache: A systematic review with meta-analysis. *Headache Disorders*, *19*, Article 67.

[5]. Coccaro, E. F., et al. (2005). Childhood factors and the development of intermittent explosive disorder. *Journal of Clinical Psychiatry, 66*, 1114–1121.

[6]. Coccaro, E. F., et al. (2007). Neurobiology of aggression systems. *Biological Psychiatry, 62*(3), 196–202.

[7]. Coccaro, E. F., et al. (2010). A family history study of intermittent explosive disorder. *Journal of Psychiatric Research, 44*(6), 417–422.

[8]. Coccaro, E. F., Fanning, J. R., Keedy, S. K., & Lee, R. J. (2016). Social cognition in intermittent explosive disorder and aggression. *Journal of Psychiatric Research, 83*, 140–150.

[9]. Dodge, K. A., & Coie, J. D. (1997). Social-information-processing mechanisms in aggressive behavior. *Journal of Personality and Social Psychology, 53*(6), 1146–1158.

[10]. Fanning, J. R., et al. (2025). Increased risk of smoking and pain in individuals with intermittent explosive disorder. *Frontiers in Psychiatry, 16*, 1695905.

[11]. Gollan, J. K., Lee, R. L., & Coccaro, E. F. (2005). Developmental psychopathology and neurobiology of aggression. *Development and Psychopathology, 17*(4), 1151–1171.

[12]. Juhn, Y. J., et al. (2018). Aggression and its association with suicidality in migraine patients. *The Journal of Headache and Pain, 19*, 67.

[13]. Kulper, K. L., et al. (2015). Emotional regulation during aggressive outbursts in intermittent explosive disorder. *Psychiatry Research, 226*(1), 70–77.

[14]. McCloskey, M. S., & Berman, M. E. (2003). Aggression in clinical populations. *Clinical Psychology Review, 23*(1), 154–178.

[15]. Modestino, E. J., et al. (2022). Dopaminergic polymorphic risk alleles and intermittent explosive disorder. *Journal of Personalized Medicine, 12*(12), 1946. https://doi.org/10.3390/jpm12121946

[16]. Page, A. C., et al. (2025). Psychological and pharmacological treatment for intermittent explosive disorder: A meta-analysis. *Clinical Psychology & Psychotherapy, 32*, 1025–1043.

[17]. Paliakkara, J., Ellenberg, S., Ursino, A., Smith, A. A., Evans, J., Strayhorn, J., & Zhang-James, Y. (2025). A systematic review of the etiology and neurobiology of intermittent explosive disorder. *Psychiatry Research, 347*, 116410.