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Internet Gaming Disorder
Etiology



Internet Gaming Disorder

Etiology

- ❖ The **ACE Model** developed by Young(1999) .
- ❖ Acronym for :
Accessibility, Control, Excitement.
- ❖ This theory suggests that addiction is caused by the characteristics of the Internet itself, including anonymity, convenience and escape, referred to as the ACE model.

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Anonymity

means that individuals are able to hide their true identity and personal information on the Internet and are thus freer to do what they want.

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Convenience

Convenience may be a benefit of the development of the Internet, as people can do certain things such as shopping online and watching movies without leaving their homes. However, this convenience can also lead to addiction and dependence on the Internet.

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Escape

Escape refers to the ability of users to find solace when faced with difficulty or irritation online because the Internet offers a free virtual environment that entices people away from the actual world.

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Reduced social cues

the anonymity of the Internet can make individuals' perceptions of themselves and others diminish, resulting in some **anti-social behavior**. Consequently, this can lead to inappropriate Internet use and addiction without proper restraints.

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Cognitive-behavioral model

This model proposed that already existing psychosocial problems (e.g., **depression, anxiety, substance abuse**) were more likely to lead to the development of excessive and maladaptive behaviors related to the Internet.

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Flow experience

According to this theory, the flow experience comes from performing challenges at a level similar to the individual's own, which means that people could fully commit to the challenge and do their best to complete it. When individuals are faced with a challenge that is too different from their own level, they may lose interest because it is too easy or too difficult.

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John Grohol's 3-stage model

The 3-stage model proposed by John Grohol suggests that Internet users would go through three stages:

1. Enchantment
2. Disillusionment
3. Balance

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John Grohol's 3-stage model

First stage :Enchantment

This stage serves as the introduction to the Internet.

Oftentimes, scholars will describe this phase as an obsession . The Internet fascinates those new to it. In the first stage, users might be excited and curious about the Internet, leading to an increase in the amount of time spent on the Internet .

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John Grohol's 3-stage model

Second stage : Disillusionment

Users start avoiding something addictive. After devoting a long time to using the Internet, individuals might realize that they should not spend too much time on the Internet, so they may reject games or websites that might be addictive. This leads to a decline in the amount of usage.

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John Grohol's 3-stage model

Third stage : Balance

Users regulate time spent using the Internet and achieve a balance between surfing and other activities. In the last stage, people might be able to manage their time online well and develop healthy online habits.

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John Grohol's 3-stage model

John Grohol suggested that the reason why **many people were addicted to the Internet** was that they were struggling with the **first stage** and needed help. Furthermore, he suggested in this model that everyone would eventually reach stage three. However, the amount of time it took to reach this point depended on the individual.

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Need-Satisfaction Theory

According to the "need-satisfaction theory", when adolescents' psychological needs are not met in real life, they tend to seek pleasure, comfort, and fulfillment in virtual online worlds, which may lead to a vicious cycle of addiction.

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Peer influence

The term peer influence describes the effect that one's social circle has on one's outlook, actions, and decisions. To conform, fit in, or earn social approval, people (especially teenagers and young adults) will often adopt the attitudes, preferences, and actions of their peers.

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Fear of missing out (FOMO)

a psychological phenomenon characterized by a pervasive and often irrational fear that others are enjoying rewarding experiences, social interactions, or opportunities from which one is excluded.

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The GINA model of Addiction

The Genetically informed neurobiology of Addiction

The GINA model of Addiction places the 3 stages of addiction within the context of a **polygenic core**, **environmental filter** and **brain substrate** (genes and environment may be equally important).

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Pleasure pathway

Addictions activate a combination of sites in the brain associated with pleasure, known together as the “reward center” or “pleasure pathway” of the brain. When activated, **dopamine release** is increased . Over time, the associated receptors may be affected, producing tolerance or the need for increasing stimulation of the reward center to produce a “high” and the subsequent characteristic behavior patterns needed to avoid withdrawal.

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Pleasure pathway

Internet use may also lead specifically to dopamine release in the nucleus accumbens , one of the reward structures of the brain.

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Impulsivity

Pallanti *et al.* hypothesized that immaturity of the frontal cortical and subcortical monoaminergic system during normal neurodevelopment underlies adolescent impulsivity and perhaps Internet addiction.

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Genetic predisposition

There is increasing evidence that there can be a genetic predisposition to addictive behaviors. The theory is that individuals with this predisposition do not have an adequate number of dopamine receptors or have an insufficient amount of serotonin/dopamine, thereby having difficulty experiencing normal levels of pleasure in activities that most people would find rewarding. To increase pleasure, these individuals are more likely to seek greater than average engagement in behaviors that stimulate an increase in dopamine, effectively giving them more reward but placing them at higher risk for addiction.

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Risk Factors

1. Recent traumatic event
2. High stress levels
3. Substance use disorder
4. Being male
5. Having a mental health condition
6. Having poor moods

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Risk Factors

- 7) Adolescents
- 8) lack of emotional support
- 9) People who are shy and introverted
- 10) loneliness
- 11) Lack of parental supervision
- 12) Poor family relationships

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Risk Factors

13. High levels of internet access
14. Habit of procrastination
15. Lack of alternatives
16. Impulsivity
17. Peer influence

