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Exploring the Nexus Between Alexithymia, Nomophobia, Internet Addiction, and Smartphone Addiction in the Digital Era

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ABSTRACT:

Digital behaviours influence the students learning. Having insight into these behaviours is crucial for navigating digital environments and creating chances for students to learn effectively. Learning content is now more individualised because of the variety of streaming telecasts. Digital behaviours shorten attention spans and put a cognitive strain on memory. The addiction to smartphones and the internet affects students attending schools and colleges. The present paper aims to investigate the behaviours related to Alexithymia, Nomophobia, Smartphone Addiction, and Internet Addiction from a theoretical point of view. The methodology adopted is the thematic analysis of the research related to digital behaviours. The present article explores the role of psychology theories, such as cognitive load theory (CLT), self-determination theory (SDT), and other theories like social cognitive theory or Theory of Planned Behavior (TPB) in helping the student to mould their digital behaviours. These theories play a crucial role in understanding digital behaviours in the mental, emotional, and social dimensions of the individuals in an educational environment. One of the ill effects caused by digital technology on students was poor rapport with their dear ones. The academic achievement of students was found to be affected by preoccupation with the digital world. The negative effects caused by the growing dependence of students on digital technology prompted the present inquest.

Keywords: *Alexithymia, Nomophobia, Smartphone Addiction, and Internet Addiction*

INTRODUCTION:

Digitalisation has been growing in the education sector, and social life and reliance on technology have been increasing especially among students. The role of psychological theories in explaining digital behaviour changes is discussed. Alexithymia, Nomophobia, Smartphone Addiction, and Internet Addiction are some of the digital behaviours in students' lives. The present article explores the evolving nature of digital behaviours, the factors driving these changes, and their implications for individuals in an educational ambience. Digital behaviours include varied social

interactions of students in the digital space. The rationale of the present study is to exercise the theories to address unhealthy digital behaviours. The study aims to explore the nexus between Alexithymia, Nomophobia, Internet Addiction, and Smartphone Addiction in the Digital Era. Theories like Cognitive Load Theory (CLT), Self-Determination Theory (SDT), Social Cognitive Theory (SCT), and Theory of Planned Behavior (TPB) play a significant role in controlling digital behaviours such as Alexithymia, Nomophobia, and Internet Addiction of students,

Cognitive load theory (CLT)is the model of human information processing. This model denotes memory as having three parts: sensory, working, and long-term. (Atkinson and Shiffrin, 1968). Cognitive load refers to the amount of information working memory can process at any given time. In the Educational field, the Cognitive load theory helps to avoid burdening learners with excessive learning content, which they cannot process. It helps to understand the cognitive burden in digital environments when students receive too much irrelevant information from smartphones. Learning is often cluttered with memory loaded with unrelated information causing a mental burden. CLT helps students to be selective of the learning content through the senses to load the memory with learning content and protect the faculty of the brain to retrieve learning content at ease. **CLT** analyses how these behaviours disrupt attention and memory, affecting learning. By disconnecting smartphones, the Cognitive Lord Theory de-links digital behaviours by refraining from smartphone usage by the students. Channelling the students with useful learning through activities can motivate students' academic performance **(**Lovell and Sherrington, 2020).

Self-determination theory is the interaction of the extrinsic forces acting on persons and the intrinsic motives and needs inherent in human nature. SDT shares three basic needs: innate, human and psychological (Deci and Ryan, 1985; Ryan and Deci, 2000). When the needs are supported, people are motivated to undertake tasks. On the contrary, when the needs are unsupported the growth will be negatively affected. Barberis et al. (2020) examined Alexithymia in a Self Determination Theory comprising basic needs, Parental Support and Control. The results indicated dysfunctional parental practices were linked with weak self and other emotions. Fernet et al,(2012) worked related to the Self-determination theory studying the low competence of teachers due to invasive policies in the Institution. The intrinsic motivations of teachers, help the children feel that teachers pay attention to them and it helps positively in students learning (Roth et al., 2007). Self-determined theory in an educational context helps to regulate the students' digital behaviour like Alexithymia by motivating themselves, nurturing their needs and strengthening the support system. It guides the students to a desirable learning experience through digital media.

Social cognitive theory suggests that role modelling and reinforcement influence gender typing as children grow up. (Bussey and Bandura, 1999). Children develop the beliefs of self-efficacy which serves to motivate the role conduct of gender. Children learn gender-typed behaviours

through members of their society. According to social cognitive theory, as children cognise abstract social information their learning grows. As children's cognitive abilities and verbal skills improve, parents counsel children with the gender socialisation_process. Social Cognitive Theory helps students to imitate desirable social behaviours and regulate their digital behaviours to optimise learning excellence. Social Cognitive theory helps to alter the digital behaviours of individuals by modelling and social programming for an effective learning environment. Students have been found to learn better from their seniors learning desirable values from their society.

The theory of Planned Behaviour (TPB) modifies the digital behaviours of individuals by the individual's intention to regulate the addictions related to smartphones and the internet and achieve desirable academic results. The Theory of Planned Behavior (TPB) started to predict an individual's intention to engage in a characteristic behaviour at the specificity of time and place (Ajzen and Fishbein, 1980; LaCaille (2013). The theory was intended to explain behaviours of self-control. The main aspect of this theory is behavioural intent influenced by attitude and subjective evaluation. The TPB stated that behavioural achievement depended on intention. TPB helped to develop control over the digital behaviours of students and motivation to develop desirable learning practices. By the theory of planned behaviour, the students gain insight into the intent of their actions by a more focused viewing of the learning content.

Several factors contribute to the evolution of digital behaviours linked to psychology and technological advancements. Cognitive Load Theory, Self-determination theory (SDT), Social Cognitive Theory and Theory of Planned behaviours affect and regulate the digital behaviours of students. The present paper tries to fill the research gap by applying existing theories and developing new perspectives related to digital behaviours, Alexithymia, Nomophobia, mobile addiction and internet addiction among learners. This helps to explore the nexus **between Alexithymia, Nomophobia, Internet Addiction, and Smartphone addiction in the digital era.**

RESEARCH OBJECTIVES:

- To explore the nexus between Alexithymia, Nomophobia, Internet Addiction, and Smartphone Addiction in the Digital Era
- To examine the Cognitive Load Theory (CLT), Self-determination theory, Social Cognitive Theory and Theory of Planned Behaviour (TPB) among students with digital behaviours within the educational locus.

METHODOLOGY:

The methodology used in the present study is thematic analysis which explores the nexus between digital behaviours like alexithymia, nomophobia, internet addiction and smartphone addiction has been undertaken in the present paper. An in-depth understanding of psychological theories is useful in understanding digital behaviours among students.

DIGITAL BEHAVIOURS: ALEXITHYMIA, NOMOPHOBIA, INTERNET ADDICTION, AND SMARTPHONE ADDICTION OF STUDENTS

ALEXITHYMIA:

Alexithymia refers to the disorder related to inexpressible emotions verbally or on a virtual platform. Some people find expression unnervingly to write. They have elevated levels of alexithymia. It is a personality type that includes deficiency in cognition, including trouble explaining and differentiating feelings from sensations of emotional arousal. In addition, some students find deficiencies in the affective domain, including difficulties in being emotional (Bermond et al., 2007). Honkalampi et al.(2000) worked on alexithymia related to psychological problems. Alexithymia was found to be associated with schizophrenia (Rotenberg, 1994). Hintikka et al.(2004) examined alexithymia to be associated with suicidal tendencies. Lane (2008) reported higher psychosomatic complaints linked with alexithymia. High rates of mortality were found in people having alexithymia (Tolmunen et al., 2010). Bird and Cook(2013) reported that deficits in emotions in people with autism were due to alexithymia. Feldmanhall et al.(2013) have reported Alexithymia as a problem related to interpersonal relations. Alexithymia is found in around 10% of the population along with mental disorders, like disorders related to neurodevelopment (Taylor,1997). The prevalence of Alexithymia was from 50% to 85% among individuals with autism spectrum disorder (ASD) (Hogeveen and Grafman, 2021). Alexythemia is a disorder where people are unable to express emotions. People having alexithymia were found to have some psychological problems, schizophrenia, psychosomatic issues, suicidal tendencies and mental disorders. Alexythemia was also found more in people with autism. Mortality was also found in people having alexythemia. Poor interpersonal relations were found in people having alexythemia.

NOMOPHOBIA:

Nomophobia, or “No Mobile Phone Phobia” is experiencing fear of not using a mobile phone. It can cause anger and disturb breathing. Sometimes people dislike going without their phone and some develop strange fears of losing out without their phones. This type of behaviour is referred to as nomophobia. Nomophobia shares similarities with other psychological problems concerned with fears of certain things. The symptoms of Nomophobia are similar to types of anxiety disorders, such as social phobia. Rodríguez García et al.(2020) worked on fears of living without a Smartphone. The research suggested that nomophobia negatively affects personality, academic performance, and other health problems. The dependence of people towards these devices makes them more vulnerable to addiction. Nomophobia is strangely associated with people who develop an aversion towards smartphones and digital devices. People with Nomophobia suffer from anger, phobias, anxiety and problems related to health. Fears related to fear of losing out were also found in the people who have Nomophobia.

SMARTPHONE ADDICTION:

Digital devices like smartphones, tablets, or computers are technological tools but excessive usage could disrupt work and relationships. Allocating more time on social media or gaming, and repeatedly checking texts, and emails could lead to negative consequences in life. Smartphone addiction could lead to internet addiction disorder. Smartphone addiction among students causes problems related to impulse control. Dell'Osso et al.(2006) and Hollander(2006) have reported compulsive-impulsive spectrum disorder among people who were addicted to the Internet. Game-related murder was found in South Korea by Koh(2007). Khalifa et al.(2023) worked on the impact of smartphone addiction on attention and sleep in Egypt. A study conducted in Riyadh on 2367 university students revealed that 27.2% of the participants spend 8 hours daily using digital devices (Alosaimi et al., 2016). Kazaz et al.(2022) examined the meta-thematically effects of digital media on education. The studies showed adverse effects on students who showed dependency on the content of digital media such as academic failure, waste of time, uncontrolled contact habits, perception disorder, and miscommunication in the educational process. Smartphone addiction has led to insomnia, and poor attention control among students. Compulsive disorder was reported among some people addicted to the internet. Crimes like murders were found among people who played online games on computers. Excessive usage of cell phones affects the relationship of adolescents with their family and friends.

INT**ERNET ADDICTION:**

Internet addiction refers to a need to use the Internet as a result there is an imbalance in the work and family life. The categories of Internet addiction include viewing educational content, spending hours on educational topics getting diverted from the main focus of learning, obsessively searching for information, social networking addiction and online gaming. Medical opinion is unclear whether Internet addiction is a mental disorder. Studies on Internet addiction and psychopathological symptoms in Greek University students (Goel et al.,2013; Koukia et al.(2014). Chang et al.(2015) worked on the relationship between parental mediation and internet addiction among adolescents, and the association with cyberbullying and depression. Budak et al.(2015)investigated the linkage of internet addiction and self-esteem among university students. Agarwal(2017) studied the Internet users reaching 420 million by the year, 2017, Internet and Mobile Association of India (IAMAI) Report.

The studies reveal an alarming rate of internet users through the research citation. However, the matter is escalated when young people are addicted to the internet and concerns related to helping them overcome the addiction are required. Internet addiction among students was found to hamper the relationships and bonds with their families. Teens addicted to the Internet were subjected to cyberbullying, low self-esteem and depression. Internet addiction was reported to cause symptoms

related to psychopathology among students.

RESULTS:

EXPLORATION OF THE NEXUS BETWEEN ALEXITHYMIA, NOMOPHOBIA, INTERNET ADDICTION, AND SMARTPHONE ADDICTION IN THE DIGITAL ERA:

1. The common nexus between the digital behaviours of alexithymia, nomophobia, smartphone addiction and internet addiction is an obsession for or against the usage of the digital space by students.
2. The connecting thread between the digital behaviours is the students and these behaviours affect learning.
3. Addictions to smartphones and the internet are causing lowered academic results for students.
4. Digital behaviours like nomophobia have led to phobias of using gadgets. One cannot deny that aversion to digital media could make students miss out on many important learning inputs in this modern world.
5. Alexithymia is the hereditary defect of loss of communication with the group dynamics. However, being too engrossed in the virtual world could create such situations.
6. The solution to digital behaviours is the psychological theories which could help students to empower themselves so that they don't get either obsessed with digital space or become averse to it.

THE IMPLICATION OF PSYCHOLOGICAL THEORIES ON THE DIGITAL BEHAVIOURS OF STUDENTS:

a. **Cognitive Overload theory** (CLT) helps students channel their energies to bring a desired result. The social consequences of digital behaviours include weak peer interactions, meagre associations and weakened social bonds in educational settings.

b. **Self-determination theory** guides students with alexithymia to help motivate individuals to understand their built-in behaviour of dissociation from society and the effort to associate with the group. SDT helps students with Internet Addiction to derive intrinsic motivation to drive themselves to learning tasks and lessen their digital behaviours.

c. **Social Cognitive Theory** helps children model and imbibe the desired social skills in a collaborative learning environment. Students become aware of the value of education and become role models in their institutions.

d. **Theory of Planned Behaviour**: **D**igital behaviours such as alexithymia where students have feeble peer interactions, fewer associations, and decreased social bonds in educational settings are problems for some students. The Theory of Planned Behaviour shows the solutions to these problems by connecting with peer groups. It gives insight into the student's perception that they can overcome the phobias related to peer groups and social gatherings by making

clear intentions to overcome them. They become aware of their intentions, check the problems related to peer interactions and work intentionally towards effective social relations in the learning environment.

Digital Behaviours: Self-Regulation and Support System:

Students facing addiction related to smartphones and the internet could focus on their self-control by maintaining a schedule for their education and limiting their digital time to a regulated interval once a week. In this way, students could access the digital spaces while diligently using them with self-regulation. Hudson et al.(2024) researched parents' supporting strategies using mobile apps. Parents monitored their kids' behaviour to some extent but found it difficult to modify their digital behaviour due to the greater complexity of the digital micro-intervention. However, parents, peer groups and friends can help students so that they take charge and modify their digital behaviours.

DISCUSSION:

There are several digital behaviours like alexithymia, nomophobia, internet addiction and smartphone addiction of students. Cognitive Overload theory (CLT), Self-determination theory, Social Cognitive Theory and Theory of Planned Behaviour are found to be very profound in resolving the digital behaviours of students. In addition, introspection is also required of students. Likewise, a support system from elders, family, peer groups and friends helps empower the students to overcome digital behaviours.

CONCLUSION:

Educators communicate with students on digital platforms through the swift developments in technological devices, easier internet connections, and more advanced mobile devices. Immersive learning in digital spaces becomes possible through technologies. Many digital behaviours are driven by psychological factors, such as the need for customised experiences, social validation, and the ability to check for instructional content. The rise in popularity of image and video-based platforms has led to a greater emphasis on visual communication, indicative of a broader cultural trend towards immediate, visually appealing educational content and visual storytelling. Psychological theories, including social cognitive theory, self-determination theory, and cognitive load theory (CLT), assist students in distancing themselves from digital behaviours such as internet addiction, nomophobia, smartphone addiction, and alexithymia from life-changing educational experiences. The nexus between internet addiction, nomophobia, smartphone addiction, and alexithymia in the digital era connotes ways and means to transform a positive side of student's lives. Suggestions to future researchers are the scope of theoretical development of digital behaviours like alexithymia, smartphone addiction, nomophobia and Internet addiction.

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