

# Digital Media and Perseverative Thinking: A Case of the Students of Psychology among Islamabad-based Public Sector Universities

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## ABSTRACT

**Aim of the Study:** Modern ICTs have effectively shaped the digital global village with various online platforms moderating global communication infrastructures for masses belonging to different regions, cultures, ethnicities and national identities; resulting in a rich global social structure. But at the same time, the blessing has turned into a worldwide dilemma, known as digital media addiction or digital addiction. Ever since COVID emergence, the smartphone attachment/addiction of people touched new extremes. The current study has been an attempt to explore the correlation between digital media use and perseverative thinking among the psychology students of Islamabad-based public sector universities.

**Methodology:** Based on correlational cross-sectional survey questionnaire, distributed among 450 psychology students of Islamabad-based public sector universities using purposive sampling, a response of 300 (149 males and 151 female) active digital media users of 18-35 years was received by employing the Perseverative Thinking Questionnaire (Ehring et al., 2011).

**Findings:** Results indicated a significant positive correlation of digital media use with perseverative thinking.

**Conclusion:** Study concluded that preservative thinking will increase with increased digital media use or the number of times the digital media users visit their online accounts. The results have also proved the hypothesis claiming a positive association between the digital media use and perseverative thinking among the psychology students of Islamabad-based public sector universities.

**Keywords:** Digital Media, Perseverative Thinking, Digital Media Users, Psychology Students.

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## Introduction

Digital media has a significant role to play in shaping people's thoughts and behaviors. Many studies link the role of digital media to addictive and aggressive behaviors. The digital media users have been reported with negative thinking, aggressive behavior, anxiety and depression. This anxiety and depression with consistent negative thinking is often documented as perseverative thinking (Asha & Zinna, 2021). The relationship between digital media and perseverative thinking can be complex. For one, the concept of perseverative thinking is used to describe someone who repeatedly thinks about an issue or problem. Digital media make it easy to think and act, which can lead to issues related to digital addiction. On the other hand, digital media can be beneficial in educating people and helping them solve problems. Various digital media platforms like Facebook, YouTube, WhatsApp, Instagram, TikTok, Snapchat, Pinterest, Reddit, LinkedIn and Twitter have fostered communication globally involving masses with diverse socio-cultural backgrounds, resulting in a rich global social structure (Walsh, 2022). One of the main reasons behind success of these platforms has been their focus to pay attention to the priorities deemed personally interesting to the individuals (Barton et al., 2021). The January 2023 estimates reflect that 59% of the global population uses digital media platforms, witnessing an addition of 137 million new consumers in 2022 alone (Chaffey, 2023). Statistics also suggest that there have been 70 million active users of various digital media platforms in Pakistan (Chaudhary, 2023; PTA, 2022).

On one hand, these digital media platforms have facilitated people in fulfilling their cognitive, affective, personal integrative, social integrative, and escapist needs but on the other, a worldwide dilemma of digital media addiction with various psychological disorders has engulfed people (Tutgun-Ünal, 2020). One of these maladies can be cited as perseverative thinking among digital media users. Although, the addictive digital media use cannot be counted as a sole reason behind as perseverative thinking, these platforms still can be one of the reasons to induce it. perseverative thinking can be understood as incessant thinking about negative developments, happenings and aspects of the or the future, with some physiological bearings including increased heartbeat, hypertension, anxiety and depression (Anniko, 2018; Birk et al., 2019; Rahimzadegan, 2021; Rocha et al., 2018). Perseverative thinking involves repeating a thought or action over and over again until a desired outcome occurs. People who engage in this type of thinking usually find it hard to control their behaviors. They may also experience distress when unable to successfully complete a particular thought pattern.

Perseverative thinking can be understood as a cognitive pattern often characterized by the repetitive and meddling thinking with a particular issue or topic in focus. People suffering from it tend to depict difficulty in move away with their attention repetitive negative thinking that in turn leads to get rid of concerns and rumination. These individuals suffering perseverative thinking portray unproductive, irrational and obsessive overthinking, inflexibility in changing their cognitive focus, trouble in problem-solving, increased stress and anxiety, impaired cognition and concentration, and emotional distress (Lindqvist et al., 2018). Signs of perseverative thinking may vary among the individuals, so is its level of severity and impact of individuals' daily life (Birk et al., 2019). As quoted by many studies, two common types of the perseverative thinking include worry and rumination (Devynck et al., 2017; Ehring et al., 2011; Sorg et al., 2012; Verkuil et al., 2010). Closely related to fear process, worry is a series of repetitive negative thoughts, relatively uncontrollable and depressingly affect-laden whereas rumination is an unconstructed form of repetitive depressive thinking (Rood et al., 2010). These result from the chronic repeated activation of one or more psychological stressors. The experts on perseverative cognition or thinking hold that stressful situations and events start affecting health of individuals when they repetitively think negatively about them (Verkuil et al., 2010). Psychological stress and anxiety are often linked to the addictive use of digital media (Karim et al., 2020). The digital media addiction has appeared as one of the common psychological problems in the recent times bearing negative consequences for routine life and relationships (Tutgun-Ünal, 2020). The addictive digital media usage and psychological well-being have often been interlinked, with the former one giving rise to anxiety, depression and stress (Hou et al., 2019). Focus of this study is to understand any possible relationship between the use of digital

media among the students of psychology among the Islamabad-based public sector universities and prevalence of perseverative thinking among them.

### ***Objective of the Study***

The study has been focused to explore the correlation between digital media use and perseverative thinking among the psychology students of Islamabad-based public sector universities.

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

The rapid development of ICTs and the digital media has transformed the human-technology interaction and the pattern of information consumption. However, a growing concern about the impact of various digital media platforms on human cognition in the shape of anxiety, depression and negative thinking, particularly perseverative thinking demands the modern-day scholars to explore the domain. This research study aims to examine the relationship between digital media usage and perseverative thinking among the students of psychology, studying in the public sector universities in Islamabad, the Federal Capital of Pakistan.

### ***Significance of the Study***

In view of the increased use of digital media in recent times, particularly, the post-COVID days, have raised eyebrows of scholars regarding the anxiety, depression and negative thinking as suggested by many studies (Marciano et al., 2022; Pandya & Lodha, 2021; Rodríguez-Hidalgo et al., 2020; Villani et al., 2021; Zhao & Zhou, 2020). Similarly, a lot of research has been conducted suggesting perseverative thinking and its physiological effects other than worry and stress that may include cortisol, hypertension and increased heart beat (Asha & Zinna, 2021; Devynck et al., 2017; Sheehan et al., 2022; Stade et al., 2022). Keeping the concepts discussed in mind, finding any association between both the media use and development of perseverative thinking will significantly contribute to the exiting body of knowledge as there remains a research gap on the phenomena under study. It will help understand the problematic digital media use and provide basis for the future studies to find out different ways of countering perseverative thinking. Furthermore, this study may contribute to understand the pervasiveness and characteristics of the perseverative thinking among young people, keeping in view the potential use of digital media. Likewise, it will help to generate insights for the future researchers who can work on interventions and other support mechanisms to improve the psychological well-being of the university students.

### ***The Study Hypothesis***

- Digital media use will be positively linked to the preservative thinking among the psychology students of Islamabad-based public sector universities.

### ***Literature Review***

With the exponential growth of digital media in a short span of time, people have become addicted to smart gadgets. This addiction has resulted in various mental health issues like anxiety, depression and negative thinking among the digital media users. A lot of studies have been conducted to document the role of digital media affecting people mental and physical health. Similarly, a lot of research work has been carried out to understand perseverative thinking and its underlying causes among the people belonging to different walks of life and different age groups. The simultaneous rise in mental health issues, mainly documented as resulting from the problematic digital media use, an addiction in psychiatric terms, have been characterized by anxiety, depression and negative thinking (Pellegrino et al., 2022). Keles et al. (2020) carried out a systematic review to understand the influence of digital media on anxiety, depression, and psychological distress among the adolescents to classify influence of digital media in four different domains including addiction, investment, activity and time spent. The findings reflected a correlation with psychological distress, anxiety and depression.

Various researchers have established the digital media usage as a contributing factor for many psychiatric health issues like anxiety, depression, low self-esteem, as well as negative physical well-being (Karim et al., 2020; Koehler & Bobbie, 2020; Tandon et al., 2021). O'Reilly (2020) conducted a study on social media and adolescent mental health to explore that the prolonged digital media usage affects mental health by developing signs of anxiety, depression and stress. Coyne et al. (2020), however, found during their eight-year long longitudinal study that increased digital media use was not linked to increased mental health problems at individual level. Akram and Kumar (2017) conducted a study to document positive and negative influence of digital media with reference society, business, youth, education and health. Rosy (2018) explored that people have become dependent on information in this digital age and that without parental controls, the use of digital media platforms carried negative consequences for the adolescents but negative mindset regarding these applications needed to be changed as an innovation may also be witnessed if used positively.

Similarly, a lot of studies have also been conducted to understand the perseverative thinking and associated trends. Birk et al. (2019) carried out a research to understand the relationship of perseverative thinking to blood pressure and perceived Stress and concluded that the clinically important notion that physical consequences of apparent stress could be sustained and even heightened by maladaptive protracted psychiatric engagements. Rahimzadegan (2021) undertook a study measure difference of perseverative thinking and self-differentiation among patients suffering generalized anxiety disorder and the individuals living with positive mental health. Zawadzki et al. (2018) measured the relation between perseverative thinking, and psychiatric and physical health concerns among students at the college level to indicate that perseverative cognition was linked to higher post-traumatic stress disorders. Trick et al. (2016) explored that there exists a strong relationship between perseverative thinking with anxiety, depression and emotional distress among people. Devynck et al. (2017) validated the Perseverative Thinking Questionnaire (PTQ) in French context and contributed to existing literature on repetitive negative thinking.

As the review of literature quoted above suggests that excessive use of digital media or digital addiction causes anxiety, depression and negative thinking whereas preservative thinking is defined as repetitive negative thinking characterized by worry and rumination, there remains a research gap to assess the association of media, particularly the digital media in contemporary context, with repetitive negative thinking or perseverative thinking. No studies could be found that could measure the association between media usage or addiction with perseverative thinking. Hence, this research measures the role of digital media in developing perseverative thinking among the active media users.

## **Methodology**

This cross-sectional correlational survey with a purposive sampling was distributed among 450 psychology students of three public sector universities; National University of Modern Languages, International Islamic University, Islamabad and Quaid-e-Azam University, Islamabad. Out of the distributed sample, 300 students (149 males and 151 female) who actively used digital media agreed to be part of this study. The age of the respondents ranged between 18 to 35 years. Research measures employed included demographic information involving self-constructed digital media usage questions and the Perseverative Thinking Questionnaire (Ehring et al., 2011). Additionally, permission to use the research instrument was taken from their authors. SPSS 25 was used for the statistical analysis.

The study applied Pearson's Correlation test to find out any possible relationship between the use of digital media and prevalence of perseverative thinking among the study population. Before applying the test, the study also checked reliability of the instrument.

### ***Reliability of the Perseverative Thinking Questionnaire (Ehring et al., 2011) Scale***

Reliability checks and measures the stability and consistency of research instrument in producing results (Taherdoost, 2018). The study measured the reliability of the Perseverative Thinking Questionnaire (Ehring et al., 2011) scale.

Table 1: *Cronbach's Alpha Reliability Coefficient for The Perseverative Thinking Scale (N = 300)*

<b>Scales</b>	<b>No. of items</b>	<b><math>\alpha</math></b>
PTQ	15	.97
Core features of RNT	9	.96
Unproductiveness of RNT	3	.87
Mental capacity captured by RNT	3	.90

Table 1 above presents reliability of the Perseverative Thinking Scale and its sub-scales applied by the current study. The findings reflected that the instrument showed excellent reliability for the perseverative thinking scale with *Cronbach's Alpha Reliability Coefficient* ( $\alpha$ ) values of .97. Its sub-scales; Core Features of RNT; Unproductiveness of RNT; and Mental Capacity Captured by RNT reflected reliability .96, .87, .90 respectively.

### ***Correlation of Digital Media Use and Perseverative Thinking***

Pearson correlation is a statistical measure that calculates the linear relationship between two variables (Schober et al., 2018). It ranges from -1 to 1, where -1 represents a perfect negative correlation (as one variable increases, the other decreases), 1 represents a perfect positive correlation (as one variable increases, the other increases), and 0 means no correlation (the variables are independent). In simple terms, it tells us how much the two variables are related and the direction of the relationship (Metsämuuronen, 2022). The current study measured correlation between the digital media use, the perseverative thinking scale including its sub-scales to find out a significant positive correlation between the given variables.

Table 2: *Correlation between Digital Media Use, Preservative Thinking and its Subscales.*

	1	2	3	4	5
1. DMU	-	.65**	.60**	.58**	.64**
2. PTCC		-	.91**	.92**	.98**
3. PTPU			-	.92**	.95**
4. PTCMC				-	.96**
5. PT					-

Note: DMU: Digital Media Use, PTCC; Preservative Thinking Core Characteristics; PTUP: Preservative Thinking Unproductiveness; PTCMC: Preservative Thinking Capturing Mental Capacity; PT: Preservative Thinking; \*\*Correlation is significant at 0.01(two-tailed).

Table 2 reveals the results indicating that digital media use has a significant positive correlation with perseverative thinking, (R= .64, p<0.01), perseverative thinking core characteristics (R= .65, p<0.01), perseverative thinking perceived unproductiveness (R= .60, p<0.01), perseverative thinking capturing mental capacity (R= .58, p<0.01). The results of the study prove the hypothesis that claimed the use of the digital media will be positively linked to the perseverative thinking among the psychology students of Islamabad-based universities.

### **Discussion and Conclusion**

The data analysis depicts a positive relationship between the predictor and criterion variables of the study. It has found that the time spent by the psychology students of Islamabad-based public sector universities while using digital media has been positively correlated with the prevalence of perseverative thinking among them. It depicts that preservative thinking will increase with increased digital media use or the

number of times the digital media users visit their online accounts. The results have also proved the hypothesis claiming a positive association between the digital media use and perseverative thinking among the psychology students of Islamabad-based public sector universities. The study findings provide the researchers an insight into potential consequences of addictive or excessive usage and consumption of the digital media on cognition and mental health of the users. These findings are valuable for the university administration, teachers and professionals in the field of mental health to develop strategies on healthy digital media usage among the students to mitigate the undesirable perseverative thinking effects. Furthermore, it is baseline research, a kind of basis for the future researcher to explore the patterns of digital media use, motivations of the digital media users to access various online platforms, and the potential content streams that may lead to development of perseverative thinking.

### ***Recommendations for the Future Research***

Since this study has found a positive correlation between the digital media use and perseverative thinking, more studies can be carried out quantitatively and qualitatively to have an in-depth understanding of the phenomena. Furthermore, research may be conducted to suggest remedies and counter-strategies to manage the digital media use and perseverative thinking.

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