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## Exploring the Relationship Between Binge-Watching, Loneliness, Depression, and Rumination in University Students

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### Abstract

The present research explores the influence of binge-watching on loneliness, depression, and unconstructive ruminative thinking styles among all Public and Private University Students. Cross-Sectional research design was used in the research and the total sample is N = 300 University Students, including men (n = 148) and women University Students (n = 152). Data was composed and collected using the convenient sampling technique in addition data was gathered physically and online. It also aimed at studying the differences based on other demographic variables. Four self-report instruments were used in the present research, the UCLA loneliness scale Russell (1996) Patient Health Questionnaire 9 scale Spitzer and BW (2001) Repetitive Thinking scale for unconstructive ruminative thinking style Philippot *et al.*, Watching TV Series Motives Questionnaire, Flayelle *et al.* (2019) Pearson Correlation analysis and linear regression analysis were run to test the hypothesis. The hypothesized hypothesis was tested using multiple linear regression analysis. The mean differences across demographic variables were further determined using the independent sample t-test and one-way ANOVA. The correlation analysis revealed that loneliness, depression, and unconstructive ruminative thinking style have a positive relationship with binge-watching and were significant predictors of binge-watching. The research findings revealed a significant positive influence of binge-watching on loneliness, depression, and unconstructive reflective thinking style. The study's implications and limitations were reviewed, and suggestions for additional research were made.

**Keywords:** Binge-watching, Loneliness, Depression, Unconstructive ruminative thinking style

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## 1. Introduction

This research aims to explore the influence of depression, loneliness, and unconstructive ruminative thinking styles on binge-watching behaviors among students, providing valuable insights into the psychological factors

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that contribute to excessive screen time and its potential implications for mental well-being in the academic context. Additionally, the current study aims to investigate the psychological predictors of binge-watching among university students and the connection between a few psychological variables and this behavior. The practice of watching several episodes of a TV show or series at once, frequently for lengthy periods, is known as binge-watching. While binge-watching can be an entertaining way to spend leisure time, it has also been associated with negative outcomes such as sleep disturbances, social isolation, and lower academic performance.

## 2. Literature Review

Several predictors have been found to predict binge-watching. Some of the most commonly studied predictors include, Trait impulsivity, Binge-watching is more prevalent among those who exhibit high levels of impulsivity (Flayelle et al., 2019; Verduyn et al., 2017). Binge-watching is more common among people who use media as a coping mechanism for difficult emotions (Duggan and Clark, 2022; Sung et al., 2018). Binge-watching is more common among people with an insecure attachment style (Li et al., 2023; Sung et al., 2018). Social identification with characters, individuals who strongly identify with the characters in a show are more likely to binge-watch (Cohen et al., 2019; Sung et al., 2018). Perceived time availability, people who perceive themselves as having more free time are more likely to engage in binge-watching behavior (Verduyn et al., 2017). Depressive symptoms, loneliness, and unconstructive ruminative thinking style also are some predictors that predict binge-watching. In current study focuses on these four psychological factors that may contribute to the behavior of binge-watching among students: depressive symptoms, unconstructive ruminative thinking style, and loneliness. The word "binge-watching" describes the behavior of rapidly consuming several episodes of a television show or other streaming content. Since the advent of streaming services like Netflix, Hulu, Amazon Prime Video, and others, this phenomenon has grown in popularity. The practice of binge-watching has permeated contemporary media consumption, and scholars are becoming more and more interested in the effects it has on people and society. There are several reasons why binge-watching has become more popular, including the availability of streaming services., the release of entire seasons of television shows at once, and the convenience and affordability of streaming compared to traditional cable or satellite television services. One of the key drivers of binge-watching is the desire for entertainment and escapism. Television shows and movies offer a way for individuals to escape from their daily routines and immerse themselves in fictional worlds and characters. Additionally, binge-watching can create a sense of community and social connection, as individuals can discuss and share their favorite shows with others, both online and offline. However, binge-watching also has several potential negative effects on individuals' physical and emotional well-being. For instance, too much screen time can cause weariness, headaches, and eye strain. Additionally, binge-watching can interfere with sleep cycles, which can cause sleep deprivation and several health issues. Additionally, according to some studies, binge-watching can make people feel guilty and ashamed because they may think their behavior is wasteful or unproductive. Binge-watching has also been linked to the concept of "addiction" or "compulsive behavior." Some individuals may find it difficult to stop watching a show or turn off the streaming service, leading to a sense of loss of control over their behavior. Research has found that binge-watching has become a widespread phenomenon, particularly among young adults. The study published in the Journal of Health Psychology found that 81% of the participants reported binge-watching at least once in their lifetime, with the majority being between 18-29 years of age (Singer and Kim, 2017). Furthermore, binge-watching has been linked to negative outcomes such as poor sleep quality, increased fatigue, and depression (Exelmans and Van den Bulck, 2017; Liang and Lei, 2017). Research suggests that binge-watching can provide a sense of relaxation and stress relief, as well as a feeling of connection to the characters and the story (Orosz et al., 2016). It is important to note that binge-watching can become a problematic behavior, particularly when it begins to interfere with daily life activities or leads to negative outcomes such as sleep deprivation. According to research, men and women have different binge-watching habits, with some obvious disparities in the frequency, causes, and outcomes of binge-watching. Women reported binge-watching more frequently than males, with an average of 4.58 sessions per week reported by women compared to 3.97 sessions per week reported by men, according to a study published in the Journal of Broadcasting & Electronic Media. Research has shown that binge-watching can have both favorable and unfavorable effects on people. A rising corpus of research is examining the connection between university students' binge-watching behavior and psychological markers like depression symptoms, loneliness, and ruminative, unproductive thinking styles. Numerous researches have revealed a strong association between university students' binge-watching behavior and depressed symptoms, loneliness, and destructive ruminative thinking. The association between psychological

variables and binge-watching behavior among Korean university students was investigated in a study by Kim and Jeong (2019). The study indicated that binge-watching behavior was positively connected with depression symptoms, loneliness, and destructive ruminative thinking. Social media addiction and binge watching: A comparative study among Malaysian university students. This study explored the relationship between social media addiction, binge-watching, and other psychological factors among Malaysian university students. The authors found that both social media addiction and binge-watching were significantly correlated with depression, anxiety, and stress. Moreno *et al.* (2020). University students' binge-watching habits and psychological anguish during COVID-19 imprisonment. *Psychology's frontiers*. This study looked at psychological discomfort and binge-viewing among college students during the COVID-19 pandemic. A mental health condition known as depressive symptoms affects about 300 million people globally. There are some researches on depressive symptoms, Prevalence, and Risk Factors: A study by Kessler and Bromet (2013) found that depressive symptoms are highly prevalent, with approximately 16.2% of adults experiencing a major depressive episode at some point in their lives. Depressive symptoms and binge-watching have become increasingly prevalent issues in today's society. Excessive binge-watching, however, has been linked in studies to depression and other mental health problems. According to a University of Toledo study, those who binge-watch television programmes are more likely to experience depression and anxiety than people who don't, Chandran (2021). The relationship between depression and binge-watching may be explained by several factors. First, binge-watching can lead to a sedentary lifestyle, which has been associated with increased levels of depression. Additionally, binge-watching may interfere with sleep patterns, which can also contribute to depression, Hale and Guan (2015). The study found that individuals who used binge-watching as a way to cope with negative emotions reported higher levels of depression. The authors suggest that binge-watching may serve as a way to escape negative emotions, which could contribute to the development or worsening of depression. Exelmans and Van den Bulck (2017). Another factor is loneliness, it can be defined as a feeling of social isolation or disconnectedness from others, and it is often characterized by feelings of sadness, emptiness, and a lack of social support (Hawkley and Cacioppo, 2010). According to surveys, up to 50% of adults in the United States report feeling lonely at least occasionally (Cacioppo and Patrick, 2008). Loneliness can arise due to various reasons and factors. Conditions like depression, anxiety, and low self-esteem can contribute to a sense of loneliness. Some notable studies include: "Loneliness and Associated Factors among Older Chinese Adults: A Longitudinal Study" by Luo *et al.* (2012). This study examined loneliness and its associated factors among older adults in China, highlighting the impact of health conditions, social support, and demographic factors on loneliness. "Loneliness, depression, and health status of older adults in China" by Wang *et al.* (2018). The research explored the relationship between loneliness, depression, and health status among older adults in China, emphasizing the importance of addressing loneliness to promote better mental and physical well-being. Research studies have suggested that there may be a relationship between loneliness and binge-watching. For example, a study by Choi *et al.* (2022) found that people who reported higher levels of loneliness were more likely to binge-watch TV shows. Similarly, a study by Ebert *et al.* (2019), found that binge-watching was associated with feelings of social isolation and a lack of social support. According to Flayelle *et al.* (2019), those who are prone to loneliness may be more inclined to use binge-watching as a means of self-soothing or avoidance. This is another explanation for the link between loneliness and binge-watching. Although these studies point to a connection between loneliness and binge-watching, it's crucial to remember that the connection may not be clear-cut. Another factor, Unconstructive ruminative thinking style, and binge-watching are two interrelated phenomena that have received significant attention from researchers in recent years. Ruminative thinking refers to repetitive and intrusive thoughts about past events, mistakes, or negative experiences that can lead to feelings of sadness, anxiety, and depression. Unconstructive ruminative thinking style can be influenced by several factors and reasons, including Perfectionism, Negative self-beliefs, Emotional distress, Lack of problem-solving skills, Cognitive biases, and Lack of distraction or alternative coping strategies. Several studies have suggested that there is a relationship between unconstructive ruminative thinking style and binge-watching. In particular, people who ruminate negatively are more likely to indulge in binge-watching habits as a diversion from their bad feelings and thoughts. For instance, a 2019 study, found that people who reported higher levels of brooding rumination were more likely to binge-watch as a coping mechanism for their unpleasant emotions. Exelmans and Van den Bulck's (2017) study, for instance, discovered that binge-watching was linked to higher emotions of despair and loneliness. The authors suggest that this could be because binge-watching often involves a high degree of emotional involvement with the characters and storyline,

which can lead to individuals becoming overly attached and invested in the fictional world they are watching. This, in turn, can lead to feelings of disappointment, emptiness, and sadness when the binge-watching session ends and the individual is forced to return to their real life. Moreover, research also indicates that individuals who engage in binge-watching are more likely to experience negative health outcomes, including sleep problems, fatigue, and decreased physical activity (Exelmans and Van den Bulck, 2017). These negative outcomes can further exacerbate unconstructive ruminative thinking patterns, as sleep deprivation and physical exhaustion can make it harder for individuals to regulate their emotions and thoughts.

### 3. Conceptual Framework

Conceptual Framework to the study Psychological predictors of binge-watching among University Students.

Figure 1 represents the predictors of binge-watching, predictors (depression, loneliness, and unconstructive ruminative thinking style) and binge-watching as a psychological outcome. And psychological predictors further lead towards positive and negative psychological outcomes.

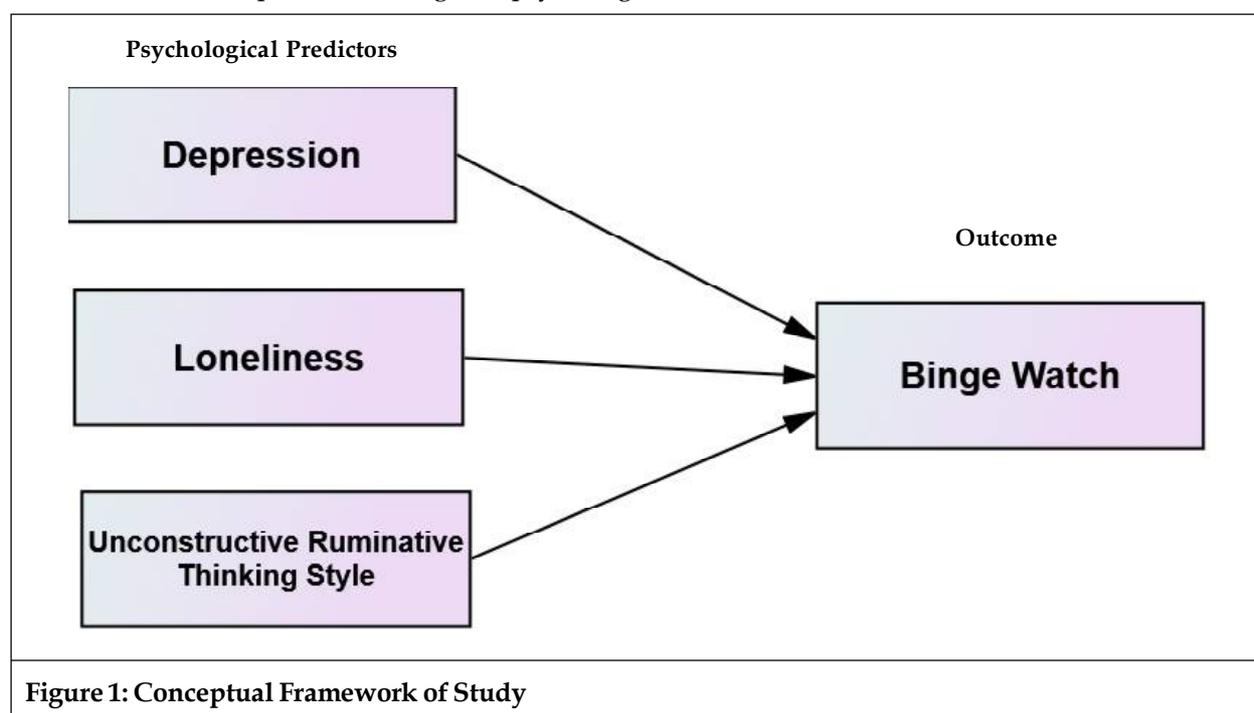


Figure 1: Conceptual Framework of Study

### 4. Methodology

Utilizing the practical sample technique, data from 300 university students ( $N = 300$ ) were collected. Girls ( $n = 152$ ) and boys ( $n = 148$ ) were added to the data. Before the distribution of the surveys, all participants' informed consent was also obtained. Age, family status, social standing, place of residence, marital status, educational level, sex, birth order, student status, parent occupation, monthly income, duration of watching, and devices used for watching were also asked.

Table 1 reveals that a greater number of Girls ( $n = 152$ ) participated in the study as compared to boys ( $n = 148$ ). A lower number of students from the joint family system ( $n = 117$ ) participated as compared to students from the nuclear family system ( $n = 183$ ). A greater number of students from the middle class ( $n = 237$ ) participated as compared to lower class ( $n = 14$ ) and high class ( $n = 49$ ). A greater number of single students ( $n = 264$ ) participated as compared to married students ( $n = 36$ ). The majority of students were middle-born ( $n = 148$ ) as compared to first-born ( $n = 76$ ) and last-born ( $n = 76$ ). Majority of BS students ( $n = 231$ ) and a smaller number of Masters Students ( $n = 68$ ). Greater number of Hostelite students ( $n = 161$ ) as compared to Day Scholar ( $n = 127$ ). A lower number of students from rural areas ( $n = 128$ ) as compared to students from Urban areas ( $n = 172$ ). The majority of students used Mobile ( $n = 230$ ) for watching as compared to students who used laptops ( $n = 68$ ). The majority of students spend 2-3 hours ( $n = 101$ ) on watching as compared to others some spend 8 or more hours ( $n = 79$ ) on watching, some students spend 4-5 hours ( $n = 64$ ), some students spend 6-7 hours ( $n = 31$ ) and some students spend 1 hour ( $n = 25$ ) on watching.

<b>Table 2: Asymptotic Parameter Correlation Matrix</b>		
<b>Characteristics</b>	<b>N</b>	<b>%</b>
<b>Sex</b>		
Girls	152	50.7
Boys	148	49.3
<b>Family Status</b>		
Nuclear	183	61.0
Joint	117	39.0
<b>Socioeconomic Status</b>		
Lower	14	4.7
Middle	237	79.0
High	49	16.3
<b>Marital Status</b>		
Single	264	88.0
Married	36	12.0
<b>Birth Order</b>		
First Born	76	25.3
Middle	148	49.3
Last Born	76	25.3
<b>Educational Level</b>		
BS	231	77.0
Master	68	22.7
<b>Student Status</b>		
Hostelite	161	53.7
Day Scholar	127	42.3
<b>Residence</b>		
Urban	172	57.3
Rural	128	42.7
<b>Devices</b>		
Mobile	230	76.7
Laptop	68	22.7
<b>Duration</b>		
1 hour	25	8.3
2-3 hours	101	33.7
4-5 hours	64	21.3
6-7 hours	31	10.3
8 to onward	79	26.3

#### **4.1. Procedure**

The theme and objectives of the study were briefed to the participants before the collection of data. A questionnaire along with a demographic sheet was administered after getting the formal informed consent from participants.

The questionnaire consisted of three sections: section one contained informed consent; it was ensured to the participants that the given information would only be used for research purposes and would be kept highly confidential, section two consisted of a demographic information study which includes age, family system, sex, educational level, marital status, socioeconomic status, student status, parent occupation, monthly income, residential area, devices used for watching, duration of watching and the last one and third section consisted of research questionnaires. The emotional regulation scale, UCLA Loneliness scale, PHQ-9 scale, RTMQ scale, and Watching TV series Motives Questionnaire were used to assess emotional regulation, depression, loneliness, unconstructive ruminative thinking style, and binge watching respectively.

### 5. Results

The goal of the present research is to investigate the influence of binge-watching on Depression, Loneliness, and Unconstructive Ruminative Thinking Styles among all public and private University students. SPSS-25 was used to carry out data analysis. Primarily, the demographic information was recognized by frequencies and percentages. The mean and alpha reliability coefficients were calculated. Pearson correlation was calculated to find out the relationships between variables. Linear regression analysis was used to calculate the effect of predictors on the outcome variables. One-way ANOVA and independent t-test were used to calculate mean differences across demographic factors.

Table 2 shows the psychometric properties of the study variables. The reliability analysis indicates that the reliability of Loneliness, Depression, Repetitive thinking, and binge-watching is 0.90, 0.83, 0.85, 0.93 respectively which indicates satisfactory higher internal consistency.

Variables	M	SD	Range	α
Loneliness	26.59	12.70	1-60	0.90
Depression	12.09	6.07	0-27	0.83
Repetitive Thinking	30.43	8.07	3-50	0.85
Binge Watching	55.48	15.15	22-87	0.93

Table 3 shows the Pearson correlation among study variables. The findings indicate that Loneliness has a significant positive relation with Depression, Repetitive Thinking, Rumination, worry, Distress, binge-watching, Coping, Enrichment, Emotional and Social. Depression has a significant positive relation with Repetitive

Variables	1	2	3	4	5	6	7	8	9	10	11
Loneliness	-	0.370**	0.289**	0.227**	0.259**	0.282**	0.337**	0.337**	0.238**	0.285**	0.347**
Depression		-	0.478**	0.427**	0.411**	0.427**	0.470**	0.497**	0.345**	0.387**	0.411**
Repetitive Thinking			-	0.844**	0.903**	0.875**	0.398**	0.377**	0.311**	0.372**	0.342**
Rumination				-	0.622**	0.653**	0.335**	0.311**	0.273**	0.334**	0.262**
Worry					-	0.676**	0.332**	0.330**	0.247**	0.283**	0.314**
Distress						-	0.385**	0.356**	0.314**	0.377**	0.324**
Binge Watching							-	0.930**	0.873**	0.892**	0.827**
Coping								-	0.701**	0.788**	0.705**
Enrichment									-	0.739**	0.684**
Emotional										-	0.622**
Social											-

**Note:** \*\*p<0.01.

Thinking, Rumination, Worry, Distress, Binge-Watching, Coping, Enrichment, Emotional and Social. Repetitive Thinking has a significant positive correlation with Rumination, Worry, Distress, Binge-Watching, Coping, Enrichment, Emotional and Social. Rumination has a significant positive relation with worry, Distress, Binge-Watching, Coping, Enrichment, Emotional and Social. Worry has a significant positive relation with Distress, Binge-Watching, Coping, Enrichment, Emotional and Social. Distress has a significant positive relation with Binge-Watching, Coping, Enrichment, Emotional and Social.

Table 4 shows multiple regression analysis with Loneliness as the predictor variable and binge-watching as the outcome variable. The R<sup>2</sup> value of 0.113 indicates that 11.3% variance in the dependent variable is explained by the predictor with F (1, 297) = 38.02, p<0.001. The findings indicate that Loneliness has a significant positive effect on binge-watching ( $\beta = 0.337$ , p<0.001).

Variables	B	SE	t	P	95% CI
Constant	44.79	1.92	23.27	0.000	[40.98, 48.55]
Loneliness	0.404	0.066	6.16	0.000	[0.275, 0.533]

Note: \*\*\*p<0.001.

Table 5 shows multiple regression analysis with Depression as the predictor variable and binge-watching as the outcome variable. The R<sup>2</sup> value of 0.22 indicates that 22% variance in the dependent variable is explained by the predictor with F (1, 297) = 83.91, p<0.001. The findings indicate that Depression has a significant positive effect on binge-watching ( $\beta = 0.470$ , p<0.001).

Variables	B	SE	t	P	95% CI
Constant	41.36	1.73	23.90	0.000	[37.95, 44.77]
Depression	1.17	0.128	9.16	0.000	[0.92, 1.42]

Note: \*\*\*p<0.001.

Table 6 shows multiple regression analysis with Rumination, Worry, and Distress as the predictor variables and Coping as the outcome variables. The R<sup>2</sup> value of 0.16 indicates that 16% variance in the dependent variable is explained by the predictor with F (3, 295) = 19.398, p<0.001. The findings indicate that Rumination, and Worry have a significant effect on binge-watching ( $\beta = 0.116, 0.094$ , p>0.001) whereas Distress has a significant positive effect on binge-watching ( $\beta = 0.246$ , p<0.001).

Variables	B	SE	t	P	95% CI
Constant	32.53	3.15	10.32	0.000	[26.33, 38.73]
Rumination	0.66	0.42	1.56	0.119	[-0.171, 1.49]
Worry	0.38	0.30	1.23	0.218	[-0.226, 0.988]
Distress	1.33	0.42	3.11	0.002	[0.490, 2.171]

Note: \*p<0.01.

Table 7 revealed non-significant mean differences in loneliness. Findings showed that male participants exhibited higher scores on Loneliness as compared to female participants. Finding exposed significant mean differences in depression. Findings showed that male participants exhibited higher scores on depression as compared to female participants. Results exposed non-significant mean differences in Repetitive Thinking. Findings displayed that female participants exhibited higher scores on Repetitive Thinking as compared to male participants. Finding exposed significant mean differences in Binge-Watching. Findings showed that

**Table 7: Mean, Standard Deviation, and t-values for Males and Females on Loneliness, Depression, Unconstructive Ruminative Thinking Style and Binge-Watching (N = 300)**

Variables	Female (M)	SD	Male (M)	SD	t(298)	p	Cohen's d
Loneliness	25.11	12.39	28.11	12.87	-2.0	0.880	0.23
Depression	11.38	6.09	12.82	5.99	-2.0	0.370	0.24
Repetitive Thinking	30.58	2.63	30.28	8.72	.32	0.060	0.04
Binge Watching	53.07	14.50	57.94	15.46	-2.81	0.627	0.32
Coping	19.47	5.98	21.29	5.96	-2.63	0.683	0.30
Enrichment	12.42	4.01	13.41	3.99	-2.13	0.799	0.24
Emotional	12.28	3.67	13.04	3.96	--1.72	0.511	0.19
Social	9.01	3.02	10.20	3.21	-3.30	0.356	0.38

male participants exhibited higher scores on Binge-Watching as compared to female participants. Results exposed significant mean differences in Coping. Findings displayed that male participants exhibited higher scores on Coping as compared to female participants. Finding exposed significant mean differences in Enrichment. Findings showed that male participants exhibited higher scores on Enrichment as compared to female participants. Results exposed non-significant mean differences in Emotions. Findings displayed that male participants exhibited higher scores on Emotional as compared to female participants. Finding exposed non-significant mean differences in social. Findings showed that male participants exhibited higher scores on social as compared to female participants.

Table 8 revealed non-significant mean differences in loneliness. Findings showed that participants who used laptops exhibited higher scores on Loneliness as compared to participants who used Mobile. Finding exposed significant mean differences in depression. Findings showed that participants who used laptops exhibited higher scores on depression as compared to participants who used mobile. Results exposed non-significant mean differences in Repetitive Thinking. Findings displayed that participants who used mobile exhibited higher scores on Repetitive Thinking as compared to participants who used laptops. Finding exposed significant mean differences in Binge-Watching. Findings showed that participants who used laptops exhibited higher scores on Binge-Watching as compared to participants who used mobile. Results exposed significant mean differences in Coping. Findings displayed that participants who used laptops exhibited higher scores on Coping as compared to participants who used mobile. Finding exposed significant mean differences in Enrichment. Findings showed that participants who used laptops exhibited higher scores on Enrichment as compared to participants who used mobile. Results exposed non-significant mean differences in Emotions.

**Table 8: Mean, Standard Deviation, and t-values for Mobile and Laptop on Loneliness, Depression, Unconstructive Ruminative Thinking Style and Binge-Watching (N = 300)**

Variables	Mobile	SD	Laptop	SD	t(296)	p	Cohen's d
	M		M				
Loneliness	26.47	12.99	27.41	11.58	0.53	0.591	0.07
Depression	11.84	6.31	13.06	5.03	1.46	0.145	0.21
Repetitive Thinking	30.65	8.15	29.82	7.73	0.74	0.458	0.10
Binge Watching	53.80	14.91	61.10	14.92	3.5	0.000	0.48
Coping	19.75	6.05	22.46	5.64	3.2	0.001	0.46
Enrichment	12.49	3.97	14.34	3.96	3.37	0.001	0.46
Emotional	12.36	3.89	13.62	3.50	2.39	0.017	0.34
Social	9.28	3.05	10.69	3.37	3.27	0.001	0.43

Note: \*p<0.05.

Findings displayed that participants who used laptops exhibited higher scores on Emotional as compared to participants who used mobile. Finding exposed non-significant mean differences in social. Findings showed that participants who used laptops exhibited higher scores on social as compared to participants who used mobile.

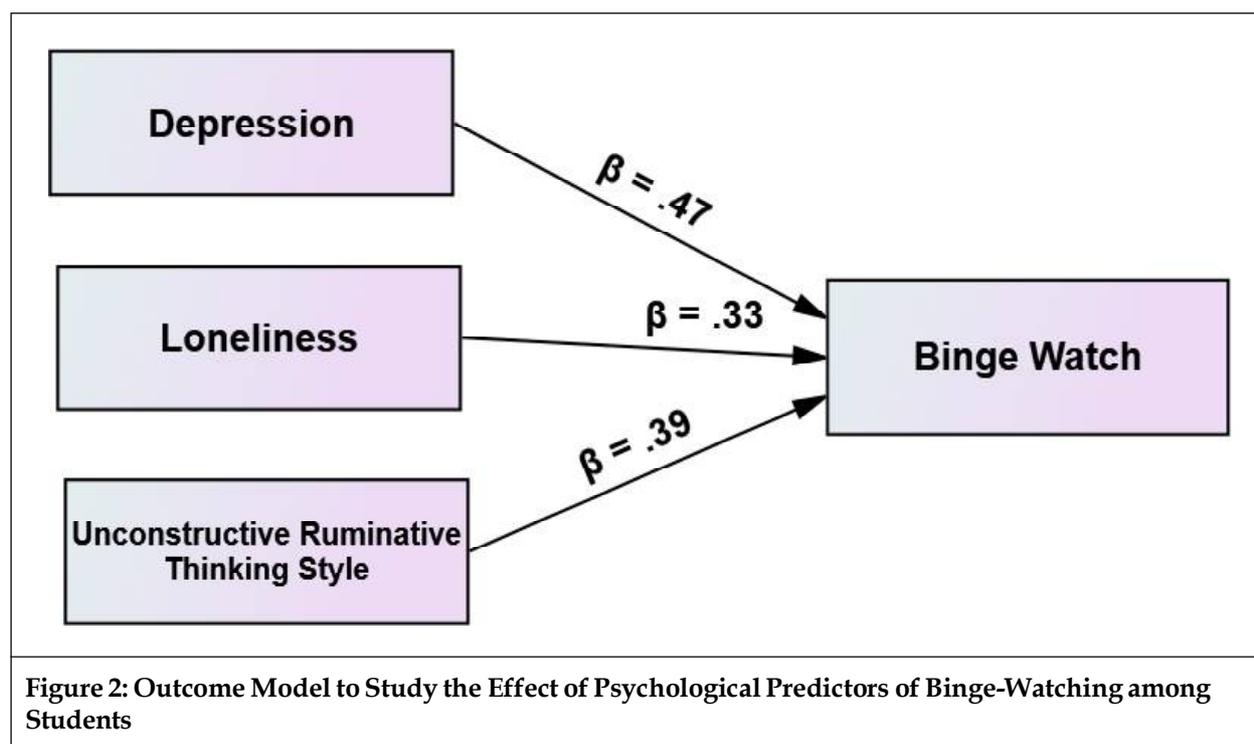
Table 9 shows the mean, standard deviation, and F-values for students belonging to three birth levels on loneliness, depression, unconstructive ruminative thinking style, and Binge-Watching. The findings indicate non-significant mean differences in loneliness among students. The findings indicate that students who are last born exhibit higher scores on loneliness as compared to first born, whereas Middle born students exhibit the lowest score on Loneliness. The findings indicate non-significant mean differences in depression. Results indicate that students who are last born exhibit higher scores on Depression as compared to Firstborn and last born. Results indicate non-significant mean differences. The findings indicate that students who are first-born exhibit higher score on repetitive thinking as compared to last-born born, whereas, middle-born students exhibits the lowest score on Repetitive Thinking. The findings indicate significant mean differences in Binge-Watching. Results indicate that students who are first-born exhibit higher scores on Binge-Watching as compared to last-born and middle-born. The findings indicate non-significant mean differences in Coping among students. The findings indicate that students who are first-born exhibit higher scores on coping as compared to last-born and middle-born. Results indicate non-significant mean differences. The findings indicate that students who are last-born exhibit higher scores on enrichment as compared to first-born and middle-born. The findings indicate non-significant mean differences in emotions among students. The findings indicate that students who are last born exhibit higher scores on emotional as compared to first born whereas, Middle born students exhibit the lowest score on emotional. The findings indicate significant mean differences. Results indicate that students who are last-born exhibit higher scores on social as compared to first-born and middle-born.

**Table 9: Mean, Standard Deviation, and F-values for Students of Three Levels of Birth Order on Loneliness, Depression, Repetitive Thinking, and Binge-Watching (N = 300)**

Variables	First Born	SD	Middle	SD	Last Born	SD	F (2, 297)	$\eta^2$	Post-Hoc
	M		M		M				
Loneliness	27.83	11.42	25.29	13.161	27.87	12.90	1.52	0.01	1>2<3
Depression	12.24	5.72	11.26	6.120	13.57	6.11	3.70	0.03	1>2<3
Repetitive Thinking	30.88	7.94	29.55	8.38	31.72	7.46	1.96	0.01	1>2<3
Binge Watching	58.86	13.29	52.52	15.91	57.89	14.41	5.84	0.05	1>2<3
Coping	22.13	5.67	19.08	6.15	21.12	5.63	7.51	0.07	1>2<3
Enrichment	13.74	3.59	12.23	4.32	13.39	3.63	4.36	0.04	1>2<3
Emotional	13.34	3.65	12.05	3.93	13.15	3.67	3.72	0.03	1>2<3
Social	9.64	2.81	9.16	3.17	10.42	3.36	4.09	0.03	1>2<3

## 6. Discussion

Initially, psychometric analysis was run out on SPSS to ensure that the instruments used in the present research were reliable, the instruments were used on a sample of 300 university students, and the alpha reliability of four instruments watching a TV series Questionnaire, Patient Health Questionnaire, UCLA scale of Loneliness and Repetitive Thinking Questionnaire is satisfactory. The results of the reliability analysis revealed that all four variables exhibited satisfactory high internal consistency, with reliability coefficients ranging from 0.83 to 0.93. This indicates that the items measuring each variable are measuring the same underlying construct consistently, and the scores obtained are reliable indicators of the participants' levels of loneliness, depression, repetitive thinking, and binge-watching. The high-reliability coefficients reported in this study suggest that the measurement tools used were well-constructed and effective in capturing the intended constructs. A high level of internal consistency indicates that the items are measuring the same construct and are not influenced by external factors, such as response bias or measurement error. The findings of this study suggest that the measures used to assess loneliness, depression, repetitive thinking, and binge-



watching are reliable and valid for use in future research. However, it is essential to note that reliability alone is not sufficient to establish the validity of a measure. Therefore, further research should examine the validity of these measures by exploring their relationships with other relevant constructs and assessing their ability to predict outcomes of interest. The data of 300 university students were further evaluated with the help of advanced statistics for the testing of the hypothesis. The first finding of research is that there is a significant relationship between psychological predictors and Binge-Watching. The literature reviews also provide evidence supporting the present research, a study was done to study the psychological predictors and binge-watching. The above-mentioned research concludes the significant relationship between psychological predictors and binge-watching (Kim and Jeong, 2019). In the present study correlation analysis was performed among all the variables of present study (see Table 3). All correlations are necessary to understand the impact of variables on each other and to proceed toward further analysis. The table presents the Pearson correlation coefficients among the study variables. The findings show that loneliness has a significant positive correlation with depression, repetitive thinking, rumination, worry, distress, binge-watching, coping, enrichment, emotional, and social factors. Similarly, depression has a significant positive correlation with all these variables except for repetitive thinking. Repetitive thinking, in turn, has a significant positive correlation with all the variables except for loneliness. Rumination has a significant positive correlation with worry, distress, binge-watching, coping, enrichment, emotional, and social factors. Likewise, worry has a significant positive correlation with distress, binge-watching, coping, enrichment, emotional, and social factors. Distress has a significant positive correlation with binge-watching, coping, enrichment, and emotional, and social factors. Depressive symptoms, loneliness, and unconstructive ruminative thinking style were positively correlated with binge-watching behavior. Binge-watching behavior may serve as a coping mechanism for university students who experience these psychological factors. The second finding is; loneliness has a significant positive relation with binge-watching (see Table 4). The previous research supported similar results as Winther *et al.* (2021) found Problematic internet use, loneliness, and binge-watching among young people. Specifically, they found that loneliness was a significant predictor of problematic internet use and binge-watching. Loneliness is a significant predictor of binge-watching behavior among students due to its influence on the need for social connection and the use of media as a coping mechanism. One study that supports this statement is the research conducted by Kang *et al.* (2020), titled "Loneliness and Mobile Phone Addiction: Implicit Loneliness, Perceived Social Support, and Gender Differences" (published in the journal *Frontiers in Psychology*). In their study, Kang *et al.* examined the relationship between loneliness and mobile phone addiction, which can be related to binge-watching behavior as both involve excessive media consumption. According to their findings, loneliness was positively associated with mobile phone addiction. The researchers highlighted that individuals

experiencing higher levels of loneliness tend to rely on mobile phones as a means of seeking social connection and alleviating feelings of isolation. These findings can be extended to binge-watching behavior as well, as it serves as another form of media consumption that can provide a sense of escapism and temporary relief from feelings of loneliness. Third finding is that, Depression is a significant predictor and it positively influences Binge-Watching (see Table 5). The previous research supported similar results as one study that supports the idea that depression is a significant predictor of binge-watching is a study by Exelmans and Van den Bulck (2017). The study found that individuals with higher levels of depression reported watching more TV shows in a binge-watching manner. The study also found that individuals who used binge-watching as a way to cope with negative emotions reported higher levels of depression. The authors suggest that binge-watching may serve as a way to escape negative emotions, which could contribute to the development or worsening of depression. Fourth finding in the present research is, Unconstructive ruminative thinking style has a significant positive relation with binge-watching (see Table 6). The previous research supported similar results as the Study by Tukaj *et al.* (2020), which found that individuals with higher levels of unconstructive ruminative thinking tend to engage in more binge-watching behavior. This relationship was mediated by perceived stress, meaning that individuals who engage in more unconstructive ruminative thinking tend to perceive higher levels of stress, which in turn leads them to engage in more binge-watching behavior. The authors suggest that unconstructive ruminative thinking may serve as a coping mechanism for dealing with stress, and binge-watching may provide a temporary escape from negative thoughts and emotions. Research studies exploring the relationship between unconstructive ruminative thinking style and binge-watching behavior provide insights into the hypothesis that unconstructive ruminative thinking may be a significant predictor of binge-watching. The findings indicate that individuals with a higher tendency for unconstructive rumination at the initial assessment are more likely to engage in binge-watching behavior in subsequent assessments. The study suggests that unconstructive rumination may serve as a precursor to increased binge-watching. Fifth finding of present study is, there is no significant gender differences in binge-watching (see Table 7). Research Study: "Gender Differences in Binge-Watching Behavior: A Comparative Study" this study examines binge-watching behavior in a sample of both male and female participants. The findings reveal no significant gender differences in terms of the frequency, duration, or motivations for binge-watching. The results suggest that gender may not be a significant predictor of binge-watching behavior. Research study: "Gender Similarities in Binge-Watching and Its Psychological Correlates" this research investigates binge-watching habits and psychological correlates among both male and female participants. The study finds that there are no substantial gender differences in binge-watching frequency, enjoyment, or associated psychological factors such as escapism or emotional regulation.

## 7. Conclusion

The results support the hypothesis that gender is not a significant predictor of binge-watching behavior. These research studies consistently support that there are non-significant gender differences in binge-watching behavior. They indicate that both males and females engage in binge-watching to a similar extent and share similar motivations and preferences in this media consumption behavior.

## 8. Limitations and Suggestions for Present Research

Limitations are very crucial because they may weaken the relationship between research variables. To address the mentioned limitations there are some suggestions for future research to get better results and study the relationship among variables more effectively. The first limitation of the research is, that research is quantitative, it does not provide deep facts and details like qualitative research provides. That is why the data assembled was not enhanced and broad. Suggestion for this research is that the current study was quantitative work, it is recommended for further researchers to explore these variables qualitatively. A convenient sampling technique was used and this technique has some downsides like this sampling technique unable us to generalize our data findings. For future research, it is recommended to employ more robust sampling techniques, such as stratified or random sampling, to enhance the generalizability of data findings. It was survey research so it does not guarantee the causality of the dependent variables because in survey research we are unable to control external factors that can influence our findings. For future research it is recommended that the current study was based on survey research design it is recommended that use a multiple-technique approach for

utilizing their findings. Half of the data was collected through the Internet so there is a chance that some participants fake the answers. In the future, it is recommended that the researchers use some technique to verify that only participants from specific samples are filling out the questionnaire, for instance, their email is made compulsory or the department in which they serve must be written. The present research does not clarify the cause-and-effect relationship it only describes the relation of one variable with another. For future research, it is recommended that the Researcher should try to remove all possible confounding to study cause-and-effect relationships. For future research, it is recommended that more than one method should be used to reduce or decrease the level of social desirability so that internal validity is high in research. Future research should focus on content analysis. Take feedback from the sample participants about measures and variables to get a genuine response from the participants.

## Data Availability Statement (DAS)

The data supporting the findings of this study are available from the corresponding author upon reasonable request.

## References

- Chandran, I. (2021). *Are You Still Watching?. UTSC's Journal of Natural Sciences*, 2(1), 183-187.
- Choi, E.Y., Farina, M.P., Wu, Q. and Ailshire, J. (2022). *COVID-19 Social Distancing Measures and Loneliness among Older Adults. The Journals of Gerontology: Series B*, 77(7), e167-e178.
- Cohen, R., Fardouly, J., Newton-John, T. and Slater, A. (2019). *BoPo on Instagram: An Experimental Investigation of the Effects of Viewing Body Positive Content on Young Women's Mood and Body Image. New Media & Society*, 21(7), 1546-1564.
- Cacioppo, J.T. and Patrick, W. (2008). *Loneliness: Human Nature and the Need for Social Connection*, WW Norton & Company.
- Duggan, E.W. and Clark, M. (2022). *Moving Past Burnout, Looking Toward Engagement. Anesthesiology Clinics*, 40(2), 399-413.
- Ebert, D.D., Franke, M., Kählke, F., Küchler, A.M., Bruffaerts, R., Mortier, P. .... and Baumeister, H. (2019). *Increasing Intentions to Use Mental Health Services among University Students. Results of a Pilot Randomized Controlled Trial within the World Health Organization's World Mental Health International College Student Initiative. International Journal of Methods in Psychiatric Research*, 28(2), e1754.
- Exelmans, L. and Van den Bulck, J. (2017). *Binge Viewing, Sleep, and the Role of Pre-Sleep Arousal. Journal of Clinical Sleep Medicine*, 13(08), 1001-1008. <https://doi.org/10.5664/jcsm.6704>
- Flayelle, M., Canale, N., Vögele, C., Karila, L., Maurage, P. and Billieux, J. (2019). *Assessing Binge-Watching Behaviors: Development and Validation of the "Watching TV Series Motives" and "Binge-Watching Engagement and Symptoms" Questionnaires. Computers in Human Behavior*, 90, 26-36. <https://doi.org/10.1016/j.chb.2018.08.022>
- Hale, L. and Guan, S. (2015). *Screen Time and Sleep among School-Aged Children and Adolescents: A Systematic Literature Review. Sleep Medicine Reviews*, 21, 50-58.
- Hawkey, L.C. and Cacioppo, J.T. (2010). *Loneliness Matters: A Theoretical and Empirical Review of Consequences and Mechanisms. Annals of Behavioral Medicine*, 40(2), 218-227.
- Kessler, R.C. and Bromet, E.J. (2013). *The Epidemiology of Depression Across Cultures. Annual Review of Public Health*, 34(1), 119-138. <https://doi.org/10.1146/annurev-publhealth-031912-114409>
- Kim, J. and Jeong, Y. (2019). *Psychological Factors and Binge-Watching Behavior: The Mediating Role of Sleep Problems. Journal of Broadcasting & Electronic Media*, 63(4), 619-635. doi: 10.1080/08838151.2019.1674785
- Liang, Y. and Lei, L. (2017). *The Effects of Binge-Watching on Sleep and Cognitive Functions in Young Adults. Journal of Educational Psychology*, 109(1), 32-42.

- Li, L., Kang, K. and Sohaib, O. (2023). *Analysing Younger Online Viewers' Motivation to Watch Video Game Live Streaming Through a Positive Perspective. Journal of Economic Analysis*, 2(2), 56-69.
- Luo, Y., Hawkey, L.C., Waite, L.J. and Cacioppo, J.T. (2012). *Loneliness, Health, and Mortality in Old Age: A National Longitudinal Study. Social Science & Medicine*, 74(6), 907-914.
- Moreno, C., Wykes, T., Galderisi, S., Nordentoft, M., Crossley, N., Jones, N., ... and Arango, C. (2020). *How Mental Health Care Should Change as a Consequence of the COVID-19 Pandemic. The Lancet Psychiatry*, 7(9), 813-824.
- Orosz, G., Vallerand, R.J., Bőthe, B., Tóth-Király, I. and Paskuj, B. (2016). *On the Correlates of Passion for Screen-Based Behaviors: The Case of Impulsivity and the Problematic and Non-Problematic Facebook Use and TV Series Watching. Personality and Individual Differences*, 101, 167-176. <https://doi.org/10.1016/j.paid.2016.05.368>
- Russell, D. W. (1996). *UCLA Loneliness Scale (Version 3): Reliability, Validity, and Factor Structure. Journal of Personality Assessment*, 66(1), 20-40.
- Spitzer, R.L. and BW, W.J. (2001). *The PHQ-9. Journal of General Internal Medicine*, 16(9), 606-613.
- Singer, J.B. and Kim, E.J. (2017). *Binge-Watching and its Association with Loneliness, Depression, and Sleep Problems. Journal of Health Psychology*, 22(2), 151-159.
- Sung, Y.H., Kang, E.Y. and Lee, W.N. (2018). *Why Do We Indulge? Exploring Motivations for Binge Watching. J Broadcasting Electron Media*, 62, 408-426.
- Verduyn, P., Ybarra, O., Résibois, M., Jonides, J. and Kross, E. (2017). *Do Social Network Sites Enhance or Undermine Subjective Well Being? A Critical Review. Social Issues and Policy Review*, 11(1), 274-302.
- Wang, J., Mann, F., Lloyd-Evans, B., Ma, R. and Johnson, S. (2018). *Associations Between Loneliness and Perceived Social Support and Outcomes of Mental Health Problems: A Systematic Review. BMC Psychiatry*, 18(1), 1-16.