

Problematic and Non-Problematic Binge-Watching Engagement, Flow and Empathy among Young Adults: A Correlational Study

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Abstract: *Binge-watching is becoming a social phenomenon that knows no bounds to any age, region, or culture, and hence is gradually affecting all of us, both in a positive and a negative aspect. The youth of this generation is hooked on binge-watching, and the intention behind this research is to find the problematic and non-problematic engagement motives for them to do so and correlate them with factors like 'flow' and 'empathy'. In this study, data (N=222) was collected from Indian young adults within the age range of 18-30 years through a survey containing the BWESQ, TEQ, and FSS questionnaires. Using Pearson's product-moment correlation, correlation between all the dimensions was calculated. A significant positive correlation resulted between non-problematic and problematic binge-watching engagement motives with flow factors- 'absorption by activity' and 'perceived importance'. No significant correlation was seen between the motives and empathy. Results stated that people involved in binge-watching experienced a flow state while being completely focused and attentive during the activity. This research describes why more and more young adults are indulging in this behaviour and what discriminates healthy and non-healthy binge-watching engagement.*

Keywords: Binge-watching, Non-problematic and problematic engagement motives, Flow, Absorption by activity, Perceived importance

1. Introduction

For about two years after March 2020, most of us were forced to stay indoors and use technology for all our purposes, be it work, entertainment, social interaction, or shopping, all because of the contagious rise of the COVID-19 pandemic. Since outdoor activities had been limited, the technology geeked youth sought to entertain and keep themselves busy through their devices, mainly through their binge-watching behaviours. Online streaming services had seen an incredible rise in their membership subscriptions and a dramatic change in the way their viewers indulge in watching their content during this time. It has been researched that binge-watching (i.e., watching multiple episodes of the same TV series in one session) has progressively become the way the majority of viewers enjoy TV shows (Deloitte's Digital Democracy Survey, 2017; YouGov Omnibus, 2017).

TV series has a vast spread of different genres, but all of them have one thing in common that is storytelling. According to media experts, watching TV series is an upgraded, more modern version of storytelling, dating back hundreds of years. Often, people today watch fictional TV or binge at night. This is the time when earlier hunter-gatherer societies, too, would likely immerse themselves in storytelling and indulge in the supernatural stories (as modern streamed series often do), as opposed to chatting about work and trivialities of the day. We have just been using the technologically enhanced version of storytelling for the same purpose of reducing stress and relaxation at the end of the day as our ancestors. The act of Binge-watching has also been shown to strengthen relationships and increase socialization as a show creates its shared community that can initiate a conversation with a co-worker or even a stranger in a grocery store. A study published in the Journal of Social and Personal Relationships found that binge-watching can help long-distance relationships by

replacing shared activities such as going to dinner together and having mutual friends. (American, 2022)

Binge-watching can be related to Zillmann's Mood Management Theory, which may account for binge-watching as an emotional regulation process. It states that individuals always seek to relieve themselves from a negative mood state by changing the negative state into a positive mood state or at least to reduce the intensity of the current mood state. However, it also mentions that individuals strive for a positive mood state or the maintenance of the intensity of the current positive mood state. The theory assumes that individuals meet several arrangements and put forth an effort to receive a positive mood in the end. The arrangements which achieved a positive mood state leave a memory trace that increases the probability of an individual making the same arrangement next time under similar circumstances again. This can also be connected to the operant learning theory of Skinner (2014).

Applying the mood management theory to binge-watching, individuals may engage in it because they seek or try to maintain a more positive mood state or cope with negative emotions. As mentioned, binge-watching satisfying content creates an enjoyable experience that may lead to a positive mood that gets stored in memory and motivates the behaviour to happen again. (Feldkamp, 2020)

Uses and Gratification theory also backs the behaviour of binge-watching. It states that people choose to consume certain kinds of media because they expect to obtain specific gratifications due to those selections. U&G theory has been developed to understand audiences' exposure to televisions, newspapers, radios, the Internet, and computers (Ruggerio, 2000). If researchers can explain people's motives for using media, their behaviour, such as media selection and content sharing, can be further explored

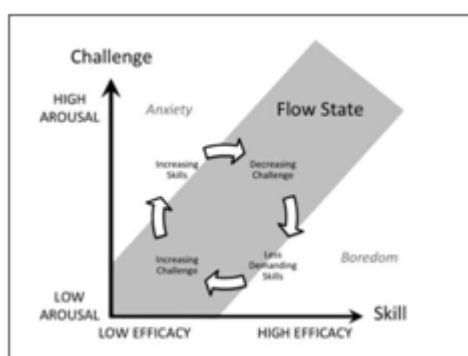
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(Haridakis and Rubin, 2005). Research reviewing the application of U&G theory in binge-watching found that viewers have the motives of catching up, relaxation, a sense of completion, cultural inclusion, and improved viewing experience. They also found that technological characteristics such as portability and navigability can motivate users to binge-watch. (Steiner, 2020)

Flow is a well-balanced term that states that an individual will be in the zone only when the activity or behaviour is neither too challenging nor too dull. The activity needs to be something that will grab the individual's attention and make them lose the sense of time. Csikszentmihalyi- the positive psychologist who popularized the concept of flow, describes it as a state that occurs only when we encounter a challenge that is testing our skills, and yet our skills and capacities are such that it is just about possible to meet this challenge.



Graph 1: Flow: The Psychology of Optimal Experience by Mihaly Csikszentmihalyi

Mihaly Csikszentmihalyi introduced flow theory in the 1970s based on research examining people who did activities for pleasure, even when they were not rewarded with money or fame. He was surprised to discover that enjoyment did not result from relaxing or living without stress, but during these intense activities, their attention was fully absorbed. (Runco, 2020)

Transportation theory attempts to describe the phenomenon of a person being "swept up into the world of a story so completely that they forget the world around them," predicting the outcomes of a person becoming so immersed in a fictional world created by a narrative. The term "transportation" refers to an audience member's ability to "lose themselves" in the story and become wholly absorbed in a narrative world. Transportation into a narrative has been linked to enjoyment, increased liking of the story protagonist, and increased personal beliefs that are consistent with those presented in the narrative. Transportation has been defined "as an integrative melding of attention, imagery, and feelings, focused on story events" (Green & Donahue, 2009). What is also interesting in flow is the almost total absence of emotions during the actual process. One seems to be almost beyond experiencing emotions, most likely because the awareness of self is not present.

We all have shed some tears, laughed, and been scared and excited when our favorite character goes through the same

emotion. Somewhere along the line, we all connect with characters in series and novels and identify them with ourselves. This is a part of fantasy and Cognitive empathy, which gives us the ability to understand another's perspective or mental state.

British psychologist Edward B. Titchener (1867–1927) might have argued that we become glued to complex, emotionally-charged stories because of our ability to recognize the feelings of others. In addition to identifying others' discomfort or elation, "cognitive empathy" examines how humans can also adopt others' psychological perspectives, including those of fictional characters. It is such a universal emotional state that psychological tests (through the use of puppets, pictures, and videos) have even been developed to study empathy in preschool-age children. ("Why We're Wired to Binge-Watch TV", 2022)

Concepts in the Present study Binge-watching

The word 'binge-watching' was coined in 2012 by the CEO of Netflix, Reed Hastings, and it has been seen that there has been a spike in binge-watching since the pandemic; therefore, it is essential to understand the reason and the effects of the same. The coronavirus pandemic led to a sharp increase in binge-viewing: HBO, for example, saw a 65% jump in subscribers watching three or more episodes at once starting on Mar. 14, 2020, around the time when many states implemented stay-at-home measures to slow the spread of COVID-19. (Idell, March 24, 2020)

Seeing as this social phenomenon is not bound to any age, region, or culture, it can be said that it is gradually affecting all of us, both in a positive and a negative aspect. Many types of research have been done to identify binge-watching as an addictive behaviour by backing it with biological proof that this behaviour produces dopamine. This chemical promotes feelings of pleasure, excitement, and happiness. The release of dopamine helps us feel good, and it results in a "high" similar to that induced by drugs and other substances with addictive qualities, which results in our brain craving more and more, which leads to this behaviour. (Medicine, 2022). There is evidence that also suggests that excessive binge-watching might also impair day-to-day functioning (De Feijter, Khan, & Van Gisbergen, 2016), sleep hygiene (Brookes & Ellithorpe, 2017; Exelmans & Van den Bulck, 2017), and social life quality (De Feijter et al., 2016; Hernández Pérez & Martínez Díaz, 2016).

Problematic motives used in this study that give rise to these effects are Loss of Control, Dependency, and Binge-watching Loss of Control states that people would feel guilty after binge-watching as they would realize they don't have control over their watching. A lot of their time would be consumed by this activity, and their other daily life tasks would be affected negatively. Participants scoring high on the dependency factor will experience binge-watching as a coping mechanism for their external stressors. They would be highly dependable on watching their series and would get easily irritable if someone or something becomes a hurdle for them. Participants scoring high on the factor binge-watching would have an irresistible urge or tension to feel satisfied by the storyline of the series. Other factors of their life would also get affected, like they would not sleep

as much as they should and most of their time would go binge-watching. They are uncontrollably curious to know what happens in the next episode and cannot handle cliff-hangers.

In a survey conducted by Netflix in February 2014, 73% of people defined binge-watching as "Watching between 2–6 episodes of the same TV show in one sitting (West, Feb 12, 2014). This word slowly started to get famous due to Netflix's practice of releasing all episodes of a series at once. This encouraged people to keep on watching episodes after episodes. Even though Binge watching is mostly looked at in a negative light, it has many advantages and motives. Binge-watching establishes beneficial social connections. One study reported that heavy binge-watchers spent more time interacting with friends and family daily than non-binge watchers.

It has health benefits like stress relief. According to psychiatrists, binge-watching releases dopamine in the brain, which creates a feeling of pleasure and can help people to relax and relieve stress (Truong, Aug. 16, 2018). Psychologists say that finishing a series can give viewers feelings of control and power, which can be beneficial if viewers do not feel that in their daily lives (Stone, Dec. 12, 2018). The Netflix survey conjointly found that seventy-three percent of participants reported positive feelings related to binge-watching. Binge-watching has been made very convenient for us by these streaming platforms like Netflix, Amazon Prime video, Disney+Hotstar, HBO, and Hulu, who, compared to regular TV watching, do not show one episode at a time.

Non-problematic motives used in this study that give rise to these effects are Engagement, Positive Emotions, Desire/Savouring, and Pleasure Preservation. If a participant scores high on Engagement, it might be implied that they spend a lot of their pass time and energy being engaged in binge-watching. They are always curious to research and learn about the series they are watching. Participants scoring high on Positive emotions binge-watch to either feel positive emotions when they are feeling negative or are already feeling enthusiastic and excited and want to increase those happy emotions through binge-watching their favorite series. Desire/Savouring states that the participant cherishes and savours the episode they are watching. They eagerly desire new episodes to come out and feel incomplete when they do not. Participants scoring high on Pleasure Preservation would be fearful of anything that would ruin their series. This could be getting spoilers from others who have already watched an episode beforehand or seeing them accidentally on any social media platforms. Their main motive is to secure their anticipated pleasure feelings and do anything to increase them.

Empathy

According to APA, empathy is "understanding a person from his or her frame of reference rather than one's own, or vicariously experiencing that person's feelings, perceptions, and thoughts." According to Edward Titchener, a British psychologist, we become glued to complex, emotionally charged stories because of our ability to recognize the feelings of others. He was the person who coined the term

empathy in 1909. In addition to distinguishing others' discomfort or elation, 'cognitive empathy' examines, however, humans can also adopt others' psychological views and those of fictional characters.

Another research was conducted to study storytelling and the science of empathy. It was done by Paul Zak, a neuroeconomist. In his study, participants were shown a video about a boy with terminal cancer accompanied by the perspective of the boy's father. The participants showed two primary emotions – distress and empathy – as evidenced by raised levels of cortisol (stress hormone) and oxytocin (a hormone linked to human connection and empathy) in viewers. Zak also found that the number of cortisol and oxytocin released in the participants within the participants served as a predictor of what proportion of participants were willing to gift once offered the chance to donate to a charity that helps sick kids once the video ended. The research then suggests that empathetic feelings are a testament to our compulsions as social beings – even in the case of a fictional narrative (Celeste, 30 May 2020)

Flow

There are times when people perform a task so intensely that they forget about everything, including their surroundings, the time, or any bodily changes except the activity itself. Flow, a state described by Csikszentmihalyi, refers to the experience of being so completely involved in an activity that an individual loses track of time, responsibilities, or the outside world. Flow, therefore, is defined by the absorption within a set, defined space: "most flow experiences occur with goal-directed activities, bounded by rules, and require mental energy and appropriate skills" (Sweetser & Wyeth, 2005). Transportation "might be conceived as a special case of a flow experience" (Tal-Or & Cohen, 2010, p. 405) that can only occur because of an experience with narrative content.

Binge-watching allows viewers to achieve a flow state, which is the desired result of participation in any activity (Csikszentmihalyi, 1990). When people binge-watch, they're thought to possess what is known as a "flow experience." Flow is an intrinsically gratifying feeling of being utterly immersed during a show's plotline. In a very flow state of mind, viewers intently concentrate on following the story, and it is easier for them to lose awareness of alternative things and time. One study found that viewers will continue viewing additional episodes to maintain this positive flow state, so there is an addictive quality to binge viewing. Interruptions like advertising will break the continual viewing cycle by disrupting the flow state and drawing viewers out of the story. Luckily, for TV bingers, Netflix and Hulu are ad-free (Cohen, April 28, 2017)

Three factors used to measure flow in this study are Fluency of Performance, Absorption by Activity, and Perceived Importance. The participant scoring high on this factor would have their thoughts run fluidly and smoothly. Their mind would be completely clear, and they would know exactly what to do while performing an activity.

The factor Absorption by Activity indicates the main

characteristic of flow. Participants scoring high on this factor would be completely lost in their thoughts, not notice time passing by and be fully involved in what they are doing. Flow is characterized by the complete absorption and immersion in what one does, with a resulting transformation in one's sense of time. It is also said that due to the absorption, flow becomes the almost total absence of emotions during the actual process. One seems to be almost beyond experiencing emotions, most likely because the awareness of self is not present. Perceived Importance states that one finds the activity intrinsically rewarding, resulting in continuous and immersed concentration for that activity. Neuroscientists have proven that flow is intrinsically rewarding as being in this state releases our reward hormone Dopamine and other neurochemicals like norepinephrine, serotonin, and endorphins.

Young adults (18-30 years) are the population that has been most exposed to and indulged in Binge-watching. They are most skilled with technology and social media, which influences them to keep up with the trend of watching new and upcoming series. It is also known that they use binge-watching as a coping mechanism or escapism from their day-to-day stressful activities. It is estimated that over 70 percent of US consumers binge-watch TV shows with an average of five episodes per marathon session (Spangler, 2016). This number is even higher among young adults and college students who increasingly subscribe to Netflix or Hulu and consumer streaming content rather than regular television often referred to as appointment TV. Several studies indicate that young adults are more likely to binge-watch (Rubenking and Bracken, 2018; Sabin, 2018; West, 2014; Wheeler, 2015).

2. Literature Survey

Binge-watching Literature

Maëva Flayelle, et al. (2019), in their research "Assessing binge-watching behaviors: Development and validation of the "Watching TV Series Motives" and "Binge-watching Engagement and Symptoms" questionnaires" developed and validated two original assessment instruments, including the BWESQ.

George Anghelcev, et al. (2021) in their research "Binge-Watching Serial Video Content: Exploring the Subjective Phenomenology of the Binge-Watching Experience. The role of narrative transportation" conducted an online, 15 min long Qualtrics-based survey on a purposive sample of US college undergraduates (N = 378). They found that Transportation was positively related to the binge-watching frequency, and the ability to experience flow was found to predict the length of a binge-watching session.

Silke Hoffmann (2019), in their research, "Binge-Watching as a Way of Coping: The Association between Alexithymia, Binge-watching, and Interpersonal Problems," used the binge-watching subscale of the BWESQ and found a moderate, positive relationship between interpersonal problems and binge-watching.

Boursier et al, (2021), in their research, "Is Watching TV

Series an Adaptive Coping Strategy During the COVID-19 Pandemic? Insights From an Italian Community Sample" Results showed that people spent more time watching TV series during the pandemic lockdown, especially women who reported higher anxiety and stress levels than men. Moreover, both non-problematic and problematic TV series watching behaviours were equally induced by anxiety symptoms and escapism motivation, suggesting that watching TV series during the COVID-19 lockdown probably served as a recovery strategy to face such a stressful situation.

Flow Literature

The relationship between flow and enjoyment has been investigated (Sherry, 2004; Green & Brock, 2002), with researchers finding that increased flow resulted in increased enjoyment and transportation. Binge-watching may provide a relaxing and fulfilling way to experience flow by allowing viewers to have continuous access to the content they enjoy. Flow, enjoyment, and transportation are all desired states resulting from media consumption, and binge-watching may allow individuals to experience these concepts in ways not previously possible or plausible.

Panda and Pandey (2017), in their research "Binge-watching and college students: Motivations and outcomes." argued that while binge-watching, viewers "enter a state of 'flow'" that enables strong feelings of enjoyment and relaxation.

Hoffman and Novak 1996 described that the underlying mechanism that drives binge-watching is related to the concept of flow, which describes a state of focus concentration, intrinsic enjoyment, and time distortion.

Previous research has found that users who experience the flow are more likely to repeat their behaviours or become addicted (e.g., Kubey and Csikszentmihalyi 2002; Chou and Ting 2003). This mechanism also provides a plausible explanation for the interplay between advertisements and binge-watching

Empathy Literature

British psychologist Edward B. Titchener (1867–1927) argued that we become glued to complex, emotionally-charged stories because of our ability to recognize the feelings of others. Titchener coined the term empathy in 1909. In addition to identifying others' discomfort or elation, "cognitive empathy" examines how humans can also adopt others' psychological perspectives, including those of fictional characters.

Neuroeconomist Paul Zak of Claremont Graduate University examined the science of empathy in storytelling. He found that the formation of parasocial relationships: one-sided relationships with celebrities or other media persona, can make us empathize and feel emotionally attached to these characters to the point where, sometimes, they can even seem real.

3. Methods

Sample

Participants (N=222) consist of young adults between the age range of 18 and 30 years. Young adults of all genders are included in this study. This research is done on participants staying in India only. The sampling technique that is used is the snowball technique. Using the snowball sampling technique, a google form containing the Binge-Watching Engagement and Symptoms Questionnaire, The Toronto Empathy Questionnaire, and the flow short-scale questionnaire were circulated on various social media platforms such as WhatsApp, Instagram, Facebook and LinkedIn. The eligibility of the population was clearly stated in the form and description. Young adults aged 18-30 years who have experienced binge-watching (watched two or more episodes in one sitting) at least once were eligible to fill the form.

Tools

In this research, the Binge-Watching Engagement and Symptoms Questionnaire (BWESQ) contains 40 items measuring binge-watching engagement and symptoms of problematic binge-watching. The four BWESQ factors (i.e., engagement, positive emotions, desire/savoring, pleasure preservation) precisely measure the extent of interest in or wish for binge-watching TV series one may experience regardless of any problematic account. The remaining factors of the BWESQ (i.e., binge-watching, dependency, loss of control), show the opposite pattern given their common correlates. Therefore, three considered BWESQ factors (i.e., binge-watching, dependency, loss of control) seem specifically suited to assess problematic involvement in binge-watching. A higher average score on each subscale indicates greater involvement or problematic binge-watching. (Flayelle et al., 2019). Flow Short Scale (FSS) evaluates all three components of flow experience-Absorption by Activity, Fluency of Performance, and Perceived Importance over a 7-point scale. The TEQ designed by Spreng, R. N., McKinnon, M. C., Mar, R. A., & Levine, B. consisting of 16 questions, each rated on a five-point, conceptualizes empathy as a primarily emotional process. The instrument is positively correlated with measures of social decoding and other empathy measures.

Procedure

Pearson's Product Moment Correlation was used to analyse the hypotheses in the current study. The data analysis was done using Microsoft Excel, wherein the first step was to score the tests and find the descriptive statistics for each subscale. Since scoring of the BWESQ through higher average scoring on each subscale indicates greater involvement or problematic binge-watching, the Mean of each subscale was used to calculate higher and lower scores of Problematic and Non-Problematic engagement motives.

The BWESQ factors, including all the Non-Problematic (Engagement, Positive Emotions, Desire/Savouring, Pleasure Preservation) and Problematic (Binge Watching, Dependency, Loss of Control) Engagement motives, were then correlated with the scores of TEQ (Empathy) and FSS factors (Fluency of Performance, Absorption by Activity, Perceived Importance) respectively.

4. Results



Figure 4.1: High and Low scores of BWESQ Subscales

As seen in Figure 4.1, the descriptive analysis of each BWESQ subscale resulted in a normal distribution. It was also seen that the maximum number of participants scored highest on the Pleasure Preservation subscale (N=142), and the maximum number of participants scored the lowest on the Loss of Control Subscales (N=108).

Table 4.1: Pearson's Correlation between Non-Problematic Binge-watching motives BWESQ subscales, Empathy, and Flow factors. Values highlighted are significant at $p < 0.05$

BWESQ	TEQ	FSS – Flow Factors		
Non-Problematic Binge-Watching Motives	Empathy	Fluency of Performance	Absorption by Activity	Perceived Importance
Engagement	0.018	-0.003	0.316	0.142
Positive Emotions	0.059	-0.038	0.296	0.210
Desire	0.102	0.022	0.234	0.132
Pleasure Preservation	0.008	-0.110	0.317	0.152

Table 4.2: Pearson's Correlation between Problematic Binge-watching motives BWESQ subscales, Empathy, and Flow factors. Values highlighted are significant at $p < 0.05$

BWESQ	TEQ	FSS – Flow Factors		
Problematic Binge-watching Motives	Empathy	Fluency of Performance	Absorption by Activity	Perceived Importance
Binge Watching	-0.074	-0.150	0.302	0.250
Dependency	-0.122	-0.053	0.352	0.207
Loss of Control	-0.130	-0.217	0.263	0.170

Engagement

As seen in Table 4.1, Engagement, when correlated with Absorption by Activity ($r=0.316$) and Perceived Importance ($r=0.142$), resulted in a significant positive correlation at a 0.05 level of significance, but when correlated with the fluency of performance ($r=-0.003$) and empathy ($r=0.018$), resulted in insignificant coefficients showing no correlations with either. When correlated with other BWESQ subscales, engagement resulted in significant positive correlations.

Positive Emotions

As seen in Table 4.1, Positive Emotions when correlated with Absorption by Activity ($r=0.296$) and Perceived Importance ($r=0.21$), resulted in a significant positive

correlation at a 0.05 level of significance, but when correlated with the fluency of performance ($r = -0.038$) and empathy ($r = 0.059$), resulted in insignificant coefficients showing no correlations with either.

When correlated with other BWESQ subscales, positive emotions resulted in significant positive correlations with all.

Desire/ Savouring

As seen in Table 4.1, Desire, when correlated with Absorption by Activity ($r = 0.234$) and Perceived Importance ($r = 0.132$), resulted in a significant positive correlation at a 0.05 level of significance, but when correlated with the fluency of performance ($r = 0.022$) and empathy ($r = 0.102$) resulted in insignificant coefficients showing no correlations with either. When correlated with other BWESQ subscales, Desire resulted in significant positive correlations with all.

Pleasure Preservation

As seen in Table 4.1, Pleasure Preservation, when correlated with Absorption by Activity ($r = 0.317$) and Perceived Importance ($r = 0.152$), resulted in a significant positive correlation at a 0.05 level of significance, but when correlated with the fluency of performance ($r = -0.110$) and empathy ($r = 0.008$) resulted in insignificant coefficients showing no correlations with either. When correlated with other BWESQ subscales, Pleasure Preservation resulted in significant positive correlations with all.

Binge Watching

As seen in Table 4.2, Binge-Watching when correlated with Fluency of Performance ($r = -0.150$), resulted in a significant negative correlation at a 0.05 level of significance, but when correlated with Absorption by Activity ($r = 0.302$) and Perceived Importance ($r = 0.25$) resulted in a significant positive correlation at a 0.05 level of significance. Binge-watching when correlated to Empathy resulted in an insignificant correlation ($r = -0.074$). Binge Watching when correlated with other BWESQ subscales resulted in significant positive correlations.

Dependency

As seen in Table 4.2, Dependency when correlated with Absorption by Activity ($r = 0.352$) and Perceived Importance ($r = 0.207$), resulted in a significant positive correlation at a 0.05 level of significance, but when correlated with the fluency of performance ($r = -0.053$) and empathy ($r = -0.122$) resulted in insignificant coefficients showing no correlations with either. When correlated with other BWESQ subscales, Dependency resulted in significant positive correlations with all.

Loss of Control

As seen in Table 4.2, Loss of Control when correlated with Fluency of Performance ($r = -0.217$), resulted in a significant negative correlation at a 0.05 level of significance, but when correlated with Absorption by Activity ($r = 0.263$) and Perceived Importance ($r = 0.170$) resulted in a significant positive correlation at a 0.05 level of significance. Binge-watching when correlated to Empathy resulted in an insignificant correlation ($r = -$

0.130). Loss of Control, when correlated with other BWESQ subscales, resulted in significant positive correlations with all.

5. Discussion

This study aimed to understand different problematic and non-problematic engagement motives for binge-watching and their relationships with flow factors and empathy. The results showed that all the seven engagement motives positively correlate with the flow factor- 'absorption by activity,' accepting both the hypotheses. ('1. There will be a positive correlation between non-problematic Binge-watching engagement motives and the Flow factor- 'Absorption by Activity' among young adults.' '2. There will be a positive correlation between Problematic Binge-watching engagement motives and the Flow factor- 'Absorption by Activity' among young adults'). This states that in both problematic and non-problematic engagement motives, an individual will be lost in their thoughts, not notice time passing by, and be fully involved while Binge-watching a TV series, resulting in full absorption and immersion in their behaviour.

All the seven engagement motives again positively correlated with the flow factor- 'Perceived Importance,' accepting both the hypotheses. ('1. There will be a positive correlation between Problematic Binge-watching engagement motives and Flow factor- 'Perceived Importance' among young adults.' '2. There will be a positive correlation between non-problematic Binge-watching engagement motives and Flow factor- 'Perceived Importance' among young adults). This could mean that individuals consider binge-watching important and prefer it above most of their other activities. This would also mean that they find this behaviour to be intrinsically rewarding, resulting in continuous and immersed concentration.

Interestingly, Binge-watching and Loss of Control seemed to be significantly negatively correlated with the Flow factor- Fluency of Performance, whereas other problematic binge-watching engagement motives did not seem to have any correlation at all, rejecting the hypothesis – 'There will be no correlation between Problematic Binge-watching engagement motives and Flow factor- Fluency of Performance among young adults.' This result could be because Fluency of performance states that while Binge-watching – the individual's thoughts will run smoothly, their mind will be completely clear, the right thoughts will occur on their own accord, and mainly, they will feel they have everything under control. These statements contradict the subscales Binge-watching and Loss of Control, as these scales measure the negative and problematic emotions felt during this behaviour. Loss of Control clearly states that an individual will feel guilty for watching more episodes in one go than planned. Loss of Control describes an individual in a state where they have no control over watching, whereas fluency of performance states otherwise. Binge-watching was negatively correlated with the fluency of performance as it measures the frustration and irresistible urge that an individual experiences while an episode ends. These feelings contradict having our mind clear and having our thoughts run smoothly, hence it is negatively correlated.

All non-problematic binge-watching engagement motives did not correlate with the flow factor- Fluency of Performance, accepting the hypothesis- 'There will be no correlation between non-problematic Binge-watching engagement motives and Flow factor- 'Fluency of Performance' among young adults.' This result states that non-problematic motives like- Engagement, Positive emotions, Desire, and Pleasure preservation have no connection to this factor as it does not consider binge-watching as an activity that needs to be performed but more as a behaviour that can be observed. Binge-watching does not require us to execute a performance with every step. Instead, it is a continuous stretch of behaviour involving emotional and cognitive processes.

These results also coincide with the correlations of the flow factors. Absorption by activity resulted in a significantly positive correlation with perceived importance. Individuals who give binge-watching preference and importance more than other activities will also be equally engrossed and absorbed by the activity. Absorption by activity also resulted in a significantly positive correlation with the fluency of performance. This means that if thoughts are aligned with the activity and if our mind is clear, we will have better control of our behaviour, resulting in an increase in attention and concentration in our activity. On the other hand, perceived importance and fluency of performance resulted in no correlation, rejecting the hypothesis- 'There will be a positive correlation between all the factors of flow.'

All the seven engagement and problematic motives resulted in no correlation with Empathy. This could be because, due to high absorption, flow becomes the almost total absence of emotions during the actual process. One seems to be almost beyond experiencing emotions, most likely because the awareness of self is not present. (Boniwell, 2022). This could also explain why there was no correlation between empathy and flow factors.

Another explanation could be that most of the literature shows the relationship between binge-watching and empathy. However, there is no literature on the connection with different kinds of binge-watching motives. Hence these results reject the hypotheses- 1. There will be a positive correlation between non-problematic Binge-watching engagement and Empathy among young adults and 2. There will be a negative correlation between Problematic Binge-watching engagement motives and Empathy among young adults. 3. There will be a positive correlation between Empathy and Flow among young adults.

All the seven engagement and problematic BWESQ scales positively correlated with each other. This shows that the scale has high validity and reliability due to the relationship within each scale. These results accept the hypothesis- There will be a positive correlation between all the subscales of Binge-Watching Engagement among young adults.

6. Conclusion

This study proves that no matter what the motive behind binge-watching is, we will always be in a state of flow during this activity. We can say that binge-watching is being considered more of an activity and social behaviour than just a leisure experience as flow requires an activity that grabs our attention and challenges us. The research demonstrated that flow and Binge-watching were characterized by high involvement, deep concentration, and intrinsic motivation. Results stated that people involved in binge-watching experienced a flow state while being completely focused and attentive during the activity. They were involved in what they were doing. It can be said that the participants experienced binge-watching series as an altered state of consciousness as if they were transported into a new reality. They described the feeling of a sense of transcendence, in which the awareness of time disappeared, and a sense of ecstasy appeared.

Participants who scored high on non-problematic binge-watching engagement motives would feel intense calm and have no worries about anything other than binge-watching. The space-time perception would be distorted for them. Intrinsic motivation would be the driving force of flow and binge-watching, which would reward them with the feelings they desire. This study also proves the mood management theory and the uses and gratification theory, as we can see that the participants were inclined to replicate actions that were pleasant and would generate a positive state of mind. People usually avoid tasks that generate feelings such as boredom, stress, and anxiety. As stated before, binge-watching secretes our reward hormone- dopamine which can happen only when we are fully absorbed in the activity and when we give it importance, which leads us to crave it again and again, making this activity a never-ending cycle. Even though we know that binge-watching generates positive emotions, it does not mean that it is healthy. Due to the distortion of time and neglect of the outer world, some might not be able to find the balance between their responsibilities and other day-to-day activities. Hence, it is essential to know when to come out of the zone; else, it can be harmful to the individual and others in their circle. Too much dependency on the activity could lead to non-problematic binge-watching motives.

7. Future Scope

The limitation of this study was that research was only limited to Indian young adults. Further studies can research a broader sample with diverse and a more significant number of participants. Since the BWESQ contained 40 items and the TEQ and FSS contained 16 and 13 items, respectively, the survey took participants a lot of time and effort to fill out. Another limitation was that only a google form was circulated as a data collection method. Further studies can explore more methods of data collection other than surveys as only surveys might lead to fewer data. This survey was spread through various social media platforms during the Covid-19 pandemic. As we all know, the past two years have had a negative impact on people; there is a possibility that a few aspects of the results are due to individual differences. Another limitation of this study is

the lack of previous research studies for literature on this topic exclusively.

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