



RESEARCH PAPER

Binge Watching, Para Social Relationships and Psycho Social well-Being in Early Adults

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ABSTRACT

This study aimed to examine the relationship between binge-watching, parasocial relationships, and psychosocial well-being in early adults, with a focus on the mediating role of parasocial relationships. The rise in binge-watching behavior among young adults has been associated with the formation of parasocial relationships, potentially impacting mental and social well-being. This study explores these interrelations in the context of early adulthood. Using a correlational research design, a purposive sample of 250 university students (88 males, 162 females; $M = 1.65$, $SD = 0.48$) aged 18–30 years was recruited from universities in Rawalpindi and Islamabad. Standardized scales were used to assess binge-watching engagement, parasocial interaction, and psychosocial well-being. Data were analyzed using Pearson correlation and mediation analysis. Binge-watching was positively correlated with parasocial relationships and negatively with psychosocial well-being. Parasocial relationships significantly mediated this relationship. Demographic variables showed no significant association. Interventions promoting balanced media use and emotional regulation are recommended to enhance psychosocial well-being in early adults. Data was collected from three universities only which was a limitation as the data cannot be generalised on students of other universities. Data was not collected from males and females equally. In further studies gender difference could be one dimension to be researched on. For future research, evaluation criteria can be altered in accordance with the sample, or the sample population might be given a brief introduction to the study.

KEYWORDS Binge-Watching, Parasocial Relationships, Psychosocial Wellbeing

Introduction

The advancement of streaming services and the convenience of on-demand content have completely changed the media consumption landscape (Mulla, 2022). Binge-watching, also known as marathon viewing, is a phenomenon in which viewers watch multiple episodes of a television show or movie at once, it is often done to catch up on a show or to watch an entire show in a while at once (Rahman & Arif, 2021).

Binge-watching often leads to the emergence of para-social relationships, wherein individuals create emotional connections with media characters, these one-sided connections involve people feeling a sense of connection, attachment, and even familiarity with characters (Preissier, 2020).

The psychological and social aspects of one's health are known as psycho-social well-being, this includes emotional well-being, self-esteem, social connectedness, and mental health, spending too much time binge-watching and forming para-social relationships can have a negative impact on an individual's psycho-social well-being, both directly and indirectly (Preissier, 2020). So, the present research aims to discover the relationship between binge-watching, para-social relationships, and psycho-social well-being in early adults.

Binge-Watching

Binge is usually connected with overindulging, such as overindulging in food or overconsuming alcohol. Bingeing initially emerged in the context of media exposure ages ago as a tv or series-watching activity primarily related to most shows that ardent followers (Anghelcev et al., 2021). Binge-watching is a difficult phenomenon to explore as it is new and still emerging, so it's hard even to define it (Rubenking et al., 2018). Watching several episodes at the same time or show quickly one after another, usually three or more is known as binge-watching. Extended, focused viewing of sequential television programming that is typically dramatic, suspenseful, and narrative in character. The act of binge-watching may be inadvertent or intentionally planned Rubenking and Bracken (2021). Technology makes binge-watching possible not just about watching multiple episodes in a row but also about viewers exercising agency over their schedules (Jenner, 2020).

Para-social Well-being

A persistent, one-sided bond between a viewer and a public figure is known as a para-social relationship; the spectator imagines an intense, long-lasting connection with the media personality, but they are oblivious to them, and they do not reciprocate. (Martin, 2022). A feeling of intimacy grows over time by watching them constantly, media personas speak to their listeners while facing the camera as though they were together. Over time, patterns of fictitious encounters develop that give people the experience that it is real when it's just an illusion (Tsfati et al., 2021). The notion about the development of para-social experiences, sometimes known as pseudo-friendships, is essential to a media person's ability to draw audiences and keep them loyal has been a cornerstone of mass media study for over five decades (Tsfati et al., 2021).

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Psycho-Social Well-being

The term psychological well-being refers to mental and physical levels of being optimistic, interpersonal relationships, and self-healing attitudes like self-awareness and self-development. According to Burns (2016), subjective well-being reflects different aspects of affective life satisfaction judgments. Living properly is important for psychological well-being. It entails both feeling happy and working efficiently (Huppert, 2009).

In both the academic and popular literature, the idea of well-being has attracted a lot of attention recently. As a result, well-being is routinely mentioned as a national objective for government policy all over the world (Burns, 2016).

Psycho-social well-being encompasses both psychological and social components, psychological well-being is an individual's subjective experiences, emotions, and cognitive functioning, and this includes life satisfaction, positive affect, self-esteem, resilience, and a sense of purpose and meaning (Son & Wilson, 2015). Social well-being, on the other hand, pertains to an individual's social connections, relationships, and interactions, this includes

social support, social integration, a sense of belonging, and the quality of interpersonal relationships, and these two components of psycho-social well-being combine to form an individual's overall psycho-social well-being (Senusi et al., 2018).

Ahmed (2017) conducted research on adverse effects of binge-watching on psychological well-being; the era of television and viewing behaviours. The sample size was composed of 500 subjects aged 18-30, and the study used the Perceived Binge-Watching Effects Scale, Media Use and Attitude Scale, and the Personal Well-Being Index. The results of the study showed that binge-watching is positively correlated with media use and attitude, and negatively correlated with personal well-being. The study also found that there was a significant association between binge-watching and perceived binge-watching effects. The results of this research conclude that binge-watching has a significant impact on psychological well-being.

Oberschmidt (2017) conducted a study to understand the relationship between binge-viewing, health beliefs, and sleep. The research sample included 67 students from the University of Twente, aged between 18 and 30 years old. The study used the Compensatory Health Beliefs Scale and the Pittsburgh Sleep Quality Index to measure the variables of this study. The research was conducted by dividing the sample into two groups: one group of binge watchers and one group of non-binge watchers. The results of the study indicated that binge-watchers had a greater tendency to have more compensatory health beliefs and poorer sleep quality than non-binge-watchers. The results suggested that binge-watching may have an impact on the mental health of individuals. Therefore, it is important to consider the potential effects of binge-watching on psychological and physical health.

The phenomenon of binge-watching, characterised by the consumption of multiple episodes or seasons of a TV series in a single sitting, has become increasingly prevalent in recent years, particularly among early adults (Tanya, 2017). This emerging trend raises concerns about its potential impact on psychosocial wellbeing. Understanding the relationship between binge-watching and psychosocial wellbeing is crucial for several reasons. Firstly, early adulthood is a critical developmental period characterised by significant transitions and identity formation. Therefore, exploring how binge-watching practices affect psychosocial wellbeing during this phase is of great importance. Secondly, Para social relationships, which refer to one-sided connections with media figures, often develop through prolonged exposure to television characters during binge-watching (Sarah, 2016). Investigating the influence of these Para social relationships on psychosocial wellbeing is essential for a comprehensive understanding of the phenomenon. Lastly, given the increasing prevalence of binge-watching and its potential implications for mental health, it is imperative to investigate its association with psychosocial wellbeing to inform interventions and support strategies for early adults.

Para social relationships formed through binge-watching can have both positive and negative effects on psychosocial wellbeing in early adults. On one hand, these relationships provide a sense of companionship, belonging, and even inspiration. They can fulfil social and emotional needs and offer a source of entertainment and escape from everyday stressors (Horton, 1956). On the other hand, excessive or unhealthy engagement in Para social relationships may lead to unrealistic expectations, over-identification, and interference with real-life relationships (Richard, 1990).

Psychosocial wellbeing encompasses various dimensions, including emotional, social, and psychological aspects of an individual's overall functioning and satisfaction with life (Erikson, 1956). Binge-watching may impact these dimensions in multiple ways. For instance, excessive binge-watching could potentially lead to social isolation, reduced face-to-face interactions, and decreased social support, thereby affecting social wellbeing. Additionally, prolonged exposure to media content during binge-watching may influence emotional regulation and well-being. Understanding the intricate relationship between

binge-watching, para social relationships, and psychosocial wellbeing can shed light on the specific mechanisms through which binge-watching influences individuals' emotional, social, and psychological functioning in early adulthood (Ryff, 2018).

Therefore, it is crucial to examine the factors that influence the development and maintenance of Para social relationships during binge-watching and how they contribute to psychosocial wellbeing in early adulthood. Indigenous literature shows

major gaps in the specific studies regarding parasocial relationships and psychosocial wellbeing, this study aims to fill all such gaps. By investigating the complex interplay between binge watching, para social relationships and psychosocial wellbeing in early adults present research aims to contribute to the existing literature and the gaps in knowledge.

Literature Review

Recent studies have shown that binge-watching television and streaming services has become an increasingly popular pastime among early adults, and this has raised questions about its impact on para-social relationships and psycho-social well-being. This research helps to discover the relationship between binge-watching on para-social relationships and psycho-social well-being in early adults.

Binge-watching

Matrix (2014) conducted research on the Netflix effect among teens, which focused on binge-viewing and streaming online trends. The study included a sample size of 300 teens aged 12-17, and data were collected using three scales: the Media Habits Scale, the Parental Restrictions Scale, and the Media Literacy Scale. The results of the study indicated that most of the participants were engaged in binge-watching and that parental restrictions had a negative effect on media literacy. Furthermore, the results showed that the amount of time spent watching TV increased with age.

Panda and Pandey (2017) conducted research on binge-watching habits and college students to analyze motivations and outcomes. The sample size of the research included 196 college students who were between 18 and 25 years old. The researchers used two scales, the Binge-Watching Motives Scale (BWMS) and the Binge-Watching Outcomes Scale (BWOS) to measure the students' motivations and outcomes. The results of the study found that the motivations for binge-watching were mainly to pass time, cope with stress and relax. The outcomes of binge-watching included both positive outcomes such as increased relaxation and negative outcomes such as procrastination.

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Para-social Relationship

Kim et al. (2015) conducted research on SNS users' para-social relationships with celebrities and their effects on purchase intentions. The research involved 495 participants between 19 and 22. Participants were asked to complete scales measuring para-social relationships, perceived credibility, and purchase intentions. The research explored the effects of para-social relationships with celebrities on purchase intentions. The study found that users' para-social relationships with celebrities significantly affect their purchase intentions. Results suggest that when users feel a personal connection with a celebrity, their attitudes towards an endorsed product can be more positive, leading to a higher likelihood of making a purchase. Additionally, the study found that engagement with social media platforms plays an important role in the development of parasocial relationships, which can further influence purchase intentions.

Hills (2015) conducted a study to explore the effects of material/digital fandom and celebrity on different levels of interaction. The study was conducted among 689 individuals aged 18-25. The survey was based on the Parasocial Interaction Scale (PSIS), which was used to measure the intensity of parasocial relationships and the Multi Social Interaction Scale (MSIS), which was used to measure the intensity of multisocial relationships. The results of the survey showed that there was a significant difference in the intensity of para-social and multisocial relationships, with multi social relationships having a higher intensity. The study concluded that material/digital fandom and celebrity had an impact on the intensity of para-social and multi social relationships and that these relationships should be taken into consideration when examining the effects of fandom and celebrity.

Hartmann (2016) studied para-social interaction, para-social relationships, and well-being. The study sample consisted of 345 participants, ranging from 18 to 86 years old. The study explored the relationship between media use and well-being. The participants were asked to fill out a survey that included questions about their media use, including a measure of para-social interaction and well-being measures. The results of the study showed that there is a positive relationship between para-social interaction, para-social relationships, and well-being. The study also found that media use can have a positive impact on well-being, and that the impact is stronger for those with higher levels of parasocial relationships.

Liebers and Schramm (2019) conducted a study to evaluate para-social interactions and relationships with media characters. The research was based on 60 years of literature on the subject. The authors used a sample size of 2,000 individuals from different age groups, which ranged from 18 to 80 years. The research utilised the Parasocial Interaction Scale (PSIS) and the Relationship Scale (RS) to assess the level of attachment individuals had with media characters. The study found that younger age groups had a higher level of para-social interactions than older age groups. Additionally, the research concluded that the level of attachment individuals had with media characters was significantly higher than the level of attachment individuals had with real people.

Hamdani and Herlianti (2019) investigated the effects of social media on developing para-social relationships among Small and Medium Enterprises (SMEs). By using a sample of 160 SMEs in Indonesia. The participants were between 18 and 59 years old. The study used the Para-Social Relationship Scale (PSRS) to measure the para-social relationships among SMEs. The study found that SMEs can build para-social relationships on social media,

and these relationships are beneficial for the SMEs. The study concluded that SMEs should engage with para-social relationships on social media as it can help to strengthen the SMEs' reputation and brand image.

Psycho-Social Wellbeing

Karmakar and Kruger (2017) conducted research on how binge-watching is bad for mental health. The study focused on the relationship between binge-watching and stress, anxiety, and depression. The study consisted of 406 North American adults, to better understand how binge-watching affects our mental health. The researchers used the online method of data collection, the criteria of binge-watching were 2 to 5 hours. The researcher wanted to explore the relationship between binge-watching and mental health problems. A third of those surveyed 35% confessed to binge-watching TV. It should come as no surprise that those who self-identified as binge-watchers were more likely to report higher average screen time over the previous seven days than those who did not. The results showed that those who self-identified as binge-watchers showed high levels of stress, anxiety, and depression.

Granowet al. (2018) conducted research on binge-watching and psychological well-being. The research investigated the potential relationship between lack of control and perceived autonomy. The sample consisted of 499 people aged 16-83. Data was collected by developing 5 items to assess binge-watching tendencies in viewers and goal conflict was assessed through four items and feelings of guilt were measured by using five items which were adopted from the State Shame and Guilt Scale (Marschall, Saftner, & Tangney, 1994). Results suggested that binge-watching can have a positive and negative impact on the psychological well-being of individuals.

Raza et al. (2021) conducted research to examine the adverse effects of binge-viewing during the pandemic. The research aimed to assess the adverse consequences of binge viewing on the mental well-being of participants. A sample size of the study included a large number of participants of 1089 individuals who were above the age of 18 to 69 years. The researchers used Kroenke et al PHQ-4 scale the Patient Health Questionnaire-4, DASS-21, De Jong Gierveld Loneliness Scale, and binge-watching through 3 items of Merikivi et al to measure the effect of binge-watching on levels of depression, anxiety, and stress to evaluate the psychological well-being. Results conclude that there was a significant increase in levels of anxiety, stress, and depression disturbing the psychological well-being of individuals. The findings of the study indicate that binge-watching over extended periods of time causes stress, loneliness, insomnia, sadness, and worry. Binge-watching negatively affects mental health.

Rabbani et al. (2022) investigated the impact of covid-19 pandemic on the coping mechanism of the heads of Pakistani families. The study used a self-administered questionnaire to measure psychological well-being. The questionnaire included a WHO-5 scale to measure the psychological well-being on the heads of the Pakistani families. The sample size consisted of 509 participants and the data was collected through online surveys. Results suggested that the frequently used coping mechanism was enjoying quality time with family members, having proper meals, sleeping well, and being able to connect to friends through phone.

Buzzi et al. (2020) conducted a research study to examine the psychological and social effects of the pandemic on Italian adults' attitudes and behaviours. The authors recruited a sample of 97 adolescents, aged between 12 and 18 years old, to participate in the study. The researchers used the Strengths and Difficulties Questionnaire (SDQ) to measure adolescents' attitudes and behaviours during the pandemic. The study found that adolescents experienced a significant increase in emotional, conduct, and hyperactivity problems, as well as a decrease in prosocial behaviour. This suggests that the pandemic has

had a negative impact on Italian adolescents' mental health. More research is needed to better understand the pandemic's psycho-social effects on adolescents.

Material and methods

A quantitative study was conducted to investigate the relationship between binge watching, parasocial relationships and psychosocial wellbeing in early adults. Sample size comprised of N=250 participants which included Males, n=88 and Females, n=162 (M=1.65 SD=0.48). The participants were early adults between the age range of 18-30 years. The sample was recruited from different universities of Rawalpindi and Islamabad. Non-probability purposive sampling technique was used in the study.

Table 1
Descriptive Statistics of the Demographic Characteristics of the Sample (N=250)

Variables	<i>f (%)</i>	<i>M(SD)</i>
Age (years)		21(1.74)
Years of Education		14.09(1.16)
Average Screen Time (hours)		6.36(2.77)
Gender		
Male	88(35.2)	
Female	162(64.8)	
Family System		
Joint	72(28.8)	
Nuclear	178(71.2)	
Occupation		
Students	181(72.4)	
Students with part time jobs	69(27.6)	
Platform used for watching		
Netflix	75(30)	
YouTube	95(38)	
TikTok	10(4)	
Instagram	62(24)	
Amazon prime video	1(0.4)	
Other	7(2.8)	

Note: *f*=frequencies, % = percentage *M*= mean and *SD*= standard deviation

Instruments

In this study, the researcher made use of following scales to gather data from the selected sample.

Binge-Watching Engagement and Symptoms Questionnaire (BWESQ)

The BWESQ is a 40-item scale assessing binge watching engagement and features of problematic binge-watching. The questionnaire consists of seven subscales: *engagement* (1;9;18;26;27;30;35;39), *positive emotions* (8;24;28;33;38), *pleasure preservation* (13;37;40)), *desire/savouring* (2;3;4;5;7;21), *binge watching* (14;17;19;20;22;34), *dependency* (6;10;16;25;31), and *loss of control* (11;12;15;23;29;32;36). Items are scored on a 4-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree), with an average score calculated for each subscale. The reliability of this scale is 0.93 which is excellent. (Flayelle, 2019).

Celebrity— Persona Parasocial Interaction Scale (CPPI)

The Celebrity-Persona Parasocial Interaction (CPPI) scale is designed by William Brown to measure how media consumers form parasocial relationships with celebrities or popular fictional characters. The CPPI scale includes the 20 items of the Likert-type scale. Participants are asked to rank their level of agreement with statements about their parasocial interaction with celebrities on a five-level scale: strongly disagree, disagree, neutral, agree, and strongly agree. On the 20-item CPPI scale, 3 of the items are negatively worded: statements 8, 18, and 20. They would need to be reverse coded so that on a 1-5 Likert scale, 1=5, 4=2, 3=3, 4=2 and 5=1. After that simply add all the items together (1-5 scale responses) to calculate a total score for the scale. The reliability of CPPI scale typically range from .80 to .90 (Bocarnea, 2007).

Adolescent Mental Health Continuum-Short Form (MHC-SF)

It was developed by Corey Lee M. Keyes. This questionnaire measures how often a positive mental health event occurs within the past month. Specifically, the measure assesses emotional well-being and aspects of psychological and social functioning in order to classify respondents' mental health. It contains 14 items. It is a self-reported questionnaire with multiple choice format measured on a 6-point Likert-type scale: 1 (Everyday) to 6 (Never). Items are summed, yielding a total score ranging from 0 to 70. It contains 3 subscales which are *emotional wellbeing*, *social wellbeing* and *psychological wellbeing*. Subscale scores range from 0 to 15 for the *emotional (hedonic) well-being*, from 0 to 25 for *social well-being*, and from 0 to 30 for *psychological well-being*. Its reliability internal consistency is ($\alpha > .80$). (Keyes, 2005)

Procedure

The research topic got approval from the course teacher (Dr. Razia Bukhari) before starting the research. Before data collection, official permission was taken from the respective authorities of institutes. Informed consent and information sheet were designed to educate the research participants about the study's rationale and their ethical rights for participation. After providing all relevant information and answering queries, consent for participation was taken from the participants and then questionnaires were given to them. Statistical analyses were carried out and results were accurately reported.

Results and Discussion

Table 2
Descriptive Statistics and Reliability Analysis

Variables	Range					
	K	M	SD	Actual	Potential	α
Binge Watching	40	98.07	18.32	44-149	40-160	0.93
Engagement	8	19.44	3.21	10-31	8-32	0.76
Positive Emotions	5	12.94	2.73	5-20	5-20	0.61
Desire	6	16.19	3.73	6-24	6-24	0.78
Pleasure Preservation	3	7.42	1.97	3-12	3-12	0.45
Binge-Watching	6	14.64	3.40	6-24	6-24	0.74
Dependency	5	11.06	3.06	5-20	5-20	0.69
Loss of Control	7	16.38	4.15	7-28	7-28	0.78
Parasocial Relationship	20	54.33	11.69	23-87	20-100	0.84
Psychosocial Wellbeing	14	42.36	12.38	17-80	14-84	0.86
Emotional Wellbeing	5	14.17	5.44	5-30	5-30	0.77
Social Wellbeing	5	16.93	5.40	5-30	5-30	0.77
Psychological Wellbeing	4	11.26	4.41	4-23	4-24	0.74

Note. K= number of items, M = mean, SD = standard deviation and α = Cronbach alpha reliability

The Cronbach's alpha reliability values of Binge-Watching Engagement and Symptoms Questionnaire, its subscales (engagement, desire, binge watching, loss of control), Celebrity-Persona Parasocial Interaction scale and Mental Health Continuum Scale Short Form along with its subscales (emotional wellbeing, social wellbeing and psychological wellbeing) are excellent except the pleasure preservation subscale, which has poor reliability as compared to the other variables because it has only 3 items (Clark & Watson, 1995). The subscales of BWESQ (positive emotions and dependency) have good reliabilities

Pearson Product Moment Correlational Analysis

It was hypothesised that there is likely to be a relationship between binge watching, parasocial relationships and psychosocial wellbeing in early adults. The table below indicates Pearson Product Moment Correlational Analysis between binge watching, parasocial relationships and psychosocial wellbeing.

Table 3
Bivariate Correlation

Variables	2	3	4	5	6	7	8	9	10	11	12	13		
1-Binge Watching	-	.861**	.759**	.721**	.675**	.836**	.788**	.790**	.364**	0.046	.149*	.194**	0.095	
2-Engagement	-		.656**	.490**	.530**	.690**	.593**	.642**	.374**	-0.003	.130*	0.076	0.058	
3-Positive Emotions	-			.560**	.403**	.577**	.547**	.444**	.205**	-0.017	0.091	0.087	0.007	
4-Desire	-				.464**	.571**	.491**	.361**	.229**	-0.002	0.030	.168**	0.009	
5-Pleasure Preservation	-					.460**	.526**	.510**	.231**	0.083	.194**	.169**	0.040	
6-Binge Watching	-						.568**	.631**	.261**	0.056	.150*	.162*	0.097	
7-Dependency	-							.611**	.387**	-0.017	0.076	.136*	0.090	
8-Loss of Control	-								.270**	.146*	.165**	.255**	.180**	
9-Parasocial Relationships	-									-	.200**	0.035	0.026	0.032
10-Psychosocial Wellbeing	-										-	.732**	.740**	.651**
11-Emotional Wellbeing	-											-	.536**	.462**
12-Social Wellbeing	-												-	.452**
13-Psychological Wellbeing	-													-

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Binge watching and its subscales (engagement, positive emotions, desire, pleasure preservation, binge watching, dependency and loss of control) were found to be significantly positively correlated with parasocial relationships but were not found to be significantly correlated with psychosocial wellbeing, except for (loss of control) that was significantly positively correlated with psychosocial wellbeing. In term of sub-scales of psychosocial wellbeing, binge watching and its subscales (engagement, pleasure preservation, binge watching, loss of control) were found to be significantly correlated with emotional wellbeing subscale. Social wellbeing subscale was found to be significantly correlated with (binge watching, desire, pleasure preservation, binge watching, dependency, loss of control). Furthermore, psychological wellbeing subscale was found to be significantly correlated with subscale (loss of control). Parasocial relationships were found to be significantly negatively correlated with psychosocial wellbeing however, parasocial relationships were not found to be significantly correlated with the subscales (emotional wellbeing, social wellbeing and psychological wellbeing). It was hypothesised that there is likely to be a relationship between demographic variables and binge watching in early adults. The table indicates Pearson Product Moment Correlational Analysis between demographic variables (age, gender, years of education, family system, occupation and average screen time) and

psychosocial wellbeing along with its subscales (emotional wellbeing, social wellbeing and psychological wellbeing).

Table 4
Bivariate correlation between demographic variables

Bivariate correlation between demographic variables											
	Variables	2	3	4	5	6	7	8	9	10	
1.	Age	-	-0.106	.889**	-0.041	.297**	0.033	-0.051	-0.029	-0.064	-0.058
2.	Gender		-	-0.057	.142*	0.081	-0.092	0.037	0.085	0.041	0.013
3.	Years of Education			-	-0.026	.214**	0.035	-0.089	-0.045	-0.058	-0.020
4.	Family System				-	-0.092	-0.109	0.025	0.045	0.090	0.034
5.	Occupation					-	-0.001	-0.084	-0.044	-0.074	-0.115
6.	Average Screen Time						-	0.056	0.114	0.056	0.080
7.	Psychosocial Wellbeing							-	.732**	.740**	.651**
8.	Emotional Wellbeing								-	.536**	.462**
9.	Social Wellbeing									-	.452**
10.	Psychological Wellbeing										-

Note: * $p < .05$, ** $p < .01$ *** $p < .001$

All the demographic variables were found to be non-significant with psychosocial wellbeing and its subscales (emotional wellbeing, social wellbeing and psychological wellbeing)

Mediation Analysis

It was hypothesized that Parasocial relationships will act as a mediator between Binge watching and Psychosocial wellbeing. Mediation analysis was carried out between Binge watching and psychosocial wellbeing, using PROCESS MACRO, (Hayes, 2023)

Table 5
Direct effect between Binge Watching and Psychosocial Wellbeing through Parasocial Relationships

Antecedent	Consequent					
	Parasocial Relationships			Psychosocial Wellbeing		
	Coeff.	SE	p	Coeff.	SE	p
Constant						
Binge Watching	0.37	10.12	0.003	0.14	0.05	0.033
Parasocial relationships	-	-	-	-0.25	0.08	0.000
Controls						
Age	-	-	-	0.12	1.06	0.391
Gender	-	-	-	0.06	1.77	0.338
Education level	-	-	-	-0.19	1.58	0.162
R ²		0.14			0.070	
F		9.99***			3.66**	

Note: Coeff= standardized regression coefficient

The results of direct effect show that binge watching was found to be significantly positively predicted parasocial relationships and psychosocial wellbeing. Simultaneously parasocial relationships was found to be significant negative predictor of psychosocial wellbeing. However, the covariates including age, gender and education were found to be non-significant predictors of psychosocial wellbeing.

Table 6
Indirect effect of Parasocial Relationship between the relationship of Binge Watching and Psychosocial Wellbeing

β	Boot CI 95%		Boot LL	Boot UL
	Boot SE			

Parasocial Relationships	-0.092	0.034	-0.160	-0.027
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The results of indirect effect show that parasocial relationship was found to be significantly mediate the relationship between binge watching and psychosocial wellbeing. The results indicated that an increase in parasocial relationship tend to increase in binge watching. In contrast an increase in parasocial relationships in turn decrease psychosocial wellbeing.

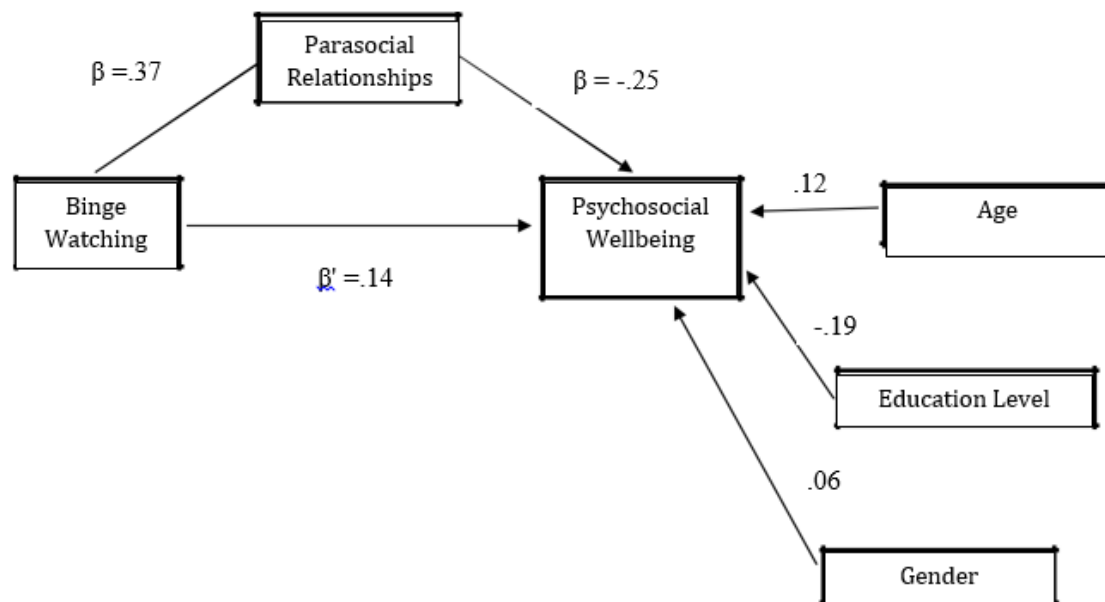


Fig.1. The Statistical Model of Mediation Analysis

Findings

Binge watching and its subscales (engagement, positive emotions, desire, pleasure preservation, binge watching, dependency and loss of control) were found to be significantly positively correlated with parasocial relationships. Binge watching and its subscales (engagement, positive emotions, desire, pleasure preservation, binge watching, dependency) were not found to be significantly correlated with psychosocial wellbeing, except for (loss of control) that was significantly positively correlated with psychosocial wellbeing.

In term of sub-scales of psychosocial wellbeing, binge watching and its subscales (engagement, pleasure preservation, binge watching, loss of control) were found to be significantly correlated with emotional wellbeing subscale. Social wellbeing subscale was found to be significantly correlated with (binge watching, desire, pleasure preservation, binge watching, dependency, loss of control). Furthermore, psychological wellbeing subscale was found to be significantly correlated with subscale (loss of control).

Parasocial relationships were found to be significantly negatively correlated with psychosocial wellbeing however parasocial relationships were not found to be significantly correlated with the subscales (emotional wellbeing, social wellbeing and psychological wellbeing).

All the demographic variables were found to be non-significant with psychosocial wellbeing and its subscales (emotional wellbeing, social wellbeing and psychological wellbeing).

The results of mediation show that parasocial relationship was found to be significantly mediating the relationship between binge watching and psychosocial wellbeing. The results indicated that an increase in parasocial relationship tend to increase in binge watching. In contrast an increase in parasocial relationships in turn decrease psychosocial wellbeing.

Discussion

In this study, we investigated the relationship between binge-watching, para-social relationships as a mediator, and psycho-social well-being in early adults. In this section, the findings of the current study are discussed (in variable-wise sequence along with subscales) considering the existing literature.

First, it was hypothesized that there is likely to be a relationship between binge-watching, para-social relationships, and psychosocial well-being in early adults. In the present research, binge-watching, and its subscales (engagement, positive emotions, desire, pleasure preservation, binge-watching, dependency, and loss of control) were found to be significantly positively correlated with para-social relationships. Binge-watching and its subscales (engagement, positive emotions, desire, pleasure preservation, binge-watching, dependency) were not found to be significantly correlated with psychosocial well-being, except for (loss of control) which was significantly positively correlated with psychosocial well-being.

Findings show that there is a relationship between binge-watching and para-social relationships and psycho-social well-being. Studies suggest that binge-watching is significantly positively correlated with para-social relationships as binge-watching increases, para-social relationship also increases (Erickson et al., 2019)

Other studies also state that the consumption of media positively correlates to the formation of para-social relationships (Kowert & Daniel, 2021). Studies suggest that binge-watching is positively correlated with para-social relationships (Panek, 2017). Anghelcev et al. (2021) conducted research in which results state that binge watching forms para-social relationships. Further studies also report that para-social relationships are one-sided relationships that have a negative correlation with psycho-social well-being (Hartmann, 2016). Binge-watching has a high correlation with negative emotions especially loss of control resulting in poor psycho-social well-being (Victoria, 2020). Overindulging in binge-watching can have negative correlations, such as increased anxiety and social isolation, it is important to maintain a healthy balance between binge-watching and other activities to ensure optimal psycho-social well-being (Raza et al., 2021).

It was hypothesized that there is likely to be a relationship between demographic variables and psychosocial well-being in early adults. The result of the present study showed all the demographic variables were found to be non-significant with psychosocial wellbeing and its subscales (emotional wellbeing, social wellbeing, and psychological wellbeing).

We speculate that the non-significant findings indicate that our culture deviates from other studies in similar domains. Other factors that can contribute are mediating factors that psycho-social well-being is not directly related to demographic variables. Sample characteristics could also contribute to the non-significance of our results (Britto et al., n.d). Culture diversity is a major factor that can impact psycho-social well-being all over the world, illness and interventions are differently understood among different cultures

(Gopalkrishnan, 2018). Culture plays a vital role in defining psycho-social well-being, our surroundings, environment, and attitudes all play a role in psycho-social well-being varies across cultures.

It was hypothesized that para-social relationships are likely to mediate the relationship between binge-watching and psychosocial well-being in early adults. The results of mediation show that the para-social relationship was found to be significantly mediating the relationship between binge-watching and psychosocial well-being. Binge-watching was found to significantly positively predict para-social relationships and psychosocial well-being. Simultaneously para-social relationships were found to be a significant negative predictor of psychosocial well-being.

Consistent with the broader literature found that high levels of binge-watching increase the level of para-social relationships (Erickson et al., 2019). Furthermore, researchers also stated that binge-watching is positively significant with para-relationships (Gray et al., 2018). Hoffner and Bond (2022) conducted research whose findings state that binge-watching increases para-social relationships and para-social relationships can have a negative effect on psycho-social well-being. Other research on this domain states that para-social relationship is a negative predictor of psycho-social well-being as it increases the chances of unhealthy behaviors (Quitters, 2023). Para-social relationships have a negative significance on psycho-social well-being (Lawler, 2023).

Conclusions

Studies have also found that binge-watching can have both positive and negative results on viewers, on the positive side, binge-watching can help to reduce stress and boredom, provide escapism, and allow viewers to become more immersed in the story and characters (Rubenking & Bracken, 202; Granow et al., 2018).

The immersive nature of binge-watching, which permits viewers to spend extended periods with characters across multiple episodes, contributes to the development of para-social relationships, these relationships can elicit a variety of emotions, such as admiration, empathy, and identification (Chang & Kim, 2022). It is important to keep in mind that these connections are one-way and depend completely on the viewers' interpretation of the characters, studies show that para-social relationships can have a huge impact on people's opinions, actions, and emotional health (Farivar et al., 2021).

The psychological and social aspects of one's health are known as psycho-social well-being, this includes emotional well-being, self-esteem, social connectedness, and mental health, spending too much time binge-watching and forming para-social relationships can have a negative result on an individual's psycho-social well-being, both directly and indirectly (Preissier, 2020).

Recommendations

- Data was collected from three universities only which was a limitation as the data cannot be generalised on students of other universities.
- Data was not collected from males and females equally. In further studies gender difference could be one dimension to be researched on.
- Another drawback is a lack of understanding of the phrases binge watching and para social connections, which people engage in but are unaware of. This had some impact on our evaluation criteria.

For future research, evaluation criteria can be altered in accordance with the sample, or the sample population might be given a brief introduction to the study

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