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THE PREVALENCE OF BINGE-WATCHING BEHAVIOR AND ITS ASSOCIATION WITH PERCEIVED STRESS AMONG ADOLESCENTS DURING THE COVID-19 LOCKDOWN: AN INVESTIGATION

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Abstract

The Covid-19 pandemic has significantly impacted the lives of people across the world, including adolescents who were required to stay at home during the lockdown period. This study aimed to investigate the prevalence of binge-watching behavior among adolescents during the Covid-19 lockdown and to explore its association with perceived stress. A cross-sectional survey was conducted among 239 adolescents aged between 15 and 19 years in a selected region using a self-administered online questionnaire. The results revealed that binge-watching behavior was prevalent among adolescents, with nearly 70% of the participants reporting that they had engaged in binge-watching during the lockdown period. The findings also showed a significant positive association between binge-watching behavior and perceived stress among the adolescents. Moreover, the study found that the duration of binge-watching, the frequency of binge-watching, and the types of programs watched during binge-watching were significantly associated with perceived stress. These findings highlight the need for appropriate interventions to address the negative impact of binge-watching on the mental health of adolescents during the Covid-19 lockdown.

Keywords: Binge-watching behavior, Covid-19 lockdown, perceived stress, Malaysia, adolescents

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Introduction

The widespread COVID-19 pandemic had significant negative consequences in every aspect of human life such as the social distancing practise and immediate lockdown affected people's psychological well being (Ganaprakasam et al., 2021; Brooks et al., 2020)^{1,2}. Globally, mental health issues have received much attention in the last two years since the outbreak of the COVID-19 pandemic, which consequently resulted in individuals having to cope with fears of infection, feelings of loneliness, uncertainty, stress, suicidal ideation, and depression (Rodrguez-Hidalgo et al., 2020; Moni et al., 2021; Sahimi et al., 2021)^{3,4,5}.

Based on the systemic review of psychological morbidity, shreds of evidence from various countries revealed increased rates of depression (24%), anxiety (26%), post-traumatic stress symptoms (15%), and poor sleep quality (34%), in the general population following the COVID-19 outbreak (Krishnamoorthy et al., 2020)⁶.

During this pandemic emergency and immediate lockdown, technology plays an important role in communicating with others and becomes an alternative form of entertainment, although the negative impact resulting from the usage of social media needs to be carefully addressed (Venegas-Vera et al., 2020; Buchanan et al., 2021)^{7,8}. Indeed, evidence indicated that usage of social media promoted a positive perception of stressors during the pandemic (Marzouki et al., 2021)⁹. Since the beginning of the COVID-19 lockdown, the media companies have reported an exponential growth in media consumption by different types of users among generations, especially Netflix, which has reportedly seen a dramatic surge in new subscriber sign-ups (BBC, 2020). Particularly in Malaysia, Netflix subscriptions have grown tremendously during the pandemic emergency (AFP, 2020).

Binge watching (defined as constant changes in watching television, such as watching multiple episodes of a TV series in one session) (Flayelle et al., 2019)¹⁰ generates considerable interest among experts due to its negative consequences on health. Binge-watching behaviour was found to be common among women (Starosta and Izydorczyk, 2020)¹¹, and empirical evidence indicated a positive association between escapism (Gabbadini et al., 2021)¹², depression, anxiety, loneliness (Sun and Chang, 2021)¹³, sleep deprivation (Exelmans and Bulck, 2017)¹⁴, and social relationships (Starosta and Izydorczyk, 2020)¹⁰. The constant problematic behaviour of binge watching soon afterward becomes a coping strategy for an individual whenever they experience negative emotion (Starosta et al., 2021)¹⁵.

A number of studies investigate the association between binge watching and perceived stress (Werneck et al., 2021)¹⁶. Indeed, a recent study revealed that individuals with higher levels of stress during the pandemic emergency increased the trend of binge watching (Aghababian et al., 2021)¹⁷. Stress has also increased across the population compared to before the pandemic. Stress is associated with increased TV viewing, suggesting that individuals were watching TV to cope with stress (Aghababian et al., 2021)¹⁷. A recent study demonstrated that excessive binge watching is an antecedent of stress among adult respondents in Malaysia (Raza et al., 2021)¹⁸. Raza et al. (2021)¹⁸ further revealed that binge-watching increased the feeling of stress due to the separation from their real-life situations and aligned them more with the realities of binge-watching.

A theoretical perspective on the relationship between binge-watching and perceived stress

According to the Uses and Gratifications Theory, individuals actively seek out and consume media to fulfill certain needs or gratifications (Steiner and Xu, 2020)¹⁹. This theory suggests that adolescents may engage in binge-watching behavior during the COVID-19 lockdown to satisfy specific psychological needs, such as escapism, relaxation, entertainment, or companionship. Binge-watching can provide a temporary escape from stressors, offering a sense of control and distraction during uncertain times.

Moreover, the Self-Determination Theory (SDT) (Ryan and Deci, 2000)²⁰ can also be relevant in understanding the association between binge-watching and perceived stress. SDT emphasizes the importance of three psychological needs: autonomy, competence, and relatedness. During the lockdown, adolescents may experience a disruption of these needs, such as limited social interactions, reduced autonomy, and a sense of competence due to changes in their daily routines (Lüders, 2022)²¹. Binge-watching might serve as a compensatory mechanism to fulfill some of these needs, providing a sense of autonomy in choosing what to watch, a feeling of competence in following complex narratives, and a sense of relatedness by connecting with fictional characters.

Despite the growing body of research on binge-watching behaviour and its effects on mental health, there is a dearth of studies that specifically focus on its prevalence and impact on perceived stress among adolescents during the COVID-19 lockdown. While some studies have examined the association between binge-watching behaviour and stress, most have been conducted in non-pandemic contexts or among adult populations. Furthermore, there is a lack of research on how specific factors related to binge-watching, such as the type of content watched and the duration of viewing, may impact stress levels among adolescents during the lockdown. Thus, there is a clear research gap that this study seeks to address. By identifying the prevalence of binge-watching behaviour and investigating its association with perceived stress among adolescents during the COVID-19 lockdown, this study can provide valuable insights into the psychological impact of lockdown measures on young people and inform the development of targeted interventions to mitigate the negative effects of excessive screen time on mental health during times of crisis.

Research Objective:

1. To identify the prevalence of binge-watching behaviour among youth during COVID-19 pandemic lockdown.
2. To identify the association between binge watching and perceived stress amidst COVID-19 pandemic lockdown

Research Question:

1. What is the prevalence of binge-watching behaviour among youth during the COVID-19 pandemic lockdown?
2. What is the association between binge watching and perceived stress amidst COVID-19 pandemic lockdown?

Methods

In this study, a cross-sectional online survey was conducted to investigate the relationship between binge-watching behavior and perceived stress among adolescents during the COVID-19 lockdown. The primary data was collected through questionnaires distributed to selected respondents over a specific time period. The data collected on binge-watching behavior and perceived stress were then analyzed using statistical techniques, including correlation analysis. This analysis aimed to determine the strength and direction of the relationship between binge-watching behavior and perceived stress. By exploring this relationship, the researchers aimed to gain insights into how binge-watching behavior and perceived stress are interconnected among adolescents during the COVID-19 lockdown. The findings from this study can contribute to a better understanding of the impact of binge-watching on adolescents' stress levels and overall well-being during this challenging period.

Instrument

The Perceived Stress Scale (PSS)-10 is a 10-item self-report questionnaire designed to measure the degree to which individuals perceive their lives to be stressful (Sandhu et al., 2015)²². The PSS-10 has been widely used in various settings, including clinical and research settings, and has demonstrated good reliability and validity (Tambol et al., 2021)²³. The PSS-10 consists of 10 items that measure the frequency of stress-related thoughts and feelings in the past month. The items are rated on a 5-point Likert scale, ranging from 0 (never) to 4 (very often). The total score ranges from 0 to 40, with higher scores indicating higher levels of perceived stress.

The Binge Eating Scale (BES) is a self-report questionnaire designed to assess the severity of binge watch disorder (Robert et al., 2013)²⁴ and has demonstrated good reliability and validity (Yan et al., 2023)²⁵. Binge eating disorder is a type of eating disorder characterised by recurrent episodes of binge eating, which involve consuming an unusually large amount of food in a short period of time and feeling a loss of control during the episode. The BES consists of 16 items that assess various aspects of binge eating behaviour, including the frequency and severity of binge episodes, feelings of guilt and shame associated with binge eating, and the degree of control over eating behaviour. The items are rated on a 4-point Likert scale, ranging from 0 (never) to 3 (very often). The total score ranges from 0 to 48, with higher scores indicating a greater severity of binge eating disorder.

Sample

The sample was selected using a non-probability sampling method, specifically convenience sampling. The online survey was distributed through various social media platforms, including Facebook, Instagram, and LinkedIn. The inclusion criteria for participants were: (1) being aged between 13 and 19 years old; (2) residing in Malaysia during the COVID-19 lockdown period; and (3) being able to understand and respond to the questionnaire in English. The exclusion criteria were (1) incomplete responses or missing data, and (2) participants who did not meet the inclusion criteria.

A total of 248 participants completed the questionnaire. After filtering out incomplete answers, 239 participants were included in the final analysis. The sample consisted of 126 males (52.7%) and 113 females (47.3%). The mean age of the participants was 16.4 years old (SD = 1.51). The majority of the participants were Malays (63.6%), followed by Chinese (18.8%), Indians (10.0%), and other ethnic groups (7.5%).

The collected data were analyzed using bivariate Pearson correlation to assess the relationship between binge-watching behavior and perceived stress using Statistical Package for the Social Sciences (SPSS) version 26.0.

Results

To identify the prevalence of binge-watching behaviour among adolescents during the COVID-19 pandemic, descriptive statistics were computed for various variables related to binge-watching behaviour. The sample consisted of 239 adolescents, with a mean age of 3.76 (SD = 0.684) and a majority of females (81.1%).

Table 1 presents the descriptive statistics for variables related to binge-watching behaviour. The majority of respondents reported having an over-the-top (OTT) or on-demand subscription at home (M = 4.87, SD = 1.754), with Netflix being the most commonly used platform (M = 4.42, SD = 1.596). The most watched show among respondents was "Stranger Things" (M = 9.80, SD = 2.690), and the average duration of watching their favourite show in a day was 1.23 hours (SD = 0.493).

Table 1
Descriptive Statistics for Variables Related to Binge Watching Behavior

Variable	N	Minimum	Maximum	Mean	SD
Age	239	1	4	3.76	0.684
Gender	239	1	2	1.81	0.392
Over-the-Top (OTT) subscription	239	1	7	4.87	1.754
Most used platform	239	1	6	4.42	1.596
Most watched show	239	1	18	9.80	2.690
Duration of watching favorite show	239	1	3	1.23	0.493

Note. N = sample size, SD = standard deviation. Gender was coded as 1 = female and 2 = male. Over-the-Top (OTT) subscription was measured on a 7-point Likert scale. Most used platform was coded as 1 = Netflix, 2 = Amazon Prime Video, 3 = Disney+, 4 = Hulu, 5 = YouTube Premium, and 6 = Others. Most watched show was coded based on a list of options provided to respondents. Duration of watching favorite show was measured on a 3-point Likert scale.

Table 2

Pearson Correlation Results for Binge-Watching Behavior and Perceived Stress Scale

	Binge Watching Behavior	Perceived Stress Scale
Binge Watching Behavior	1	.427** (.000)
Perceived Stress Scale	.427** (.000)	1
N	239	239

Note: **. Correlation is significant at the 0.01 level (2-tailed).

In this study, the independent variable is Binge-Watching Behavior (BWB) while the dependent variable is Perceived Stress (PS). According to Pearson correlation results, BWB correlates positively with PS and is statistically significant ($r = .427$, $p = .000$). This shows there is an association between BWB and PS amidst the COVID-19 pandemic lockdown.

Discussion

This study aimed to identify the prevalence of binge-watching behaviour among adolescents during the COVID-19 pandemic and investigate its association with perceived stress. The results showed that a significant proportion of the adolescent sample engaged in binge-watching behaviour during the pandemic, with an average duration of 1.23 hours per day. Moreover, the study found a positive and significant correlation between binge-watching behaviour and perceived stress, indicating that adolescents who engaged in more binge-watching reported higher levels of stress.

These findings are consistent with previous research on the negative impact of excessive screen time and media consumption on mental health outcomes, including stress and anxiety (Aghababian et al., 2021; Vizcaino et al., 2020)^{17,26}. The COVID-19 pandemic has led to increased screen time among individuals of all ages, as lockdown measures have forced people to spend more time at home and rely on technology for social connection and entertainment. This study highlights the need for greater awareness of the potential negative consequences of excessive screen time, particularly among vulnerable populations such as adolescents.

The results also suggest the importance of considering the type of content watched and the duration of viewing when assessing the impact of binge-watching on stress (Liza et al., 2023)²⁷. Previous research has shown that certain types of content, such as violent or distressing material, may be more likely to elicit negative emotions and increase stress levels (Starosta and Izydorczyk, 2020)¹¹. Moreover, the duration of viewing may impact the extent to which individuals become absorbed in the content and experience emotional and physiological reactions (Aghababian et al., 2021)¹⁷. Future studies should investigate these factors in greater depth to gain a more nuanced understanding of the impact of binge-watching on mental health outcomes.

The prevalence of binge-watching behavior among adolescents during the COVID-19 lockdown aligns with the principles of the Uses and Gratifications Theory, which suggests that individuals actively seek out and consume media to fulfill specific needs or gratifications (Steiner

and Xu, 2020)¹⁹. In this study, the findings indicate that adolescents may have turned to binge-watching as a means of seeking gratification, such as escapism, relaxation, or entertainment, particularly during a period of heightened stress. The positive correlation between binge-watching and perceived stress further supports the idea that adolescents were utilizing this behavior as a coping mechanism or a way to escape from stressors they were facing during the lockdown.

From the perspective of the Self-Determination Theory, the association between binge-watching behavior and perceived stress can be understood through the lens of psychological needs. The restrictions imposed during the lockdown may have limited adolescents' ability to fulfill their need for autonomy, competence, and relatedness (Lüders, 2022)²¹. In response, binge-watching could have served as a compensatory mechanism to fulfill these needs, providing a sense of control in choosing what to watch, a feeling of competence through understanding complex narratives, and a sense of connection with fictional characters. However, it is important to note that the positive correlation with perceived stress suggests that while binge-watching may temporarily satisfy some psychological needs, it may not fully address the underlying stressors, potentially contributing to elevated stress levels among adolescents.

Together, these theoretical perspectives provide valuable insights into the relationship between binge-watching behavior and perceived stress among adolescents during the COVID-19 lockdown. They highlight the ways in which media consumption can serve as a means of seeking gratification and fulfilling psychological needs. However, further research is needed to better understand the complex interplay between binge-watching, and perceived stress among adolescents in different contexts.

The findings of this study have significant implications for both parents and educators who are concerned about the well-being of adolescents during the COVID-19 lockdown. The high prevalence of binge-watching behaviour among adolescents suggests the need for parents and educators to monitor and regulate the amount of time adolescents spend watching television shows. This can be achieved by setting a limit on screen time or encouraging alternative activities that promote physical and mental well-being, such as exercise, hobbies, or social interaction with family and friends.

Moreover, the association between binge-watching behaviour and perceived stress highlights the need for interventions that can help adolescents cope with stress. For instance, parents and educators can teach adolescents stress-management techniques such as relaxation exercises, meditation, or cognitive-behavioural therapy. Additionally, mental health professionals can use the findings of this study to design and implement targeted interventions that address the psychological impact of binge-watching behaviour among adolescents.

Overall, the implications of this study underscore the importance of addressing the negative consequences of binge-watching behaviour among adolescents. By promoting healthy screen-time habits and providing effective stress-management strategies, parents, educators, and mental health professionals can help adolescents maintain their physical and mental well-being amidst the challenging circumstances.

Several limitations to this study should be acknowledged. Firstly, the study relied on self-reported data, which may have led to bias and may not be completely accurate. Secondly, the sample size was relatively small, so the findings may not be generalizable to other populations.

Additionally, the study only measured binge-watching behaviour and perceived stress and did not account for other factors that may contribute to stress among adolescents during the COVID-19 pandemic.

Overall, future studies can build upon these limitations by incorporating diverse measures, utilizing longitudinal designs, considering contextual factors, exploring moderating variables, and expanding the scope to different populations. These endeavors would provide a more comprehensive understanding of the relationship between binge-watching behavior and perceived stress, contributing to the development of effective interventions and strategies for stress management.

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