Association of depression and binge watching factors in early adults

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ABSTRACT

Binge watching is a form of coping that focuses on emotions that tend to be used to eliminate negative feelings such as depression. Theoretically, individuals who are depressed need coping that can help reduce their negative feelings, one of which is watching. The purpose of this study was to determine the relationship between depression and binge-watching factors in early adulthood. This study used a quantitative approach with 157 early adult samples selected by incidental sampling technique. Data analysis using the Spearman correlation technique showed that there was a relationship between depression and six binge watching factors, namely there was a relationship between depression and engagement (r=0,208; p=0,009), depression with positive emotion (r=0,201; p=0,012), depression with pleasure preservation (r=0.191; p=0.017), depression with dependency (r=0.372; p=0.001), depression with severity to continue watching/binge-watching (r=0.310; p=0.001), depression with loss control (r= 0.225; p=0.005), and there was no relationship between depression and the desire/savoring factor with r=0.132 (p=0.101). The majority of respondents were at a level of minimal depression and problematic high-involvement. This explains that although there is a relationship, depression is not a significant predictor of binge-watching behavior.

Keywords: binge watching, depression, early adulthood

Introduction

Since 2013, the term binge-watching has become popular after Netflix, which is a streaming media application, has developed by giving viewers the freedom to watch anytime, anywhere, and choose the number of episodes they want to watch (Matrix, 2014; Starosta et al., 2020). The term binge watching commonly used to describe the behavior of watching several episodes sequentially in one sitting (Exelmans & Van Den Bulck, 2017; Flayelle, et al., 2020). The innovation and development of streaming services that continue to offer convenience and affordable prices to watch anytime and anywhere have made binge watching behavior increasingly popular (Flayelle, et al., 2019). According to a psychiatrist at Northwestern Medicine Behavioral Health Services named Danesh (2021), this continuous viewing activity stimulates the production of dopamine in the brain which gives the effect of feelings of pleasure, thus making individuals want to continue watching. This is reinforced by the opinion of Flayelle,, et al. (2019) which says that emotional reactions in the form of pleasure underlie watching activities which ultimately make binge-watching as a coping and escape from negative feelings to get happy feelings.

Flayelle, et al. (2019) found that there is a heterogeneous nature of binge-watching, namely problematic high-involvement and non-problematic high-involvement. High-involvement binge-watching is not problematic, characterized by spending more than 2 hours in one sitting, watching more than 3 consecutive episodes, and no functional effects such as sleep deprivation, task delays, and shifts in other activities (Flayelle, et al., 2020). Problematic high-involvement binge-watching is characterized by spending more than 2 hours in one sitting, watching more than 3 consecutive episodes and having a functional impact (Flayelle, et al., 2020). Individuals who are unable to control

themselves to manage watching time, are unable to stop media consumption, lack of sleep, tend to leave work or skip work are the result of problematic binge-watching (Flayelle, et al., 2019; Flayelle, et al., 2020). In addition, depression has the potential to develop problematic binge-watching (Flayelle, et al., 2020).

Individuals with depressive symptoms tend to engage in binge-watching activities to distract them from negative emotions (Tukachinsky & Eyal, 2018). This is in line with the opinion of Ahmed (2017) which says that individuals with binge-watching behavior are more likely to be affected by depression because depression makes individuals want to escape from a depressed state and consume more shows to escape the pressure. According to Flayelle et al. (2020) binge watching used by depressed individuals as emotion-focused coping to eliminate negative feelings. Emotion-focused coping is done to divert individuals from the feeling of being depressed by withdrawing from situations such as watching (Ismiati, 2015; Sarafino, 1994). In addition, according to Sung, et al. (2018), the more depressed individuals experience, the more episodes they watch. In addition, depression is one of the mental health problems most commonly associated with binge behavior, such as binge eating and binge drinking (Tefertiller & Maxwell, 2018).

Several studies have shown that binge-watching is associated with higher rates of depression. Research conducted by Wheeler (2015) investigated viewing behavior in 186 undergraduate psychology students at Georgia Southern University and its relationship to loneliness, depression and psychological well-being. Furthermore, Wheeler (2015) shows that individuals with high depression tend to report higher viewing levels for comfort and do not have the ability to stop the auto play function on streaming services.

Research conducted by Steins-Loeber, et al. (2020) also found that with increasing severity of depressive symptoms, individuals use binge-watching activities to distract negative thoughts and emotions by ignoring tasks and social problems as the main consequences. Thus, it is possible that high depression scores lead to binge-watching activities that lead to task neglect and social problems (Steins-Loeber et al., 2020). Another study conducted by Ahmed (2017) on 260 Arab residents aged 18-48 years regarding the relationship between binge-watching frequency and depression found that there was a statistically significant positive relationship between binge-watching frequency and depression. This shows that high binge-watching actors tend to be more depressed than low binge-watching actors (Ahmed, 2017).

Binge-watching behavior very close and related to young people (Ahmed, 2017). This is because the millennial generation in their 20s is the main follower of streaming application platforms and has a higher frequency of binge-watching (Starosta et al., 2020). The early adult group is reported to have a high frequency of binge-watching behavior, which can be considered as one of the risk factors for addiction (Wheeler, 2015). According to Santrock (2011) early adulthood is an individual aged 18 to 25 years, which is a period of transition from adolescence to adulthood which is characterized by having independence in decision making. Early adulthood is a period of searching for identity which is often full of problems and emotional tension, so that early adulthood is prone to depression (Santrock, 2011).

Depression is an affective disorder caused by an individual's mistake in thinking about himself, the world and his future, causing changes in special feelings, negative self-concept, regressive desire to punish oneself, vegetative changes and changes in the level of activity in the individual (Beck, 2006). Beck's theory, which is formulated from cognitive theory, shows that certain negative ways of thinking increase the tendency to develop and maintain depression when experiencing stressful life events, which can lead to dysfunctional thoughts that eventually result in maladaptive behavior (Beck & Alford, 1967).

Beck (2006) explains that there are symptoms of depression, namely: (a) emotional symptoms are characterized by symptoms in the form of feelings of irritation, heartbreak, sadness, negative feelings towards themselves, loss of satisfaction, loss of emotional involvement in doing work or

relationships with other people. others, a tendency to cry involuntarily, and a loss of response to humor; (b) cognitive symptoms are characterized by symptoms of low self-evaluation, distorted body image, negative expectations, blame and self-criticism, and hesitation in making decisions; (c) motivational symptoms are characterized by symptoms of loss of positive will and motivation, desire to escape, avoid, and withdraw from the environment, suicidal ideation, and increased individual dependence, which means the desire to receive help, guidance or direction; (d) Physical-vegetative symptoms are characterized by symptoms such as loss of appetite, sleep disturbances, loss of libido, fatigue, retardation, and agitation.

Flayelle, et al. (2020) define binge-watching systematically as follows: (a) Quantity-based index, namely the amount spent watching, starting from watching more than 3 episodes or watching more than 2 hours; (b) Content characterization-based index, which refers to the appearance of the same series, undifferentiated programs or does not determine the type of content watched; (c) Time pattern index, which involves various time frames, namely sequentially (in one sitting). According to Flayelle, et al. (2020) there are several factors that influence binge-watching behavior, namely: (a) engagement, namely the level of involvement in watching series; (b) positive emotions, namely the emotional benefits obtained from watching the series; (c) pleasure preservation, namely the use of strategies aimed at maintaining or increasing the pleasure associated with watching the series; (d) desire/savoring, namely the level of desire and appreciation to watch; (e) binge-watching, namely the severity of continuing to watch; (f) dependency, which is difficult not to watch the series; (g) loss of control, namely negative consequences related to binge-watching.

Based on the explanation above, the researcher wanted to examine the relationship between depression and binge-watching factor in early adulthood. Furthermore, researchers have not found any related studies that examine depression variables and binge-watching factors simultaneously. This study focuses on the relationship between depression and binge-watching factors in early adulthood based on high involvement with problems or high involvement with no problems. The research question in this study is "Is there a relationship between depression and each factors of binge-watching in early adulthood?"

Method

This study uses a quantitative approach with the correlation research. The characteristics of the sample in this study were watching movies/drama/series more than three episodes in one sitting, watching in the last two weeks, and aged 18 to 25 years. The sampling technique in this study used incidental sampling technique with a total sample of 157 samples. The data collection process is carried out online by spreading the research scale in the form of google form through social media, namely WhatsApp and Instagram by writing down the research respondents' criteria so that the respondents obtained are in accordance with the research objectives. When distributing the research scale google form link, the researcher gave a statement "if the prospective subject has the appropriate criteria, the subject is asked to fill out the scale, but if he does not have the appropriate criteria then the subject does not need to fill in the research scale".

Depression was measured using the Indonesian version of the Beck Depression Inventory-II (BDI-II) by Ginting, et al. (2013) adapted from Beck, et al. (1996). The BDI-II consists of 21 items that measure depressive symptoms. The answer choices are on a 4-point scale (0 to 3), with the total score obtained by adding up the ratings for all items. Scores of 0-13 indicate minimal depression; scores 14-19 were mild depression; a score of 20-28 is considered moderate; and a score of 29-63 including severe. Binge-watching was measured using the Binge Watching Engagement and Symptom Questionnaires (BWESQ) developed by Flayelle, et al. (2020). BWESQ consists of 40 items that aim to measure binge watching involvement and symptoms of problematic binge watching. The answer choices start from 1 (strongly disagree) to 4 (strongly agree), scoring is done by calculating the average score for each factor. Both

measuring instruments have ordinal data types because they are self-report measuring instruments and researcher has obtained permission from Flayelle, et al. (2020) and Ginting, et al. (2013) to use the two measuring instruments.

The research process begins with preparing the BDI-II measuring instrument and translating the BWESQ measuring instrument in Indonesian Language and using back to back translation method, then conducting an expert review process to assess the accuracy of each item in the measuring instrument so that the item corresponds to the variable to be measured. Next, submit a research ethics protocol to the Health Research Ethics Committee (KEPK) Faculty of Medicine, Syiah Kuala University-RSUDZA, conduct a test of measuring instruments (try out), and carry out research data collection. The data retrieval process is carried out online through a google form which is distributed through social media platforms, namely WhatsApp and Instagram. Data analysis was carried out, namely the assumption test (normality test & linearity test) and hypothesis testing using non-parametric techniques, namely the Spearman's rho correlation test because the research data were not normally distributed.

Results

The following are tables that contain the results of descriptive data obtained in this study:

Table.1   Research Subject Demographic Data

Subject Description	Number of Subjects	Percentage	Total
Gender			
Man	20	12.7%	100%
Woman	137	87.3%	
Age			
18 years old	16	10.2%	
19 years old	13	8.3%	
20 years old	20	12.7%	
21 years old	46	29.3%	100%
22 years old	31	19.7%	
23 years old	21	13.4%	
24 years old	6	3.8%	
25 years old	4	2.5%	
Job			
Student	126	80.3%	100%
Others	31	19,7%	
Number of Episodes			
3 to 5 episodes	112	71.3%	
6 to 10 episodes	28	17.8%	100%
11 to 15 episodes	4	2.5%	
16 to 20 episodes	9	5.7%	
More than 20 episodes	4	2.5%	

Based on table 1, it is known that the research subjects amounted to 157 people with 87.3% of the research subjects being female and 12.7% male. Furthermore, the age of the study subjects was dominated by subjects aged 21 years with a percentage of 29.7%, 19.7% aged 22 years, 13.4% aged 23 years, and 12.7% aged 20 years. The majority of the work of the research subjects were students with a percentage of 80.3%. Then, the number of episodes spent by the subject in one dominant sitting is in

the range of 3 episodes to 5 episodes, with a percentage of 71.3%, and 17.8% is in the range of 6 episodes to 10 episodes.

Table.2   Frequency Distribution of Beck Depression Inventory-II (BDI-II) Category

Range score	Categories	Number of Subjects	Percentage
0-13	Minimum	66	42%
14-19	Mild	39	24,8%
20-28	Moderate	32	20,4%
29-63	Severe	20	12,7%
Total		157	100%

Based on table 2, it can be seen that 42% of the research subjects were at the level of minimal depression, 39% of the research subjects were at the level of mild depression, 20.4% of the research subjects were at the level of moderate depression, and 12.7% of the research subjects were at the level of major depression.

Table.3   Frequency Distribution of Binge Watching Engagement and Symptoms Questionnaires (BEWSQ) Category

Range score	Categories	Number of Subjects	Percentage
55-88	Problematic High-Involvement	60	38,2%
22-54	Non-Problematic High-Involvement	47	29,9%
45-72	Problematic Low-Involvement	7	4,5%
18-44	Non-Problematic Low-Involvement	43	27,4%
Total		157	100%

Table 3 shows that 38.2% of the subjects were in the problematic high-involvement category, 29.9% of the subjects were in the non-problematic high-involvement category, 4.5% of the subjects were in the problematic low-involvement category and 27.4% of the subjects were in the non-problematic low-involvement category.

Based on the normality test, it was found that the significant value of the depression variable (p=0.021), engagement factor (p=0.001), positive emotion factor (p=0.001), pleasure preservation factor (p=0.001), desaire/savoring factor (p=0.001), dependency factor (p=0.003), severity factor to continue watching/bingewatching (p=0.008), and loss control factor (p=0.003). These results indicate that the two variables have data that are not normally distributed, where the depression variable and the seven factors of binge watching have a significance value less than 0.05 (p<0.05). The linearity test conducted through the test of linearity showed that there was a linear relationship between depression and the five binge watching factors with a significance value (p) <0.05, namely depression with a positive emotion factor (p=0.037), depression with a pleasure preservation factor (p=0.015), depression with dependency factor (p=0.001), depression with severity factor to continue watching/bingewatching (p=0.001), and depression with loss control factor (p=0.002). Furthermore, there is a non-linear relationship between depression and two binge watching factors with a significance value (p)> 0.05, namely depression with engagement factor (p=0.579) and depression with desire/savoring factor (p=0.127).

Hypothesis testing in this study uses a non-parametric test using the Spearman's rho correlation technique which shows that there is a relationship between depression and six binge watching factors, namely there is a relationship between depression and engagement factor (r=0,208; p=0,009), depression with positive emotion factor (r=0,201; p=0,012) , depression with pleasure preservation factor (r=0,191; p=0,017), depression with dependency factor (r=0,372; p=0,001), depression with

severity factor to continue watching/bingewatching (r=0,310; p=0,001), depression with loss control factor (r=0,225; p=0,005), and there is no relationship between depression and the desire/savoring factor with a value of r=0,132 (p=0,101).

The following table 4 is a recapitulation of the relationship between depression and binge watching factors along with the meaning of the relationship between the two variables.

Table.4   Recapitulation of the Relationship between Depression Variables and Binge-Watching Factors

Binge Watching Factors	Depression					
	ρ	Meaning	r	relationship level	R^2	Effective Contribution
Engagement	0,009	There is a positive relationship	0,208	Weak	0,043	4,3%
Positive Emotion	0,012	There is a positive relationship	0,201	Weak	0,040	4%
Pleasure Preservation	0,017	There is a positive relationship	0,191	Very Weak	0,036	3,6%
Desire/ Savoring	0,101	There is no relationship	0,132	-	-	-
Dependency	0,001	There is a positive relationship	0,372	Weak	0,138	13,8%
Binge watching	0,001	There is a positive relationship	0,310	Weak	0,096	9,6%
Loss Control	0,005	There is a positive relationship	0,225	Weak	0,051	5,1%

Discussion

This study aims to determine the relationship between depression and binge-watching factors in early adulthood. This study analyzes the relationship between depression and each binge-watching factor because binge-watching is a multidimensional variable. Based on the results of the correlation test between depression and the engagement factor, it was found that there was a relationship in a positive direction, meaning that the higher the depression score, the higher the engagement score, in other words, the higher the engagement with the spectacle. This is in accordance with the research conducted by Boursier, et al. (2021) who found that depression was positively related to engagement or engagement in viewing. Research conducted by Duraivel and Lavanya (2020) found that in general binge watching is an activity that requires involvement that acts as a buffer against feelings of loneliness, rejection, and depression.

Based on the results of the correlation test between depression and positive emotion factors, it was found that there was a relationship in a positive direction, meaning that the higher the depression score, the higher the positive emotion score, in other words, the higher the emotional benefits obtained from watching. This is in accordance with research conducted by De Keere et al. (2021) which states that binge-watching is used to get happiness and forget about difficult situations. These results support previous research which states that individuals who experience unpleasant affect are more likely to use binge-watching as a strategy to recover from unwanted emotions (Boursier et al., 2021). Furthermore, binge-watching is identified as a way to distract from negative feelings as a form of escape from ongoing emotional stress and depression (Duraivel & Lavanya, 2020).

Based on the results of the correlation test between depression and the pleasure preservation factor, it was found that there was a relationship in a positive direction, meaning that the higher the depression score, the higher the pleasure preservation score. In other words, the higher the strategy

used to maintain or increase the pleasure associated with watching. This is in accordance with the findings of De Keere et al. (2021) who found that watching activities would be more enjoyable if individuals did various preparations such as turning off their cellphones, tidying up positions, arranging rooms, ordering or preparing food, and comfortable clothes.

Based on the results of the correlation test, it was found that there was no relationship between depression and the desire/savoring factor. This is supported by research Starosta et al. (2019) which found that individual motivations for binge watching were very diverse, such as escape motivation, loneliness, and addiction to watching. Depression is not a strong reason that encourages individuals to binge-watching, the desire of individuals to watch is more influenced by getting entertainment, getting information, increasing social relationships, and feeling attached to the stories and characters in the spectacle (Panda & Pandey, 2017; Pittman & Steiner, 2019; Starosta, et al., 2020). In addition, pleasure to watch is obtained from how individuals prepare strategies to increase and enjoy watching (Boursier, et al., 2021). These studies are sufficient to explain the reason that there is no visible relationship between depression and the desire/savoring factor, which is caused by the variation and diversity of motivations that influence individuals to have a desire to watch other than depression, so that the relationship between depression and the desire/savoring factor is not found.

Based on the results of the correlation test between depression and the severity factor for continuing to watch/binge watching, it was found that there was a relationship with a positive direction, meaning that the higher the depression score, the higher the severity to continue watching. This is in accordance with the research of Duraivel and Lavanya (2020) which found that there was a significant effect of binge watching in reducing depression levels. Furthermore, binge-watching is an activity that involves engagement, which in turn requires individuals to focus on content rather than ongoing depression, so binge watching functions as a form of diversion (Duraivel & Lavanya, 2020).

Based on the results of the correlation test between depression and the dependency factor, it was found that there was a relationship in a positive direction, meaning that the higher the depression score, the higher the dependency score, in other words, the higher the feeling of being difficult not to watch. This is in accordance with the findings of Soudek and Latendresse (2020) who found that individuals who feel negative emotions have feelings of dependence on the spectacle so that they find it difficult not to watch which is caused by the desire to get positive emotions in the form of pleasure and satisfy curiosity.

Based on the results of the correlation test between depression and loss control factors, it was found that there was a relationship in a positive direction, meaning that the higher the depression score, the higher the loss control score, in other words, the higher the negative consequences obtained from watching, such as addiction. This is in accordance with the research conducted by Boursier, et al. (2021) who found that depression was positively related to loss control in viewing De Keere, et al. (2021) states that low control can indicate that individuals often do binge watching activities which are associated with depression and loneliness. Duraivel and Lavanya (2020) found that individuals who experience severe endings are unconsciously distracted to continuously engage in viewing activities. Furthermore, feeling uncomfortable due to curiosity about the next storyline is one of the reasons why individuals decide to continue watching until they get out of control (Soudek & Latendresse, 2020).

The correlation coefficient value indicates that the level of relationship between the depression variable and each factor of the binge-watching variable is in the very weak and weak categories. This is based on the opinion of Sugiyono (2015) which suggests that the range of correlation coefficient values between 0.00-0.199 has a very weak relationship level and 0.20-0.399 has a weak relationship level. In addition, no relationship was found between depression and one of the seven binge watching factors, namely desire/savoring, indicating that the depression variable very weakly affects the binge-watching variable. This is in accordance with previous research conducted by Starosta et al. (2021), which shows that the predictive value of depression is moderate, which means depression is not a significant predictor of binge watching frequency. In addition, the weak relationship between depression and

binge watching can be explained by the findings of previous studies which found that binge watching causes depression because individuals isolate themselves from the social environment, sleep problems, do not do physical activity which can lead to decreased mood and even depression (Madhav, et al., 2017; Maras, et al., 2015; Tefertiller & Maxwell, 2018).

Despite having a weak relationship, this study proves previous research, where there is an influence of depression on binge watching, which indicates that individuals who experience negative feelings such as depression are more prone to engage in problematic binge watching as a coping strategy (Flayelle, et al., 2019; Flayelle, et al., 2019; Orosz, et al., 2016). Research conducted by Duraivel and Lavanya (2020) proves that there is an effectiveness of binge watching in reducing depression, meaning that individuals with depression report a significant decrease in depression levels when doing binge watching activities compared to individuals who do not binge watching activities.

Furthermore, the results of the correlation coefficient have a positive direction, this indicates that there is a unidirectional relationship between the depression variable and binge-watching, meaning that if the depression variable score is high, then the score obtained for each binge-watching factor is also high. This is supported by a previous study which found that there was a positive relationship between depression and binge-watching (Ahmed, 2017; Sung, et al., 2018; Wheeler, 2015). The positive relationship between depression and binge-watching indicates that depressed individuals tend to binge-watching. This shows that individuals with depression are more likely to binge-watching to find comfort (Wheeler, 2015).

Other findings from this study indicate that the dominance of the depression categorization of research subjects is in the minimal category with a percentage of 42% and the binge-watching categorization of research subjects is in the category of problematic high involvement with a percentage of 38.2%. Problematic high-involvement binge watching is characterized by spending more than 2 hours watching in one sitting, watching more than 3 consecutive episodes and having functional impacts such as not being able to control themselves to manage viewing time, unable to stop media consumption, lack of sleep, tend to leave tasks or skipping work and assignments (Flayelle, et al., 2020).

This indicates that the research subjects have a minimal level of depression, but are more likely to binge watching with problematic high-involvement, which is contrary to the results of the correlation in this study which states that there is a relationship. This is due to several factors, one of which is high involvement in binge watching which is predicted by symptoms of anxiety, escapism and avoidance (Boursier et al., 2021). Furthermore, viewing activities positively reduced negative feelings associated with non-problematic viewing behaviors, whereas escapism-based viewing activities were more associated with problematic viewing patterns (Boursier et al., 2021).

According to Hazzel (2007) depression can be treated effectively using psychological therapy if it is at a minimal to mild level of depression. Meanwhile, moderate to severe depression is more effectively treated using antidepressant medication. Furthermore, the findings of Jaycox, et al. (2006) found that early adults with minimal to moderate depression preferred counseling therapy over using drugs and receiving active care. This suggests that binge-watching is not an active treatment used to help early adults with depression.

Researchers conducted additional analyzes to see the description of depression in gender demographic data. In this study the number of research subjects was 157 people with details of 137 people being female and 20 people being male. The dominance of the depression category is in the minimal category in both sexes, female sex is 58 people (42.3%) and male is 8 people (40%). These results are supported by research by Nurjannah and Pamungkas (2013) who found that subjects aged 18-25 years had minimal symptom levels (no symptoms of depression) caused by cultural factors. Aceh is a special region that has a religious and Islamic culture because it applies Islamic law (Bakri, 2017). Individuals who have a high religious level are better able to interpret every event in their life positively, so that their lives become more meaningful and avoid stress and depression (Basri, et al., 2015). Furthermore, findings from Marni (2020) study found that low depression had high life satisfaction.

This shows that the subjects of this study did not have cognitive distortions in the form of unfairly comparing themselves with others stated by Beck and Alford (1967) can cause depression.

The next additional analysis is to look at the description of binge-watching behavior on gender demographic data. The dominance of the binge-watching category for the female gender is in the problematic high-involvement category as many as 54 people (39.4%), while the dominance of the binge-watching category for the male gender is in the non-problematic low-involvement category as many as 8 people (40%). This shows that women are more highly involved in watching than men (Boursier et al., 2021). Furthermore, these results indicate that women have a higher tendency to experience negative influences and lower self-control so that they engage in dysfunctional coping (Boursier et al., 2021).

In the process of conducting the research, the researcher realized that there were still limitations and shortcomings in this study. First, the distribution of the research scale is distributed online using a google form so that researchers cannot directly control the process of taking research data, even though the researcher has included an explanation in the google form so that the subject fills out the scale according to the actual conditions and guarantees the confidentiality of the data but still cannot close it. the possibility of bias from the subject and the environment around the subject. In addition, the previous literature that explains the relationship between depression and binge watching is still limited.

Conclussion

Based on the results of data analysis, it was found that there is a relationship between depression and six binge watching factors, namely there is a positive relationship between depression and engagement factor in early adulthood, there is a positive relationship between depression and positive emotion factor in early adulthood, there is a positive relationship between depression and pleasure preservation factor in early adulthood, there is a positive relationship between depression and dependency factor in early adulthood, there is a positive relationship between depression and the severity factor for continuing to watch/bingewatching in early adulthood, there is a positive relationship between depression and loss control factor in early adulthood, and not There is a relationship between depression and desire/savoring factor in early adulthood. This result means that the higher the depression score, the higher the score for each binge-watching factors. However, the results of the study indicate that the relationship between depression variables has a weak level of relationship with the binge-watching factor. In addition, the results of this study also show that early adults have minimal depression rates and problematic high-involvement. This explains that although there is a relationship, depression is not a significant predictor of binge-watching behavior. Early adults are expected to have the ability to recognize the symptoms of depression in order to have anticipation when experiencing these symptoms. Early adults who practice binge watching so they don't fall into the category of high-involvement binge watching are expected to be able to find more constructive adaptive coping in reducing negative feelings (depression), such as exercising and interacting with people around them.

In the process of conducting the research, the researcher realized that there were still limitations in this research. First, the distribution of the research scale is distributed online using a google form so that researchers cannot control directly when collecting research data, even though the researcher explains in the google form so that the subject fills out the scale according to actual conditions and guarantees the confidentiality of the data, but cannot rule out the possibility of bias of the subject and the environment around the subject. In addition, the previous literature that explains the relationship between depression and binge watching is still limited.

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References

Ahmed, A. A. A. M. (2017). New era of TV-watching behavior: Binge watching and its psychological effects. *Media Watch*, *8*(2), 192–207. https://doi.org/10.15655/mw/2017/v8i2/49006

Bakri. (2017). *Grand design pelaksanaan syariat Islam di Aceh (2017- 2022)*. Serambi Indonesia. https://aceh.tribunnews.com/2017/12/12/grand-design-pelaksanaan-syariatislam-%0Adi-aceh-2017-2022

Basri, N. A., Hong, G. C., Oon, N. L., & Kumagai, S. (2015). Islamic religiosity, depression and anxiety among Muslim cancer patients. *Angewandte Chemie International Edition, 6(11), 951–952.*

Beck, A. T. (2006). *Beck Depression Inventory (Second Edition)*. Psychological Corpotration, USA.

Beck, A. T., & Alford, B. A. (1967). *Depression: Causes and treatment*. University of Pennsylvania Press.

Beck, A. T., Steer, R. A., & Brown, G. K. (1996). Manual for the Beck depression inventory-II. *San Antonio, TX: Psychological Corporation*.

Boursier, V., Musetti, A., Gioia, F., Flayelle, M., Billieux, J., & Schimmenti, A. (2021). *Is watching tv series an adaptive coping strategy during the Covid-19 pandemic ? Insights From an Italian Community Sample*. *12*(April), 1–9. https://doi.org/10.3389/fpsyt.2021.599859

Danesh, A. A. M. (2021). *Emotional health binge-watching*. Northwestern Medicine. https://www.nm.org/healthbeat/healthy-tips/emotional-health/binge-watching

De Keere, K., Thunnissen, E., & Kuipers, G. (2021). Defusing moral panic: Legitimizing binge-watching as manageable, high-quality, middle-class hedonism. *Media, Culture and Society*, *43*(4), 629–647. https://doi.org/10.1177/0163443720972315

Duraivel, S., & Lavanya. (2020). Binge-watching as a therapy for depression: an experimental investigation on the potential of the millennial media consumption practice as a remedial intervention. *Journal of Emerging Technologies and Innovative Research (JETIR)*, *11*(4), 204–217.

Exelmans, L., & Van Den Bulck, J. (2017). Binge viewing, sleep, and the role of pre-sleep arousal. *Journal of Clinical Sleep Medicine*. https://doi.org/10.5664/jcsm.6704

Flayelle, M., Canale, N., Vögele, C., Karila, L., Maurage, P., & Billieux, J. (2019). Assessing binge-watching behaviors: Development and validation of the "Watching TV Series Motives" and "Binge-watching Engagement and Symptoms" questionnaires. *Computers in Human Behavior*, *90*(August 2018), 26–36. https://doi.org/10.1016/j.chb.2018.08.022

Flayelle, M., Castro-Calvo, J., V€ogele, C., Astur, R., Ballester-Arnal, R., Challet-Bouju, G., Brand, M., Cardenas, G., Devos, G., Elkholy, H., Grall-Bronnec, M., James, R. J. E., Jimenez-Martínez, M., Khazaal, Y., Valizadeh-Haghi, S., King, D. L., Liu, Y., Lochner, C., Steins-Loeber, S., … Billieux, J. (2020). Towards a cross-cultural assessment of binge-watching : Psychometric evaluation of the " watching TV series motives " and " binge-watching engagement and symptoms " questionnaires across nine languages ☆ , ☆☆ Ga €. *Computers in Human Behavior*, *111*(16). https://doi.org/https://doi.org/10.1016/j.chb.2020.106410

Flayelle, M., Maurage, P., Di Lorenzo, K. R., Vögele, C., Gainsbury, S. M., & Billieux, J. (2020). Binge-watching: What do we know so far? a first systematic review of the evidence. *Current Addiction Reports*, *7*(1), 44–60. https://doi.org/10.1007/s40429-020-00299-8

Flayelle, M., Maurage, P., Karila, L., Vögele, C., & Billieux, J. (2019). Overcoming the unitary exploration of binge-watching: A cluster analytical approach. *Journal of Behavioral Addictions*, *8*(3), 586–602. https://doi.org/10.1556/2006.8.2019.53

Flayelle, M., Maurage, P., Vögele, C., Karila, L., & Billieux, J. (2019). Time for a plot twist: Beyond

confirmatory approaches to binge-watching research. *Psychology of Popular Media Culture*, *8*(3), 308–318. https://doi.org/10.1037/ppm0000187

Flayelle, M., Verbruggen, F., Schiel, J., Vögele, C., Maurage, P., & Billieux, J. (2020). Non-problematic and problematic binge-watchers do not differ on prepotent response inhibition: A preregistered pilot experimental study. *Human Behavior and Emerging Technologies*, *2*(3), 259–268. https://doi.org/10.1002/hbe2.194

Ginting, H., Näring, G., Van Der Veld, W. M., Srisayekti, W., & Becker, E. S. (2013). Validating the Beck Depression Inventory-II in Indonesia's general population and coronary heart disease patients. *International Journal of Clinical and Health Psychology*, *13*(3), 235–242. https://doi.org/10.1016/S1697-2600(13)70028-0

Hazzel. (2007). *Depression in adolescents*. BMJ.

Ismiati. (2015). Problematika dan coping stres mahasiswa. *Jurnal Al-Bayan*, *21*(32), 15–27.

Jaycox, L. H., Asarnow, J. R., Sherbourne, C. D., Rea, M. M., LaBorde, A. P., & Wells, K. B. (2006). Adolescent primary care patients' preferences for depression treatment. *Administration and Policy in Mental Health and Mental Health Services Research*, *33*(2), 198–207. https://doi.org/10.1007/s10488-006-0033-7

Madhav, K. C., Sherchand, S. P., & Sherchan, S. (2017). Association between screen time and depression among US adults. *Preventive Medicine Reports*, *8*(June), 67–71. https://doi.org/10.1016/j.pmedr.2017.08.005

Maras, D., Flament, M. F., Murray, M., Buchholz, A., Henderson, K. A., Obeid, N., & Goldfield, G. S. (2015). Screen time is associated with depression and anxiety in Canadian youth. *Preventive Medicine*, *73*, 133–138. https://doi.org/10.1016/j.ypmed.2015.01.029

Marni, N. Y. R. (2020). *Tingkat depresi dan kualitas hidup penderita HIV/aids di kelompok dukungan sebaya Gajah Mungkur Wonogiri Marni*. *11*(3), 402–406. *http://dx.doi.org/10.33846/sf11416*

Matrix, S. (2014). The netflix effect: Teens, binge watching, and on-demand digital media trends. *Jeunesse: Young People, Texts, Cultures*. https://doi.org/10.1353/jeu.2014.0002

Nurjannah, & Pamungkas, S. R. (2013). Hubungan tingkat sindrom depresi dengan indeks prestasi kumulatif pada mahasiswa Universitas Syiah Kuala Banda Aceh. *Jurnal Kedokteran Syiah Kuala*, *13*(3), 151–158. https://doi.org/10.24815/jks.v13i3.3419

Orosz, G., Bothe, B., & Tóth-Király, I. (2016). The development of the problematic series watching scale (PSWS). *Journal of Behavioral Addictions*, *5*(1), 144–150. https://doi.org/10.1556/2006.5.2016.011

Panda, S., & Pandey, S. C. (2017). Binge watching and college students: motivations and outcomes. *Young Consumers*, *18*(4), 425–438. https://doi.org/10.1108/YC-07-2017-00707

Pittman, M., & Steiner, E. (2019). Transportation or narrative completion? Attentiveness during binge-watching moderates regret. *Social Sciences*. https://doi.org/10.3390/socsci8030099

Santrock, J. W. (2011). Life-span development thirteenth edition. In *by McGraw-Hill,*.

Sarafino, E. (1994). *Health psychology: Biopsychosocial interactions* (2nd ed.). John Wiley & Sons, Inc.

Soudek, K., & Latendresse, S. J. (2020). *Frequency of binge watching and its*.

Starosta, J., Izydorczyk, B., & Dobrowolska, M. (2020). Personality traits and motivation as factors associated with symptoms of problematic binge-watching. *Applied Sciences (Switzerland)*, *12*(14), 1–15. https://doi.org/10.3390/su12145810

Starosta, J., Izydorczyk, B., & Lizinczyk, S. (2019). Characteristics of people's binge-watching behavior in the "entering into early adulthood" period of life. *Health Psychology Report*, *7*(2), 149–164. https://doi.org/10.5114/hpr.2019.83025

Starosta, J., Izydorczyk, B., & Wontorczyk, A. (2021). *Anxiety-depressive syndrome and binge-watching among young adults*. *12*(July). https://doi.org/10.3389/fpsyg.2021.689944

Steins-Loeber, S., Reiter, T., Averbeck, H., Harbarth, L., & Brand, M. (2020). Binge-watching behaviour: The role of impulsivity and depressive symptoms. *European Addiction Research*, *26*(3), 141–150.

https://doi.org/10.1159/000506307

Sugiyono. (2015). *Metode penelitian kuantitatif, kualitatif dan R&D*. Alfabeta.

Sung, Y. H., Kang, E. Y., & Lee, W. N. (2018). Why do we indulge? Exploring motivations for binge watching. *Journal of Broadcasting and Electronic Media*, *62*(3), 408–426. https://doi.org/10.1080/08838151.2018.1451851

Tefertiller, A. C., & Maxwell, L. C. (2018). Depression, emotional states, and the experience of binge-watching narrative television. *Atlantic Journal of Communication*, *26*(5), 278–290. https://doi.org/10.1080/15456870.2018.1517765

Tukachinsky, R., & Eyal, K. (2018). The psychology of marathon television viewing: Antecedents and viewer involvement. *Mass Communication and Society*, *21*(3), 275–295. https://doi.org/10.1080/15205436.2017.1422765

Wheeler S, K. (2015). The relationships between television viewing behaviors, attachment, loneliness, depression, and psychological well-being. *International Journal of Behavioral Development*, *39*(6), 485–491.