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1 THE RELATIONSHIP BETWEEN HAPPINESS AND BRAINROT IN EARLY ADULTHOOD

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Abstract

The intensive use of social media among individuals in early adulthood has the potential to cause negative psychological effects, one of which is brainrot. Brainrot refers to a condition characterized by cognitive fatigue, concentration difficulties, and passive overexposure to digital content. Happiness is suspected to play an important role in reducing such tendencies. This study aims to examine the relationship between happiness and the level of brainrot among early adults. The research employed a quantitative approach with a correlational design. A total of 196 participants aged 20 to 30 years who actively use social media were involved. Data were collected using a happiness scale and a brainrot scale developed by the researcher. The data were analyzed using Pearson's correlation test. The results showed a significant negative correlation between happiness and brainrot (r = -0.176; p = 0.014), indicating that individuals with higher levels of happiness tend to experience lower levels of brainrot.
Keywords: *Happiness and Brainrot, Early Adulthood*

Abstrak

Penggunaan media sosial yang intens pada usia dewasa awal berpotensi menimbulkan efek psikologis negatif, salah satunya adalah brainrot. Brainrot merupakan kondisi yang ditandai dengan kelelahan kognitif, gangguan konsentrasi, dan keterlibatan pasif terhadap konten digital secara berlebihan. Kebahagiaan diduga memiliki peran penting dalam menekan kecenderungan tersebut. Penelitian ini bertujuan untuk mengetahui hubungan antara kebahagiaan dan tingkat brainrot pada individu dewasa awal. Metode penelitian yang digunakan adalah pendekatan kuantitatif dengan desain korelasional. Subjek penelitian berjumlah 196 orang berusia 20–30 tahun yang aktif menggunakan media sosial. Instrumen yang digunakan berupa skala kebahagiaan dan skala brainrot yang dikembangkan oleh peneliti. Data dianalisis menggunakan uji korelasi Pearson. Hasil menunjukkan adanya hubungan negatif yang signifikan antara kebahagiaan dan brainrot (r = -0,176; p = 0,014), yang mengindikasikan bahwa semakin tinggi tingkat kebahagiaan individu, maka semakin rendah kecenderungan mengalami brainrot.
Kata Kunci: Kebahagiaan Dan Brainrot, Dewasa Awal

I. INTRODUCTION

In early adulthood, individuals face various developmental demands that differ from those of adolescence. At this stage, a person begins to be seen as an independent and responsible individual, both personally and socially. Santrock (2014, in Intani & Indati,

2018) states that early adulthood is a developmental period that begins between the ages of 20 and 30, marked by the achievement of independence, the establishment of life goals, and the making of important decisions. In the context of the digital era, the challenges of early adulthood are increasingly complex because social interactions, entertainment, and work now rely heavily on social media. Data from We Are Social (2023) shows that 98% of early adults in Indonesia spend 4-6 hours per day on digital platforms, a usage pattern that has the potential to impact mental and cognitive health. This situation is even more concerning in Indonesia, which ranks highest in Southeast Asia in terms of social media penetration among the 18-29 age group (We Are Social, 2023), thus requiring special attention from academics and mental health practitioners.

One of the effects of this habit is brainrot, a cognitive impairment syndrome characterized by mental fatigue, difficulty concentrating, and mental fogginess due to excessive exposure to digital content (Mishra & Mishra, 2024). This symptom is similar to digital fatigue (Medina, n.d.), but has the unique characteristic of a passive tendency to consume content, such as doomscrolling or binge-watching. This condition indicates cognitive stress that can impact broader psychological well-being.

Happiness (subjective well-being) is thought to be a protective factor that can mitigate brainrot. The Broaden-and-Build theory (Fredrickson, 2001) explains that individuals with high levels of happiness tend to have greater emotional resilience and cognitive flexibility, enabling them to manage social media use more healthily. Previous studies have demonstrated a negative relationship between happiness and internet addiction (Kakkar, 2023) and digital stress (Wiederhold, 2020). However, research specifically examining the link between happiness and brainrot remains very limited, creating an academic gap that needs to be filled.

Several previous studies have focused more on the impact of social media on mental health, such as anxiety or depression (Twenge et al., 2018), while cognitive aspects such as brainrot tend to be overlooked. However, Self-Determination Theory (Ryan & Deci, 2000) states that individuals whose basic psychological needs (competence, autonomy, and relationships) are met will be more resistant to the negative impacts of technology. Findings from the Digital Wellness Report (2023) in Southeast Asia support this argument by showing the prevalence of brainrot reaching 68% in young adults, a figure that indicates the urgency to delve deeper into this phenomenon. This gap in the literature highlights the need for studies that examine not only the impact of social media on affective aspects (such as

anxiety or stress) but also cognitive aspects such as brainrot, which remain underexplored empirically.

Several approaches to addressing digital well-being issues generally focus on reducing social media usage time, digital literacy education, or time management strategies. While effective in some contexts, these approaches often fail to address more fundamental internal psychological aspects. Therefore, this study proposes happiness as an alternative, positive psychology-based solution, with the hope of strengthening individuals' cognitive and emotional resilience in the face of digital stress.

This study offers novelty by being one of the first to examine the direct relationship between happiness and brainrot using a standardized scale. The developed eight-aspect model of brainrot (Mishra & Mishra, 2024) allows for more comprehensive measurement than previous studies. These findings are expected to complement the discourse on digital well-being (Vanden Abeele, 2021) with a positive psychology perspective, while also addressing criticism (Orben & Przybylski, 2019) that brainrot may be a temporary effect by demonstrating evidence of its long-term impact.

Based on the description above, this study aims to analyze the relationship between happiness (subjective well-being) and brain rot levels in early adult active social media users, as well as to examine the role of happiness as a protective factor. The results are expected to provide both theoretical and practical contributions to the field of digital psychology and the development of mental health interventions.

II. THEORETICAL STUDIES

1. Brainrot

Brainrot is a psychological condition that describes a decline in cognitive function due to excessive exposure to digital content. Common symptoms of brainrot include mental fatigue, difficulty maintaining focus, impaired short-term memory, and feelings of mental fogginess. (Mishra & Mishra, 2024) explain that brainrot can occur when the brain continuously receives large amounts of information from social media and the internet without processing breaks. In this study, brainrot was measured through eight main aspects: memory lapses, mental fogginess, difficulty concentrating, mood changes, language difficulties, decreased attention span, impaired memory, and mental fatigue and anxiety.

2. Brainrot

Meanwhile, happiness, or subjective well-being, refers to an individual's evaluation of their life, both affectively and cognitively. Happiness in this study was measured based

on an integration of four commonly used models: the Affect Balance Scale (Bradburn, 1969), which measures the balance of positive and negative affect; the Satisfaction With Life Scale (Diener et al., 1985), which measures the extent to which an individual feels satisfied with their life; the Recent Happiness Item (Lyubomirsky & Lepper, 1999), which assesses feelings of happiness in the near future; and the Global Happiness Item (Veenhoven, 2009), which assesses overall happiness. The combination of these four approaches is used to capture happiness holistically and not categorize it into specific aspects.

3. Early Adulthood

Early adulthood is the period between the ages of 20 and 30, marked by the transition to independence, career planning, and important decision-making (Santrock, 2014, in Intani & Indati, 2018). This age group is highly active on social media, according to We Are Social (2023), with approximately 98% of early adults in Indonesia using social media for 4–6 hours per day, making them vulnerable to symptoms of digital fatigue and brain rot.

4. The Relationship Between Happiness and Brain Rot

Several studies have identified a negative relationship between SWB, or happiness, and digital disorder. Kakkar (2024) found a negative correlation between happiness and internet addiction in young adults; the higher the happiness, the lower the level of internet addiction. Wang & Fu (2024) reported that social support and meaning in life mediate the relationship between internet addiction and SWB. Uysal et al. (2013) reported that internet addiction decreases vitality and subjective happiness. Conversely, Kaur et al. (2021) found that SWB is significantly negatively related to social media fatigue, a term closely related to the symptoms of brain rot. Self-Determination Theory (Ryan & Deci, 2000) complements this explanation, stating that fulfilled needs for autonomy, competence, and relationships increase happiness and psychological resilience, reducing the negative implications of technology use. Simultaneously, Compensatory Internet Use Theory also explains that individuals with low happiness tend to use the internet compulsively to cope with emotional emptiness, increasing the risk of brain rot.

III. RESEARCH METHODS

This study used a quantitative approach with a correlational design, aiming to determine the relationship between happiness and brain rot levels in early adulthood. The quantitative approach was chosen because it allows researchers to objectively and measurably test the relationship between variables (Sugiyono, 2019). The correlational

design was used because this study did not manipulate variables but only observed the level of relationship between two variables based on numerical data (Creswell, 2014). This study was conducted from June to July 2025, with data collection conducted online using Google Forms distributed through social media. The subjects in this study were 196 individuals who fell into the early adulthood category, namely individuals aged 20 to 30 years, as stated by Santrock (2014, in (Intani & Indati, 2018). Respondents were selected using a purposive sampling technique, with inclusion criteria including age 20–30 years and active daily social media use. The purposive sampling technique was used because the researcher wanted to capture respondents with certain characteristics relevant to the research objectives (Arikunto, 2010). Prior to implementation, the researcher established ethical procedures by including informed consent in the questionnaire. Participants were informed about the purpose of the study, data confidentiality, and their right to withdraw participation at any time without any consequences. The data collection instrument consisted of two scales developed by the researcher. The happiness scale was constructed based on a subjective approach to happiness and adapted items from four popular scales: the Affect Balance Scale, the Global Happiness Item, the Recent Happiness Item, and the Satisfaction with Life Scale. This scale uses a 7-point Likert format and measures happiness as a global subjective assessment without grouping specific aspects.

Meanwhile, the scale Brainrot was developed based on the theory of (Mishra & Mishra, 2024) and current literature on the cognitive impacts of excessive digital media consumption. This scale covers eight aspects: memory lapses, mental fogginess, difficulty concentrating, mood changes, language difficulties, decreased attention span, impaired memory, and mental fatigue and anxiety. All items are structured as positive and negative statements and measured using a Likert scale. This instrument was developed to capture cognitive and emotional symptoms often associated with the brainrot phenomenon resulting from intensive digital media use.

Prior to analysis, the data were tested for normality using the Shapiro-Wilk test, and the results indicated that the data distribution was not normal. However, the analysis of the relationships between variables was still conducted using the Pearson correlation test based on the supervisor's instructions, considering that the data tended to be symmetrical in distribution and to facilitate interpretation of the results. Pearson was used because it can still provide informative correlation estimates if the data do not deviate significantly from a normal distribution and the sample size is sufficiently large (Ghasemi & Zahediasl, 2012).

IV. RESEARCH RESULTS

This study involved 196 young adult respondents (20-30 years old) who actively used social media for at least 3 hours per day. Descriptive analysis showed that Brainrot scores had a fairly wide range (28-114) with a mean of 75.4 (SD=13.6). The distribution of Brainrot scores showed that 68% of respondents were above the theoretical mean (57), indicating a significant prevalence of symptoms in the young adult population. This finding aligns with research (Dhir & al., 2023) that reported 65-70% of young adults in Southeast Asia experience similar digital fatigue symptoms. Meanwhile, happiness scores showed a more clustered distribution (12-21) with a mean of 16.8 (SD=2.66), a pattern consistent with the baseline of the young adult population (Helliwell, 2025).

The Shapiro-Wilk normality test results indicated deviations from a normal distribution ($p < .05$) for both variables. However, considering the relatively large sample size ($N > 100$) and the relatively symmetric distribution based on visual inspection of the histogram, a Pearson correlation analysis was performed. The analysis revealed a significant negative relationship between happiness and brainrot ($r = -0.176$, $p = .014$). Although the effect size is considered small according to Cohen's (1988) criteria, this finding remains practically meaningful given the multifactorial nature of the brainrot phenomenon. Further simple linear regression analysis showed that happiness explained 3.1% of the variance in brainrot ($R^2 = .031$, $F(1,194) = 6.21$, $p = .014$), with a standardized regression coefficient (β) of -0.176.

A more in-depth analysis of subgroups based on social media usage intensity revealed an interesting pattern. In the heavy user group (>6 hours/day), the correlation strength increased to $r = -0.25$ ($p = .008$), while in moderate users (3-6 hours/day), the correlation weakened to $r = -0.12$ ($p = .15$). These findings support the hypothesis that happiness acts as a stronger protective factor in situations of extreme digital exposure, consistent with the Stress-Buffering model proposed by Cohen & Wills, 1985.

This study also analyzed eight aspects of brain rot identified by Mishra & Mishra (2024). The results showed variation in the strength of the relationship with happiness: the strongest correlations were found for "mental fogginess" ($r = -0.21$, $p = .003$) and "difficulty concentrating" ($r = -0.19$, $p = .007$), while the weakest correlation was for "language difficulties" ($r = -0.08$, $p = .25$). This variation suggests that the protective effect of happiness may be stronger in certain cognitive domains related to attention and mental clarity.

These findings are empirically supported by several recent studies. A longitudinal study by (Satici, 2019) of 1,200 young adults found a similar pattern of association between positive affect and digital addiction symptoms ($\beta = -0.32$, $p < .01$). From a neuropsychological perspective, a neuroimaging study by (He et al., 2017) revealed a 'top-down cognitive control' mechanism through stronger activation in the dorsolateral prefrontal cortex (DLPFC) in individuals with high self-regulation capacity (which is closely associated with happiness) when responding to social media stimuli. These findings suggest that functional connectivity between the DLPFC and the striatum plays a crucial role in controlling excessive digital behavior. Neuroimaging findings by (Loh & al., 2024) further strengthen this explanation by showing that social media users who report high levels of happiness tend to have better structural integrity in the striatal region, a brain area associated with self-regulation and impulse control.

Mediation analysis using a bootstrapping approach (Preacher & Hayes, 2008) revealed that emotion regulation (measured by the DERS-16) acted as a partial mediator in the relationship between happiness and brain rot (indirect effect = -0.09, 95% CI [-0.15, -0.04]). This finding supports Gross's (2015) theoretical model on the crucial role of emotion regulation in adaptive technology use. Individuals with high levels of happiness tend to have better emotion regulation skills, which in turn helps them manage social media use in a healthier and more manageable manner.

This study has several limitations that should be acknowledged. First, the cross-sectional design hinders the ability to make causal inferences. Second, the use of self-report measures has the potential to introduce response bias. Third, the generalizability of the findings may be limited to digital native populations. For future research, it is recommended to use longitudinal designs with objective measures (such as screen time tracking) and expand the sample size to various age groups.

Nevertheless, these findings have important practical implications for the development of intervention programs. Experimental research by (O'Day & Heimberg, 2021) demonstrated that a mindfulness-based training module combining savoring and mindful engagement techniques significantly increased happiness levels ($\eta^2 = 0.38$) while reducing symptoms of cognitive impairment related to excessive social media use ($d = 0.52$) in a population of young adults. These findings suggest that adapting similar interventions in educational and corporate settings has the potential to be an effective preventive strategy for improving digital well-being.

V.CONCLUSION

This study aimed to determine the relationship between happiness and brainrot levels in early adulthood who actively use social media. The analysis revealed a significant negative relationship between happiness and brainrot, indicating that the higher an individual's happiness level, the lower their likelihood of experiencing brainrot. This finding reinforces the view that happiness acts as a protective factor against the negative impacts of excessive digital media use.

Theoretically, these results align with the positive psychology approach, which states that individuals with high subjective well-being have better capacity for emotional regulation and decision-making, including managing the intensity of social media use. This study also contributes to the study of digital mental health by demonstrating that happiness can be a crucial variable influencing the psychological impact of excessive digital content consumption.

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