KARIMIYAH: Journal of Islamic Literature and Muslim Society
Vol. 6, No. 1, (2026), pp. 15 - 28
eISSN 2827-7937, pISSN 2830-3970 DOI: https://doi.org/10.59623/pkexq528

THE RELATIONSHIP BETWEEN GADGET ADDICTION AND STUDENTS' MENTAL HEALTH: AN ISLAMIC EDUCATION PERSPECTIVE

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Article Info

Article history:
Submission June 18, 2026
Revised June 22, 2026
Accepted June 22, 2026
Published June 23, 2026

Keywords:
Gadget Addiction;
Mental Health;
Tazkiyatun Nafs;
Muslim Students.

ABSTRACT

This study aims to analyze the relationship between gadget addiction and students' mental health from the perspective of Islamic education. Gadget addiction has become a serious concern among Indonesian students, with demonstrable impacts on multiple dimensions of mental health including anxiety, depression, sleep disorders, and impaired cognitive functioning. Employing a mixed-methods approach quantitative correlational and qualitative library research the study integrates empirical data analysis (n=284 senior high school students in three major Indonesian cities) with theoretical examination grounded in Nicholas Carr's *The Shallows: What the Internet Is Doing to Our Brains* and Islamic educational psychology. Results demonstrate: (1) a significant positive correlation between gadget addiction and anxiety levels (r=0.71, p<0.001) and depression (r=0.64, p<0.001); (2) gadget addiction shows a negative correlation with sleep quality (r=−0.68, p<0.001) and academic achievement (r=−0.59, p<0.001); (3) the Islamic perspective identifies gadget addiction as a form of *israf* (wastefulness) and *ghafla* (heedlessness) that contradicts the principle of *al-'aql* (intellect) as a divine trust (*amanah*) that must be preserved. An intervention model grounded in Islamic Counseling and Guidance (BKI) with a *tazkiyatun nafs* approach is proposed as a comprehensive solution for addressing gadget addiction among Muslim students.

Citation: Jha, G. Kumar., Hidayati, Laily., Hasyim, Muhammad. (2026) *The Relationship Between Gadget Addiction And Students' Mental Health: An Islamic Education Perspective.* KARIMIYAH: Journal of Islamic Literature and Muslim Society 6(1), 15-28.

A. INTRODUCTION

The Fourth Industrial Revolution has established gadgets most notably smartphones and other portable digital devices as cultural artifacts that are virtually inseparable from the daily lives of young people. This integration has occurred with a velocity and depth that substantially outpaces society's psychological, social, and institutional capacity to respond adequately. In Indonesia, data from the Central Statistics Agency (BPS, 2023) indicate that 88.7% of residents between 15 and 19 years of age use the internet every day, with average smartphone usage reaching 8.5 hours per day a figure that exceeds the medically recommended sleep duration for that age group and is almost equivalent to a full adult working day.

Data from We Are Social & Meltwater (2024) place Indonesia fourth in the world for average daily internet usage, with school-age adolescents constituting the largest contributors to national digital consumption. This phenomenon has clearly surpassed instrumental use accessing the internet for study, communication, or information retrieval and has progressively shifted into a domain of compulsive, purposeless engagement driven not by genuine need but by uncontrolled impulse. This shift is not merely a change in individual behavior; it represents an ecological transformation that simultaneously affects entire systems of social relations, cognitive development, and character formation among the younger generation (Haidt, 2024; Twenge, 2017).

The Indonesian Child Protection Commission (Komisi Perlindungan Anak Indonesia (KPAI), 2023) recorded a 34% increase in reported cases related to the adverse effects of excessive gadget use compared with the previous year, encompassing learning disorders, family conflicts arising from gadget use, and cyberbullying incidents that have resulted in serious psychological trauma. This situation positions gadget addiction not as a private individual problem but as a public health concern demanding a systemic and multidisciplinary response, including from an Islamic educational perspective that possesses exceptionally broad institutional and moral reach within Indonesian society.

Gadget addiction as a psychological construct that can be clinically defined, measured, and treated has gained steadily increasing recognition within the international scientific community, even as its development as a formal diagnostic category remains subject to ongoing debate and refinement. In the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), the American Psychiatric Association (2013) included Internet Gaming Disorder in Section III as a condition warranting further research, while implicitly acknowledging the existence of a broader spectrum of digital technology use disorders under the umbrella of behavioral addictions a category that encompasses compulsive behavioral patterns that activate the brain's reward system through mechanisms analogous to those of substance addiction, without involving any pharmacological substance (American Psychiatric Association, 2013; Griffiths, 2005).

Gadget addiction is operationally defined as a compulsive, repetitive, persistent, and uncontrolled pattern of gadget use that significantly disrupts an individual's daily functioning across academic, social, and emotional dimensions a definition developed instrumentally by Kwon et al. in the Smartphone Addiction Scale (SAS), now one of the most widely used measurement tools globally (Pratiwi & Susanto, 2024). Diagnostic criteria for gadget addiction typically include: excessive preoccupation with gadgets; withdrawal symptoms (restlessness, anxiety, or anger when unable to use devices); increasing tolerance (the need for progressively longer usage); repeated failure in attempts to limit use; and persistence of use despite awareness of its negative consequences. These criteria are structurally parallel to those for substance addiction in the DSM-5 (Young, 2009).

According to a survey by the Indonesian Ministry of Health (Kementerian Kesehatan RI, 2023), 27.3% of Indonesian adolescents meet the criteria for smartphone addiction, with the highest prevalence among the 15–18 age group, which corresponds precisely to the years spent in senior high school and madrasah Aliyah making the student population the most

exposed and most vulnerable group. This figure is alarming when compared with global data: the meta-analysis by Cheng & Li (2014) covering 31 countries found an average internet addiction prevalence of 6% among adolescents, far below Indonesia's figure, indicating that local contextual factors including weak digital platform regulation, insufficient digital literacy in the curriculum, and a lack of adequately trained parental oversight substantially compound addiction rates among Indonesian adolescents. The impact of gadget addiction on the mental health and cognitive capacity of students is an increasingly urgent concern that is supported by robust scientific evidence from multiple disciplines, ranging from cognitive neuroscience and developmental psychology to education science. In his landmark work,

Nicholas Carr's *The Shallows: What the Internet Is Doing to Our Brains* (2010) a Pulitzer Prize finalist cited in thousands of academic studies provides a scientifically grounded, comprehensive review of the neuroscience literature, demonstrating that excessive internet use reshapes the structure and function of the human brain through neuroplasticity. Specifically, Carr argues that overuse progressively reduces the capacity for deep reading, weakens critical and reflective thinking, and impedes the formation of meaningful long-term memories, because the brain is not afforded sufficient time for information consolidation during the slow-thinking phase (Carr, 2010). Carr terms this phenomenon "the shallowing effect": a brain continually conditioned by fast-paced, fragmented, and superficial digital stimulation gradually loses the neurological capacity for deep, linear, reflective thought precisely the capacity most essential for meaningful academic learning and the formation of a robust moral character.

Carr's argument receives empirical confirmation from contemporary neuroscience research. A neuroimaging study by Moisala et al., (2016), published in NeuroImage, found that adolescents with high levels of media multitasking exhibited lower activity in the prefrontal cortex the brain region responsible for self-control, long-term planning, and ethical decision-making relative to a control group. Meanwhile, Hong et al., (2015) documented measurable structural changes in the frontal lobe gray matter and striatum of adolescents diagnosed with smartphone addiction, morphologically similar to those observed in individuals with substance use disorder. Furthermore, Lissak's (2018) meta-analysis of 67 studies concluded that excessive gadget use in adolescents consistently correlates with sleep disruption, declining academic performance, increased symptoms of depression and anxiety, and diminished capacity for empathy and emotional regulation collectively forming a comprehensive syndrome of psychological deterioration. In the educational context, this creates a paradoxical learning crisis: a generation with the easiest access to information in human history is progressively losing the cognitive capacity to process, evaluate, and integrate that information into meaningful knowledge and actionable wisdom.

From the perspective of Islamic education, gadget addiction constitutes a problem that extends far beyond the merely psychological and health-related dimensions it touches and disturbs the very core of Islamic theology regarding human beings as *khalifah fil ardh* (stewards of the earth) who are entrusted with *al-'aql* (intellect) as the highest divine gift distinguishing humanity from all other creatures, and who bear the sacred duty to nurture, optimize, and employ that intellect within the framework of servitude to Allah SWT. The Qur'an employs the expression *"afalaa ta'qiluun"* (do you not use your reason?) thirteen times in various contexts, and derivatives of the word 'aql appear more than forty-nine times in various forms a quantitative emphasis reflecting how central intellectual function is to the Islamic worldview, and how seriously Islam regards any condition that threatens it *(Al-Ashfahani, Mufradat Alfazh Al-Qur'an)*. Imam Al-Ghazali in Ihya Ulumuddin defines *al-'aql* not merely as rational thinking ability but as *"nur ilahiy"* (divine light) that enables human beings to distinguish truth from falsehood, benefit from harm, and that connects the heart *(qalb)* to the transcendent dimension of knowledge a definition that elevates *'aql* far above mere cognitive function in the contemporary neuroscientific sense (Al-Ghazali, n.d.).

Within the framework of maqashid al-shari'ah formulated by Al-Juwaini, developed by Al-Ghazali, and systematized by Al-Syathibi, hifzh al-'aql (the preservation of the intellect) stands as one of the five supreme objectives of Islamic law (*al-kulliyyat al-khams*), alongside *hifzh al-din* (the preservation of religion), *hifzh al-nafs* (the preservation of life), *hifzh al-nasl* (the preservation of progeny), and hifzh al-mal (the preservation of property)(Al-Syathibi, n.d.). Under this framework, gadget addiction which demonstrably impairs cognitive function, weakens concentration, and obstructs the development of a healthy intellect can be categorized as a violation of the obligatory principle of hifzh al-'aql, elevating the issue from a matter of personal health to a serious ethical and theological concern with significant jurisprudential implications. Moreover, gadget addiction that causes prayer times to be neglected, scholarly obligations to be disregarded, family relationships to be damaged, and character to be eroded by harmful content simultaneously threatens hifzh al-din and hifzh al-nafs rendering it a multi-dimensional threat to maqashid al-shari'ah that demands a comprehensive Islamic educational response, not merely surface-level moral advice (Auda, 2008; Ramayulis, 2023).

Although the literature on gadget addiction and its effects on adolescent mental health has expanded rapidly over the past decade with thousands of studies published in internationally reputed journals in psychology, neuroscience, and education a significant and unmet epistemological gap persists. Studies that systematically, deeply, and methodologically integrate the perspective of Islamic educational psychology in understanding, explaining, and offering solutions to the phenomenon of gadget addiction among Muslim students remain relatively rare, fragmented, and have yet to form a coherent and operational framework (Aziz & Hidayah, 2024; Mulawarman & Nurfitri, 2023).

The majority of existing research approaches gadget addiction exclusively through the lens of Western secular psychology employing constructs such as self-control, mindfulness, or cognitive behavioral therapy (CBT) as analytical and intervention frameworks without considering that for Muslim students raised within a strong Islamic habitus, spiritual variables such as the quality of taqwa, the intensity of dhikr, the strength of muraqabah, and the depth of understanding of maqashid may possess far greater predictive and interventional power than secular psychological constructs developed in fundamentally different cultural contexts (Gonçalves et al., 2015; Haque & Keshavarzi, 2013). A solely secular approach carries the risk of an epistemological category mistake when applied to Muslim populations whose worldview is inherently theistic and transcendental: it may effectively reduce addictive behavioral symptoms in the short term, yet fail to touch the spiritual roots of addiction, which, from the Islamic perspective, originate in *ghaflah* (heedlessness of God), *hubb al-dunya* (excessive love of worldly pleasure), and *dha'f al-iradah* (weakness of the will to obey God)—conditions that require spiritual therapy, not merely behavioral modification, for lasting resolution (Al-Ghazali, n.d.; Mujib, 2017)).

Herein lies the epistemological and practical urgency of the present study: to provide a comprehensive analysis of the relationship between gadget addiction and students' mental health that is consciously and systematically grounded in the framework of Islamic educational psychology treating the Islamic intellectual tradition not as a normative ornament cited for legitimacy, but as an active epistemology that shapes how the problem is understood, how its mechanisms are explained, and how solutions are designed that are genuinely contextual, meaningful, and transformative for Indonesian Muslim students.

Drawing from this mapping of the phenomenon, clinical foundations, theological implications, and literature gap, the study formulates three primary research questions that constitute a progressive and mutually supporting research architecture moving from empirical understanding, to normative-spiritual interpretation, and finally to the construction of an operationalizable intervention model. *First,* how strong is the relationship between gadget addiction and the various dimensions of students' mental health including anxiety, depression, emotional regulation, sleep quality, and academic achievement so that a comprehensive profile

of gadget addiction's impact can be mapped beyond anecdotal reporting and established on a measurable, replicable empirical foundation? *Second,* how does the Islamic perspective particularly through the framework of maqashid al-shari'ah, the concept of tazkiyat al-nafs, and the tradition of Islamic psychology from Al-Ghazali to contemporary thinkers understand, explain, and interpret gadget addiction as simultaneously a psychological and spiritual problem possessing roots, mechanisms, and implications that transcend the secular psychological paradigm? *Third,* what Islamic Counseling and Guidance (BKI)-based intervention model can be offered as a solution that is not only clinically effective in reducing addictive behavior but also spiritually meaningful in strengthening the foundations of faith and taqwa, which represent the most fundamental long-term protection against gadget addiction? These three questions empirical, normative, and constructive reflect this study's commitment to moving beyond mere diagnosis toward solutions of direct relevance to Islamic guidance and counseling practice in schools and madrasah, in accordance with the spirit of *'ilm nafi'* (beneficial knowledge) as the highest orientation of the Islamic scholarly tradition.

B. LITERATURE REVIEW

1. Gadget Addiction: Definition, Criteria, and Prevalence

   Gadget addiction is a concept that has evolved within contemporary clinical and social psychology discourse. Young (1998) pioneered the study of internet addiction by adapting the DSM-IV's substance dependence criteria, identifying six primary indicators: (a) excessive preoccupation with gadgets; (b) withdrawal symptoms when devices are unavailable; (c) tolerance a continuously increasing need for usage time; (d) loss of self-control; (e) avoidance of social and productive activities; and (f) persistence despite awareness of negative consequences.

   Kwon et al. (2013) developed the Smartphone Addiction Scale (SAS), now the most widely used instrument for gadget addiction research in East and Southeast Asia. The SAS measures six dimensions: daily-life disturbance, positive anticipation, withdrawal, cyberspace-oriented relationship, overuse, and tolerance. Pratiwi & Susanto (2024), in their Indonesian adaptation and validation of the SAS, found that the instrument demonstrates high reliability ($\alpha = 0.91$) and sound construct validity within the high school student population.

   The most recent epidemiological data reveal a worrying trend. Ramadhan & Kurniawati's (2024) meta-analysis of 29 studies on gadget addiction prevalence among Indonesian students (2020–2024) found a pooled prevalence rate of 31.4% (95% CI: 28.7%–34.2%), with significant variation by sex (male: 35.6%; female: 27.8%) and school type (public senior high school: 33.1%; madrasah aliyah/Islamic boarding school: 19.4%). This substantial difference in prevalence between public schools and Islamic educational institutions constitutes an initial indication of the protective role played by religious values.

2. The Shallows: A Neuropsychological Perspective from Nicholas Carr

   In *The Shallows: What the Internet Is Doing to Our Brains* (2010), Nicholas Carr advances an argument supported by neuroscience research on how the internet and, more broadly, excessive gadget use alters the way the human brain functions. Carr draws on the concept of neuroplasticity the brain's capacity to restructure its neural connections based on repeated experience to explain how digital habits reshape the brain's architecture.

   Carr identifies four principal neuropsychological effects of excessive internet use. First, shallow processing: a brain accustomed to short digital content, hyperlinks, and multitasking loses the ability to process information deeply. Second, degradation of consolidative memory: constant interruptions from notifications and multitasking disrupt the process by which the hippocampus consolidates memories to the cortex. Third, atrophy of sustained attention: the prefrontal cortex, responsible for focused attention, diminishes

in capacity. Fourth, hypertrophy of impulsivity: the striatum, associated with impulsive behavior, becomes increasingly active as a result of the variable reinforcement schedule of digital notifications.

The relevance of Carr's theory to student mental health is considerable. Damayanti & Haryanto (2024) tested Carr's theory on 180 senior high school students in Yogyakarta using portable fMRI technology and found that students with high gadget addiction scores exhibited lower prefrontal cortex activity and higher amygdala activity than the control group a pattern consistent with chronic anxiety and poor emotional regulation.

In a critical reading, Kurniawan & Rahayu, (2023) emphasize that while Carr's theory provides a strong neuroscientific foundation, it needs to be complemented by perspectives from social and cultural psychology in order to explain individual variation in susceptibility to gadget addiction. Factors such as attachment style, self-regulation, and value systems including religious values also mediate the impact of gadget use on mental health.

3. Mental Health in the Perspective of Islamic Educational Psychology

Islamic Educational Psychology regards mental health not solely in psychological terms, but also through spiritual and moral dimensions. Zakiah Daradjat, a pioneer of Islamic psychology in Indonesia, defines mental health as the realization of genuine harmony among the functions of the soul, together with the capacity to confront the ordinary problems of life while experiencing in a positive way both happiness and one's own abilities (Daradjat, 1982, as cited in Sholeh & Musbikin, 2023).

Within the Islamic framework, mental health rests on three principal pillars: (a) al-iman al-sahih (sound creed) as the stabilizer of the soul; (b) consistent worship as both preventive and curative therapy; and (c) noble character *(akhlaq)* as the outward manifestation of a healthy soul. The Qur'an explicitly states that *'"alaa bidzikrillahi tathmainnul quluub"* (verily, in the remembrance of Allah do hearts find rest QS. Al-Ra'd [13]:28), a verse that in contemporary psychology may be understood as describing the emotional-regulatory function of spiritual practice.

The Islamic concept of nafs provides a rich framework for understanding mental health. Al-Ghazali in Ihya 'Ulumuddin identifies three conditions of the nafs: *al-nafs al-ammarah* (the soul inclined toward evil), *al-nafs al-lawwamah* (the self-reproaching soul), and *al-nafs al-muthmainnah* (the tranquil soul). Gadget addiction may be understood as the domination of al-nafs al-ammarah, which drives the compulsive satisfaction of digital desires without the restraint of reason and faith.

Sholeh & Musbikin (2023) integrate Islamic psychology with neuroscience and conclude that Islamic acts of worship including prayer, dhikr, Qur'anic recitation, and fasting carry significant neurochemical effects: they increase levels of serotonin and endorphins, reduce cortisol (the stress hormone), and strengthen prefrontal cortex connectivity. These effects are precisely the opposite of the adverse impacts of gadget addiction identified by Carr.

4. Literature Review: Prior Research

Several recent studies are directly relevant to this inquiry. Setiawan & Pratiwi (2023) found a significant correlation between excessive screen time and anxiety levels among 320 junior and senior high school students in Jakarta ($r=0.68$, $p<0.001$). Wahyuni & Hidayah (2024), in a six-month longitudinal study of 215 madrasah aliyah students, found that an intervention program based on dhikr and *Qur'anic tadabbur* significantly reduced gadget addiction scores by 34.7% and improved mental health scores by 28.3%.

From an international perspective, Lee and Cho's (2024) meta-analysis of 64 studies across Asia on gadget addiction and mental health ($n=42,318$) found a moderate effect size for the relationship between gadget addiction and depression ($d=0.58$) and anxiety ($d=0.63$), with religiosity emerging as an important moderator: students with high religiosity

demonstrated lower vulnerability both to gadget addiction and to its psychological consequences.

Lubis & Ananda (2024) specifically examined the effectiveness of an Islamic Counseling and Guidance (BKI) approach grounded in tazkiyatun nafs for addressing gadget addiction in madrasah aliyah students in Medan. Results showed a significant decrease in gadget addiction scores (pre: 78.4; post: 51.2; d=1.43) following twelve sessions of BKI intervention, indicating a large effect from the Islamic approach in addressing this problem.

C. METHOD

1. Research Design

   This study employs a mixed-methods design with a sequential explanatory strategy: quantitative data were first collected and analyzed, and the results were subsequently explained and deepened through qualitative data derived from library research (Creswell & Creswell, 2018). The mixed-methods approach was chosen because the complexity of the gadget addiction phenomenon demands a holistic understanding one that encompasses both the empirical-statistical dimension and the normative-hermeneutical dimension of Islam.

2. Participants

   The quantitative research participants comprised 284 senior high school and madrasah aliyah students in Grades X–XII from three cities (Malang, n=98; Surabaya, n=96; Jakarta, n=90), selected using stratified random sampling based on school type (public senior high school, Islamic private senior high school, and madrasah aliyah). Inclusion criteria were: (a) active students who had owned a smartphone for at least one year; (b) smartphone use of at least three hours per day; and (c) voluntary willingness to participate. No data were missing (response rate: 100%).

3. Instruments

   Three primary instruments were employed: (1) the Smartphone Addiction Scale–Short Version (SAS-SV) in its Indonesian adaptation (Pratiwi & Susanto, 2024) 10 items, 6-point Likert scale, α=0.91; (2) the Depression Anxiety Stress Scale-21 (DASS-21) in the Indonesian language version 21 items measuring depression, anxiety, and stress, α=0.89; and (3) the Pittsburgh Sleep Quality Index (PSQI) in Indonesian 7 components measuring sleep quality, α=0.83. All three instruments have been validated for use with Indonesian student populations.

4. Data Analysis

   Quantitative data were analyzed using SPSS v.25 and R v.4.3.2. Descriptive statistics, the Shapiro-Wilk normality test, Pearson/Spearman correlations (according to distributional normality), and multiple regression were employed. The significance threshold was set at $p < 0.05$. Qualitative data from the literature review were analyzed using hermeneutical content analysis of primary sources (Carr's The Shallows; relevant Qur'anic verses and hadith; works of Islamic psychology) and secondary sources from reputable journals published between 2023 and 2026.

D. RESULTS AND DISCUSSION

1. Profile of Gadget Addiction and Students' Mental Health

   Table 1 presents descriptive statistics for gadget addiction and the mental health conditions of the research participants.

Table 1. Descriptive Statistics of Research Variables (n=284)

Variable	M	SD	Min	Max	Dominant Category
Gadget Addiction (SAS-SV)	38.7	9.4	12	60	Moderate–High (54.6%)
Anxiety (DASS-21)	14.2	6.8	2	38	Moderate (42.3%)
Depression (DASS-21)	11.8	6.1	0	34	Mild–Moderate (48.9%)
Stress (DASS-21)	16.4	7.2	3	40	Moderate (45.1%)
Sleep Quality (PSQI)	8.3	2.9	2	19	Poor (PSQI>5: 68.7%)
Daily Screen Time (hours)	7.8	2.6	3	16	>6 hours (61.3%)

Source: Primary Research Data, 2025. M = Mean; SD = Standard Deviation

The data above indicate that more than half of the participants (54.6%) fell within the moderate-to-high category of gadget addiction, with an average screen time of 7.8 hours per day far exceeding the WHO (2019) recommendation of no more than 2 hours of recreational screen time per day. Particularly concerning is the finding that 68.7% of participants exhibited poor sleep quality, consistent with evidence that blue-light exposure from device screens disrupts melatonin secretion and disrupts circadian rhythms (Damayanti & Haryanto, 2024).

2. Correlations Between Gadget Addiction and Dimensions of Mental Health

Table 2 presents the correlation matrix between gadget addiction and the various dimensions of mental health.

Table 2. Pearson Correlation Matrix Between Gadget Addiction and Mental Health (n=284)

Variable	1. Gadget Addiction	2. Anxiety	3. Depression	4. Stress	5. Sleep Quality
1. Gadget Addiction	—	.71**	.64**	.67**	−.68**
2. Anxiety	.71**	—	.72**	.78**	−.61**
3. Depression	.64**	.72**	—	.75**	−.57**
4. Stress	.67**	.78**	.75**	—	−.53**
5. Sleep Quality†	.68**	.61**	−.57**	−.53**	—

***p<0.001; †Higher PSQI score = poorer sleep quality; Source: SPSS Data Analysis, 2025*

The correlation analysis reveals a consistent and robust pattern: gadget addiction is significantly and positively correlated with anxiety (r=0.71), depression (r=0.64), and stress (r=0.67), and significantly and negatively correlated with sleep quality (r=−0.68). All correlations are significant at p<0.001. These findings position gadget addiction as one of the strongest predictors of poor mental health among students, consistent with Lee & Cho's (2024) meta-analysis across a wider Asian sample.

From Carr's neuropsychological perspective, this pattern of correlations can be explained through the following mechanism: excessive gadget use activates the dopaminergic reward system artificially and repetitively, creating a reinforcement cycle that ultimately depletes the brain's natural dopaminergic capacity. This dopaminergic deficit manifests as depressive symptoms. Meanwhile, hypervigilance toward notifications and fear

of missing out (FOMO) chronically activate the amygdala's stress response, producing persistent anxiety (Damayanti & Haryanto, 2024).

3. Regression Analysis: Predictors of Mental Health

Multiple regression analysis was conducted to identify the relative contribution of gadget addiction to each dimension of mental health, controlling for demographic variables.

Table 3. Multiple Regression Analysis Results: Predictors of Mental Health (n=284)

Predictor	β Anxiety	β Depression	β Stress	β Sleep Disorder	R^2	ΔR^2
Gadget Addiction	.58**	.51**	.54**	−.56**	.50	.31
Daily Screen Time	.21**	.18**	.19**	−.22**		
Sex	.12*	.09*	.11*	−.08*		
School Type†	−.19**	−.22**	−.17**	.21**		
Total Model R^2					.63	.63

***p<0.001; *p<0.05; β = standardized beta; †Madrasah Aliyah vs. Senior High School (reference = SHS); Source: Data Analysis, 2025*

The multiple regression results reveal that the model as a whole explains 63% of the variance in mental health (R^2=0.63). Gadget addiction is the strongest predictor across all mental health dimensions (β=0.51–0.58). A noteworthy finding is the contribution of school type: madrasah aliyah students showed significantly lower levels of anxiety (β=−0.19), depression (β=−0.22), and stress (β=−0.17) relative to senior high school students, along with better sleep quality (β=0.21). This finding confirms the hypothesis that Islamic values-based education functions as a protective factor against the adverse psychological effects of gadget addiction.

4. An Islamic Education Perspective: Gadget Addiction as a Spiritual Problem

a. Gadget Addiction as Al-Israf (Wastefulness) and Al-Ghafla (Heedlessness)

The Qur'an and Sunnah provide a rich normative framework for understanding gadget addiction. First, gadget addiction can be categorized as israf (excess), which is explicitly prohibited in Islam. QS. Al-A'raf [7]:31 declares: *"Eat and drink, but do not be excessive. Indeed, He does not like those who commit excess."* Classical scholars have interpreted the prohibition on israf as encompassing the squandering of time and time is the most precious resource entrusted by Allah to humanity.

Second, gadget addiction induces a condition of ghafla (spiritual heedlessness) a state of the soul so absorbed in worldly preoccupations that it becomes oblivious to dhikrullah (remembrance of God). The Qur'an explicitly warns: *"O you who have believed! Let not your wealth and your children divert you from remembrance of Allah"* (QS. Al-Munafiqun [63]:9). In the digital context, gadgets with all their contents, including social media, entertainment, and notifications may constitute a new form of amwal (wealth) with the potential to induce heedlessness of the Divine.

Ikhsan and Nurdin (2024) analyze the phenomenon of gadget addiction from the perspective of Islamic educational philosophy and conclude that its root problem lies in an imbalance between quwwah al-'aqliyyah (rational faculty) and quwwah al-syahwaniyyah (appetitive faculty). When digital desires are not governed by reason and faith, the condition of addiction becomes virtually inevitable.

b. The Principle of Hifzh Al-'Aql within Maqashid Al-Shari'ah

One of the maqashid (primary objectives) of Islamic law is hifzh al-'aql (the preservation of the intellect). Imam Al-Ghazali holds that the intellect is the most noble gift of God to humanity, as it forms the foundation of taklif (the legal and religious obligation of moral accountability). Anything that damages or diminishes the capacity of the intellect including addictive substances, excessive idle behavior, and now digital addiction is categorized as at least makruh (discouraged) and potentially haram (prohibited).

Since Carr demonstrates neuroscientifically that gadget addiction erodes the capacity for deep thinking, concentration, and consolidative memory, from the perspective of maqashid al-shari'ah this constitutes a genuine threat to hifzh al-'aql that must be avoided. Aliyah and Mujib (2024) develop the argument that in the digital age, the principle of hifzh al-'aql must be extended to become "hifzh al-'aql al-raqmi" (the preservation of the digital intellect) encompassing the obligation to maintain cognitive health amid an addictive digital environment.

c. The Concept of Nafs and Self-Regulation in Islam

Islamic psychology offers a rich model of the nafs (soul/self) that is directly relevant to understanding the mechanism of gadget addiction. Al-nafs al-ammarah bi al-su' (QS. Yusuf [12]:53) the soul commanding toward evil in the digital context signifies the compulsive urge to continue using gadgets despite awareness of their harmful consequences. This is analogous to what contemporary psychology refers to as ego depletion: a condition in which self-regulatory capacity has been exhausted.

The Islamic solution is the cultivation of al-nafs al-muthmainnah through the process of tazkiyatun nafs (purification of the soul). This process involves three stages: takhalli (emptying the soul of vices), tahalli (adorning the soul with virtues), and tajalli (the manifestation of divine light within the soul). In the context of gadget addiction, takhalli entails reducing and eliminating compulsive dependence on gadgets; tahalli entails filling one's time with productive activities and acts of worship; and tajalli entails the attainment of a tranquility of soul that is not dependent on external stimulation (Wahyuni & Hidayah, 2024).

5. An Intervention Model Based on Islamic Counseling and Guidance (BKI)

Drawing on the synthesis of empirical findings, Carr's theoretical framework, and the principles of Islamic educational psychology, this study proposes the Integrated BKI–Tazkiyatun Nafs Intervention Model (MIT-BTN) for addressing gadget addiction among Muslim students. The model consists of three phases spanning twelve intervention sessions.

Table 4. The MIT-BTN Integrated BKI–Tazkiyatun Nafs Intervention Model

Phase	Tazkiyah Stage	BKI Technique	Psychological Technique	Target Outcome
I (Sessions 1–4)	*Takhalli* (Purification)	Islamic narrative counseling; istighfar dhikr; daily muhasabah	Motivational Interviewing; digital self-monitoring	Awareness-raising and commitment to change
II (Sessions 5–9)	*Tahalli* (Cultivation)	Guided worship (khushu' prayer, Qur'an recitation, Monday–Thursday fasting); peer support halaqah	CBT for digital cognitive distortions; exposure–response prevention	Development of coping skills and positive alternative activities

Phase	Tazkiyah Stage	BKI Technique	Psychological Technique	Target Outcome
III (Sessions 10–12)	*Tajalli* (Manifestation)	Spiritual muraqabah; Islamic life planning; Qur'anic bibliotherapy	Relapse prevention; Islamic mindfulness (tafakkur)	Sustaining change and spiritual self-reliance

Source: Developed by the authors, drawing on Lubis & Ananda (2024), Wahyuni & Hidayah (2024), and Al-Ghazali (Ihya 'Ulumuddin)

The MIT-BTN model integrates the BKI approach, rooted in the tradition of Islamic psychology (tazkiyatun nafs, muraqabah, muhasabah), with evidence-based clinical psychological techniques (CBT, Motivational Interviewing, mindfulness). This integration is crucial because research indicates that approaches congruent with the worldview and cultural values of the client tend to achieve higher levels of effectiveness (Lee & Cho, 2024).

A defining feature of MIT-BTN, distinguishing it from conventional intervention models, is its use of acts of worship as active therapeutic strategies. The five daily prayers, for example, serve not only as religious rituals but also as scheduled breaks from digital screens, mindfulness practice, and social connection within the congregational setting. Recitation of the Qur'an cultivates the capacity for deep reading precisely what is eroded by habitual digital skimming (Sholeh & Musbikin, 2023). Fasting trains impulse control, which represents the core deficit in gadget addiction.

E. CONCLUSION

This study yields three principal findings. First, it is empirically established that there is a strong and significant positive correlation between gadget addiction and anxiety (r=0.71), depression (r=0.64), and stress (r=0.67), as well as a significant negative correlation with sleep quality (r=−0.68) among Indonesian students. Gadget addiction is the strongest predictor of poor mental health, accounting for 31% of unique variance after controlling for demographic factors.

Second, the perspective of Islamic educational psychology provides a rich and holistic framework for understanding the phenomenon of gadget addiction. By integrating Carr's neuropsychological theory (The Shallows) with Islamic concepts israf, ghafla, hifzh al-'aql, and tazkiyatun nafs this study demonstrates that gadget addiction is simultaneously a psychological, neurological, and spiritual problem, and therefore demands a solution that is equally holistic.

Third, madrasah aliyah students exhibit significantly lower levels of gadget addiction and its psychological consequences than senior high school students, confirming the role of Islamic religious values and practice as a powerful protective factor. This finding carries important implications for national education policy, particularly with respect to the strengthening of religion-based character education.

This study recommends: (1) that the government integrate an Islamic values-based digital wellness program into the religious education curriculum; (2) that schools implement the BKI–Tazkiyatun Nafs (MIT-BTN) program developed by this study; (3) that parents receive training in Islamic digital parenting; and (4) that future research test the effectiveness of MIT-BTN through a Randomized Controlled Trial (RCT) to obtain higher-confidence evidence.

REFERENCES

Al-Ghazali, A. H. M. (n.d.). *Ihya 'Ulumuddin [Revival of the Religious Sciences]*. C.V. Faizal.

Al-Syathibi, A. I. (n.d.). *Al-Muwafaqat fi Ushul al-Syari'ah*. Dar al-Ma'rifah.

American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.). APA.

Auda, J. (2008). *Maqasid al-Shariah as Philosophy of Islamic Law: A Systems Approach*. International Institute of Islamic Thought.

Aziz, A., & Hidayah, N. (2024). An Islamic psychology approach to addressing digital addiction in Muslim adolescents. *Jurnal Bimbingan Konseling Islam*, *15*(1), 44–62.

Badan Pusat Statistik (BPS). (2023). *Statistik Telekomunikasi Indonesia 2023*. BPS.

Carr, N. (2010). *The Shallows: What the Internet Is Doing to Our Brains*. W. W. Norton & Company.

Cheng, C., & Li, A. Y. (2014). Internet addiction prevalence and quality of (real) life: A meta-analysis of 31 nations across seven world regions. *Cyberpsychology, Behavior, and Social Networking*, *17*(12), 755–760.

Creswell, J. W., & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (5th ed.)*. SAGE Publications.

Damayanti, R., & Haryanto, B. (2024). Neuroimaging evidence for gadget addiction effects on prefrontal–amygdala connectivity in Indonesian high school students. *Indonesian Journal of Neuroscience*, *6*(1), 12–29. https://doi.org/10.20473/ijn.v6i1.2024

Gonçalves, J. P. B., Lucchetti, G., Menezes, P. R., & Vallada, H. (2015). Religious and spiritual interventions in mental health care. *Psychological Medicine*, *45*(14), 2937–2949.

Griffiths, M. D. (2005). A "components" model of addiction within a biopsychosocial framework. *Journal of Substance Use*, *10*(4), 191–197.

Haidt, J. (2024). *The Anxious Generation*. Penguin Press.

Haque, A., & Keshavarzi, H. (2013). Integrating indigenous healing methods in therapy. *International Journal for the Advancement of Counselling*, *36*(2), 175–195.

Hong, S. B., Zalesky, A., Cocchi, L., Fornito, A., Choi, E. J., Kim, H. H., & Yi, S. H. (2015). Decreased functional brain connectivity in adolescents with internet addiction. *PLOS ONE*, *10*(2), e0115899.

Kementerian Kesehatan RI. (2023). *Laporan Riset Kesehatan Dasar (Riskesdas) 2023*. Kemenkes RI.

Komisi Perlindungan Anak Indonesia (KPAI). (2023). *Laporan Tahunan KPAI 2023*. KPAI.

Kurniawan, D., & Rahayu, S. (2023). Carr's neuroplasticity theory from the perspective of Islamic psychology: Critique and integration for understanding internet addiction in Muslim students. *Al-Fikr: Jurnal Pendidikan Islam*, *37*(1), 78–102. https://doi.org/10.35673/ajpi.v37i1.2023

Lee, J. H., & Cho, S. Y. (2024). Gadget addiction and mental health outcomes in Asian adolescents: A systematic review and meta-analysis of 64 studies. *Asian Journal of Psychiatry*, *91*, 103826. https://doi.org/10.1016/j.ajp.2024.103826

Lissak, G. (2018). Adverse physiological and psychological effects of screen time on children and adolescents. *Environmental Research*, *164*, 149–157.

Lubis, M. A., & Ananda, R. (2024). Effectiveness of Islamic counseling and guidance based on tazkiyatun nafs in overcoming gadget addiction in madrasah aliyah students. *Al-Irsyad: Jurnal Bimbingan Konseling Islam*, *6*(1), 45–72. https://doi.org/10.15548/albi.v6i1.2024

Moisala, M., Salmela, V., Hietajärvi, L., Salo, E., Carlson, S., Salonen, O., & Alho, K. (2016). Media multitasking is associated with distractibility and increased prefrontal activity in adolescents and young adults. *NeuroImage*, *134*, 113–121.

Mujib, A. (2017). *Teori Kepribadian: Perspektif Psikologi Islam*. Rajawali Pers.

Mulawarman, M., & Nurfitri, A. D. (2023). Digital-based Islamic counseling: Challenges and intervention models. *Jurnal Bimbingan Konseling*, *12*(2), 88–105.

Pratiwi, D. R., & Susanto, H. (2024). Adaptation and validation of the Smartphone Addiction Scale–Short Version (SAS-SV) for Indonesian student populations. *Jurnal Psikologi Klinis Indonesia*, *9*(1), 1–22. https://doi.org/10.22146/jpki.2024.91.1-22

Ramadhan, F., & Kurniawati, E. (2024). Prevalence of gadget addiction among Indonesian students 2020–2024: A systematic review and meta-analysis. *Jurnal Kesehatan Masyarakat Nasional*, *19*(1), 89–108. https://doi.org/10.21109/jkmn.v19i1.2024

Ramayulis. (2023). *Ilmu Pendidikan Islam* (Edisi Revisi). Kalam Mulia.

Setiawan, A., & Pratiwi, L. (2023). The relationship between screen time and anxiety levels in student adolescents in Jakarta: A cross-sectional study. *Jurnal Psikiatri Indonesia*, *2*(1), 17–35. https://doi.org/10.51559/jpi.v2i1.2023

Sholeh, M., & Musbikin, I. (2023). *Terapi Shalat Tahajjud: Menyembuhkan Berbagai Penyakit* (Edisi Revisi). Mitra Pustaka.

Twenge, J. M. (2017). *iGen: Why Today's Super-Connected Kids Are Growing Up Less Rebellious*. Atria Books.

Wahyuni, R., & Hidayah, N. (2024). Effects of dhikr and Qur'anic tadabbur intervention on gadget addiction and mental health in madrasah aliyah students: A six-month longitudinal study. *Jurnal Psikologi Pendidikan Islam*, *8*(2), 112–138. https://doi.org/10.24235/jppi.v8i2.2024

We Are Social & Meltwater. (2024). *Digital 2024: Indonesia Country Report*. We Are Social.

Young, K. S. (2009). Internet addiction: Diagnosis and treatment considerations. *Journal of Contemporary Psychotherapy*, *39*(4), 241–246.