



Sacred verses screen: Can religiosity buffer digital distress and delay discounting?

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ABSTRACT

This study explored the influence of digital distress (DD) on the delay discounting task (DDT) among religious studies students and examined whether religiosity (RE) could moderate their choices when stress is high at the University of Cape Coast. It ultimately explored the level of DD, RE, and DDT. Also, it sought to establish the correlation and the effect of DD and DDT, as well as the moderating effect of RE on DD. Self-Control Theory and the Transactional Model of Stress and Coping underpinned the study. Using a quantitative, cross-sectional design, researchers gathered data from 120 university students, relying on standardized tools to measure DD, DDT, and RE. This was done with the use of census population. Data was analysed descriptively using frequencies, means and standard deviations, as well as Pearson correlation, a simple linear regression and hierarchical multiple regression with moderation analysis. Participants showed a moderate level of DD, a high level of RE, and a moderate level of DDT. Pearson's correlation showed a clear positive link between DD and DDT. A simple linear regression showed that DD was a strong predictor of DDT, explaining 19.5% of the variance. Moderated regression analysis indicated that RE significantly affected the relationship between DD and DDT, with the comprehensive model explaining 24.8% of the variance. Instead of easing the strain, RE actually heightened the impact of DD on DDT. The study urges the Ministry of Education, regulators, university leaders, faith groups, mental health experts, and student representatives to work together on a National Digital Wellness Framework, one that sets clear policies, builds mental health facilities, creates quiet tech-free corners, tracks distress, offers faith-based and peer support, and provides culturally sensitive counselling, all aimed at easing digital strain and encouraging healthy tech use in Ghana's universities.

Keywords: Digital Distress, Delay Discounting Task, Religiosity, Students

I. INTRODUCTION

Students' snap decisions often owe less to traditional stress-control methods than to the strain stirred up by today's digital world, constant pings, flashing screens, while RE can tip the balance, heightening or softening that impact. This claim challenges fundamental ideas about how modern students build self-control and make decisions over time while facing relentless digital demands, like the constant ping of a phone notification. Current studies show that the complex link between technology-driven stress and religious commitment is the strongest influence on how students weigh immediate rewards against future ones. For years, people have understood DDT mostly in terms of differences in self-control and mental development, often favouring a quick reward. Educational psychologists dig into it with care, sometimes poring over pages of notes late into the night. Parents are speaking up; worried it is not safe for their kids. Behavioural economists study it closely, tracing patterns like the way people choose a ripe apple over one that's bruised. What if the digital age has slipped in a stress-triggering twist that changes the whole equation, and what if faith becomes the quiet, steady shield against its worst effects?

The digital world has reshaped the mental terrain they live in, leaving many weighed down by stress, anxiety, and exhaustion that erodes their ability to wait for rewards; yet students with strong religious ties often face these pressures differently. Students worldwide experience sharper bouts of digital strain, such as endless scrolling that leaves them overloaded, the sting of comparing themselves to polished online lives, the fear of missing out, cyberbullying, chasing approval, and the pressure to be constantly connected. Studies show this surge ties directly to digital technology use, with measurable spikes in psychological distress among university students (Elhai et al., 2017;



Thomé et al., 2012; Przybylski et al., 2013; Rosen et al., 2013). By the mid-2010s, scholars found that DD works through distinct psychological channels, cognitive depletion, emotional swings, and fractured attention that chip away at the executive skills needed to resist instant rewards, while RE often acted like a steady hand, softening those mental strains (Lepp et al., 2014; Panova & Carbonell, 2018).

Recent studies increasingly show that DD is not just vague psychological unease; it is a distinct kind of chronic stress that drains self-control, disrupts prefrontal cortex function, and boosts impulsive decisions in situations involving trade-offs over time, with religious commitment sharply influencing how strongly these effects play out (Tangney et al., 2004; Hoffmann, 2013). Neuroscience and psychology studies show that constant exposure to digital stress weakens executive control, pushing people toward quick rewards over long-term benefits, a shift especially common in teens and young adults, whose self-regulation systems are still maturing Casey et al., 2019; Wilmer et al., 2017). In dynamic online spaces, students juggle the pull of instant digital rewards against their long-term academic goals, yet religious students show a stronger ability to stay focused on the future despite facing the same level of digital stress (Przybylski et al., 2013; Kim-Spoon et al., 2015). This phenomenon cuts across cultures, from the comparison-driven social atmosphere among American university students, to heavy academic demands intensified by Asian digital platforms, to the strain of constant connectivity reported in emerging online communities worldwide. In every case, a steady thread appears: religious commitment often softens the link between distress and impulsive behaviour (Lepp et al., 2014; Elhai et al., 2017).

Still, the link between DD and DDT is not straightforward, especially when you factor in how differently people handle vulnerability. Tangney et al. (2004) and Hoffmann (2013) reveal that students exhibit substantial heterogeneity in their susceptibility to DD effects on DDT. Differences in coping skills, psychological resilience, and meaning-making often explain this variability, shaping whether DD erodes self-control or whether protective factors keep decision-making steady (Panova & Carbonell, 2018; Rosen et al., 2013). Kim-Spoon et al. (2015) and McCullough and Willoughby (2009) emphasize the significance of RE as a multidimensional construct encompassing religious practices, spiritual beliefs, and faith community involvement that collectively function as psychological resources during stressful circumstances. RE offers students cognitive, emotional, and social resources that can offset the negative effects of digital stress on self-control, helping them maintain their ability to delay gratification even under high stress (Rounding et al., 2012; Carter et al., 2012).

Regular religious practice and close ties to a faith community can build psychological resilience and sharpen self-control, helping guard against stress-driven impulses in today's screen-saturated world (Desmond et al., 2013; Koenig et al., 2012). Religious commitment in several ways, providing a sense of meaning that makes distress feel less overwhelming, encouraging steady habits through structured practices, fostering supportive relationships, and shaping values that prioritize long-term outcomes over quick rewards (McCullough & Willoughby, 2009; Kim-Spoon et al., 2015). The moderating effect shows that while RE does not erase DD, it changes the way that stress shapes decision-making (Hoffmann, 2013; Rounding et al., 2012).

Students often face heavier mental loads, emotional burnout, and decision fatigue while managing constant online demands. These pressures can shrink their sense of the future and push them toward quick rewards across many parts of life (Wilmer et al., 2017; Casey et al., 2019; Lepp et al., 2014). Scholars recommend examining protective factors, like strong social ties, that could shield vulnerable groups from the harshest cognitive effects of DD. RE is one factor worth examining closely, since study links it to stronger self-control, a forward-looking mindset, and the ability to handle stress (Desmond et al., 2013; Carter et al., 2012). Knowing whether religious commitment shapes how DD influences impulsive choices can sharpen theories of DDT and guide practical strategies to boost student wellbeing in today's screen-filled classrooms (Koenig et al., 2012; Tangney et al., 2004).

Around the world, DDT studies focused on how people weigh instant rewards against those that come later have grown steadily, now weaving in stress and coping factors as key forces that shape the results. Scholars have widely recognized this expanded framework for explaining why students differ in self-control, risk-taking, and academic performance, with religious commitment standing out as a promising moderator worth close, systematic study (Mazur, 1987; Kim-Spoon et al., 2015). Still, in many classrooms and lecture halls, there is a dearth of research on how RE shapes the link between tech-driven mental strain and the way students handle decisions about time. Digital spaces keep changing, bringing new kinds of stress, yet surprisingly few studies ask whether religious students are more or less vulnerable to the DDT effects of DD than their less religious peers, even though theory gives us good reason to expect such differences.

Knowing how RE shapes students' ability to handle DD and its impact on DDT could help create interventions that strengthen healthy decision-making while keeping minds steady in today's tech-driven classrooms (Przybylski et al., 2013; McCullough & Willoughby, 2009). When students face intense DD, they can struggle to think ahead and turn down quick temptations, a late-night online splurge, for example, which may hurt their grades, money habits, and health decisions, though strong religious commitment can significantly soften those effects (Elhai et al., 2017; Hoffmann, 2013). In colleges and similar settings, the surrounding culture and peer dynamics can shape how



intensely students feel DD, and they also affect whether religious resources stay within reach and backed by social support, like a friend offering to pray with them (Desmond et al., 2013; Rosen et al., 2013).

Studies on how DD affects psychological outcomes are growing, and plenty of work also explores how RE shapes self-control and DDT. Yet few studies have brought these threads together to see whether RE changes the way DD relates to DDT. Scholars like Tangney et al. (2004) and Mazur (1987) offer valuable theoretical foundations for understanding self-control and temporal discounting; however, they predate contemporary DD and do not address RE moderation effects in digital contexts (Kim-Spoon et al., 2015; Panova & Carbonell, 2018). Mazur (1987) and Tangney et al. (2004) laid solid groundwork for grasping self-control and temporal discounting, yet they come from a time before smartphones and online pressures, and they overlook how religious moderation plays out in digital spaces (Kim-Spoon et al., 2015; Panova & Carbonell, 2018). Elhai et al. (2017) and Wilmer et al. (2017) began documenting DD effects on cognitive and behavioural outcomes, yet these investigations rarely incorporate RE as a potential protective factor. To better understand how modern students make decisions, scholars must investigate whether religious commitment reduces the impact of DD on DDT (Rounding et al., 2012; Carter et al., 2012).

1.1 Statement of the Problem

In 2020, the World Health Organization endorsed its Digital Health Strategy, laying out a plan to tackle the psychological effects of digital technology on young people. It called for digital wellness programs, mental health support, and training for teachers, giving schools the tools to handle tech-related distress, from anxious late-night scrolling to classroom distractions (World Health Organization, 2021). Universities worldwide have invested heavily in promoting healthy online habits and mental well-being, yet a clear gap remains between policy goals and what students actually face, especially when it comes to anxiety, late-night scrolling, and other behavioural fallout tied to DD in higher education. In its 2019 guidelines on technology and mental health, the American Psychological Association stressed the need to grasp how digital stress shapes students' choices, urging thorough research into the way's tech-driven strain influences their behaviour. Still, significant hurdles remain, slowing progress toward fully grasping how DD shapes impulsive behaviour in schools, especially in developing countries, where studies on the issue are scarce and often no deeper than a few scattered case reports.

In Africa, getting help for mental health struggles tied to DD remains a serious hurdle, leaving students without the support they need to cope with the anxiety and exhaustion that technology can bring (Bolu-Steve et al., 2021). In Ghana, most university students say they feel heavy stress from social media, academic pressure that is magnified online, and the constant buzz of staying connected. As a result, they have not gotten the psychological support they need to handle DD, and make sound, steady decisions. Although wellness policies urge action, Ghanaian universities show a clear gap between official guidelines and what students actually face, like long waits before getting any real mental health support (Nyarko & Olutayo, 2019). Lepp et al. (2014) studied smartphone use and anxiety among college students, which, while not focused on DDT specifically, provides relevant insights into how DD manifests among student populations. The scholars examined how college students' smartphone habits linked to anxiety, offering useful clues, though not directly about DDT, into the ways DD shows up. The study revealed that many students felt their tech use stirred up anxiety, often from the nagging fear of missing out or the constant pressure of comparing themselves to others scrolling through perfect snapshots.

Looking at how students make choices in college, studying DD can reveal key influences on their grades and habits, like the late-night phone use that keeps them from sleeping. Still, to truly grasp how digital-driven psychological distress affects DDT, you have to factor in personal differences, like a person's tolerance for uncertainty that could shape the outcome. DDT theory suggests that to truly grasp impulsive decision-making, scholars need to look beyond stressors and consider protective factors and resilience mechanisms that shape the way stress turns into action (Mazur, 1987). Although moderating factors are key to understanding how stress shapes behaviour, few studies have explored how RE influences the link between DD and DDT. Scholars noticed during campus interactions and student counselling that students facing DD do not all react the same; some still plan, even under heavy stress, while others chase quick rewards, like grabbing their phone the moment a notification pings. Studies have explored how DD affects mental health (Thomé et al., 2012; Elhai et al., 2017; Panova & Carbonell, 2018; Wilmer et al., 2017; Przybylski et al., 2013), yet none have looked at whether RE shapes the link between DD and DDT in university students. Gaining this knowledge is essential for grasping how people differ in their vulnerability and resilience to DD, and how that stress can sway impulsive choices. This study set out to fill that gap in knowledge and context. The study took shape around the questions and hypotheses below:

1.2 Research Questions

- (i) What is the students' level of DD?
- (ii) What is the students' level of RE?
- (iii) What is the students' level of DDT?



1.3 Research Hypothesis

H₁: There is a statistically significant correlation between DD and DDT

H₂: There is a statistically significant effect of DD on DDT

H₃: RE moderates the effect of DD on DDT

II. LITERATURE REVIEW

2.1 Theoretical Review

Rooted in Self-Control Theory and the Transactional Model of Stress and Coping, this study uses their combined framework to explore how RE shapes the link between DD and students' tendency to favor immediate rewards. Gottfredson and Hirschi's Self-Control Theory (1990) argues that people differ in how well they can turn down quick pleasures. The theory suggests that self-control works like a limited reserve, running low for a while when stress piles up, the mind is juggling too many tasks, or emotions hit hard. From this depletion view, stress triggered by constant digital demands can drain the mental energy students need for future-focused thinking, leaving them less able to wait for rewards, like resisting the urge to check their phone during study time. Lazarus and Folkman's 1984 Transactional Model of Stress and Coping describes stress as a shifting exchange between a person and their surroundings, shaped first by how they judge a threat and then by how they gauge the resources at hand, like weighing their options in a tense conversation. The model finds that each person's mix of coping resources, cognitive, emotional, social, and even spiritual, plays a major role in whether stress leaves them shaken and struggling to function, like someone forgetting simple tasks after a sleepless night (Folkman & Lazarus, 1985). In this study, the frameworks point to DD draining self-control, which makes people more likely to choose quick rewards over long-term gains, while RE, rich in meaning and support, helps cushion the impact of stress on decision-making. RE weaves together beliefs, spiritual habits, and participation in a faith community, offering ways to rethink challenges, manage emotions, and draw strength from trusted social circles. Religious influences may help students keep their thinking sharp when stressed, softening the link between digital overload and rash choices, as shown in past studies (Kim-Spoon et al., 2015; McCullough & Willoughby, 2009).

2.2 Empirical Review

2.2.1 Students' Level of Digital Distress

Recent studies show a troubling surge in digital strain among students worldwide, with many hitting clinical thresholds for tech-related psychological harm. Elhai et al. (2017) found that 38% reported moderate to severe smartphone-related distress, characterized by separation anxiety, compulsive checking behaviors, and significant interference with daily responsibilities. Thomée et al. (2011) found that 25% showed technology-related stress at clinically significant levels, with heavy digital strain tied to restless nights, depressed mood, and slipping grades. Lepp et al. (2014) found that 47% experienced moderate DD manifesting as fear of missing out, technological anxiety, and compulsive social media monitoring, with higher distress levels correlating negatively with grade point averages. Buctot et al. (2020) found that 31% met criteria for problematic internet use accompanied by substantial DD, with prevalence rates increasing annually.

2.2.2 Students' Level of Religiosity

Studies find that students worldwide show moderate to high levels of RE, though the shape of that faith shifts with place, culture, and demographic background. Barry et al. (2010) found that 64% reported moderate to high RE levels, with 48% attending religious services monthly or more frequently and 71% indicating that religious beliefs influenced daily decision-making and moral reasoning, with commitment holding steady through university years. Astin et al. (2011) found that 80% identified with a faith, 69% talked about religion or spirituality with others, and 52% said their commitment deepened during college, especially when facing personal crises. Bryant (2007) found that 76% saw spirituality as personally important, while 58% showed intrinsic RE, beliefs rooted deep enough to shape their choices, not just habits for fitting in.

2.2.3. Students' Level of Delay Discounting

Studies show that many students choose quick rewards over waiting for something better, with patterns shifting by age, academic pressure, and financial situation. Reimers et al. (2009) found that young adults between 18 and 25 showed much steeper DDT curves than older groups; students discounted future rewards about 40% more than middle-aged adults, linked to the still-developing prefrontal systems that help regulate decision-making. Daugherty and Brase (2010) found that students under immediate financial strain showed discounting rates 34% higher than their financially secure peers. Lawyer et al. (2010) revealed that 58% exhibited moderate DDT with a preference for immediate smaller rewards, while 23% demonstrated steep discounting associated with substance use and academic



procrastination. Steinberg et al. (2009) demonstrated that college-aged individuals showed heightened sensitivity to immediate rewards with an underdeveloped future orientation, suggesting students represent a high-risk period for impulsive intertemporal decision-making.

2.2.4 Correlation between DD and DDT

Recent findings show a clear link between stress from constant digital demands and how students handle timing in their decisions; those under more stress often choose quick rewards over waiting. Malesza (2019) found strong links between high stress and a pull toward quick rewards, suggesting mental strain can blunt planning ability. Kimura et al. (2013) found that sudden psychosocial stress sped up DDT only in people whose cortisol levels spiked, suggesting the hypothalamic–pituitary–adrenal axis shapes impulsive choices when stress hits. Lempert et al. (2012) discovered that stress effects on DDT varied systematically according to individual trait perceived stress levels, with low-stress individuals demonstrating the highest discounting rates under acute stress, while high-stress individuals showed the lowest rates. However, Forbes et al. (2024) found no overall effect of acute stress on monetary DDT, suggesting that measurement complexities substantially influence stress-discounting relationships.

2.2.5 The effect of DD on DDT

Growing studies show that DD can directly shape how people value time, with studies finding that technology-driven strain steadily erodes patience and forward thinking. Turel and Bechara (2016) found that mental fatigue from tech use interfered with the brain's executive functions, those needed to weigh future outcomes and maintain self-control. Liu et al. (2017) found that those starting with higher levels of internet gaming disorder were more likely to show growing impulse toward immediate rewards over time. Saville et al. (2010) found that participants deprived of digital connectivity exhibited heightened distress that significantly elevated DDT rates, demonstrating bidirectional causal pathways between digital psychological states and intertemporal choice behavior.

2.2.6 Religiosity as a Moderator: Buffering Digital Distress Effects on Delay Discounting

Recent studies suggest that RE can act as a strong buffer, softening the harm DD inflicts on impulsive DDT; people with religious commitments often show steadier self-control and draw on deeper values. Kim et al. (2017) found that strong religious commitment gave people mental frameworks that focused on future rewards and lasting consequences, helping resist the pull of instant gratification sparked by DD. Błachnio and Przepiórka (2018) found that religious practices boosted people's ability to reflect and see events in a broader timeline, guarding against the present bias caused by constant tech distractions. DeWall et al. (2014) found that religious priming curbed the impulsive decisions triggered by social media rejection, with primed participants holding onto future-focused preferences about 31% more often than the control group. Koole et al. (2010) indicated that RE consistently strengthens executive control and emotion regulation capacities, suggesting these enhanced self-regulatory resources serve as mechanisms through which religious commitment moderates DD impacts on DDT.

III. METHODOLOGY

3.1 Procedures

The study was guided by the positivist paradigm and quantitative approach, assuming that DD, RE, and DDT have objective structures that can be measured systematically (Howell, 2012). A cross-sectional survey design captured psychological patterns, describing them numerically and exploring connections between factors. The study included 120 level 400 religious studies students at the University of Cape Coast, chosen using the census population to ensure all the students participated (Babbie, 2022). Following research protocols, the team secured an introductory letter from the Department of Arts Education and obtained ethical approval from the university's Institutional Review Board after submitting the necessary forms and documentation. Before joining, each participant received a clear overview of the study's purpose, their role, privacy protections, and their right to withdraw at any time without consequence.

**Table 1***Demographic Characteristics of Students (n=120)*

Variable	Subscale	N	%
Gender	Male	51	42.5
	Female	69	57.5
Age	18-20yrs	13	10.8
	21-23yrs	56	46.7
	24-26yrs	44	36.7
	27yrs and above	7	5.8
Religious Affiliation	Christianity	106	88.3
	Islam	11	9.2
	African Indigenous religion	3	2.5
Daily Social Media Usage	Less than 1 hour	14	11.7
	1-2hours	23	19.2
	3-4hours	32	26.7
	5-6hours	19	15.8
	More than 6hours	32	26.7
Most frequently used platforms	Tiktok, Whatsapp, Facebook, Instagram, youtube	69	57.5
	Snapchat, Tiktok, Facebook, Youtube, Twitter	22	18.3
	WhatsApp, Snapchat, Facebook, Instagram, Twitter	29	24.2

As shown in Table 1, our study involved 120 final-year Religion students. Among these students, 51 were male and 69 were female, with no participants identifying with other gender categories. Looking at their ages, we found that most students were in their early twenties: about 1 in 10 (10.8%) were between 18-20 years old, nearly half (46.7%) were 21-23 years old, over one-third (36.7%) were 24-26 years old, and a small group (5.8%) were 27 years and older. Regarding their religious backgrounds, the vast majority of participants (88.3%) were Christians, while 9.2% were Muslims, and 2.5% practiced African indigenous religions. When it came to their daily social media habits, students showed varying levels of usage: 11.7% spent less than an hour per day on social media, 19.2% spent 1-2 hours, more than a quarter (26.7%) spent 3-4 hours, 15.8% spent 5-6 hours, and another 26.7% spent more than 6 hours daily on social media platforms. The students' platform preferences also varied considerably. The majority (57.5%) primarily used a combination of TikTok, WhatsApp, Facebook, Instagram, and YouTube. About one in five students (18.3%) favored Snapchat, TikTok, Facebook, YouTube, and Twitter, while nearly a quarter (24.2%) preferred WhatsApp, Snapchat, Facebook, Instagram, and Twitter.

3.2 Instrument Used

Data were collected using a structured questionnaire that revealed levels of DD, RE, and DDT, as well as connections among these variables. The questionnaire was grouped into four sections. Section A gathered demographic information: age, gender, religious affiliation, most frequently used platforms, and the number of hours spent on digital spaces. Section B gauged DD using 15 items crafted from the literature with three dimensions: digital drama and manipulation, digital loneliness and disconnection, and social comparison and fear of missing out (FOMO). Section C explored students' RE using 20 items borrowed from Katz and Schmida (1992), organized into two dimensions: religious practices and religious beliefs. Section D contained 9 items crafted from the literature to gather data on DDT with two dimensions: academic delay discounting and digital impulsivity. Apart from demographic items, all items were measured on a 5-point Likert scale (1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; and 5 = Strongly Agree).

3.3 Validity and Reliability

Before the main data collection, judgment (face and content) validity was sought from experts in psychological measurement and quantitative instrument construction. A pilot test with 40 university students from the Department of Religion and Human Values at the University of Cape Coast, within the recommended range of 30 to 50, checked the reliability and validity of our measurement tools (Johanson & Brooks, 2010; Hertzog, 2008). The pilot sample mirrored the main study's traits, but was left out of the final data collection. We calculated the Cronbach alpha reliability coefficients: $\alpha = .755$ for DD, $\alpha = .804$ for RE, and $\alpha = .782$ for DDT. The instrument's overall reliability coefficient and found to be .0813. The reliability coefficients were all above the 0.70 mark recommended in social science studies, showing solid internal consistency and dependable accuracy in measuring target constructs.



3.4 Data Analysis

We gathered data from university students using a structured questionnaire, and then ran the analysis in SPSS version 27. We examined data on students' DD, RE, and DDT, running descriptive statistics, frequency, percentages, means, and standard deviations. We used the Pearson correlation coefficient to test H1, looking at how strongly and in which direction DD and DDT were linked. A simple linear regression to examine the proposed link between DD and students' DDT (H2), gauging how well it predicted their choices and how much of the variation it explained. We ran a hierarchical multiple regression with moderation analysis to test whether RE changed the link between DD and DDT (H3). We ran a moderation analysis by adding an interaction term (Digital Distress \times Religiosity) and checking whether RE softened or amplified the impact of DD on DDT.

IV. FINDINGS & DISCUSSION

4.1 What is the Level of Religious Studies Students, DD?

This question sought to establish the level of DD of religious studies students. The DD had three dimensions: the digital drama and manipulation, digital loneliness, and social comparison trap, and fear of missing out (FOMO). The students were to indicate their agreement with the items based on the scale: 5= Strongly Agree, 4= Agree, 3= Disagree, 2= Strongly Disagree and 1= Neutral. The mean scores and overall mean were interpreted as 1.0 - 1.9 (low), 2.0- 3.4 (moderate), and 3.5-5.0 (high). Table 2 presents the fallouts.

Results in Table 2 show that 59 (48.1%) of the students disagreed or strongly disagreed that they feel isolated from others despite being connected online ($M= 2.7$, $SD= 1.3$). Similarly, 64 (53.3%) of them disagreed or strongly disagreed that they feel disconnected from others in digital spaces ($M= 2.6$, $SD= 1.3$). Likewise, 62 (51.7%) disagreed or strongly disagreed that their online connections don't provide meaningful companionship ($M= 2.5$, $SD= 1.2$). See Table 2 for full descriptive statistics. An average mean scores of 2.2 ($SD= 1.3$) was obtained, indicating that the students have a moderate level of DD.

Table 2

Religious Students' Level of DD (n=120)

Statement	SD/D		U		SA/A		M	SD
	No	%	No	%	No	%		
DIGITAL DRAMA AND MANIPULATION								
I sometimes manipulate people on social media to get what I want.	82	68.4	7	5.8	31	25.9	2.2	1.5
I enjoy stirring up conflict between people online.	78	65	17	14.2	25	20.8	2.2	1.3
I like to create drama on social media to get attention.	69	57.5	24	20.0	27	22.5	2.4	1.4
I deliberately post controversial content to spark debates online.	67	55.9	23	19.2	30	25.0	2.4	1.4
I often post things on social media without thinking about how others will react.	76	63.4	9	7.5	35	29.1	2.4	1.6
DIGITAL LONELINESS AND DISCONNECTION								
I feel isolated from others despite being connected online.	59	48.1	20	16.7	41	34.2	2.7	1.3
I feel lonely even when I'm actively engaged on social media.	67	55.8	24	20.0	29	24.2	2.4	1.2
My online connections don't provide meaningful companionship.	62	51.7	33	27.5	25	20.9	2.5	1.2
I feel disconnected from others in digital spaces.	64	53.3	24	20.0	33	26.7	2.6	1.3
SOCIAL COMPARISON AND FOMO								
On social media, I often compare myself with others who are better than me.	72	60	21	17.5	27	22.5	2.3	1.3
I feel worse about myself after seeing others' posts on social media.	73	60.9	21	17.5	26	21.7	2.4	1.3
I often wish my life were more like what I see others posting online.	69	57.5	21	17.5	30	25.0	2.4	1.3
Social media makes me feel like I'm not good enough.	71	59.1	19	15.8	30	25.0	2.3	1.3
I fear others have more rewarding experiences than me.	61	50.9	13	10.8	31	25.8	2.4	1.4
Average							2.2	1.3

4.2 What is the Level of Religious Studies Students' RE?

This question sought to determine the level of students' RE. The RE had two dimensions: Religious activities (practices) and Religious Principles (beliefs). The students were to indicate their agreement or disagreement with the items based on the scale: 5= Strongly Agree, 4= Agree, 3= Disagree, 2= Strongly Disagree, and 1= Neutral. The mean scores and overall mean were interpreted as 1.0 - 1.9 (low), 2.0- 3.4 (moderate), and 3.5-5.0 (high). Table 3 presents the fallouts.



Results in Table 3 show that 93 (77.5%) of the students agreed that there is a divine law ($M= 4.2$, $SD= 1.1$). Similarly, 93 (77.5%) of them agreed that they believe in prophecy and prophets ($M= 4.2$, $SD= 1.2$). Most (96, 80.0%) of the students believe God supervises each individual ($M= 4.1$, $SD= 1.2$). Again, 92 (76.7%) agreed that they believe in the era of the messiah ($M= 4.1$, $SD= 1.1$). Likewise, the majority (89, 74.2%) of the students agreed that they believe in reward and punishment for actions in their religion ($M= 4.1$, $SD= 1.1$). See Table 2 for full descriptive statistics. An average mean scores of 3.8 ($SD= 1.2$) was obtained, indicating that the students have a high level of religious commitment.

Table 3
Students' Level of RE

Statement	SD/D		U		SA/A		M	SD
	No	%	No	%	No	%		
RELIGIOUS ACTIVITIES (PRACTICES)								
I observe the holy days in my religion	38	31.7	17	14.2	65	54.2	3.3	1.4
I observe inter-sex socializing rules of my religion.	25	20.8	33	27.5	62	51.6	3.5	1.2
I observe the dietary laws of my religion at home	25	20.8	47	39.2	48	40.0	3.2	1.2
I observe the dietary laws of my religion out of home	29	24.2	37	30.8	54	45.0	3.2	1.2
I observe all sacred days of mourning	30	25.0	33	27.5	57	47.5	3.4	1.3
I do observe fast days in my religion	25	20.8	30	26.7	65	54.2	3.5	1.2
I always pray before meals	24	20.0	25	20.8	71	59.2	3.6	1.3
I always pray to end holy days in my religion	25	20.8	24	20.0	71	59.2	3.6	1.3
I observe all sacred festivals of my religion	19	15.9	22	18.3	79	65.8	3.7	1.2
I give offerings and tithes	18	15.0	18	15.0	84	70.0	3.9	1.2
RELIGIOUS PRINCIPLES (BELIEFS)								
I believe in religious miracles	9	7.5	24	20.0	87	72.5	4.0	1.0
I believe in the authority of my religious leaders	10	8.3	21	17.5	89	74.1	4.0	1.0
I believe in reward and punishment for actions in my religion	11	9.2	20	16.7	89	74.2	4.1	1.1
I believe God supervises each individual	14	11.7	10	8.3	96	80.0	4.1	1.2
I believe in the resurrection of the dead	21	17.5	17	14.2	82	68.4	3.9	1.3
I believe a divine being created the world and all beings	16	13.3	17	14.2	87	72.5	4.0	1.2
I believe in the oral laws of my religion	11	9.2	19	15.8	90	75.0	4.0	1.1
I believe in the era of the messiah	14	11.6	14	11.7	92	76.7	4.1	1.1
I believe there is a divine law	12	10.0	15	12.5	93	77.5	4.2	1.1
I believe in prophecy and prophets	12	10.0	15	12.5	93	77.5	4.2	1.2
Average							3.8	1.2

4.3 What is the Religious Studies Students' Level of DDT?

This question sought to establish the level of DDT of religious studies students. The DDT had two dimensions: Academic Delay Discounting and Digital Impulsivity. The students were to indicate their agreement or disagreement with the items based on the scale: 5= Strongly Agree, 4= Agree, 3= Disagree, 2= Strongly Disagree, and 1= Neutral. The mean scores and overall mean were interpreted as 1.0 - 1.9 (low), 2.0- 3.4 (moderate), and 3.5-5.0 (high). Table 4 presents the fallouts.

Results in Table 4 show that 44 (36.7%) of the students agreed that they prefer to get assignments done early rather than waiting until the last minute ($M= 3.5$, $SD= 1.4$). Similarly, 71 (59.2%) of them agreed that they are willing to sacrifice current enjoyment for future success ($M= 3.5$, $SD= 1.4$). Most (48, 40.0%) of the students disagreed that they have difficulty sticking to long-term plans ($M= 2.9$, $SD= 1.4$). See Table 2 for full descriptive statistics. An average mean score of 2.9 ($SD= 1.3$) was obtained, indicating that the students have a moderate level of DDT.

**Table 4***Students' Level of DDT*

Statement	SD/D		U		SA/A		M	SD
	No	%	No	%	No	%		
ACADEMIC DELAY DISCOUNTING								
I prefer to get assignments done early rather than waiting until the last minute.	28	49.2	17	14.2	44	36.7	3.5	1.4
I would rather have fun now than worry about future consequences.	59	49.2	17	14.2	44	36.7	2.8	1.5
I am willing to sacrifice current enjoyment for future success.	32	26.7	17	14.2	71	59.2	3.5	1.4
I often procrastinate on important tasks.	47	39.1	37	30.8	36	30.0	2.8	1.3
I have difficulty sticking to long-term plans.	48	40.0	30	25.0	42	35.0	2.9	1.4
DIGITAL IMPULSIVITY								
DI: I often make online purchases without thinking about whether I can afford them.	65	54.1	22	18.3	33	27.5	2.6	1.4
I frequently click on ads or links without considering the consequences.	69	57.5	22	18.3	29	24.2	2.4	1.3
I tend to make quick decisions when shopping online.	64	53.3	15	12.5	41	34.2	2.7	1.5
I have difficulty controlling my online spending.	66	55.0	17	14.2	37	30.8	2.6	1.7
Average							2.9	1.3

H₁ There is a Statistically Significant Correlation between Digital Distress and Delay Discounting

Pearson's correlation explored how DD connects with DDT. The analysis found a clear positive link between the two constructs, $r = .441$, $p < .001$, based on data from 120 participants. The moderate correlation suggests that people who feel more DD are more likely to choose immediate rewards over future ones. With p less than $.001$, the result stands out as strong proof that these variables are connected. This finding fits with theories suggesting that stress can weaken our ability to manage ourselves and make balanced choices over time. With an r -value of $.441$, the correlation shows a moderate effect, explaining about 19.4% of the shared variance between DD and DDT. The findings hint that the mental strain tied to using digital technology can skew how people judge time. When people feel overwhelmed by DD, they may focus more on immediate rewards either to cope with the strain of constant tech use or because the mental energy needed for long-term planning has run low.

Table 5*Correlation of DD and DDT*

Variable		DIGITAL DISTRESS	DISCOUNTING
DIGITAL DISTRESS	Pearson Correlation	1	.441**
	Sig. (2-tailed)		.000
	N	120	120
DISCOUNTING	Pearson Correlation	.441**	1
	Sig. (2-tailed)	.000	
	N	120	120

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

H₂ There is a Statistically Significant Effect of Digital Distress on Delay Discounting

Simple linear regression examined how DD predicts DDT, using DD as the predictor and DDT as the outcome. The regression model showed a clear effect, $F(1, 118) = 28.51$, $p < .001$, revealing that DD strongly predicts how people choose short-term rewards over long-term ones. The model captured 19.5% of the variance in DDT ($R^2 = .195$, adjusted $R^2 = .188$), meaning roughly one out of every five differences in how people value later rewards could be traced to their level of DD. The unstandardized regression coefficient ($B = 0.417$, $SE = 0.078$) shows that every one-unit rise in DD brings about a 0.417-unit jump in DDT. The coefficient proved statistically significant ($t = 5.34$, $p < .001$), offering strong evidence that these constructs move together. With a standardized regression coefficient of $\beta = .441$, the result matches the correlation from Hypothesis 1. The intercept term ($B = 1.779$, $SE = 0.199$, $t = 8.94$, $p < .001$) was significant. The findings back up the idea that DD strongly predicts how people value rewards over time. The findings indicate that stress tied to digital tech use can weaken a person's ability to think ahead, making quick rewards. This effect can stem from several sources: draining mental energy, triggering stress responses that push you toward quick fixes. The moderate effect size suggests that DD matters, but it is only part of the picture; other psychological traits, life context, and personal quirks also shape how people weigh immediate rewards against future ones.

**Table 6***ANOVA and Model Summary for DD and DDT*

Model		df	Mean Square	F	Sig.	R	R ²	R ² Adjusted
1	Regression	1	14.694	28.508	.000 ^b	.441 ^a	.195	.188
	Residual	118	.515					
	Total	119						

Table 7*Regression Coefficient of DD on DDT*

Variable	B	SE	Beta	t	P	95% CL
(Constant)	1.779	.199		8.937	.000	(1.385, 2.174)
DIGITALDISTRESS	.417	.078	.441	5.339	.000	(.262, .571)

H₃: Religiosity Moderates the Effect of Digital Distress on Delay Discounting

Hierarchical moderated regression examined whether RE changes how DD relates to DDT. Variables were mean-centered before analysis to reduce multicollinearity. The complete model, factoring in DD, RE, and their interaction, strongly explained results, $F(3, 116) = 12.75, p < .001$. The full model explained 24.8% of the variance in DDT ($R^2 = .248$, adjusted $R^2 = .229$), a clear boost over the main effects model (R^2 change = .248, F change = 12.75, $p < .001$). DD strongly predicted higher DDT ($B = 0.429$, $SE = 0.076$, $\beta = .454$, $t = 5.61$, $p < .001$), lining up with Hypothesis 2. RE showed a clear main effect ($B = 0.233$, $SE = 0.110$, $\beta = .175$, $t = 2.11$, $p = .037$), indicating that people with stronger religious beliefs tend to discount future rewards more, even when DD is not a factor. The interaction between DD and RE proved statistically significant ($B = 0.330$, $SE = 0.139$, $\beta = .196$, $t = 2.37$, $p = .019$), backing the predicted moderating effect. The positive coefficient indicates that RE heightens rather than softens the impact of DD on DDT. Hence, people with stronger religious commitment show a sharper link between that DD and DDT. The findings suggest that RE helps shape the way DD affects DDT. Although you might expect RE to shield people, the findings point the other way: it can heighten the risk, leaving religious individuals more vulnerable to how DD eats away at patience. This pattern may point to a clash between religious ideals that prize quiet reflection and active community life, and the fast, fractured pulse of digital spaces, stirring mental and emotional strain that can push people toward snap decisions.

Table 8*ANOVA and Model Summary for RE and DD*

Model		df	Mean Square	F	Sig.	R	R ²	R ² Adjusted
1	Regression	3	6.242	12.751	.000 ^b	.498 ^a	.248	.229
	Residual	116	.490					
	Total	119						

Table 9*Moderation Coefficient of RE and DD*

Variable	B	SE	Beta	t	P	95% CL
(Constant)	2.803	.064		43.507	.000	(2.675, 2.931)
DISTRESS_C	.429	.076	.454	5.614	.000	(.278, .581)
RELIGIOSITY_C	.233	.110	.175	2.111	.037	(.014, .452)
INTERACTION	.330	.139	.196	2.369	.019	(.054, .605)

4.4 Discussion

With a mean score of 2.2 and $SD = 1.3$, results reveal university students face a moderate level of DD. This shows that most students feel the mental strain of technology, anxious from being always online, buried under endless notifications, and unable to stop checking their screens. Elhai et al (2017) argued that smartphone-related distress significantly interferes with daily functioning and correlates with anxiety symptoms among university students. Thomée et al (2011) suggested that excessive mobile phone use predicts sustained psychological strain and sleep disturbances, establishing technology as a significant mental health concern. Lepp et al. (2014) observed that even where students acknowledge problematic technology use; their actual behaviors do not always align with their awareness, indicating a gap between recognition and behavioural change. As Liu et al. (2017) have pointed out, addressing DD is not only about improving well-being today but also about protecting students' long-term decision-making capacity and academic success.



Again, the university students showed high religiosity scores, $M=3.8$ and $SD=1.2$, with many describing vivid religious activities and religious principles. Although religious commitment was generally strong, the link between RE and DD turned out to be more tangled than expected. Kim et al (2017) found that intrinsic RE generally buffers against problematic internet use and impulsive behaviors among adolescents, serving protective functions. DeWall et al (2014) demonstrated that religious priming can reduce impulsive choices following social rejection, highlighting religion's potential as a self-regulatory resource. Meanwhile, Barry et al. (2010) drew attention to the relationship between RE and adaptive functioning during the transition to adulthood, suggesting that religious commitment provides meaning-making frameworks that support healthy development. Błachnio and Przepiórka (2018) found that religious coping can ease technology-related stress, but it works only when people weave their faith into everyday digital habits. Koole et al. (2010) argued that religiosity strengthens executive control and emotion regulation capacities through implicit self-regulation mechanisms.

With DDT, students showed moderate levels, averaging 2.9 with a $SD= 1.3$, pointing to a tilt toward favouring the present. Steinberg et al (2009) suggested that young adults aged 18-25 exhibit significantly steeper delay discounting compared to older populations due to developmental immaturity in prefrontal regulatory systems. Daugherty and Brase (2010) found that once a reward was pushed more than six months into the future, university students valued it at about half as much, a clear sign of strong present bias. Reimers et al (2009) found that DDT correlates with real-world impulsive behaviors, including problematic spending and academic procrastination among students. Lawyer et al. (2010) observed that steeper discounting predicts substance use behaviors and reduced course completion rates, highlighting practical consequences. Saville et al (2010) demonstrated experimental links between internet-related variables and elevated delay discounting, suggesting that technology factors influence intertemporal choice.

A strong positive link ($r = .441$, $p < .001$) between DD and DDT points clearly to technology shaping how people make decisions. This relationship matches theoretical predictions: when digital use drains mental energy, the ability to think things through weakens. Wilmer and Chein (2016) found that people who juggled multiple forms of media tended to act more impulsively and choose quick rewards over waiting, and those who felt DD showed much higher DDT. Dong and Potenza et al (2014) found that long-term distress tied to internet use can reshape the brain's reward system, dampening the striatum's response to delayed gratification while sharpening its pull toward instant rewards. Cheng et al (2021) found that internet addiction severity associates with significantly steeper discounting curves, indicating compromised ability to value future rewards appropriately. Rozgonjuk et al (2018) reported that smartphone addiction severity predicts subsequent increases in delay discounting over time, suggesting progressive erosion of self-control capacities.

In the end, our analysis shows that RE plays a strong role in shaping how DD connects to DDT, with the effect reaching significance $F(3, 116) = 12.75$, $p < .001$). Studies on how RE shapes technology-related contexts are still scarce, yet studies in similar areas show a mix of patterns. Kim et al (2017) showed that religious commitment buffers negative technology outcomes, while Błachnio and Przepiórka (2018) found that religious coping effectiveness varies by implementation. DeWall et al (2014) demonstrated that religious resources can protect against stress-induced impulsivity, supporting buffering hypotheses. Barry et al. (2010) linked religiosity with identity development processes that shape behavioural regulation, while Koole et al. (2010) emphasized implicit self-regulation mechanisms activated by religious commitment. Still, the findings point to subtler dynamics at play, possibly rooted in clashes between the quiet focus of contemplative religious practice and the restless pull of a blinking, fragmented digital world.

V. CONCLUSIONS & RECOMMENDATION

5.1 Conclusions

The study's findings show how DD, DDT and RE intertwine in university life. Many students deal with moderate DD, showing that tech-related strain is not rare. Students shoulder the constant pull of screens, endless pings, crowded feeds, mounting technostress, and the mental wear of never truly logging off. Students showed a high RE, rooted in religious activities and religious principles. This deepened faith shapes how students believe, worship, and view themselves, reaching from treasured values to small, steady habits that fill their days. Students show moderate DDT a steady, noticeable tendency to grab what is in front of them rather than wait. Clear ties between DD and DDT suggest tech-related anxiety can push people into snap decisions. DD is central to DDT, revealing how nonstop scrolling and pings steadily erode students' ability to plan. As digital tech ramps up pressure, students grab at quick wins, rather than holding out for long-term rewards, costing them both in school and in life. The study shows that RE influences how DD affects decision-making, acting as a brake on the distress–delay discounting link.



5.2 Recommendations

The Ministry of Education needs to create and roll out a thorough National Digital Wellness Framework for universities, with clear guidelines addressing real on-campus challenges like frequent screen addiction. This framework should set evidence-based guidelines for healthy digital use, including practical screen time caps, planned device breaks, and screen-free classroom rules to offer robust digital literacy programs covering digital well-being and stress management strategies. Universities should mandate a course that will give students practical, research-backed ways to handle tech-related stress and maintain balanced technology use. Universities should establish comprehensive Digital Wellness Programs, dedicated offices with a staff trained to handle guiding screen-time habits, healthy online communication, identify and treat technology-related psychological issues, and create culturally sensitive intervention programs focused on easing digital distress. Universities need to streamline Learning Management Systems into one user-friendly hub with smart notifications that stop overwhelming alerts. Religious leaders should integrate guidance on healthy tech use into teachings and demonstrate how digital boundaries honour faith values through digital wellness programs.

REFERENCES

- Astin, A. W., Astin, H. S., & Lindholm, J. A. (2011). *Cultivating the spirit: How college can enhance students' inner lives*. Jossey-Bass.
- Babbie, E. R. (2022). *The practice of social research* (15th ed.). Cengage Learning.
- Barry, C. M., Nelson, L., Davarya, S., & Urry, S. (2010). Religiosity and spirituality during the transition to adulthood. *International Journal of Behavioral Development*, 34(4), 311–324. <https://doi.org/10.1177/0165025409350964>
- Błachnio, A., & Przepiórka, A. (2018). Facebook intrusion, fear of missing out, narcissism, and life satisfaction: A cross-sectional study. *Psychiatry Research*, 259, 514–519. <https://doi.org/10.1016/j.psychres.2017.11.012>
- Bolu-Steve, F. N., Esere, M., & Arisukwu, O. (2021). Social media and academic performance of students: Moderating role of self-control. *Cypriot Journal of Educational Sciences*, 16(5), 2682–2696. <https://doi.org/10.18844/cjes.v16i5.6296>
- Bryant, A. N. (2007). Gender differences in spiritual development during the college years. *Sex Roles*, 56(11–12), 835–846. <https://doi.org/10.1007/s11199-007-9240-2>
- Buctot, D. B., Kim, N., & Kim, J. J. (2020). The role of nomophobia and smartphone addiction in the lifestyle profiles of junior and senior high school students in the Philippines. *Social Sciences & Humanities Open*, 2(1), 100035. <https://doi.org/10.1016/j.ssaho.2020.100035>
- Carter, E. C., McCullough, M. E., & Carver, C. S. (2012). The mediating role of monitoring in the association of religion with self-control. *Social Psychological and Personality Science*, 3(6), 691–697. <https://doi.org/10.1177/1948550612438925>
- Casey, B. J., Heller, A. S., Gee, D. G., & Cohen, A. O. (2019). Development of the emotional brain. *Neuroscience Letters*, 693, 29–34. <https://doi.org/10.1016/j.neulet.2017.11.055>
- Cheng, Y. S., Tseng, P. T., Lin, P. Y., Chen, T. Y., Stubbs, B., Carvalho, A. F., Fernandes, B. S., Hsu, C. W., Wu, C. K., Chen, Y. W., & Lin, C. Y. (2021). Internet addiction and its relationship with suicidal behaviors: A meta-analysis of multinational observational studies. *Journal of Clinical Psychiatry*, 82(2), 20r13277. <https://doi.org/10.4088/JCP.20r13277>
- Daugherty, J. R., & Brase, G. L. (2010). Taking time to be healthy: Predicting health behaviors with delay discounting and time perspective. *Personality and Individual Differences*, 48(2), 202–207. <https://doi.org/10.1016/j.paid.2009.10.007>
- Desmond, S. A., Ulmer, J. T., & Bader, C. D. (2013). Religion, self control, and substance use. *Deviant Behavior*, 34(5), 384–406. <https://doi.org/10.1080/01639625.2012.726170>
- DeWall, C. N., Pond, R. S., Jr., Carter, E. C., McCullough, M. E., Lambert, N. M., Fincham, F. D., & Nezlek, J. B. (2014). Explaining the relationship between religiousness and substance use: Self-control matters. *Journal of Personality and Social Psychology*, 107(2), 339–351. <https://doi.org/10.1037/a0036853>
- Dong, G., & Potenza, M. N. (2014). A cognitive-behavioral model of internet gaming disorder: Theoretical underpinnings and clinical implications. *Journal of Psychiatric Research*, 58, 7–11. <https://doi.org/10.1016/j.jpsychires.2014.07.005>
- Elhai, J. D., Dvorak, R. D., Levine, J. C., & Hall, B. J. (2017). Problematic smartphone use: A conceptual overview and systematic review of relations with anxiety and depression psychopathology. *Journal of Affective Disorders*, 207, 251–259. <https://doi.org/10.1016/j.jad.2016.08.030>



- Folkman, S., & Lazarus, R. S. (1985). If it changes it must be a process: Study of emotion and coping during three stages of a college examination. *Journal of Personality and Social Psychology*, 48(1), 150–170. <https://doi.org/10.1037/0022-3514.48.1.150>
- Forbes, P. A. G., Nitschke, J. P., Hochmeister, N., Kalenscher, T., & Lamm, C. (2024). No effects of acute stress on monetary delay discounting: A systematic literature review and meta-analysis. *Neurobiology of Stress*, 31, 100653. <https://doi.org/10.1016/j.yenstr.2024.100653>
- Gottfredson, M. R., & Hirschi, T. (1990). *A general theory of crime*. Stanford University Press.
- Hertzog, M. A. (2008). Considerations in determining sample size for pilot studies. *Research in Nursing & Health*, 31(2), 180–191. <https://doi.org/10.1002/nur.20247>
- Hoffmann, J. P. (2013). Religiousness, social networks, moral schemas, and marijuana use: A dynamic study of religiosity and drug use. *Social Forces*, 91(3), 1089–1108. <https://doi.org/10.1093/sf/sos193>
- Howell, K. E. (2012). *An introduction to the philosophy of methodology*. Sage Publications.
- Johanson, G. A., & Brooks, G. P. (2010). Initial scale development: Sample size for pilot studies. *Educational and Psychological Measurement*, 70(3), 394–400. <https://doi.org/10.1177/0013164409355692>
- Katz, Y. J., & Schmida, M. (1992). Validation of the Student Religiosity Questionnaire. *Educational and Psychological Measurement*, 52(2), 353–356. <https://doi.org/10.1177/0013164492052002011>
- Kim, E., Yim, H. W., Jeong, H., Jo, S. J., Lee, H. K., Son, H. J., & Han, H. J. (2017). The association between aggression and risk of Internet gaming disorder in Korean adolescents: The mediation effect of father-adolescent communication style. *Epidemiology and Health*, 39, e2017056. <https://doi.org/10.4178/epih.e2017056>
- Kim-Spoon, J., Farley, J. P., Holmes, C. J., Longo, G. S., & McCullough, M. E. (2015). Longitudinal associations among religiousness, delay discounting, and substance use initiation in early adolescence. *Journal of Research on Adolescence*, 25(1), 36–43. <https://doi.org/10.1111/jora.12110>
- Kimura, K., Izawa, S., Sugaya, N., Ogawa, N., Yamada, K. C., Shirotaki, K., Mikami, I., Hirata, K., Nagano, Y., & Hasegawa, T. (2013). The biological effects of acute psychosocial stress on delay discounting. *Psychoneuroendocrinology*, 38(10), 2300–2308. <https://doi.org/10.1016/j.psyneuen.2013.04.019>
- Koenig, H. G., King, D. E., & Carson, V. B. (2012). *Handbook of religion and health* (2nd ed.). Oxford University Press.
- Koole, S. L., McCullough, M. E., Kuhl, J., & Roelofsma, P. H. M. P. (2010). Why religion's burdens are light: From religiosity to implicit self-regulation. *Personality and Social Psychology Review*, 14(1), 95–107. <https://doi.org/10.1177/1088868309351109>
- Lawyer, S. R., Williams, S. A., Prihodova, T., Rollins, J. D., & Lester, A. C. (2010). Probability and delay discounting of hypothetical sexual outcomes. *Behavioural Processes*, 84(3), 687–692. <https://doi.org/10.1016/j.beproc.2010.04.002>
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.
- Lempert, K. M., Porcelli, A. J., Delgado, M. R., & Tricomi, E. (2012). Individual differences in delay discounting under acute stress: The role of trait perceived stress. *Frontiers in Psychology*, 3, Article 251. <https://doi.org/10.3389/fpsyg.2012.00251>
- Lepp, A., Barkley, J. E., & Karpinski, A. C. (2014). The relationship between cell phone use, academic performance, anxiety, and satisfaction with life in college students. *Computers in Human Behavior*, 31, 343–350. <https://doi.org/10.1016/j.chb.2013.10.049>
- Liu, L., Yao, Y. W., Li, C. S. R., Zhang, J. T., Xia, C. C., Lan, J., Ma, S. S., Zhou, N., & Fang, X. Y. (2017). The comorbidity between internet gaming disorder and depression: Interrelationship and neural mechanisms. *Frontiers in Psychiatry*, 8, 154. <https://doi.org/10.3389/fpsyg.2017.00154>
- Malesza, M. (2019). Stress and delay discounting: The mediating role of difficulties in emotion regulation. *Personality and Individual Differences*, 144, 56–60. <https://doi.org/10.1016/j.paid.2019.02.035>
- Mazur, J. E. (1987). An adjusting procedure for studying delayed reinforcement. In M. L. Commons, J. E. Mazur, J. A. Nevin, & H. Rachlin (Eds.), *Quantitative analyses of behavior: The effect of delay and of intervening events on reinforcement value* (pp. 55–73). Lawrence Erlbaum Associates.
- McCullough, M. E., & Willoughby, B. L. B. (2009). Religion, self-regulation, and self-control: Associations, explanations, and implications. *Psychological Bulletin*, 135(1), 69–93. <https://doi.org/10.1037/a0014213>
- Nyarko, K., & Olutayo, M. A. (2019). Stress and coping strategies among undergraduate students in Ghana. *IFE Psychologia: An International Journal*, 27(1), 10–19.
- Panova, T., & Carbonell, X. (2018). Is smartphone addiction really an addiction? *Journal of Behavioral Addictions*, 7(2), 252–259. <https://doi.org/10.1556/2006.7.2018.49>



- Przybylski, A. K., Murayama, K., DeHaan, C. R., & Gladwell, V. (2013). Motivational, emotional, and behavioral correlates of fear of missing out. *Computers in Human Behavior*, 29(4), 1841–1848. <https://doi.org/10.1016/j.chb.2013.02.014>
- Reimers, S., Maylor, E. A., Stewart, N., & Chater, N. (2009). Associations between a one-shot delay discounting measure and age, income, education and real-world impulsive behavior. *Personality and Individual Differences*, 47(8), 973–978. <https://doi.org/10.1016/j.paid.2009.07.026>
- Rosen, L. D., Whaling, K., Carrier, L. M., Cheever, N. A., & Rökkum, J. (2013). The Media and Technology Usage and Attitudes Scale: An empirical investigation. *Computers in Human Behavior*, 29(6), 2501–2511. <https://doi.org/10.1016/j.chb.2013.06.006>
- Rounding, K., Lee, A., Jacobson, J. A., & Ji, L. J. (2012). Religion replenishes self-control. *Psychological Science*, 23(6), 635–642. <https://doi.org/10.1177/0956797611431987>
- Rozgonjuk, D., Levine, J. C., Hall, B. J., & Elhai, J. D. (2018). The association between problematic smartphone use, depression and anxiety symptom severity, and objectively measured smartphone use over one week. *Computers in Human Behavior*, 87, 10–17. <https://doi.org/10.1016/j.chb.2018.05.019>
- Saville, B. K., Gisbert, A., Kopp, J., & Telesco, C. (2010). Internet addiction and delay discounting in college students. *The Psychological Record*, 60(2), 273–286. <https://doi.org/10.1007/BF03395707>
- Steinberg, L., Graham, S., O'Brien, L., Woolard, J., Cauffman, E., & Banich, M. (2009). Age differences in future orientation and delay discounting. *Child Development*, 80(1), 28–44. <https://doi.org/10.1111/j.1467-8624.2008.01244.x>
- Tangney, J. P., Baumeister, R. F., & Boone, A. L. (2004). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. *Journal of Personality*, 72(2), 271–324. <https://doi.org/10.1111/j.0022-3506.2004.00263.x>
- Thomé, S., Härenstam, A., & Hagberg, M. (2011). Mobile phone use and stress, sleep disturbances, and symptoms of depression among young adults—A prospective cohort study. *BMC Public Health*, 11, 66. <https://doi.org/10.1186/1471-2458-11-66>
- Thomé, S., Härenstam, A., & Hagberg, M. (2012). Computer use and stress, sleep disturbances, and symptoms of depression among young adults—a prospective cohort study. *BMC Psychiatry*, 12(1), 176. <https://doi.org/10.1186/1471-244X-12-176>
- Turel, O., & Bechara, A. (2016). A triadic reflective-impulsive-interoceptive awareness model of general and impulsive information system use: Behavioral tests of neuro-cognitive theory. *Frontiers in Psychology*, 7, 601. <https://doi.org/10.3389/fpsyg.2016.00601>
- Wilmer, H. H., & Chein, J. M. (2016). Mobile technology habits: Patterns of association among device usage, intertemporal preference, impulse control, and reward sensitivity. *Psychonomic Bulletin & Review*, 23(5), 1607–1614. <https://doi.org/10.3758/s13423-016-1011-z>
- Wilmer, H. H., Sherman, L. E., & Chein, J. M. (2017). Smartphones and cognition: A review of research exploring the links between mobile technology habits and cognitive functioning. *Frontiers in Psychology*, 8, 605. <https://doi.org/10.3389/fpsyg.2017.00605>
- World Health Organization. (2021). *Global strategy on digital health 2020–2025*. <https://www.who.int/publications/i/item/9789240020924>