

Exploring Psychological Predictors of Internet Addiction in Kerala

Bayana Beevi O M S
Govt. of Kerala, Palakkad.

Sukanya B Menon
Prajyoti Niketan College, Pudukad, Thrissur(Dt), Kerala.

Internet addiction is one of the major psycho social issue in the present era. So, it is necessary to keep track of the various risk factors which lead to internet addiction. Thus, the major objective of this study is to identifying certain psychological variables which predict internet addiction. The sample consisted of 1031 male and female internet users. The Scale of Type A Behaviour Pattern, Aggression Questionnaire, DASS₂₁, Satisfaction with Life Scale, Pure Procrastination Scale, Barratt Impulsiveness Scale, UCLA Loneliness Scale, Difficulties in Emotion Regulation Scale, Interpersonal Sensitivity Measure and Internet Addiction Test were used to assess the variables under study. Result shows that Limited access to emotion regulation strategies perceived as effective, Procrastination, Fragile Inner self, Goal-directedness without proper planning, Lack of emotional awareness and clarity, Verbal Aggression, Competitiveness and hostility, and non-acceptance of negative emotions are the major factors which contribute to internet addiction. Thus, it can be concluded that considerable attention should be given to these factors by the mental health professionals in order to deal with internet addiction.

Keywords: Internet addiction, emotional regulation, procrastination, aggression, fragile inner self

The Internet has a major role in our day-to-day life and it consumes a considerable amount of time in a person's life. Most of the people use internet daily and quarter of them use it "almost constantly". Even though there is overlap between the behaviors of Internet addiction (IA) and excessive Internet use, the distinction between two should be identified. Both empirical and theoretical approaches have been used by researchers in scientific analysis to examine whether there is any distinctiveness between excessive Internet use and internet addiction (Caplan, 2003; Caplan, 2006; Lee et al., 2014). As per the observation, people with internet addiction have impairment in different life domains. But they pursue their usage of internet without caring the negative consequences it

produces. Salience, tolerance, withdrawal, relapse, mood modification, and \nconflict, are the major criteria of addiction which are not seen in people who use internet excessively (Griffiths, 2003). Internet users who use it excessively have fewer internet related issues compared to people with internet addiction. Considering internet addiction as a mental illness is a matter of debate for a long time. Despite initial consideration of putting internet addiction along with sex and gambling addiction in the section under behavioural disorder, authors of DSM- 5 treated internet addiction as" condition for further study" rather than identifying it as an official disorder (Young & Brand, 2017). Thus internet addiction is not coming under a diagnosable clinical disorder.

According to Caplan's (2003) theoretical terms, IA is characterized by a problem with impulse control. But internet use in excessive level signifies the use of internet that is beyond normal and the activities related to internet is more than usual. It also goes above the level which a person has planned. Even though many people think that their use of internet is high, they use it mostly for their every day activities related to professional or social life and produce beneficial outcome. IA is more positively associated with adverse outcomes compared to excessive Internet use (Caplan, 2003).

Reviews related to internet addiction suggests that certain psychological variables such as personality, emotional regulations, aggression, impulsivity, procrastination, interpersonal sensitivity, loneliness and life satisfaction are exceedingly related to internet addiction. Internet addiction is found more in students with personality type A compared to type B (Sepehrian & Loff, 2011). Yet they said that internet addiction is not predicted by Type A or B personality. Students with internet addiction are high on novelty-seeking and harm-avoidance behavior but lower on reward-dependence behaviour (Jiang et al., 2012). Among internet addicts, Internet addiction have a strong positive relation to planning impulsivity, motor impulsivity, attention impulsivity, depression and anxiety compared to no internet addiction group (Bisen & Deshpande, 2020). Smartphone addiction (Kula et al., 2020) and problematic internet use is negatively related to life satisfaction (Andrade et al., 2020) Relationship between the affective components of subjective well-being and problematic Internet use cognitions is mediated by life satisfaction (Cao et al., 2011). Life satisfaction also influence generalized Internet addiction and the social media addiction (Longstreet & Brooks, 2017). Loneliness is also found to have an important connection with internet addiction

(Bozoglan et al., 2013). Internet addiction (Akin & Iskender, 2011; Gupta et al., 2018), prolonged internet use per week and having a continuous online status (Gupta et al., 2018) positively predict anxiety, depression and stress. Aggression and anxiety also get aggravated with more frequent use of the Internet (Hwang et al., 2014)

Internet addicts have emotion dysregulation (Khodami & Sheibani, 2019). Severity of Internet addiction is heightened by difficulties in Emotion regulation (Quaglieri et al., 2022). According to Hormes et al. (2014), Difficulty in controlling impulses, inability to accept emotional responses, inadequate access to emotion regulation strategies, and trouble engaging in goal-directed behaviors are seen in people with high internet use. Addiction towards internet and smartphone are predicted by external and internal dysfunctional emotion regulation and internal functional emotion regulation. But these addictions are not predicted by functional emotion regulation which is external (Yildiz, 2017). Multitasking using internet and uncontrolled Internet use have a positive relation to procrastination (Reinecke et al., 2018).

There are very limited number of studies of Interpersonal rejection sensitivity and Internet Addiction. Interpersonal worry and dependency, decreased self-esteem, and lack of assertive interpersonal behavior predicts problematic face book use (Eraslan-Capan 2015). Lin et al. (2021) suggest that positive relation is found among smartphone addiction, interpersonal sensitivity and fear of missing. All these findings point out that internet addiction is directly or indirectly determined by various psychological factors and it cannot be considered as a separate entity. So, the main objective of this study is to identify the psychological variables which predict Internet addiction.

Method

Sample

Participants for the study consists of 1031 internet users who were selected randomly from different districts of Kerala. There are 460 males and 571 females. 437 of them were below 20 years, 405 are in the age category of 21-30, 99 from 31 to 40 years, 59 is from the age range 41 to 50 years and 31 from above 50 years of age.

Measures

Young Internet Addiction Test – Short Form (s-IAT): This 12 items measure is a short version of Young internet addiction test (Pawlikowski, Altstotter-Gleich & Brand, 2013). Kimberly Young developed the original version. The scale also assess the severity of internet addiction. The items comprise facets of Internet addiction, such as loss of control/time management which elicits information about, individuals' feelings regarding their inability to control internet use and challenges they faced in their day-to-day activities due to this. Craving/social problems, another subscale measures how social interactions and preoccupation with the internet got affected by problematic internet use. Cronbach's α and test-retest reliability for the scale is 0.90. and 0.85 respectively. It has a good concurrent validity with the IAT ($r = .83$)

Scale of Type A Behaviour Pattern: This 14 item scale is a measure of Type A behavior pattern (Asha, 1999). Polyphasic behavior, urgency, Goal-directedness without proper planning, Competitiveness and Hostility are the four sub variables of this scale. Higher score depicts more type A behavior pattern. Cronbach's alpha coefficient of this scale is 0.701 suggesting good reliability.

Buss and Perry Aggression Questionnaire – Short Form (BPAQ-SF): This 12-item questionnaire measures aggression. It consisted four subscales such as verbal

aggression, physical aggression, anger and hostility (Bryant & Smith, 2001). Test retest reliability for the scale is 0.78. In the present study, the Cronbach's alpha coefficient of the scale is 0.709.

Depression Anxiety Stress Scale (DASS-21): The DASS-21 is a 21 item self report measure (Lovibond & Lovibond 1995). It is the shortened version of DASS (42 items). Stress, depression, and anxiety symptoms are assessed using this questionnaire. Each subscale consists of 7 items. Cronbach's alpha values for the subscales of DASS-21, are 0.81 (depression), 0.89 (anxiety) and 0.78 (stress) indicating excellent reliability.

Satisfaction With Life Scale (SWLS): This 5-item scale (SWLS; Pavot & Diener, 1993) assess the overall cognitive judgments of a person's life satisfaction. The internal consistency of the scale is 0.87 and test-retest coefficient is 0.82 indicating good reliability.

Pure Procrastination Scale (PPS) Steel's (2010) Pure Procrastination Scale (PPS) is composed of 12 items and is used as an explicit measure of procrastination. The specific items used to create the Pure Procrastination Scale together have a reliability of .92.

Barratt impulsiveness scale: BIS15 (Spinella, 2007) is the brief version of BIS-11. This is a self report measure of impulsiveness, consisting of 15 items. Original form consists of 30 items. Attentional Impulsiveness, Non-planning Impulsiveness and Motor Impulsiveness are the three subscales of this measure. Overall score represents the total impulsivity of the subject. Test - retest-reliability and the Cronbach's alpha coefficient were 0.79 and 0.694 respectively for BIS-11.

UCLA Loneliness Scale (ULS-6): ULS-6 is constituted by Neto (2014) and consists of six items. Subjective feelings of loneliness and

social isolation are assessed by this scale. The test-retest reliability of 0.73 and Cronbach's alpha coefficient of 0.868 represents good reliability of the ULS-6.

Difficulties in Emotion Regulation Scale (DERS-16): The DERS-16 contains 16 items. It has five subscales which assess difficulties regulating emotions during times of distress (Bjureberg et al., 2016). Goals, Non-acceptance, Clarity, Impulse, and Strategies are the five sub dimensions of this scale. The test-retest reliability and Cronbach's alpha coefficient of the scale is 0.88 and 0.917 respectively indicating good reliability of DERS.

Interpersonal Sensitivity Measure – Short Form (IPSM-SF): It is a 15-item inventory developed by Todd et al. (1994). The five subdimensions of IPSM are Fragile inner self, Interpersonal Awareness, Timidity, Separation Anxiety and Need for Approval. Test-retest reliability of 0.67 and Cronbach's alpha

coefficient of 0.724 indicate good reliability of IPSM.

Procedure

The data was collected from college students, university students, married and unmarried people, employed and unemployed people in different districts of Kerala. The data were collected from institutions and individually. Prior permissions from the institutional heads were taken in order to collect data from the concerned institutions. Data collected individually were sought permission directly. Rapport was established by the investigator and assurance was given to the participants regarding the confidentiality of test. The participants were informed that the information obtained from them would be used only for this research. After the tests were completed, the questionnaires were collected back individually.

Results

Table 1. Results of multiple regression analysis (Step wise) with Loss of control/time management as dependent variable

Independent variable	Partial regression coefficient(b)	SE of estimate	Standardized Coefficients (β)	t-value	P-value
(Constant)	-2.139	0.976		2.191	0.029
Limited access to emotion regulation strategies (LERS)	0.181	0.071	0.108	2.54	0.011
Procrastination (PRO)	0.145	0.019	0.224	7.523	<0.001
Competitiveness and hostility (CAH)	0.153	0.059	0.078	2.596	0.01
Lack of emotional awareness and clarity (LEAC)	0.293	0.08	0.134	3.659	<0.001
Fragile Inner self (FIS)	0.959	0.237	0.114	4.055	<0.001
Goal-directedness without proper planning (GWPP)	0.249	0.086	0.083	2.898	0.004
Non-acceptance of negative emotions (NNE)	0.172	0.078	0.087	2.216	0.027
Non-planning impulsiveness (NPI)	-0.111	0.054	-0.055	2.061	0.04
Verbal Aggression (VAG)	0.129	0.064	0.059	2.008	0.045

F-value = 49.837; P-value < 0.001 Coefficient of multiple correlation (R) = 0.552 R² = 0.305

Table 1 depicts the results of Step-wise multiple regression analysis with Loss of control/time management as the dependent variable. This model is significant ($P < 0.001$) with an F-value of 49.837. Among the 27 predictor variable, nine variables entered in the stepwise procedure model. Limited access to emotion regulation strategies perceived as effective, Procrastination, Competitiveness and hostility, Lack of emotional awareness and clarity, Fragile Inner self, Goal-directedness without proper planning, non-acceptance of negative emotions, non-planning impulsiveness and Verbal Aggression are found to be the predictors of the loss of control while using internet. All the variables except non-

planning impulsiveness influence Loss of control/time management positively and the latter negatively.

The coefficient of multiple correlation (R) is 0.552 which measures the dependent variable's correlation with all the predictor variables included in the model. 30.5 percent of the variability in Loss of control/time management is due to the nine predictor variables comprised in the model which is understood from the value of coefficient of determination ($R^2 = 0.305$). The standardized regression coefficient (β) shows that predictor variable procrastination is found to be higher in this model. This reveals that procrastination is the most influencing variable of Loss of control/time management.

Table 2. Results of multiple regression analysis (Step wise) with craving/social problem as dependent variable

Independent variable	Partial regression coefficient(b)	SE of estimate	Standardized Coefficients (β)	t value	P-value
(Constant)	-2.71	0.678		3.999	<0.001
Limited access to emotion regulation strategies (LERS)	0.167	0.065	0.108	2.589	0.010
Goal-directedness without proper planning (GWPP)	0.313	0.078	0.113	3.989	<0.001
Procrastination (PRO)	0.083	0.018	0.139	4.67	<0.001
Fragile Inner self (FIS)	1.204	0.218	0.155	5.512	<0.001
Verbal Aggression (VAG)	0.197	0.056	0.097	3.512	<0.001
Lack of emotional awareness and clarity (LEAC)	0.233	0.074	0.116	3.145	0.002
Anxiety (ANX)	0.104	0.042	0.079	2.457	0.014
Difficulties in controlling impulsive behaviour (DCIB)	0.141	0.072	0.074	1.963	0.05

F-value = 54.899; P-value < 0.001 Coefficient of multiple correlation (R) = 0.548 $R^2 = 0.301$

Results of step-wise multiple regression analysis with craving/social problem as the dependent variable is depicted in the table (Table 2). The F-value (54.899) was found to be significant ($P < 0.001$), which indicated the overall significance of the model. Among the 27 predictor variables, eight variables entered in the stepwise procedure model.

Thus, Limited access to emotion regulation strategies perceived as effective, Goal-directedness without proper planning, Procrastination, Fragile Inner self, Verbal Aggression, Lack of emotional awareness and clarity, Anxiety and Difficulties in controlling impulsive behavior influence craving/social problem positively in the model.

The coefficient of multiple correlation (R) is 0.548 which measures the correlation of the dependent variable with all the predictor variables included in the model. The coefficient of determination (R²) is 0.301 which indicates 30.1 percent of the variability in Craving/social problem is due to the eight

predictor variables considered in the model. The higher value of the predictor variable fragile inner self in standardized regression coefficient ($\hat{\alpha}$) specifies that it is the most influencing variable of craving/social problem in Internet addiction.

Table 3. Results of multiple regression analysis (Step wise) with Internet Addiction as dependent variable

Independent variable	Partial regression coefficient(b)	SE of estimate	Standardized Coefficients (β)	t-value	P-value
(Constant)	-6.966	1.375		5.066	<0.001
Limited access to emotion regulation strategies (LERS)	0.364	0.124	0.121	2.947	0.003
Procrastination (PRO)	0.233	0.033	0.201	6.978	<0.001
Fragile Inner self (FIS)	2.134	0.41	0.142	5.206	<0.001
Goal-directedness without proper planning (GWPP)	0.56	0.149	0.105	3.754	<0.001
Lack of emotional awareness and clarity (LEAC)	0.556	0.139	0.142	4.001	<0.001
Verbal Aggression (VAG)	0.314	0.112	0.080	2.808	0.005
Competitiveness and hostility (CAH)	0.259	0.102	0.074	2.525	0.012
Non-acceptance of negative emotions (NNE)	0.306	0.135	0.086	2.271	0.023

F-value = 67.095; P-value < 0.001 Coefficient of multiple correlation (R) = 0.587 R² = 0.344

The table 3 displays the results of step-wise multiple regression analysis with Internet Addiction as the dependent variable. Overall significance of the model is observed from the F-value (67.095) which is significant at 0.001 level. Among the 27-predictor variable, eight variables entered in the stepwise procedure model are Limited access to emotion regulation strategies perceived as effective, Procrastination, Fragile Inner self, Goal-directedness without proper planning, Lack of emotional awareness and clarity, Verbal Aggression, Competitiveness and hostility, and non-acceptance of negative emotions. All these variables influence Internet Addiction positively in the model.

Correlation of the dependent variable with all the predictor variables included in this

model is determined by the coefficient of multiple correlation (R= 0.587). 34.4 percent of the variability in Internet Addiction is due to the eight predictor variables included in the model is depicted by the coefficient of determination (R²) which is 0.344. Higher value in standardized regression coefficient ($\hat{\alpha}$) indicates that predictor variable Procrastination is the most influencing variable of Internet Addiction.

Discussion

The present findings reveal that procrastination, impulsivity, verbal aggression, fragile inner self, emotional dysregulation and components of type A personality patters such as competitiveness, hostility and Goal-directedness without proper planning, are having a major role in

developing IA, especially the loss of control in the usage of internet. In addition to these factors anxiety also contribute to the craving behavior, which is a part of internet addiction.

The findings also suggests that procrastination is substantially contributing internet addiction. In procrastination, people delay something vital by focusing on something more enjoyable, easier, or less important. 'Present Bias', a phenomenon perceived in human behavior may be the cause for this. Due to the Present Bias, people get motivated by short-term incentives compared to long-term ones (Bisin & Hyndman, 2019). Procrastinators who seek relaxation prefer not to strain themselves at all. In addition to that the dopamine loop is activated when a person opens the feed on any of their loved apps (Levitin, 2015). Thus, the immediate reward which is the goal of procrastination is obtained through internet by activating the reward center.

The 'Fragile inner self' alludes to a crucial feature of self-worth, notably the desire to hide one's unlikable fundamental self from others. Those that perform well on this dimension have weak self-esteems that require ongoing confirmation from others to maintain them. According to Griffith's (2000) investigations, the usage of the Internet by the participants is closely related to how it is considered as a mechanism for coping and means for making up their shortcomings, which include poor self-esteem. Users can adopt a distinct personality and social identity, which makes them feel better. In other words, they get immense satisfaction in using the internet. Shopping addicts are more likely to have poor self-esteem and they depend more on other people's opinions and frequently make purchases in an effort to impress them (Biolcati, 2017). The present findings imply that those with fragile inner selves will struggle without the Internet and might become addicted to it.

Emotional dysregulation is a condition marked by difficulty in recognizing, comprehending, and accepting unpleasant emotions. It also leads to difficulty controlling impulsive behaviour. As a result, some people may try to divert themselves from or decrease their emotional experiences (Hollett & Harris, 2020). Hormes et al. (2014) found that problematic social networking site (SNS) users were more likely to experience emotional regulation issues, such as non-acceptance of negative emotions, absence of emotion regulation tools, and challenges with goal-directed behaviours. Engaging in addictive behaviours is an effort to avoid or lessen unpleasant feelings as well as trying to get relief from non-acceptable emotions. Schreiber et al. (2012) asserted that in an effort to avoid or lessen bad emotions and/or to try to find relief from their emotional suffering, addictive behaviours may be used. Limited access to emotion regulation strategies causes difficulties in using effective emotion regulation once the person gets unhappy. Playing video games may be a coping mechanism for these issues. But it could be an unhealthy method of managing one's emotions, like emotion suppression (Lynch et al., 2001).

Web addiction is also related to Type A behavior pattern. Individuals with this pattern of behaviour are highly competitive in nature because they strive for goals without feeling joy in their efforts or accomplishments. They may also spend a lot of time working and too little time on their relationships (Petticrew et al., 2012). People with Type A behavior pattern may attempt to alienate others and experience more stress as a result. High alienation leads to high internet addiction (Sharma & Kumar, 2019). People with type A personalities are highly goal-oriented and set goals (Strong, 2022) but do not take time to think about them properly due to their impatience. They are workaholics who progress with the aim of getting the work

done somehow (Scott, 2022). Moreover, because they give priority to work over personal relationships, they tend to compromise relationships often. The online world opens up endless 'work' possibilities (searching, browsing, etc.) for a Type A person who ventures online without any planning. If they proceed without understanding it, they will lose their effective time. Perhaps that is why Goal-directedness without Proper planning has come as a predictor of Internet addiction.

Verbal aggression is another component which predict internet addiction. According to Lee et al. (2021), anger and hostility were not significantly affected by violent game play, but strongly affected by overall game time. It can be assumed that those with high levels of verbal aggression may find gaming as a way to release frustration from work, relationships or other life situations. But research indicates that playing violent video games makes people more aggressive (Bushman & Whitaker, 2010).

Individuals with high trait anxiety, aggressiveness, and neuroticism are more prone to get addicted to video games (Conrad, 2023). Interactions through online was found to cause less social anxiety than in-person interaction, especially in subjects with significant social anxiety (Yen et al., 2012). Buying maniacs people turn to shopping as a coping mechanism for their anxiety, sadness, or bad mood (Racine et al., 2014; Weinstein et al., 2016).

Non-planning impulsivity is specified as a pattern of thinking with an emphasis on the here and now without consideration of any possible repercussions (Dunne et al., 2019). Present findings direct into a conclusion that non-planning impulsiveness predicts Loss of Control (LoC) negatively. People who are particularly prone to share the propensity to act impulsively get boredom easily and look for novel experiences (Danckert & Eastwood,

2019). This means that it will be easier for them to switch to other activities which are necessary for their day-to-day life. So, losing control by completely immersing in internet activities may be less in people with impulsivity.

Conclusion

Even though internet has a major role in our day-to-day life, excess use of the internet has a negative impact on the personal and social life of individuals. Present findings conclude that identifying major psychological factors which contribute to internet addiction is necessary to understand the overall picture of this issue. It also suggests that training on improving interpersonal sensitivity, problem solving skills, emotional regulation strategies, effective dealing of procrastination, impulsiveness and aggression, and focus on overall enhancement of mental health can lead to a greater control over the usage of internet. So mental health professionals should also address these psychological factors while dealing people with Internet addiction.

References

- Akin, A., & Iskender, M. (2011). Internet Addiction and Depression, Anxiety and Stress. *International Online Journal of Educational Sciences*, 3(1), 138-148.
- Andrade, A. L. M., Scatena, A., Bedendo, A., Enumo, S. R. F., Dellazzana-Zanon, L. L., Prebianchi, H. B., Machado, W. L., & Micheli, D. (2020). Findings on the relationship between Internet addiction and psychological symptoms in Brazilian adults. *International Journal of Psychology*, 55(6), 941-950. <http://dx.doi.org/10.1002/ijop.12670>
- Asha, C. B. (1999). *Scale of Type A Behaviour Pattern*. University of Calicut, Kerala.
- Biolcati, R. (2017). The Role of Self-esteem and Fear of Negative Evaluation in Compulsive Buying. *Frontiers in Psychiatry*, 8. <https://doi.org/10.3389/fpsy.2017.00074>

- Bisen, S. S., & Deshpande, Y. (2020). Prevalence, predictors, psychological correlates of internet addiction among college students in India: a comprehensive study. *Anadolu Psikiyatri Derg*, 21(2), 117–123. <https://dx.doi.org/10.5455/apd.47328>
- Bisin, A., & Hyndman, K. (2019). Present-bias, procrastination and deadlines in a field experiment. *Games and Economic Behaviour*, 119, 339-357. <https://doi.org/10.1016/j.geb.2019.11.010>
- Bjureberg, J., Ljotsson, B., Tull, M. T., Hedman, E., Sahlin, H., Lundh, L. G., Bjarehed, J., DiLillo, D., Messman-Moore, T., Gumpert, C. H., & Gratz, K. L. (2016). Development and Validation of a Brief Version of the Difficulties in Emotion Regulation Scale: The DERS-16. *Journal of Psychopathology and behavioral assessment*, 38(2), 284–296. <https://doi.org/10.1007/s10862-015-9514-x>
- Bozoglan, B., Demirer, V., & Sahin, I. (2013). Loneliness, self-esteem, and life satisfaction as predictors of Internet addiction: A cross-sectional study among Turkish university students. *Scandinavian Journal of Psychology*, 54(4), 313–319. <http://dx.doi.org/10.1111/sjop.12049>
- Bryant, F., & Smith, B. (2001). Refining the architecture of aggression: A measurement model for the Buss-Perry Aggression Questionnaire. *Journal of Research in Personality*, 35, 138 – 167.
- Cao, H., Sun, Y., Wan, Y., Hao, J., & Tao, F. (2011). Problematic Internet use in Chinese adolescents and its relation to psychosomatic symptoms and life satisfaction. *BMC Public Health*, 14(11), 802-810. <http://dx.doi.org/10.1186/1471-2458-11-802>
- Caplan, S. E. (2003). Preference for online social interaction a theory of problematic Internet use and psychosocial well-being. *Communication Research*, 30(6), 625–648.
- Caplan, S. E. (2006). Problematic Internet use in the workplace. In: Anandarajan, M., Teo, T. S. H., & Simmers, C. A, editors. *The Internet and Workplace Transformation*. Armonk, NY, USA: ME Sharpe.
- Conrad, B. (2023). *Video Game Addiction Statistics - Facts, Figures, Percentages, & Numbers*. http://www.techaddiction.ca/video_game_addiction_statistics.html
- Danckert, J., & Eastwood, J. D. (2019). *Out of My Skull: The Psychology of Boredom*. Cambridge, MA: Harvard University Press.
- Dunne, E. M., Cook, R. L., & Ennis, N. (2019). Non-planning Impulsivity but Not Behavioral Impulsivity is Associated with HIV Medication Non- adherence. *AIDS and behavior*, 23(5), 1297–1305. <https://doi.org/10.1007/s10461-018-2278-z>
- Griffiths, M. D. (2000). Does Internet and Computer “Addiction” Exist? Some Case Study Evidence. *Cyberpsychology Behaviour and Social Networking*, 3, 211-218. <https://doi.org/10.1089/109493100316067>
- Griffiths, M. D. (2005). A ‘components’ model of addiction within a biopsychosocial framework. *Journal of Substance Use*, 10(4), 191–197.
- Gupta, A., Khan, A. M., Rajoura, O. P., & Srivastava, S. (2018). Internet addiction and its mental health correlates among undergraduate college students of a university in North India. *Journal of Family Medicine and Primary Care*, 7(4), 721–727. http://dx.doi.org/10.4103/jfmpc.jfmpc_266_17
- Hollett, K. B., & Harris, N. (2020). Dimensions of emotion dysregulation associated with problem video gaming. *Addiction Research & Theory*, 28(1), 38–45. <https://doi.org/10.1080/16066359.2019.1579801>
- Hormes, J. M., Kearns, B., & Timko, C. A. (2014). Craving Facebook? Behavioral addiction to online social networking and its association with emotion regulation deficits. *Addiction Research Report*, 109(12), 2079-2088.
- Hormes, J. M., Kearns, B., & Timko, C. A. (2014). Craving Facebook? Behavioral addiction

- to online social networking and its association with emotion regulation deficits. *Addiction Research Report*, 109(12), 2079-2088. <https://doi.org/10.1111/add.12713>
- Hwang, J. Y., Choi, J., Gwak, A. R., Jung, D., Choi, S., Lee, J., Lee, J., Jung, H. Y., & Kim, D. J. (2014). Shared psychological characteristics that are linked to aggression between patients with Internet addiction and those with alcohol dependence. *Annals of General Psychiatry*, 13(1), 1-6. <http://dx.doi.org/10.1186/1744-859X-13-6>
- Jiang, D., Zhu, S., Ye, M., & Lin, C. (2012). Cross-sectional survey of prevalence and personality characteristics of college students with internet addiction in Wenzhou, China. *Shanghai Archives of Psychiatry*, 24(2), 99-107.
- Khodami, M. A., & Sheibani, L. (2019). An investigation on Negative Activity, Alexithymia, Emotion Regulation, and Internet addiction in a sample of high school students: A randomized controlled trial. *Annals Medico Psychologicae*, 178(6), 624-631. <https://doi.org/10.1016/j.amp.2019.10.007>
- Kula, H., Ayhan, C., Kacay, Z., & Soyer, F. (2020). The Relationship between Smartphone Addiction and Life Satisfaction: Faculty of Sport Sciences Students. *International Journal of Psychology and Educational Studies*, 7(1), 86-95. <http://dx.doi.org/10.17220/ijpes.2020.01.008>
- Lee, E. J., Kim, H. S., & Choi, S. (2021). Violent Video Games and Aggression: Stimulation or Catharsis or Both?. *Cyberpsychology, behavior and social networking*, 24(1), 41-47. <https://doi.org/10.1089/cyber.2020.0033>
- Lee, J. Y., Park, E. J., & Kwon, M. (2014). The difference in comorbidities and behavioral aspects between Internet abuse and Internet dependence in Korean male adolescents. *Psychiatry Investigation*, 11(4), 387-393.
- Levitin, D. J. (2015). Information overload and the science of procrastination.
- Lin, L., Wang, X., Li, Q., Xia, B., Chen, P., & Wang, W. (2021). The Influence of Interpersonal Sensitivity on Smartphone Addiction: A Moderated Mediation Model. *Frontiers in Psychology*, 12(6), 1-9. <https://doi.org/10.3389/fpsyg.2021.670223>
- Longstreet, P., & Brooks, S. (2017). Life satisfaction: A key to managing internet & social media addiction. *Technology in Society*, 50(3), 73-77. <http://dx.doi.org/10.1016/j.techsoc.2017.05.003>
- Lovibond, S. H., & Lovibond, P. F. (1995). *Manual for the Depression Anxiety Stress Scales*. Sydney Psychology Foundation Australia.
- Lynch, T. R., Robins, C. J., Morse, J. Q., & Krause, E.D. (2001). A mediational model relating affect intensity, emotion inhibition, and psychological distress. *Behavior Therapy*, 32(3), 519-536. [https://doi.org/10.1016/S0005-7894\(01\)80034-4](https://doi.org/10.1016/S0005-7894(01)80034-4)
- Neto, F. (2014a). Psychometric analysis of the short-form UCLA Loneliness Scale (ULS-6) in older adults. *European Journal of Ageing*, 11, 313-319.
- Pavot, W., & Diener, E. (1993). Review of the Satisfaction with Life Scale. *Psychological Assessment*, 5 (2), 164-172.
- Pawlikowski, M., Altstotter-Gleich, C., & Brand, M. (2013). Validation and psychometric properties of a short version of Young's Internet Addiction Test. *Computers in Human Behavior*, 29(3), 1212-1223. <https://doi.org/10.1016/j.chb.2012.10.014>
- Petticrew, M. P., Lee, K., & Mckee, M. (2012). Type A behavior pattern and coronary heart disease: Philip Morris's "crown jewel". *American Journal of Public Health*, 102(11), 2018-2025. <https://doi.org/10.2105/AJPH.2012.300816>
- Quaglieri, A., Biondi, S., Roma, P., Varchetta, M., Frascetti, A., Burrari, J., Lausi, G., Marti-Vilar, M., Gonzalez-Sala, F., Di Domenico, A., Giannini, A. M., & Mari, E. (2022). From Emotional (Dys)Regulation to Internet Addiction: A Mediation Model

- of Problematic Social Media Use among Italian Young Adults *Journal of Clinical Medicine*, 11(1), 1-14. <https://doi.org/10.3390/jcm11010188>
- Racine, E., Kahn, T., & Hollander, E. (2014). Chapter 12 - Compulsive Buying Disorder. *Behavioral Addictions Criteria, Evidence, and Treatment*, 285-315. <https://doi.org/10.1016/B978-0-12-407724-9.00012-4>
- Reinecke, L., Meier, A., Beutel, M. E., Schemer, C., Stark, B., Wolfling, K., & Müller, K. W. (2018). The Relationship between Trait Procrastination, Internet Use, and Psychological Functioning: Results from a Community Sample of German Adolescents. *Frontiers in Psychology*, 9(6), 901-913. <http://dx.doi.org/10.3389/fpsyg.2018.00913>
- Schreiber, L. R., Grant, J. E., & Odlaug, B. L. (2012). Emotion regulation and impulsivity in young adults. *Journal of psychiatric research*, 46(5), 651-658. <https://doi.org/10.1016/j.jpsychires.2012.02.005>
- Scott. (2022). *What It Means to Have Type A Personality Traits - Type A traits can have health consequences, but they can also be changed.*
- Sepehrian, F., & Lotf, J. J. (2011). Study of the Relationship Between Internet Addiction with Anxiety and Personality Types A and B. *Australian Journal of Basic and Applied Sciences*, 5(11), 928-934.
- Sharma, H. L., & Kumar, S. (2019). Alienation, Internet Addiction and Birth Order as the Main Determinants of Anxiety among Undergraduate Students. *Our Heritage*, 67(2), 703-718.
- Spinella, M. (2007). Normative data and a short form of the Barratt Impulsiveness Scale. *International Journal of Neuroscience*, 117, 359-368.
- Steel, P. (2010). Arousal, avoidant and decisional procrastinators: Do they exist? *Personality and Individual Differences*, 48(8), 926-934.
- Strong, R. (2022). *Why type A personalities are more successful in life but also some of the most stressed and depressed.* <https://www.insider.com/guides/health/mental-health/type-personality#:~:text=Type%20A%20personalities%20are%20typically,paien%20with%20themselves%20and%20others.>
- Todd, A. L., Boyce, P. M., Heath, A. C., & Martin, N. G. (1994). Shortened versions of the Interpersonal Sensitivity Measure, Parental Bonding Instrument and Intimate Bond Measure. *Personality and Individual Differences*, 16 (2), 323 - 329.
- Weinstein, A., Maraz, A., Griffiths, M. D., Lejoux, M., & Demetrovics, Z. (2016). Chapter 98 - Compulsive Buying—Features and Characteristics of Addiction. *Neuropathology of Drug Addictions and Substance Misuse, Volume 3*, 993- 1007. <https://doi.org/10.1016/B978-0-12-800634-4.00098-6>
- Yen, J. Y., Yen, C. F., Chen, C. S., Wang, P. W., Chang, Y. H., & Ko, C. H. (2012). Social anxiety in online and real-life interaction and their associated factors. *Cyberpsychology, behavior and social networking*, 15(1), 7-12. <https://doi.org/10.1089/cyber.2011.0015>
- Yildiz, M. A. (2017). Emotion regulation strategies as predictors of internet addiction and smartphone addiction in adolescents. *Journal of Educational Sciences & Psychology*, 7(69), 66-78.
- Young, K. S., & Brand, M. (2017). Merging Theoretical Models and Therapy Approaches in the Context of Internet Gaming Disorder: A Personal Perspective. *Frontiers in psychology*, 8,1853. <https://doi.org/10.3389/fpsyg.2017.01853>

Bayana Beevi O M S : PhD, ICDS Supervisor, Women and Child Development Department, Govt. of Kerala, Vaniyamkulam, Palakkad. Email: bayanabeevi@gmail.com

Sukanya B Menon: PhD, Associate Professor, Department of Psychology, Prajyoti Niketan College, Pudukad, Thrissur(Dt), Kerala-680301. Email : sukanyabmenon@gmail.com