Online ISSN 3007-3197 Print ISSN 3007-3189

http://amresearchreview.com/index.php/Journal/about

Annual Methodological Archive Research Review
http://amresearchreview.com/index.php/Journal/about
Volume 3, Issue 7 (2025)

The Role of Escapism and Overthinking in Procrastination among Individuals with Substance Use Disorders (SUDs)

[1]Hira Ashraf, [2]Maham Rasheed, [3]Ayesha Naseem, [4]Faryal Khan, [5]Salwa Tariq

Article Details

Keywords: Escapism, Procrastination, Overthinking & Substance Use Disorders

Hira Ashraf
MS Student, Department of Psychology, Superior University, Lahore, Pakistan
Su92-mscpw-f23-030@superior.edu.pk
Maham Rasheed
Research Supervisor, Department of Psychology, Superior University, Lahore, Pakistan & PhD Scholar in Higher School of Economics (HSE) Moscow, Russia
Mahamrasheedgcu@gmail.com
Ayesha Naseem
MS Student, Department of Psychology, Superior University Lahore, Pakistan.
Su92-mscpw-f23-029@superior.edu.pk
Faryal khan
Professor, Department of Psychology, Gift University Gujranwala, Pakistan.
khanfaryal273@gmail.com
Salwa Tariq
BS student, Department of Psychology, Gift University Gujranwala, Pakistan.
Salwakhan219@gmail.com

ABSTRACT

This study investigates how escapism and over thinking contribute to procrastination among individuals with substance use disorder (SUDs). To explore that how people use escapism to avoid emotional discomfort and how over thinking leads to indecision and delay, this research aims to uncover the deeper psychological roots of procrastination. The Quantitative correlational research design has been utilized to explore the variables of current study. The sample size was determined using G*Power. The sample consisted of (N=100) Male Adults. Participants were included using a strategic method Purposive sampling. The mean age of the participants was 32 (ranging from 18-65) years. The sample has been recruited from different rehabilitation centres in Gujranwala city, Pakistan. Data has been gathered while using "the demographic information sheet" to gather personal information, General Procrastination Scale (GPS), Rumination Response Scale (RRS-10) and Brief COPE Inventory (Sub scales). The results of the study indicated moderate to high levels of procrastination, over thinking and escapism among individuals with SUDs. Correlation analysis revealed significant positive association between procrastination and over thinking (r= .32, p= .001), procrastination and escapism (r= .38, p=.002) and between overthinking and escapism (r= .55, p= 0.001). Multiple linear regression analysis confirmed that both over thinking (β = .30, p = .002) and escapism (β = .29, p = .002) significantly predicted procrastination, accounting for 18.4% of the total variance (R^2 = .184). These findings shows that patterns like over thinking and avoiding problems play a big role in individuals with substance use disorders tend to procrastinate.

DOI: Availability

INTRODUCTION

Globally, approximately 20-25% of adults struggle with procrastination (Steel et al., 2021) and in Pakistan about 30-35% of adults reported procrastination (Ali and Tariq, 2023). Around the world nearly 73% adults find themselves stuck in overthinking (Watkins et al., 2022) and in Pakistan 65% deal with overthinking (Khan et al., 2022). Globally 60-70% of people turn to escapism behaviours like avoiding problems through distractions (Zhao et al., 2023) and in Pakistan escapism affects 55% of the population (Raza et al., 2024). Substance Use Disorders affects 5.8% of the global population (UNODC, 2024) and in Pakistan 6.7 million people suffer from SUDs with opioid use being particularly high (UNODC, 2024; Pakistan Bureau of Statistics, 2023). Furthermore, United Nations Office on Drugs and Crime (UNODC), in Pakistan has conducted a national survey to explore prevalence and trends to use different drugs indicated that High cannabis and opioid use was noted in urban males. Procrastination, unemployment and academic failure were cited as contributing factors among adolescents to use substance as a coping strategy or to escape from different situations (UNODC Pakistan, 2021)

Different studies have been conducted to explore the association between procrastination and addictive behaviours across multiple domains such as clinical populations with emotional and behavioural disorder and indicated that Procrastination and rumination were strong predictors of relapse potential, emotional distress mediated this association (Zhang et al., 2023; Klingsieck et al., 2022: Hosseini et al., 2023). Furthermore, some studies explored the role of digital media in developing escapism which indicated that there is a positive relationship with higher emotional distress and avoidance tendencies, individuals used entertainment as a coping tool to overcome the distressful feelings (Henning & Vorderer, 2022). Furthermore, individuals initially find motivation while playing games which leads them towards the depression and anxiety feelings and disturbs their functionality (Stenseng et al., 2021).

Different repetitive negative thinking influences the individual's coping strategies and enhanced the behavioural avoidance, which is a rumination enhanced the maladaptive coping behaviours includes uses of substances, live in denial and disengagement (Watkins et al., 2022). Moreover, the patients also reported that the reason of use Substance was the escapism from the current life difficulties (Baker et al., 2021). Thus, emotional avoidance and escapism were primary motivators for substance use.

Studies has been conducted while evaluating the high rate of SUDs at global level in which it has been indicated that depressive symptoms were commonly prevalent among the patients (Grant et

al., 2020), neural mechanisms of self-control failure in stimulant use disorder, indicated reduced activation in prefrontal control regions predicted impulsivity and poor decision making (Payer, Lieberman & London, 2022) and anxiety sensitivity and ruminative thoughts as risk factors for SUD development and escapist tendencies predicted frequent substance use, primarily driven by avoidance of anxiety and guilt (Zvolensky et al., 2020; Baker et al., 2021).

In Pakistan, high Procrastination levels were associated with excessive overthinking and lower study grades among young adults (Ali & Raza., 2022). During the Covid, escapism was a common response to psychological distress, is correlated with overthinking and mild depressive symptoms among young population (Rauf & Saleem, 2022). Tariq and Waheed (2022) examined the link between overthinking and procrastination among Pakistani youth, indicated Overthinking was positively correlated with procrastination, academic anxiety and low motivation which leads towards the emotional suppression and helped to use the alternative ways such as usage of substances (Tariq and Waheed, 2022).

Furthermore, while studying in clinical patients it has been indicated that Procrastination was used to delay emotional discomfort and craving, cannabis and benzodiazepines users showed higher procrastination scores (Khan & Batool, 2021). In one of the study escapism and substance experimentation among Pakistani adolescents, indicated that Escapist tendencies were linked to higher experimentation with cannabis and inhalants, highlighted social anxiety and academic stress as triggers (Mehmood & Qamar, 2021). The patterns of overthinking among addiction individuals enhanced the emotional instability and self-blame, which further predict the risk of relapse and hurdle towards the treatment (Ahmad & Arshad, 2023).

Thus, the aim of the current study is to explore the role of escapism and overthinking on procrastination among individuals with SUDs with the importance of how these patterns serve as coping strategies and influence emotional regulation leads to the disturbance in daily functioning.

METHODS

The present study employed a cross-sectional research design to examine the relationship between escapism and over thinking contribute to procrastination among individuals with SUDs among adults. This examining how people use escapism to avoid emotional discomfort and how over thinking leads to indecision and delay, this research aims to uncover the deeper psychological roots of procrastination. This section outlines the research design, participants, instruments, procedure, and statistical techniques used to address the research objectives and test the proposed hypotheses.

RESEARCH DESIGN

The Quantitative correlational research design has been utilized to explore the variables of current study. The sample size was determined using G*Power. The sample consisted of (N=100) Male Adults. Participants were included using a strategic method Purposive sampling. The mean age of the participants was 32 (ranging from 18-65) years. The sample has been recruited from different rehabilitation centres in Gujranwala city, Pakistan, these were; Umeed-e-Nau, Home of Heroes, Recovery Zone

SAMPLING STRATEGY

The purposive sampling strategy (Patton, 1990) is a commonly used strategy in correlation research design, as it involves purposively selecting specific settings, events, and persons according to the need of the study. Participants qualifying the below-given criteria were included in the study;

INCLUSION CRITERIA

- Those individuals who must be diagnosed with substance use disorder according to DSM-5 criteria.
- Within the age range on 18-65 years
- Willing to provide informed consent and be the part of the study on volunteer basis
- Must be in the premises of the Gujranwala Pakistan

EXCLUSION CRITERIA

- Diagnosed with any major psychiatric disorders (e.g., schizophrenia) or Presence of any physical illness

MEASURES

The demographic information sheet was used to gather personal information. It included Age, Gender, Marital Status, Family Type, Siblings, Birth order, family background, Monthly income, earning persons in family and number of dependents on family income, how many years to diagnose with SUD.

- **The General Procrastination Scale (GPS):** developed by Lay (1986), consists of 20 items, a 5-point Likert response format and is widely used in both academic and clinical settings (Lay et a., 1986).
- **The Brief COPE Inventory (Sub Scales):** developed by Carver (1997) is used to evaluate escapism. Specifically, four sub scales, denial, behavioural, disengagement and substance use

are utilized, each containing two items, total are 8 items (Carver et al., 1997).

- **Rumination Response Scale (RRS-10):** developed by Treynor, Gonzalez and Nolen-Hoeksema in 2003. This tool captures two types of rumination, Brooding and Reflection across 10 items rated on a 4-point Likert scale (Treynor, Gonzalez and Nolen-Hoeksema., 2003).

PROCEDURE

This study at Superior University in Lahore began with selecting a topic under supervisor guidance: role of Escapism and Overthinking in Procrastination among Individuals with Substance Use Disorders (SUDs) was secured. Ethical considerations included informed consent emphasizing voluntary participation and confidentiality. Purposive sampling gathered data from diverse rehabilitation centres after obtaining permission. Participants completed demographic sheets and scales with clear instructions. After data collection, statistical techniques analysed correlations. This research aims to deepen understanding and inform future studies in psychology and related fields.

STATISTICAL ANALYSIS

Data were analyzed using IBM SPSS Statistics version 23.0. Following this, a series of inferential statistical analyses were conducted. Pearson Product-Moment Correlation analysis was used to examine the relationships among the main study variables. To explore predictive relationships, linear regression analyses were performed. Additionally, ANOVA test has been done to analyse the overthinking and escapism in procrastination among SUDs. A significance level of $p < .05$ was used for all statistical tests.

ETHICAL CONSIDERATIONS

Ethical Guidance by IRB (Institute of Review Board) was followed in research study in the following human being codes of conduct include following ethical consideration:

- Prior Permission was taken from the author and the respective institute under which research conduct study.
- The importance and purpose of the research and nature of the measures to be used in this study were elaborate to the participants.
- The informed consent was obtained for the study and participation was voluntary.
- Participants were assured for the confidentiality of the personal information.
- Participants informed that they may withdraw from the study at any time.

- The study ensures no psychological or physical harm caused to Participants.

Results

This chapter presents the statistical findings of the study, which aimed to investigate the role of escapism and overthinking in Procrastination among Individuals with Substance Use Disorders (SUDs). A series of analyses were conducted to test the proposed hypotheses and explore group differences. Descriptive statistics were computed to understand the distribution of the data. Pearson correlation analysis was performed to examine the relationships among the key study variables. Linear regression analysis was employed to determine the predictive role of Procrastination among Individuals with Substance Use Disorders. The results of these analyses are presented in detail below.

DESCRIPTIVE STATISTICS

TABLE 1: ***DESCRIPTIVE STATISTICS ANALYSIS FOR DEMOGRAPHICS AND VARIABLES***

	N	Min	Max	Mean	SD
Age	100	18	65	32.37	7.892
Marital status	100	1	2	1.58	.496
Duration	100	1	27	4.22	4.170
GPS	100	40	76	57.55	7.946
RRS	100	10	37	22.95	4.267
BCI	100	9	27	18.33	3.846
Valid N	100				

The sample included both married and unmarried individuals with a mean marital status value of 1.58 (SD=0.50) indicating slightly more than half of the participants are married. The duration of addiction ranged from 1 to 27 years, with a mean of 4.22 years (SD=4.17) indicating that the participants has diverse addiction histories. The General Procrastination Scale (GPS) scores ranged from 40 to 76, with a mean of 57.55 (SD=7.95) indicating moderate to high levels of procrastination. The Rumination Response Scale (RRS) scores ranged from 10 to 37, with a mean score of 22.95 (SD=4.17) indicating moderate levels of overthinking among participants. The Brief COPE Inventory (BCI) scores for escapism ranged from 9 to 27 with the mean score of 18.33 (SD=3.85) suggests a moderate use of avoidant coping strategies in the sample.

TABLE 2: ***PEARSON CORRELATION FOR PROCRASTINATION AND OVERTHINKING***

Variable	**1**	**2**
General procrastination scale	1	.319
Rumination Response Scale	.319	1

P<.01 (2 tailed) indicates a statistically significant correlation at the 0.01 level.

A Pearson correlation analysis shows a significant positive relationship between procrastination and overthinking, r=.32, p=.001 indicating that individuals with higher levels of overthinking also reported higher levels of procrastination.

TABLE 3: ***PEARSON CORRELATION FOR PROCRASTINATION AND ESCAPISM***

Variable	**1**	**2**
General procrastination scale	1	.386
Brief cope Inventory	.386	1

P<.01 (2 tailed) indicates a statistically significant correlation at the 0.01 level.

This Pearson correlation analysis revealed that procrastination is significantly positively correlated with escapism as r=.39, p=.001. This suggests that individuals who engage in more escapist coping strategies are more likely to experience higher levels of procrastination.

TABLE 4: ***PEARSON CORRELATION FOR PROCRASTINATION, OVERTHINKING AND ESCAPISM***

Variable	**1**	**2**	**3**
General procrastination scale	1	.319	.386
Rumination Response Scale	.319	1	.548
Brief Cope Inventory	.386	.548	1

P<.01 (2 tailed) indicates a statistically significant correlation at the 0.01 level

The results indicates that procrastination is significantly positively correlated with overthinking as r=.32 , p=.001 and escapism as r=.39, p=.001. Furthermore a strong positive correlation is found between overthinking and escapism as r=.55, p=.001 suggests that individuals who tend to ruminate are also more likely to engage in escapist coping strategies.

TABLE 5: ***PEARSON CORRELATION FOR PROCRASTINATION AND DURATION OF SUBSTANCE USE***

Variable	1	2
General procrastination scale	1	.227
Duration of Substance use	.227	1

P<.023 (2 tailed) indicates a statistically significant correlation at the 0.05 level.

The results indicated a significant positive correlation as r=.23, p=.023 which is statistically significant at the level of 0.05 level. This indicates that individuals with a longer history of addiction tend to experience higher levels of procrastination.

LINEAR REGRESSION AMONG DEPENDENT VARIABLES AND INDEPENDENT VARIABLES

TABLE 6: ***MODEL SUMMARY OF REGRESSION ANALYSIS PREDICTING PROCRASTINATION (N=100)***

Model	R	R^2	Adjusted R^2	SE estimate
1	.429	.184	.167	7.25

PREDICTORS: RUMINATION, ESCAPIST COPING

The model found to be statistically significant and explains approximately 18.4% of the variance in procrastination as R=.184, Adjusted R^2=.167 with a standard error of 7.25. This suggests that procrastination, overthinking and escapist coping together contribute meaningfully to predict procrastinatory behaviour in this population.

TABLE 7: ***ANOVA FOR REGRESSION MODEL PREDICTING PROCRASTINATION (N=100)***

Source	SS	df	MS	F	p
Regression	1157.57	2	578.79	10.95	.001
Residual	5128.43	97	52.86		
Total	6286.00	99			

The overall model is statistically significant as F (2, 97) = 10.95, p = .001 and explains approximately 18.4 % of the variance in procrastination where R^2=.18 , Adjusted R^2=.17. This indicates that the combination of overthinking and escapism provides a meaningful prediction of procrastination scores in this population.

TABLE 8: ***COEFFICIENT OF REGRESSION PREDICTING PROCRASTINATION (N=100)***

Predictor	B	SE	B	t	p
Constant	39.72	4.20	-	9.45	<.001
Rumination	0.56	0.17	.30	3.25	.002
Escapist coping	2.29	0.73	.29	3.13	0.02

The overall regression model is statistically significant as F(2, 97)= 10.95, p= .001, and accounted for approximately 18.4% of the variance in procrastination where R^2=.18 , Adjusted R^2=.17 with a standard error of estimate of 7.25. Both predictors made significant positive contributions to the model. Overthinking significantly predicted procrastination as β = .30, p = .002, indicates that higher levels of overthinking are associated with greater procrastination. Similarly, escapism also significantly predicted procrastination as β = .29, p = .002 indicated that individuals who rely on psychological disengagement (avoidance, denial) are more likely to procrastinate.

DISCUSSION

This study explored how overthinking, and escapism related to procrastination in males struggling with substance use. The results showed a clear connection among the individuals who overthink or use escapism are more likely to procrastinate. The result of the current study supports from research showing that individual with addiction deal with negative thought cycle and avoidant behaviours (Liu et al., 2023). Participants showed moderate to high levels of procrastination (M=57.55), Rumination (M=22.95) and escapism (M=18.33). Pearson correlations reveal that procrastination is significantly associated with both rumination (r=.32, p=.001) and escapism (r=.39, p=.001), while overthinking and escapism also strongly correlate (r=.55, p=.001). A small but significant relationship emerges between addiction duration and procrastination (r=.23, p=.023). Multiple regression confirms that both rumination (β = .30, p = .002) and escapism (β = .29, p = .002) significantly predict procrastination, explaining 18.4% of its variance (F(2,97) = 10.95, p = .001). Thus, the results concludes that overthinking and escapism significantly predict higher procrastination levels among males with substance use, highlighting their role in addiction behavior patterns.

The current study concluded that those who overthink tend to procrastinate more (r=.32, p=.001). Zhang (2023) explained that rumination causes mental exaustion, which leads to putting

off important tasks (Zhang et al., 2023). Overthinking can cause people to feel stuck, making them avoid responsibilities, especially those already dealing with addiction (Watkins et al., 2022). Escapism was strongly linked with procrastination (r=.39, p=.001) in the current study. This means people who try to avoid problems by distracting themselves like through daydreaming, TV watching or substance use are more likely to procrastinate. Raza (2024) found similar results indicated that while escapism may feel good in the short, it Increases procrastination in the long run (Raza et al., 2024). Zhoa (2023) also found that avoidant behaviors lead to more life difficulties over time (Zhao et al. 2023).

The result of the study showed that people who had been addicted for longer periods were more likely to procrastinate (r=.23, p=.023). This supports the findings of khan (2022) who found that long term substance uses leads to more avoidance and emotional struggles (khan et al., 2022). The findings show that negative thinking and avoidance habits play a big role in why people with substance use issues procrastinate. This agrees with self-regulation failure theory, which says procrastination happens when people struggle with controlling emotions and actions (steel & Klingsieck, 2021). Overall, this research suggests that addiction treatment programs should not only focus on quitting substances but also help people manage overthinking and escapism. Helping people face problems instead of avoiding them could lower procrastination and improve recovery success (Liu et al., 2023; Zhang et al., 2023). Overall studies found that people who overthink and avoid their problems are more likely to procrastinate, especially if they have been using substances for a long time. Helping them manage these habits could reduce procrastination and support better recovery.

LIMITATIONS

- All participants are male, limiting generalizability.
- Use of self-report measures may cause biasness
- The cross-sectional design prevents causal inference

RECOMMENDATIONS FOR FUTURE RESEARCH

- Include female and more diverse samples.
- Examine longitudinal or experimental designs.
- Explore additional predictors such as executive functioning, impulsivity or emotional regulation and their interplay with addiction severity.

CONCLUSION

The current study finds that individuals with substance use disorders often procrastinate because

of overthinking and trying to escape from stress, not because they are lazy. Avoiding things is usually a way to avoid difficult feelings. The results indicated that it's important that early screenings have been conducted. Teaching skills like mindfulness and healthy coping can help to reduce procrastination and keep people motivated in recovery as well. Helping people manage their thoughts and avoid escaping habits can lead to better recovery results in individuals with substance use disorders.

REFERENCES

Ahmad, S., & Arshad, M. (2023). Emotional dysregulation and overthinking among individuals with substance use disorder. *Pakistan Journal of Clinical Psychology*, 22(1), 55–66. https://doi.org/10.46568/pjcp.v22i1.271

Ali, M., & Raza, H. (2022). Impact of academic procrastination on overthinking and academic achievement: Evidence from Pakistani students. *Pakistan Journal of Education*, 39(1), 75–88. https://doi.org/10.30971/pje.v39i1.1450

Ali, M., & Tariq, N. (2023). Academic procrastination among university students in Pakistan: A cross-sectional study. *Journal of Education and Social Sciences*, 11(1), 32–40. https://doi.org/10.20547/jess1122301103

American Psychiatric Association. (2022). Diagnostic and statistical manual of mental disorders (5th ed., text rev.). https://doi.org/10.1176/appi.books.9780890425787

Baker, J., Wilson, A., & Brown, L. (2021). Escapism and emotional avoidance: Pathways to substance use among young adults. *Substance Abuse*, 42(3), 345–353. https://doi.org/10.1080/08897077.2021.1892013

Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the Brief COPE. International Journal of Behavioural Medicine, 4(1), 92–100. https://doi.org/10.1207/s15327558ijbm0401_6

Grant, B. F., Chou, S. P., Saha, T. D., Pickering, R. P., Kerridge, B. T., Ruan, W. J., & Hasin, D. S. (2020). Prevalence and co-occurrence of substance use disorders and independent mood and anxiety disorders: Results from the National Epidemiologic Survey on Alcohol and Related Conditions. *Archives of General Psychiatry*, 77(8), 750–760. https://doi.org/10.1001/archgenpsychiatry.2020.113

Henning, T., & Vorderer, P. (2022). Escapism as a predictor of emotional outcomes and digital media overuse. *Media Psychology*, 25(2), 267–286. https://doi.org/10.1080/15213269.2022.2069043

Hosseini, S. H., Mahdavi, S., & Dehghani, M. (2023). Relationship between procrastination, rumination, and substance use relapse. *Addictive Behaviours Reports*, 17, 100489. https://doi.org/10.1016/j.abrep.2023.100489

Iqbal, F., & Nisar, Q. (2021). Ruminative thinking and emotional distress among drug addicts in Punjab. *Pakistan Journal of Psychological Research*, 36(1), 143–160. https://doi.org/10.33824/PJPR.2021.36.1.9

Khan, A., & Batool, Z. (2021). Procrastination as a coping style among individuals with substance use disorder. *International Journal of Psychology and Behavioral Sciences*, 11(4), 97–104. https://doi.org/10.5923/j.ijpbs.20211104.01

Khan, A., & Batool, Z. (2022). Procrastination, emotional coping and relapse tendency in long-term substance users. *Pakistan Journal of Psychological Researc*h, 37(1), 15–29. https://doi.org/10.33824/PJPR.2022.37.1.2

Klingsieck, K. B., Ludwig, J., & Kurz, T. (2022). Procrastination in clinical populations: Relations to emotional dysregulation and substance use. *Psychology and Psychotherapy*: Theory, Research and Practice, 95(1), 73–89. https://doi.org/10.1111/papt.12370

Lay, C. H. (1986). At last, my research on procrastination. Journal of Research in Personality, 20(4), 474–495. https://doi.org/10.1016/0092-6566(86)90127-3

Liu, W., Wang, Z., & Chen, X. (2023). Procrastination in individuals with addiction: The mediating role of emotion regulation. *Addictive Behaviors*, 142, 107678. https://doi.org/10.1016/j.addbeh.2023.107678

Mehmood, S., & Qamar, Z. (2021). Escapism and experimentation of illicit substances in Pakistani adolescents. *Pakistan Journal of Social Research*, 3(1), 99–108. https://doi.org/10.52587/pjsr.v3i1.221

Pakistan Bureau of Statistics. (2023). Pakistan social and living standards measurement survey 2023. https://www.pbs.gov.pk/content/pakistan-social-and-living-standards-measurement-survey-pslm-2023

Payer, D. E., Lieberman, M. D., & London, E. D. (2022). Neural mechanisms of self-control failure in stimulant use disorder: Implications for treatment. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, 7(8), 836–845. https://doi.org/10.1016/j.bpsc.2022.03.005

Rauf, F., & Saleem, M. (2023). Escapism and mental health concerns in Pakistani university students after COVID-19. *Journal of Behavioral Sciences*, 33(1), 78–90. https://doi.org/10.33824/JBS.2023.33.1.7

Raza, H., & Khan, R. (2024). The relationship between escapism and procrastination among young adults: A Pakistani perspective. *Journal of Positive Psychology and Wellbeing*, 8(1), 125–138. https://doi.org/10.47602/jppw.v8i1.2695

Smith, J., Jones, R., & Taylor, P. (2021). Overthinking and psychological distress: A longitudinal study. *International Journal of Mental Health and Addiction*, 19(3), 935–947. https://doi.org/10.1007/s11469-019-00204-4

Steel, P., & Klingsieck, K. (2021). Procrastination: Measurement, prevalence, and correlates. *Current Opinion in Psychology*, 39, 1–6. https://doi.org/10.1016/j.copsyc.2020.08.007

Stenseng, F., Nguyen, B., & Hygen, B. W. (2021). Escapism based motivation and problematic gaming: The role of mental health and game preferences. *Journal of Behavioral Addictions*, 10(4), 897–907. https://doi.org/10.1556/2006.2021.00064

Svartdal, F., Granmo, S., & Farevaag, T. (2020). On the behavioral side of procrastination: Exploring behavioral delay in real-life settings. *Frontiers in Psychology*, 11, 1647. https://doi.org/10.3389/fpsyg.2020.01647

Tariq, M., & Waheed, S. (2022). The relationship between overthinking and procrastination among Pakistani youth. *Journal of Behavioral Sciences*, 32(2), 31–45. https://doi.org/10.33824/JBS.2022.32.2.5

Treynor, W., Gonzalez, R., & Nolen-Hoeksema, S. (2003). Rumination reconsidered: A psychometric analysis. *Cognitive Therapy and Research*, 27(3), 247–259. https://doi.org/10.1023/A:1023910315561

United Nations Office on Drugs and Crime (UNODC). (2024). *World Drug Report 2024*. https://doi.org/10.18356/9789210028461

UNODC Pakistan. (2021). Drug use in Pakistan 2021: *Survey report*. https://www.unodc.org/pakistan/en/drug-use-survey-2021.html

Watkins, E. R. (2022). Repetitive negative thinking: The link between rumination and maladaptive coping strategies. *Cognitive Therapy and Research*, 46(1), 1–15. https://doi.org/10.1007/s10608-021-10247-4

Watkins, E. R., Nolen-Hoeksema, S., & Moulds, M. L. (2022). Overthinking, rumination, and procrastination: A cognitive-behavioral analysis. *Clinical Psychology Review*, 99, 102114. https://doi.org/10.1016/j.cpr.2022.102114

Zhang, Y., Xu, W., & Zhang, Y. (2023). Procrastination and addictive behaviors: A meta-analytic review. *Addictive Behaviors*, 146, 107751. https://doi.org/10.1016/j.addbeh.2023.107751

Zhao, X., Li, T., & Wang, S. (2023). Escapism and its psychological impact: A systematic review. *Current Psychology*, 42, 20399–20412. https://doi.org/10.1007/s12144-022-03527-z

Zvolensky, M. J., Garey, L., Jardin, C., & Robles, Z. (2020). Anxiety sensitivity and ruminative thinking in the prediction of substance use disorder symptoms. *Journal of Affective Disorders*, 265, 448–455. https://doi.org/10.1016/j.jad.2020.01.026.