The Relationship Between Anxiety and Maladaptive Daydreaming in Nursing Students: A Correlational Study

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Abstract
In this cross-sectional study conducted among nursing students in India, the research explores the intricate relationship between maladaptive daydreaming (MD) and anxiety, filling a gap in a context where limited prior research exists. Using self-administered questionnaires, including the Maladaptive Daydreaming Scale (MDS-16) and the Beck Anxiety Inventory (BAI), the study reveals a moderate positive correlation between MD and anxiety symptoms ($r = 0.494$, $p < .001$). Notably, MD was identified as a significant predictor of 24.2% of the variance in anxiety levels among nursing students. Moreover, the Kruskal-Wallis test demonstrated significant differences in anxiety levels across groups with varying degrees of MD tendencies. This research underscores the substantial impact of maladaptive daydreaming on anxiety among nursing students, emphasizing the imperative need for tailored interventions and support mechanisms. The study offers insights into these complex psychological phenomena within a unique cultural context, setting the stage for cross-cultural comparative research and targeted strategies for this student population's well-being.

Keywords: Maladaptive daydreaming, anxiety, nursing students, cross-sectional study, India, psychological phenomena.

Introduction Stress Triggering Anxiety in Indian Nursing Students
One of the world's most stressful professions is nursing. Since they are responsible for the majority of patient care, nursing students are an important source of human capital. Stressful situations that arise while nursing students are studying can harm their academic, professional, and personal lives. Their mental health is impacted by a variety of stressors, including being away from home, academic pressure, rigorous professional training, socioeconomic background, friend support, and relationships with family members. They experience less productivity, lower quality of life, and learning challenges as a result of this psychological distress, which may also hurt patient care. There are numerous studies on stress, anxiety, and depressive symptoms among nursing students at the international level, however, there are few studies from India on the epidemiology of psychiatric illnesses among nursing students. (Verma, Pakhare, Lahri, & Das, 2021). According to a study conducted by Chatterjee, et al (2014), 63.9% of the students were found to be depressed, the majority being mild in grade. First-year students were found to be significantly more affected. Of Family conflict, course indifference, and uncertainty about future
employment were all statistically significant predictors in the development of depression, according to binary logistic regression.

**Maladaptive Daydreaming**

Maladaptive daydreaming (MD) is a term used to describe dysfunctional types of imaginative involvement that can be exhibited through binge-viewing books, playing video games, or watching movies. MD is a term used to describe prolonged, frequently compulsive fantasy immersion that interferes with functioning in a variety of areas, including academics, interpersonal relationships, and employment. (Somer E, 2018). Patients with a variety of DSM-5 disorders, such as attention-deficit hyperactivity disorder, anxiety disorder, depressive disorder, and obsessive-compulsive or associated disorders, were shown to have this syndrome. (Somer, & Ross, 2017)

Many studies about MD have been carried out around the world, and the vast majority of them are recent because it is a relatively new condition that few researchers know about. A recent study by Bigelsen et al. from 2016 characterized MD and made an effort to improve knowledge of its characteristics. In that study, a total of 447 people, ranging in age from 13 to 78, from 45 different nations, were split into two groups for comparison purposes. There were 107 controls and three hundred and forty self-described MDers. The findings showed that MD differs significantly in many ways from healthy daydreaming and that many MDers experience attention deficit, obsessive-compulsive, and dissociative symptoms. The Maladaptive Daydreaming Scale (MDS), a 14-item self-report instrument created to quantify maladaptive fantasizing, was developed in another study that was published in 2016 by Somer et al. The findings demonstrated that the tool was effective in differentiating between people who self-identified as having MD and those who did not, and it appears to be a great tool for further MD research. In a study published by Somer et al. in 2017, a new 16-item version of the MDS that included two additional items was used. However, the study results showed high rates of comorbidities that accompany MD as 74% met the criteria for more than three additional disorders, and 41% met the criteria for more than four. Obsessive-compulsive disorder, attention-deficit hyperactivity disorder (ADHD), anxiety disorders, and depressive disorders were some of the most typical MD comorbid conditions. In a recent study on MD, Soffer-Dudek et al. suggested that there may be common processes between the symptoms of MD and obsessive-compulsive disorder. There is a growing number of MD studies; yet, it has not received much attention in India.

**Relation Between Anxiety and Maladaptive Daydreaming**

According to a study GAD can develop as a result of being unable to effectively manage time-consuming daydreams and extremely rigorous academic commitments, whereas MD may develop as a way to escape from the harsh reality and anxiety into a secure fantastical world. The fact that GAD frequently coexists with MD in studies, such as the Bigelsen et al. study where 7% of the participants expressed anxiety, and the Somer et al. study where 28% of the participants had GAD, supports the idea that it can be seen as a continuous cycle. In a study conducted by Alenizi, et al. (2020) to study the association between maladaptive daydreaming and GAD estimated the prevalence of MD among the Medical students to be 70%, GAD prevalence to be 80%, and 55% when using both GAD-7 and PSWQ, respectively.
Research Problem
Despite the prevalence of anxiety among nursing students, empirical research on whether high levels of anxiety cause maladaptive daydreaming in nurses is lacking. This knowledge gap limits our understanding of the potential negative impact of anxiety on nurses' psychological well-being and the quality of patient care they provide. As a result, the research question is to investigate the relationship between anxiety and maladaptive daydreaming in nursing students, as well as the potential implications for nursing practice.

Significance of the study
This study is significant because it has the potential to advance our understanding of anxiety and maladaptive daydreaming among nursing students in India. This study could provide valuable insights into the prevalence of anxiety and maladaptive daydreaming in this population, as well as shed light on their potential association, by filling a gap in the existing literature on the subject. Furthermore, the contribution of this study to Indian research on maladaptive daydreaming would expand the knowledge base and potentially inform interventions and policies for the mental health of nursing students.

Rationale
Nursing students are known to have high levels of stress and anxiety during their undergraduate education programs, which can have a significant effect on their academic performance and retention. Furthermore, there is a growing body of work indicating a link between maladaptive daydreaming and anxiety. However, there has been little research on this subject in India, so more research is needed. As a result, the purpose of this study is to add to the existing literature by investigating the prevalence of maladaptive daydreaming and anxiety among nursing students in India and their possible association. This study is critical in identifying potential interventions or support strategies to promote nursing students' mental health and well-being, eventually improving their academic results and professional practice.

Problem Statement
Despite the significant effect of maladaptive daydreaming and anxiety on people's everyday lives, there is a lack of understanding of their relationship among nursing students. There is a need for nursing student-specific research. Maladaptive daydreaming and anxiety may have a negative impact on scholastic performance and mental health, emphasizing the importance of researching their relationship. As a result, the purpose of this research is to look into the connection between maladaptive daydreaming and anxiety in nursing students, intending to determine whether anxiety can predict maladaptive daydreaming in this group.

Objectives
- To investigate the relationship between maladaptive daydreaming and anxiety in nursing students.
- To determine if anxiety can predict maladaptive daydreaming in nursing students.
- To investigate whether there is a significant difference in anxiety levels among nursing students with different levels of maladaptive daydreaming.
Research Question
• What is the relationship between maladaptive daydreaming and anxiety among nursing students?
• Can anxiety be used to predict maladaptive daydreaming among nursing students?
• Is there a significant difference in anxiety levels among nursing students with different levels of maladaptive daydreaming?

Hypotheses
H0 = There is no significant relationship between maladaptive daydreaming and anxiety in nursing students.
H0 = Anxiety cannot predict maladaptive daydreaming in nursing students
H0 = There is no significant difference in anxiety among nursing students with different levels of maladaptive daydreaming

Review of literature
Anxiety and Stress in Nursing Students
During a lockdown, Savitsky et al. (2020) conducted cross-sectional research among nursing students and discovered that 42.8% and 13.1% had moderate and severe anxiety, respectively. "Assignments and workload" and "teachers and nursing staff" were the most significant sources of stress in clinical training. According to Hamaideh et al. (2017), stress related to nursing varied significantly depending on factors such as students' perceptions of stress about their nursing choice, the mothers' living situation, and their educational level. Watson et al. (2009) discovered that stress levels, mental suffering, and life events are all linked across time and space in a longitudinal study of newly licensed nurses and nursing students. Ersdal et al. (2019) found that nursing students experience stress during clinical education due to factors such as inadequate preparation and a lack of control over their learning experiences. Misiak et al. (2020) found that the COVID-19 pandemic exacerbated the stress, anxiety, and depression experienced by nursing students. Luo et al. (2021) found that nursing students experienced high levels of anxiety and depression during the COVID-19 pandemic, which were associated with academic pressure, concerns about their future careers, and fear of infection. Labrague et al. (2021) found that nursing students experienced high levels of anxiety and stress during the initial phase of the COVID-19 pandemic, which were associated with concerns about their own health, the health of their families, and their academic performance. Overall, the literature suggests that nursing students are vulnerable to anxiety and stress, which may be exacerbated by specific circumstances such as the clinical education experience and the COVID-19 pandemic.

Sources and Symptoms of Anxiety in Nursing Students
Jimenez et al. (2010) discovered six significant sources of anxiety and six significant symptoms using factor analysis. The factors were as follows. Interpersonal anxiety, Panic and agoraphobia, Obsessive-compulsive disorder, Social phobia, Health anxiety, and Generalized anxiety disorder. Clinical stresses were more intensely felt by students than academic or external stressors and psychological rather than physiological symptoms were more frequently manifested. Experienced students felt more academic pressure than beginners.

Coping Mechanisms Used to Cope with Anxiety in Nursing Students
According to Hamaideh et al. (2017), the two most common coping mechanisms used by nursing
students were problem-solving and maintaining a positive attitude. Shdaifat et al. (2018) investigated stress and coping strategies among nursing students in a study. The findings revealed that nursing students are stressed and use a variety of coping strategies, including problem-solving, seeking social support, and positive thinking. Similarly, Hirsch et al. (2015) looked into the stress predictors and coping strategies used by nursing students. According to the findings, nursing students' age, marital status, and financial situation all had a significant impact on their stress and coping mechanisms. Finally, Nebhinani et al. (2020) studied stress and coping strategies among undergraduate nursing students in Western Rajasthan. The study found that nursing students' stress levels were significantly higher than average, and they used a variety of coping mechanisms, including seeking emotional support, active coping, and planning. These studies highlight the need to develop effective coping mechanisms to manage stress among nursing students.

**Maladaptive Daydreaming**

Daydreaming is a common mental activity, but when it becomes excessive and separates from reality, it can lead to maladaptive daydreaming. (MD). Somer et al. (2016) conducted in-depth interviews with people suffering from MD and discovered that it caused significant dysfunction. Ross et al. (2020) discovered that people with maladaptive daydreaming disorder scored significantly higher on several different symptom clusters than people without it, indicating a higher level of dysfunction.

**Relation between anxiety and maladaptive daydreaming**

According to Bigelsen et al. (2016), Generalized Anxiety Disorder (GAD) can develop from an individual's inability to effectively manage time-consuming daydreams and extremely rigorous academic commitments, whereas Maladaptive Daydreaming (MD) can develop as a coping mechanism to escape from harsh reality and anxiety into a secure and fantastical world. The coexistence of GAD and MD has been frequently reported in various studies, such as the Bi-gelsen et al. study, in which 7% of the participants expressed anxiety, and the Somer et al. study, in which 28% of the participants had GAD, supporting the idea that there is a continuous cycle between MD and GAD. Alenizi et al. (2020) investigated the relationship between maladaptive daydreaming and GAD in medical students. The study estimated a 70% prevalence of MD among medical students, with a GAD prevalence of 80% and 55%, respectively, when using the Generalized Anxiety Disorder 7 (GAD-7) and Penn State Worry Questionnaire (PSWQ). These findings suggest that medical students have a high prevalence of both maladaptive daydreaming and GAD, indicating the need for interventions to address these issues and promote better mental health outcomes.

Overall, the literature emphasizes the coexistence of maladaptive daydreaming and GAD, both of which can have negative consequences for academic performance, mental health, and overall well-being.

**Effect of Maladaptive Daydreaming on Academics**

Maladaptive daydreaming has been linked to poor academic performance. Somer et al. (2016) discovered that maladaptive daydreaming was significantly associated with lower academic achievement among college students in their studies. The study also discovered that maladaptive daydreaming was associated with poorer time management and study skills, which could explain why academic performance suffered. Somer et al. (2019) discovered that maladaptive daydreaming was associated with increased procrastination, which further harmed academic performance. The study also discovered that maladaptive daydreaming was linked to lower self-esteem, increased anxiety, and depression, all of which could contribute to poor academic performance.
**Research Gap**
Currently, there is a research gap concerning the co-occurrence of anxiety and maladaptive daydreaming among nursing students. While research has investigated the prevalence of anxiety and stress in nursing students, as well as their coping mechanisms, little has been done to investigate the potential link between maladaptive daydreaming and anxiety in this population. Furthermore, it is unclear whether anxiety has predictive value in relation to maladaptive daydreaming, highlighting the need for further research in this area.

**Method**

**Operational Definition**
Anxiety is characterized by feelings of tension, worried thoughts, and physical changes such as increased blood pressure. Anxiety and fear are not synonymous, but they are frequently used interchangeably. Fear is an appropriate, present-oriented, and short-lived response to an identifiable and specific threat, whereas anxiety is a future-oriented, long-acting response broadly focused on a diffuse threat. (APA) Maladaptive daydreaming (MD) is an overly vivid fantasy activity that interferes with a person's normal functioning and can cause severe distress. (Somer, 2018)

**Research Design**
A correlational research design was used in this study to explore the relationship between anxiety and maladaptive daydreaming among nursing students, as well as to investigate whether anxiety could predict maladaptive daydreaming in this population. Additionally, ANOVA was employed to investigate whether there was a significant difference in anxiety levels among nursing students with different levels of maladaptive daydreaming.

**Sample**
All participants were nursing students, with 113 from the Apollo School of Nursing and 15 from the Holy Family College of Nursing. The current research used a non-parametric purposive sampling technique to select 127 participants from the Apollo School of Nursing in New Delhi and the Holy Family College of Nursing in Delhi. The rationale for this sample size was based on a previous study conducted by Kochuvilayil et al. In their study on anxiety levels among Indian nursing students, the researchers successfully recruited 113 participants from various nursing institutions in India. Given the similarity in focus and population, it was decided to expand the sample size to 127 participants to enhance the robustness and generalizability of the findings. This larger sample size provided a more accurate representation of the target population and contributed to a comprehensive understanding of the relationship between anxiety and maladaptive daydreaming in Indian nursing students.

The Apollo School of Nursing in New Delhi and the Holy Family College of Nursing in Delhi were selected for the study because they are two of the most reputable nursing institutions in the region and have a large number of nursing students. Apollo Hospital is one of the largest hospitals in India and has one of the highest numbers of beds of any private hospital in Delhi. On the other hand, the majority of nursing students in Holy Family College are from Kerala and Nepal. Including students from different cultural backgrounds helped increase the generalizability and external validity of the study's findings. Additionally, selecting participants from two different institutions increased the generalizability of the findings. New Delhi, the capital city of India, was selected for the study for several reasons. Firstly, New Delhi is the capital of India and has a population of over 21 million people, making it one of the most populous cities in the world.
This diverse population includes people from different socioeconomic and cultural backgrounds, which increased the representativeness of the study. Third, the city has good transportation facilities and infrastructure, aiding in the smooth conduct of the study. Finally, the availability of large and reputed nursing institutions in New Delhi, such as Apollo School of Nursing and Holy Family College of Nursing, provided a suitable pool of potential participants for the study.

**Inclusion criteria:**
Currently enrolled as a full-time undergraduate nursing student at the Apollo School of Nursing in New Delhi or the Holy Family College of Nursing in Delhi.
- Willing to participate in the study.
- Provided written informed consent.

**Exclusion criteria:**
- History of neurological disorders or traumatic brain injury.
- Currently receiving psychiatric treatment.
- History of substance abuse.

**Procedure**
The study took place in mid-May 2023 at the Apollo School of Nursing in New Delhi and the Holy Family College of Nursing. At the end of the academic semester, self-administered questionnaires were used to collect data. Potential participants were approached and recruited through the nursing schools in which they were currently enrolled. The researchers contacted the schools’ administrators to inform them of the study's purpose, procedures, and eligibility criteria. The administrators then informed the nursing students about the study through email, posters, and announcements during class. Participants were required to fill out two questionnaires: the MDS-16 Scale and the Beck Anxiety Inventory (BAI).

Professor Somer's MDS-16 Scale, a 16-item test or scale designed to determine whether a patient has maladaptive daydreaming, was developed by Eli Somer in 2016. The MDS-16 assesses the frequency and intensity of maladaptive daydreaming episodes using a 10-point Likert scale, with scores ranging from 0 to 100. The BAI, which consists of 21 self-reported items on a four-point scale, was used to evaluate the severity of physical and cognitive anxiety symptoms experienced in the previous week.

Participants were informed about the nature, purpose, and potential risks of the research before participating, and they provided informed consent. The questionnaires were distributed to participants via Google Forms, and contact was established with the appropriate authorities to ensure the confidentiality and privacy of the participants’ information.

**Ethics Approval and Consent to Participate**
Before enrolling in the study, all participants were provided with informed consent. The consent form clearly outlined the study's purpose, procedures, and potential risks and benefits. Participants were also informed that they were free to leave the study at any time. Throughout the study, confidentiality and anonymity were maintained, and all data were securely stored.

**Tools Used**

**MDS-16 Scale**
The Maladaptive Daydreaming Scale (MDS-16) is a self-report questionnaire with 16 items that assess the severity of maladaptive daydreaming behavior was developed by Eli Somer in 2016. The MDS-16 assesses the frequency and intensity of maladaptive daydreaming episodes using a 10-point Likert scale ranging from 0 (never) to 10 (always). The MDS-16's reliability and validity have been tested in
numerous studies and have shown good psychometric properties. The scale's internal consistency was found to be high, with a Cronbach's alpha coefficient ranging from 0.87 to 0.94. With coefficients ranging from 0.80 to 0.88, test-retest reliability was found to be satisfactory. The MDS-16 is scored by adding the scores of each item, with higher scores indicating more severe maladaptive daydreaming behavior. The possible score range is 0 to 160. The score can also be read as 0-20 (minimal), 21-40 (mild), 41-60 (moderate), 61-80 (severe), and 81-100 (extreme). (Extremely severe).

**The Beck Anxiety Inventory (BAI)**
The Beck Anxiety Inventory (BAI) is a self-report questionnaire that assesses the severity of an individual's anxiety symptoms over the previous week. It was developed by Aaron T. Beck and his colleagues in 1988. The inventory consists of 21 items, each of which is rated on a four-point scale from 0 (not at all) to 3 (severely). The BAI is both reliable and valid. It has high internal consistency, according to studies, with a Cronbach's alpha coefficient ranging from 0.92 to 0.94. Over two weeks, the inventory was also found to have good test-retest reliability, with a correlation coefficient ranging from 0.70 to 0.85.

The BAI is scored by adding the scores for each item to obtain a total score that can range from 0 to 63. A score of 0-7 indicates no anxiety, a score of 8-15 indicates mild anxiety, a score of 16-25 indicates moderate anxiety and a score of 26-63 indicates severe anxiety. The BAI has been validated in a variety of clinical and non-clinical populations and has proven to be a useful tool for assessing anxiety in individuals. Its ease of use, high reliability, and validity make it a popular tool for both research and clinical applications.

**Result**

**3.1 Demographics of the samples**
All participants were nursing students, with 113 from the Apollo School of Nursing and 15 from the Holy Family College of Nursing. Since the total sample size is 127 and all participants were female nursing students, the demographics provide an overview of the composition of the participants in your study. These demographic characteristics will serve as context when interpreting the findings and results of your research on the relationship between anxiety and maladaptive daydreaming in nursing students.

**3.2 Analysis of the correlation between the variables**

It can be observed from Table 1 that Spearman's rho between BAI and MDS 16 is 0.494, which indicates a moderate positive correlation between anxiety symptoms (measured by BAI) and maladaptive daydreaming tendencies (measured by MDS 16) among the nursing students.

The positive correlation suggests that as anxiety levels increase, maladaptive daydreaming tendencies tend to increase as well, and vice versa. The p-value for the correlation between BAI and MDS 16 is less than 0.001. This indicates that the observed correlation is statistically significant.

**3.3 Analysis of Regression between two variables**

Table 2 shows that, the correlation coefficient (R) of 0.492 indicates a positive relationship between the independent variable (MDS 16) and the dependent variable (BAI). The coefficient of determination (R²) is 0.242, meaning that 24.2% of BAI variance is explained by MDS 16 variance. The F-statistic of 39.8 with p < 0.001 suggests MDS 16 significantly predicts BAI. The model is statistically significant, implying a genuine MDS 16 and BAI relationship. The data implies a significant positive link between maladaptive daydreaming (MDS 16) and anxiety (BAI) in nursing students, with MDS 16 predicting
24.2% of BAI variance.

3.4 Analysis to determine if there is a significant difference between the three groups

Table 3 presents results of the Kruskal-Wallis test, exploring the link between Beck’s Anxiety Inventory (BAI) scores and Maladaptive Daydreaming Symptoms (MDS) levels categorized as high, medium, and mild. The $\chi^2$ statistic for BAI scores is 24.7 (df=2), with $p < 0.001$, showing strong evidence against the null hypothesis. The effect size ($\varepsilon^2$) is 0.196, indicating a meaningful proportion of BAI score variance associated with MDS levels. In summary, the test reveals significant differences in anxiety levels across the three MDS level groups, supported by a low p-value and moderate effect size. Following the pairwise comparisons, it was determined that there was a significant difference ($p < 0.001$) between the High MDS group (Median = 26) and the Moderate MDS group (Median = 14). Additionally, a significant difference ($p < 0.001$) was observed between the High MDS group (Median = 26) and the Mild MDS group (Median = 12). However, there was no significant difference between the Moderate MDS group and the Mild MDS group.

### Table 1: Correlation Matrix

<table>
<thead>
<tr>
<th></th>
<th>BAI</th>
<th>MDS 16</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAI</td>
<td>Spearman’s rho</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>p-value</td>
<td>—</td>
</tr>
<tr>
<td>MDS 16</td>
<td>Spearman’s rho</td>
<td>0.494</td>
</tr>
<tr>
<td></td>
<td>p-value</td>
<td>&lt; .001</td>
</tr>
</tbody>
</table>

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

### Table 2: Model Fit Measures

<table>
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<th>Model</th>
<th>$R$</th>
<th>$R^2$</th>
<th>$F$</th>
<th>df1</th>
<th>df2</th>
<th>$p$</th>
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<td>1</td>
<td>0.492</td>
<td>0.242</td>
<td>39.8</td>
<td>1</td>
<td>125</td>
<td>&lt; .001</td>
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</tbody>
</table>

### Table 3: Kruskal-Wallis

<table>
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<tr>
<th></th>
<th>$\chi^2$</th>
<th>df</th>
<th>$p$</th>
<th>$\varepsilon^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAI</td>
<td>24.7</td>
<td>2</td>
<td>&lt; .001</td>
<td>0.196</td>
</tr>
</tbody>
</table>

### Table 4: Pairwise comparisons - BAI

<table>
<thead>
<tr>
<th></th>
<th>W</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>High MDS</td>
<td>Moderate MDS</td>
<td>-5.84</td>
</tr>
<tr>
<td>High MDS</td>
<td>Mild MDS</td>
<td>-6.45</td>
</tr>
<tr>
<td>Moderate MDS</td>
<td>Mild MDS</td>
<td>-2.33</td>
</tr>
</tbody>
</table>

**Discussion**

This study aimed to investigate the intricate relationship between maladaptive daydreaming and anxiety...
among nursing students. Contrary to our initial hypothesis, we uncovered a moderate positive correlation between anxiety symptoms, as measured by the Beck's Anxiety Inventory (BAI), and maladaptive daydreaming tendencies assessed through the MDS 16 scale. This correlation suggests that heightened anxiety levels coincide with increased maladaptive daydreaming tendencies, highlighting a dynamic interplay between these phenomena. This can be shown by previous studies as well which revealed a significant correlation between MD and anxiety (Somer & Herscu, 2017b; Somer, Soffer-Dudek, et al., 2017; Somer et al., 2020b).

When individuals experience heightened anxiety, they often grapple with a range of distressing thoughts, worries, and emotional turbulence. Anxiety can be overwhelming, leading individuals to seek relief or distraction from these distressing experiences. Maladaptive daydreaming, can provide an enticing escape from the harsh realities of anxiety. It serves as a sanctuary where individuals can temporarily detach from their anxious thoughts and emotions, transporting themselves to vivid and fantastical mental scenarios. This escape into daydreams offers a respite from the constant mental chatter associated with anxiety, providing a sense of solace and control that is often lacking in the real world (Somer & Herscu, 2017b).

Furthermore, the regression analysis revealed that maladaptive daydreaming significantly predicts 24.2% of the variance in anxiety levels, indicating its role as a predictor of anxiety among nursing students. Also, the findings of a previous study done revealed that increases in MD were strongly linked to concurrent increases in various symptoms of general anxiety (Soffer-Dudek & Somer, 2018b; Somer, Soffer-Dudek, et al., 2017b; Somer et al., 2020c).

Maladaptive daydreams are marked by their vivid and immersive nature. These daydreams often involve intricately detailed scenarios, sometimes bordering on the fantastical, that individuals create within their minds. Within these scenarios, individuals may unwittingly conclude distressing or catastrophic events. This is a pivotal point where the intersection of maladaptive daydreaming and anxiety occurs. The vivid mental narratives characteristic of maladaptive daydreaming make the content particularly impactful. The sensory and emotional elements in these daydreams can be so lifelike that they blur the lines between imagination and reality.

When these scenarios incorporate distressing elements, the emotional response within the daydream becomes highly intense. These daydreams can serve as fertile ground for reinforcing anxious thought patterns. Individuals with anxiety often grapple with negative and worrisome thoughts. Maladaptive daydreams, by virtue of their content, can inadvertently mirror and amplify these thought patterns (Somer & Herscu, 2017b). For instance, someone with social anxiety might frequently daydream about embarrassing social situations, inadvertently rehearsing and intensifying their anxiety-inducing thoughts.

The significant variations in anxiety levels observed among nursing students with varying degrees of maladaptive daydreaming symptoms underscore the critical importance of acknowledging and addressing maladaptive daydreaming within this specific population. This finding highlights the potential role of maladaptive daydreaming as a significant contributor to anxiety-related concerns among nursing students. Anxiety in nursing students can be seen when Savitsky et al. (2020) conducted cross-sectional research among nursing students and discovered that 42.8% and 13.1% had moderate and severe anxiety, respectively. "Assignments and workload" and "teachers and nursing staff" were the most significant sources of stress in clinical training.

The emphasis on addressing maladaptive daydreaming within the context of nursing education adds a unique dimension to this study. The significant variations in anxiety levels observed among nursing
students with different degrees of maladaptive daydreaming symptoms highlight the critical need to recognize and manage maladaptive daydreaming in this particular population. This study occupies a distinctive niche within the realm of maladaptive daydreaming research due to its unique cultural context. India serves as the backdrop for this investigation, and it is important to note that there is limited extant information on maladaptive daydreaming within the Indian context. Moreover, a notable gap exists in the literature as there has been no prior exploration specifically centered on nursing students in India in relation to maladaptive daydreaming.

Conclusion
The study offers valuable insights into the relationship between maladaptive daydreaming and anxiety, elucidating maladaptive daydreaming as a predictor of anxiety among nursing students. Additionally, it highlights the noteworthy variance in maladaptive daydreaming across nursing students with varying levels of anxiety. To further enrich the field, several recommendations emerge. First, there is a pressing need to delve into the coping mechanisms employed by nursing students in response to maladaptive daydreaming and anxiety, thus providing a more comprehensive understanding of their adaptive strategies. Second, conducting comparative studies with nursing students in diverse geographical contexts can elucidate cross-cultural distinctions and commonalities in the prevalence and characteristics of these phenomena. Third, the pursuit of intervention studies is essential to ascertain effective strategies for mitigating maladaptive daydreaming and anxiety among this student population. By embracing these recommendations, future research endeavors can contribute substantively to the comprehension of these complex psychological phenomena and, in turn, foster the development of tailored interventions and support mechanisms for nursing students facing these challenges.

References


Appendix A

The 16-item Maladaptive Daydreaming Scale (MDS-16)

Eli Somer, Jayne Biggelsen, Jonathan Lehrfeld & Daniela Jopp

In answering the following questions, please refer to your daydreaming activities in the last month, if not otherwise specified. Choose the option that best fits your experience. For example: Some people get so caught up in their daydreaming that they forget where they are. How often do you forget where you are when you daydream? In this example, 20% is chosen.

1. Some people notice that certain music can trigger their daydreaming. To what extent does music activate your daydreaming?

2. Some people feel a need to continue a daydream that was interrupted by a real-world event at a later point. When a real-world event has interrupted one of your daydreams, how strong was your need or urge to return to that daydream as soon as possible?

3. How often are your current daydreams accompanied by vocal noises or facial expressions (e.g. laughing, talking or mouthing the words)?

4. If you go through a period of time when you are not able to daydream as much as usual due to real-world obligations, how distressed are you by your inability to find time to daydream?
5. Some people have the experience of their daydreaming interfering with their daily chores or tasks. How much does your daydreaming interfere with your ability to get basic chores accomplished?

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

No interference at all  Extreme interference

6. Some people feel distressed or concerned about the amount of time they spend daydreaming. How distressed do you currently feel about the amount of time you spend daydreaming?

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

No distress at all  Extreme distress

7. When you know you have had something important or challenging to pay attention to or finish, how difficult was it for you to stay on task and complete the goal without daydreaming?

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

No difficulty at all  Extreme difficulty

8. Some people have the experience of their daydreaming hindering the things that are most important to them. How much do you feel that your daydreaming activities interfere with achieving your overall life goals?

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

No interference at all  Extreme interference

9. Some people experience difficulties in controlling or limiting their daydreaming. How difficult has it been for you to keep your daydreaming under control?

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

No difficulty at all  Extreme difficulty

10. Some people feel annoyed when a real world event interrupts one of their daydreams. When the real world interrupts one of your daydreams, on average how annoyed do you feel?

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

No annoyance at all  Extreme annoyance
11. Some people have the experience of their daydreaming interfering with their academic/occupational success or personal achievements. How much does your daydreaming interfere with your academic/occupational success?

<table>
<thead>
<tr>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>70%</th>
<th>80%</th>
<th>90%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No interference at all</td>
<td>Extreme interference</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

12. Some people would rather daydream than do most other things. To what extent would you rather daydream than engage with other people or participate in social activities or hobbies?

<table>
<thead>
<tr>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>70%</th>
<th>80%</th>
<th>90%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>To the fullest extent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. When you first wake up in the morning, how strong has your urge been to immediately start daydreaming?

<table>
<thead>
<tr>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>70%</th>
<th>80%</th>
<th>90%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No urge at all</td>
<td>Extreme urge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

14. How often are your current daydreams accompanied by physical activity such as pacing, swinging or shaking your hands?

<table>
<thead>
<tr>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>70%</th>
<th>80%</th>
<th>90%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>Very often</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

15. Some people love to daydream. While you are daydreaming, to what extent do you find it comforting and/or enjoyable?

<table>
<thead>
<tr>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>70%</th>
<th>80%</th>
<th>90%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not comforting/enjoyable at all</td>
<td>Very comforting/enjoyable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16. Some people find it hard to maintain their daydreaming when they are not listening to music. To what extent is your daydreaming dependent on continued listening to music?

<table>
<thead>
<tr>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>70%</th>
<th>80%</th>
<th>90%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not dependent</td>
<td>Totally dependent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
### Beck Anxiety Inventory (BAI)

Below is a list of common symptoms of anxiety. Please carefully read each item in the list. Indicate how much you have been bothered by that symptom during the past month, including today, by circling the number in the corresponding space in the column next to each symptom.

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Not at all</th>
<th>Mildly, but it didn’t bother me much</th>
<th>Moderately – it wasn’t pleasant at times</th>
<th>Severely – it bothered me a lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numbness or tingling</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Feeling hot</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Wobbliness in legs</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Unable to relax</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Fear of worst happening</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Dizzy or lightheaded</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Heart pounding / racing</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Unsteady</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Terrified or afraid</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Nervous</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Feeling of choking</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Hands trembling</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Shaky / unsteady</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Fear of losing control</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Difficulty in breathing</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Fear of dying</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Scared</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Indigestion</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Faint / lightheaded</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Face flushed</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Hot / cold sweats</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
Appendix B Consent Form
You are invited to participate in a research study conducted by Abhay Sunny George from the Department of Psychology at CHRIST (Deemed to be University), Bengaluru. The results of the study will be used to fulfill the requirements of a research paper that has to be published as a part of the degree of Master of Science in Psychology (Clinical).

Procedure
You will be asked to complete two questionnaires if you agree to participate in this study: the Maladaptive Daydreaming Scale (MDS-16) and the Beck Anxiety Inventory. (BAI). The MDS-16 will inquire about your experiences with daydreaming, whereas the BAI will inquire about your anxiety symptoms. The questionnaires will be self-administered and should be completed in about 15 minutes. You will be sent questionnaires via Google form.

The goal of this study is to investigate the link between anxiety and maladaptive daydreaming in nursing students. We want to see if anxiety can predict maladaptive daydreaming in this population. You will receive no direct benefits from participating in this study. The study could, however, help us better understand the relationship between anxiety and maladaptive daydreaming in nursing students.

There are no known physical risks associated with participating in this study. When answering questions about anxiety and daydreaming, you may feel some emotional discomfort.

All data collected during the study will be handled with the utmost confidentiality and anonymity following ethical principles and practices in academic research. The collected data will be saved in a secure and password-protected Google Scholar account that will only be accessible to the study's researchers.

This study's participation is entirely voluntary. You are free to withdraw your participation at any time, for any reason, and with no repercussions. You may also choose not to answer any specific question or provide any specific information without providing any explanation. If you decide to leave the study, any data you have provided up to that point will be discarded and not used in the analysis.

I have read the information about the given research study and am willing to participate in this study voluntarily.

Name of the participant (Optional): Signature of the participant:
Date:

Appendix C Debriefing Scripts
Thank you for taking part in our research on the link between anxiety and maladaptive daydreaming in nursing students. Your contribution was critical to our research and is greatly appreciated. The goal of this study was to see if there was a link between anxiety and maladaptive daydreaming among nursing students and if anxiety could predict maladaptive daydreaming in this population. Two questionnaires were given to you: the MDS-16 Scale and the Beck Anxiety Inventory. The MDS-16 Scale is a 16-item test that is used to determine if a person has maladaptive daydreaming. It evaluates the frequency and severity of maladaptive daydreaming episodes. The Beck Anxiety Inventory is a self-reported 21-item questionnaire that assesses the severity of physical and cognitive anxiety symptoms.

It’s worth noting that neither the MDS-16 Scale nor the Beck Anxiety Inventory provides a clinical...
diagnosis. The findings of this study, on the other hand, may aid healthcare professionals in understanding the relationship between anxiety and maladaptive daydreaming in nursing students. Please contact us if you have any questions about the study or your participation in it. We kept all of your responses private and anonymous, and we will not share your personal information with anyone. Thank you for taking part in this research once more. Your contribution to our research is priceless.

Appendix C
Participant’s Demographic Details
1. Age:
2. Gender:
3. Current institution of study:
4. State of origin:
5. The primary language spoken:
6. Socioeconomic status:
7. Previous academic qualifications:
8. Any psychiatric or Medical illness:
9. Any history of Substance Abuse