

Academic performance and suicidal ideation in young maladaptive daydreamers, a cross-sectional descriptive study

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Abstract

Objective: To find the relationship between maladaptive daydreaming with academic performance and suicidal ideation in young adults.

Method: The cross-sectional, descriptive study was conducted from August 1 to November 30, 2022, after approval from the ethics review committee of the Islamic International Medical College, Rawalpindi, Pakistan, and comprised individuals who were part of an online community of maladaptive daydreamers. Screening was done using the Maladaptive Daydreaming Scale and the Suicidal Ideation Attributes Scale. Data was analysed using SPSS 22.

Results: Of the 485 subjects, 344(71%) were females and 141(2%) were males. The overall mean age was 21.65±4.9 years. Of the total, 441(90.9%) subjects were screened as maladaptive daydreamers; 323(73.2%) females and 118(26.7%) males. Maladaptive daydreamers had a significant association with both declining academic scores and suicide ideation ($p < 0.001$).

Conclusion: Maladaptive daydreamers were more likely to have an adverse effect on academic grades and were at a higher risk of suicide ideation than non-maladaptive daydreamers.

Keywords: Daydream, Fantasy, Suicidal ideation, Academic performance, Cognition. (JPMA 75: 52; 2025)

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Introduction

Humans have been gifted with the cognitive ability to imagine. Daydreaming is a form of spontaneous imaginative thought process.¹ Maladaptive daydreaming (MD) is a mental process where individuals daydream excessively. This interferes with different aspects of their life, such as interpersonal, academic and vocational. Maladaptive daydreamers (MDers) are known to pace around, murmur words, and act out their daydreams.² While daydreaming has a relationship with happiness, it was noted that individuals who daydreamed that revolved around family and friends experienced life satisfaction as opposed to those who did not.³ The overall prevalence of MD remains unknown. A study conducted in an Egyptian medical university identified 34% of the medical students as MDers.⁴ Similarly, a study conducted in 2022 stated 2.4% MD prevalence.⁵ A study conducted on Italian population revealed an MD prevalence of 17.2%.⁶ MD bears a strong relationship with attention-deficit/hyperactivity disorder (ADHD) as well as other psychiatric disorders which include, but are not limited to, depression, anxiety and obsessive-

compulsive disorder (OCD).⁷ A study found that people diagnosed with dissociative disorders had MD tendency.⁸

With regards to the academic performance, a study found that MD negatively influenced the grade point average (GPA) of MDers.⁹ Suicidal ideation is when a person is preoccupied with the thoughts of dying or planning a suicide.¹⁰ Daydreaming related to violence, and feeling the need to escape reality may render a person contemplating suicide.¹¹

One characteristic of suicidal behaviour is distraction, withdrawal, and isolation.¹² The prevalence of suicidal behaviour among adult population is 3.4% whereas in the adolescent population, it is estimated to be around 14%.¹³ According to Centres for Disease Control and Prevention (CDC), suicide was the second leading cause of death in people of young age between 2011 and 2015¹⁴.

The current study was planned to explore the association of MD with academic performance and suicidal ideation.

Subjects and Methods

The cross-sectional, descriptive study was conducted from August 1 to November 30, 2022, after approval from the ethics review committee of the Islamic International Medical College (IIMC), Rawalpindi, Pakistan, and comprised individuals who were part of an online community of maladaptive daydreamers (Reddit; r/Maladaptive Daydreaming). Those included using convenience sampling technique were individuals who had been a member of the community for at least 4 months and

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were aged 15-35 years. Those who did not meet the criterion were excluded.

The sample size was calculated using the RaoSoft calculator¹⁵ with 95% confidence interval and 5% margin of error.

After taking informed consent, each subject was requested to fill out the research questionnaire, which was circulated in the online community as a Google Form. Demographic data included age, gender, academic background, current degree status, and relationship status of maladaptive daydreamers. Academic performance was assessed by asking the participants if they perceived MD as interfering with their recent exam scores. Also used was the 16-item Maladaptive Daydreaming Scale (MDS-16)^{16,17} which has an internal consistency of 99.8% (Cronbach's alpha = 0.886). It explored daydreaming activities of the subjects over the preceding month. A cut-off of 40 points or higher was considered to demonstrate MD presence. The subjects rated their daydreaming experience from 0 = Never to 100 = Extreme urge/very often/comforting/enjoyable.

Lastly, the Suicidal Ideation Attributes Scale (SIDAS) was used which is a 5-item scale with a demonstrated validity of 99.8% (Cronbach's alpha=0.567).^{18,19} The subjects were asked to rate their suicidal thoughts from 0 = Not at all to 10 = Extremely. A score of 21 or higher was an indicator of high-risk suicidal behaviour, with higher scores indicating more severe suicidal ideation.

Data was analysed using SPSS 22. Data was expressed as either frequencies and percentages, or as mean \pm standard deviation. Mann-Whitney U test was applied to compare the mean of scores for non-normal data distribution. Chi-square test was used to find an association for categorical variables. Spearman's correlation test was performed to find an association between MD and suicide ideation. $P < 0.05$ was considered significant.

Results

Of the 485 subjects, 344(71%) were females and 141(2%) were males. The overall mean age was 21.65 ± 4.9 years. There were 239(49.2 %) subjects enrolled in university, and 382(78.7%) were single. Of the total, 441(90.9%) subjects were screened as MDers; 323(73.2%) females and 118(26.7%) males.

The mean overall MDS-16 score was 64.74 ± 17.6 . It was 68.4 ± 13.6 for MDers compared to 28 ± 8.8 for non-MDers ($p < 0.001$).

Female gender, age group 15-20 years, university-level education, and marital status single were significantly

association with MD.

There was a significant association of MD with academic performance ($p < 0.001$) (Table 2).

MDers had a significant positive correlation with suicide ideation ($r_s(485) = 0.2$, $p < 0.001$). The overall mean SIDAS score 16.41 ± 8.9 . MDers 16.69 ± 9.103 had higher SIDAS scores than non-MDers 13.64 ± 7.2 ($p < 0.05$). MDers had a higher percentage of participants with high-risk suicide behaviour compared to non-MDers (Table 3).

Table-1: Socio-demographic variables in relation to maladaptive daydreaming (n=485)

| Varibale | Total n(%) | Maladaptive daydreamers n(%) | Non-maladaptive daydreamers n(%) | p-value |
|---------------------|------------|------------------------------|----------------------------------|---------|
| Gender | | | | <0.001 |
| Male | 141 (29.0) | 118 (26.7) | 23 (52.2) | |
| Female | 344 (70.9) | 323 (73.2) | 21 (47.7) | |
| Age Group (Years) | | | | <0.001 |
| 15-20 | 243 (50.1) | 225 (51.0) | 18 (40.9) | |
| 21-25 | 141 (29.0) | 129 (29.2) | 12 (27.2) | |
| 26-30 | 65 (13.4) | 56 (12.6) | 9 (20.4) | |
| 31-35 | 36 (7.4) | 31 (7.0) | 5 (11.3) | |
| Degree Status | | | | <0.001 |
| Completed | 100 (20.6) | 87 (19.7) | 13 (29.5) | |
| Ongoing | 239 (49.2) | 217 (49.2) | 22 (50.0) | |
| Dropout | 44 (9.0) | 41 (9.2) | 3 (6.8) | |
| Not started | 83 (17.1) | 79 (17.9) | 4 (9.0) | |
| Did not pursue | 19 (3.9) | 17 (3.8) | 2 (4.5) | |
| Relationship Status | | | | <0.001 |
| Single | 382 (78.7) | 349 (79.1) | 33 (75) | |
| Married | 35 (7.2) | 29 (6.5) | 6 (13.6) | |
| Divorced/Separated | 3 (0.6) | 3 (0.6) | 0 (0.0) | |
| Widowed | 65 (13.4) | 60 (13.6) | 5 (11.3) | |

Table-2: Relationship of maladaptive daydreaming with impact on recent exam scores

| Impact on recent exam scores | Total Participants n(%) | Maladaptive daydreamers n(%) | Non-maladaptive Daydreamers n(%) | p-value |
|---|-------------------------|------------------------------|----------------------------------|---------|
| No adverse impact and decline in recent exam score | 187 (38.6) | 155 (35.0) | 32 (72.0) | <0.001 |
| Some impact but mild decline in recent exam score | 113 (23.3) | 103 (23.3) | 10 (22.7) | |
| Some impact and moderate decline in recent exam score | 120 (24.7) | 118 (26.7) | 2 (4.5) | |
| Huge impact and serious decline in recent exam score | 65 (13.4) | 65 (14.7) | Nil | |

Table-3: Relationship of maladaptive daydreaming with suicidal behaviour.

| Suicidal Ideation | Total Participants n(%) | Maladaptive daydreamers n(%) | Non-maladaptive daydreamers n(%) | p-value |
|-------------------|-------------------------|------------------------------|----------------------------------|---------|
| Low risk | 337 (69.0) | 301 (68.3) | 36 (81.8) | <0.001 |
| High risk | 148 (31.0) | 140 (31.7) | 8 (18.2) | |

Discussion

The current study found that 61.4% of MDers had a decline in their academic scores, and a significant association was established between MDers and suicide ideation, with one-third of MDers being at a high risk of suicide.

A cross-sectional study in Saudi Arabia showed similar results.⁹ The current study used the updated MDS-16 for assessing MD whereas the Saudi study used the MDS-14. The current sample had 485 subjects compared to 306 in the Saudi study. However, the methodology used in the current study for assessing academic decline was subjective since the participants were from different countries and assessing through a standardised score was difficult.

One reason for declining grades might be that NDers spend a lot of time daydreaming which wastes time. Hence, students are unable to study for their exams or tests. Another reason for this might be that people with mental disorders, such as ADHD and anxiety, are more likely to be MDers.²⁰ This in turn makes it difficult for individuals to concentrate on studies.

In the current study, more females were MDers than males. Perhaps, females are more prone to daydreaming, or it could be that males are not open about their experience with daydreaming. Another explanation might be that females, in general, are more likely to participate and self-identify as MDers.²¹ However, one study reported more male participants who were MDers. Although the current sample consists of only a young population, the study found out that the younger population aged 15-20 years had a slightly higher percentage (92.6%) of being MDers within the age group compared to the 30-35 age group (88.6%), which supported a previous finding.⁵

The second key current finding suggested that MDers were more likely to have suicidal ideation and 31% of MDers were at high risk of suicide behaviour. An explanation might be that one of the themes among MDers is violence in which daydreamers plan their suicide and events associated with it. The resultant effect is short-term positive sensations and emotions, but possibly increases the likelihood of suicide in the future.¹¹ A recent study found that MD increases the risk of suicide.²²

The current study has limitations. One of them is related to the assessment of academic grades, which was subjective based on the subjects' responses to question instead of using an objective criterion, like grades. This could only be done if all the participants had graduated from the same educational institution.

Another limitation of the study was the age range as the study focussed on people aged 15-35 years. MD is a mental activity that is carried out by people of any age group. Majority of participants (70%) had graduated from a university or were still enrolled, making it hard to apply the results to people who had never been to a university or had any formal education at all. Also, the sample population had a female bias. Finally, the study design was cross-sectional, which did not determine the causal relationship among the variables.

Conclusion

There was an association of MD with poor academic performance and suicide ideation. Proper treatment along with counselling services and professional help should be made available for MDers. More research should be conducted on the impact of MD on different aspects of life along with officially recognising MD as a disorder.

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Author Contribution:

AA: Concept, data curation, formal analysis, investigation, methodology, project administration, resources, software, supervision, validation, visualisation, drafting, writing, review and editing.

HS: Formal analysis, project administration, resources, software, validation, visualisation, drafting, writing, review and editing.

MMK: Data curation, investigation, methodology, project administration, resources, supervision, visualisation, writing, review and editing.

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