

SHORT SURVEY

**Social Anxiety as Predictor of Depression in Adolescents:  
Mediating Role of Dysfunctional Daydreaming**

Sameera Shafiq, Hajra Zafar

**Sameera Shafiq** (*Corresponding Author*)

Lecturer

Department of Psychology

Al-Farabi block, University of Gujrat

Hafiz Hayat Campus, Gujrat, Punjab-Pakistan.

Email: sameerashafiq@yahoo.com

**Hajra Zafar**

Department of Psychology

University of Gujrat

Gujrat, Punjab-Pakistan.

**ABSTRACT**

**OBJECTIVE:** To investigate the relationship among Dysfunctional Daydreaming, Social Anxiety and Depression in adolescents and explore the mediating role of daydreaming between two variables.

**METHODOLOGY:** Cross-sectional correlational research design was conducted to collect data from 200 participants (Males=94, Females=106) of age range 12 to 19 years (M=17.08, SD= 1.93) with a convenient sampling technique via google form due to COVID-19 during the lockdown period April to June 2020. Inclusion criteria focused on willing participants who were studying online during the pandemic. Unwilling students, along with the freezing of study, were excluded. Three standardized questionnaires, Patient Health Questionnaire (PHQ-9) for measuring Depression, the Social Anxiety Scale for Adolescents (SAS-A) for measuring Social Anxiety and Dysfunctional Daydreaming Scale (DDS) for measuring malfunctioning fantasies, were used. The demographic sheet and informed consent form were filled out correctly to administer the questionnaires. Data were analyzed in SPSS-24 for frequencies, percentages, and correlations. Mediation analysis was conducted in AMOS-24.

**RESULTS:** Pearson Product Moment Correlation Coefficient revealed a positive correlation of Dysfunctional Daydreaming with Social anxiety ( $r=.50$ ,  $p<0.05$ ) and Depression ( $r=0.58$ ,  $p<0.05$ ). Dysfunctional daydreaming mediated between social anxiety and Depression in adolescents ( $\beta=0.34$ ,  $p<0.05$ ).

**CONCLUSION:** The research indicated social support as a predictor of Depression in adolescents with a strengthening impact of abnormal Daydreaming on Depression. An implication for mindfulness interventions that focus on the present moment without judgment is necessary to regulate anxiety, Depression, and daydreaming in college students.

**KEYWORDS:** Dysfunctional Daydreaming, Depression, Social Anxiety.

**INTRODUCTION**

Daydreaming is a normal phenomenon, but people who excessively get involved in daydreaming face difficulty in many areas of life, like socially, educationally or in relationships. Recent researches recommend that under certain conditions, daydreaming is linked with unhealthy effects on cognition and manipulating behavior<sup>1</sup>. Daydreaming is a cognitive process in which the individuals focus on one of the external reality stimulants and could ignore other stimulants<sup>2</sup>. Normal daydreaming is a mental experience in which more than half of human thoughts are. Hence, Dysfunctional Daydreaming can be differentiated from normal daydreaming. Although daydreaming is not considered abnormal, it results in stress after a person starts Daydreaming intensely or more frequently. It distorts a person's routine activity, causing a disorder known as Maladaptive Daydreaming<sup>3,4</sup>.

Depression is determined as a mental disorder that includes the existence of sadness, lack of happiness, feelings of blame, fault and low sense of self-worth, show alterations in the pattern of sleep and appetite, lack of attentiveness, and feels exhausted, which can turn into frequent, makes the one dysfunctional daily actions. Social anxiety is a prediction of upcoming threats while interacting with others. It is always future-related and more cognitive, whereas fear describes a person's emotional response to apparent and looming threat<sup>5</sup>. Adolescence, between 10 and 19 years, is a critical developmental period when youth experiences a high level of responsibilities and desires. The teenage years are the stage of lifespan with particular strength, growth-related needs and moralities. It is equally a period of growth in information plus abilities, realizing how to cope with sentiments with affiliations. Further, attain qualities and skills that would be vital to appreciating the teenage years and assuming mature characters<sup>6</sup>. It is the period when peer relationships and interactions with chums serve as a risk factor for exhibiting symptoms of social anxiety and depression<sup>7</sup>.

Maladaptive Daydreaming (MD) extended beyond mere daydreaming and appeared to affect basic routines<sup>1</sup>. The impact of maladaptive daydreaming on grade point average (GPA) and generalized anxiety disorder (GAD) is observed in Saudi students. Results show that among daydreamers, a statistical decline was apparent in GPA and high GAD<sup>8</sup>. Self-generated thoughts and Depression are found to be interlinked. Daydreaming influenced depressive signs through impacts on rumination and self-focus<sup>9</sup>. MD was strongly connected to parallel increases in all negative emotions and symptoms and lessened positive feelings, enhancing depressive, anxious and negative symptoms<sup>10</sup>.

In Pakistan, a study was conducted in Rawalpindi on 200 university students (100 males and 100 females), age range between 19-25 years and found a relationship between social anxiety and dysfunctional daydreaming<sup>11</sup>. Daydreaming has predicted depressive symptoms among university students in Rawalpindi<sup>12</sup>. As significant gaps are observed in very few researches conducted in Pakistan regarding Daydreaming and mental health, the present study focuses on comprehension of the phenomenon for devising better intervention plans for adolescents. The hypotheses are; 1) There would be a positive relationship between social anxiety, Depression, and dysfunctional Daydreaming. 2) Social Anxiety would be a significant predictor of Depression and mediation of Dysfunctional Daydreaming.

## **METHODOLOGY**

In this cross-sectional correlational research design study, the convenient sampling technique was utilized for selecting the sample of 200 adolescents from April to June 2020 during the COVID-19 lockdown. There were 106 females and 94 males, aged 12 to 19 years. Willing individuals with no physical and intellectual disabilities between the age ranges of two to nineteen were included, and people with physical disabilities and intellectual disabilities were excluded.

**Informed consent form:** The aim of the present study and the confidentiality of participants' information usage were adequately spelt out in written consent. **Demographic form:** includes age, gender, socioeconomic status, family income, marital status, Residential area, Family system, and education level.

**Patient Health Questionnaire (PHQ-9):** For measuring Depression, PHQ-9 was utilized in Urdu version<sup>13</sup>. It is a 4-point Likert response scale ranging from 0 = "not at all" to 4 = "Nearly every day". The reliability of the PHQ-9 Urdu version is 0.79 in the present sample.

**Social Anxiety Scale for Adolescents (SAS-A)**<sup>14</sup> is used to check social anxiety consisting of 18 items, and each item is answered on a five-point Likert rating scale that is from 5 "all the time" to 1 "not at the time". The higher scores indicate high social anxiety in adolescents. In this study, SAS-A Urdu translated version was used<sup>15</sup>. The reliability of this Urdu version was 0.88 in the present sample. The dysfunctional Daydreaming Scale (DDS) has been indigenously developed with 42 items on 5 points Likert scale, 0 = "never" and 4 = "very frequently". The reliability coefficient of this scale is .96 in the present sample.

In the first step, permission to use the scale was taken from the author through emails. This study was proved by the Advanced Studies & Research Board, the University of Gujrat, via letter no: UOG/ASRB/Psychology/3/18631. Then informed consent was obtained from the participants to precede further process. The data was collected online from 200 adolescents using a convenient sampling technique. Due to the pandemic situation of COVID-19 and the lockdown, data was collected online using Google form. A questionnaire was typed on Google Forms, and the data was extracted and converted to SPSS sheets. The data was analyzed on the SPSS version 24. Descriptive statistics (frequency and Percentage) were utilized to understand data better. Correlational analysis was employed, and AMOS -24 was used for mediation analysis.

**RESULTS**

Frequencies and Percentages of Demographic Variables of the Sample showed that males were 47% and females were 53%. Out of the whole sample, the majority, 110 (55%), were between 18 to 19 years. 43.5% have an intermediate level of education. 90% of adolescents belonged to rural areas and 10% to urban areas, 60% lived in nuclear families, and 40% had joint families (**Table I**). Pearson product-moment correlation showed a significant positive relationship between Depression with Social anxiety,  $r=.64$ ,  $p < .001$  and Dysfunctional Daydreaming,  $r=.58$ ,  $p < .001$ . There is a strong positive correlation between social anxiety and Dysfunctional Daydreaming  $r=.50$ ,  $p < .001$  (**Table II**). Pearson product-moment correlation coefficient analysis on study variables confirmed the conduction of path analysis to explore the mediating role of dysfunctional daydreaming between social anxiety and Depression in adolescents. Path analysis showed that social anxiety ( $\beta = 1.27$ ,  $p < 0.01$ ) has positively and significantly predicted Depression in adolescents. Moreover, dysfunctional daydreaming ( $\beta = 0.06$ ,  $p < 0.01$ ) has partially and significantly mediated social anxiety with Depression. Thus, the apprehensions during interactions with others are strengthened by the presence of maladaptive fancies that influence the depressive mental state in adolescents (**Figure I**).

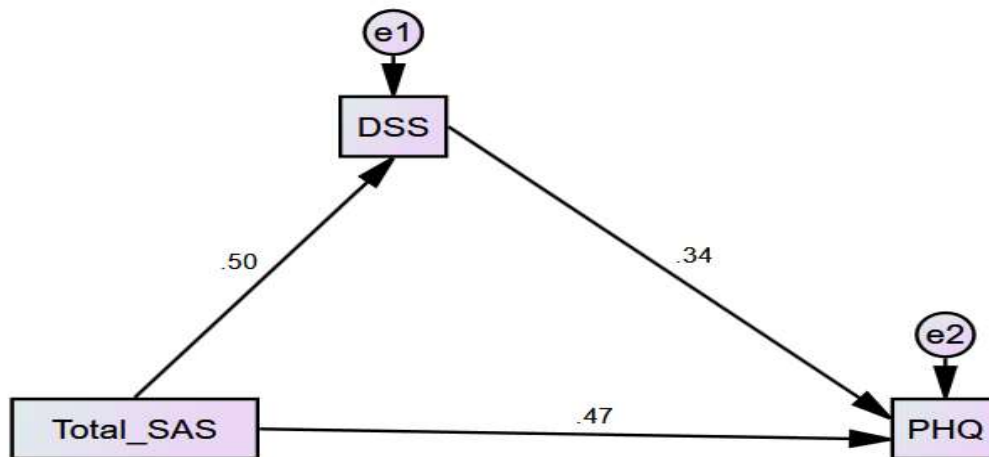
**TABLE I: FREQUENCIES OF DEMOGRAPHIC CHARACTERISTICS OF THE SAMPLE (n=200)**

Characteristics	Frequencies	Percentage
	f	%
<b>Gender</b>		
Female	106	53%
Male	94	47%
<b>Age</b>		
12-13	12	6%
14-15 year	32	16%
16-17 year	46	23%
18-19 year	110	55%
<b>Education</b>		
5 <sup>th</sup> to 8 <sup>th</sup> Grade	27	13.5%
Matric	50	25%
FA/ F.S.C	87	43.5%
B.A/BS 1-4 semester	36	18%
<b>Institution</b>		
Private	122	61%
Government	78	39%
<b>Residential Area</b>		
Rural area	89	44.5%
Urban area	111	55.5%
<b>Income</b>		
Less than 10,000	36	18%
Between 10,000-20,000	134	67%
Between 21,000—35000	11	5.5%
Between 36,000-50,000	10	5%
Above 50,000	9	4.5%
<b>Marital Status</b>		
Married	9	4.5%
Unmarried	191	95.5%
<b>Family System</b>		
Neutral	113	56.5%
Joint	87	43.5%

TABLE II: PEARSON CORRELATION BETWEEN DYSFUNCTIONAL DAYDREAMING, DEPRESSION AND SOCIAL ANXIETY

	M	SD	FNE	SAD-N	SAD-G	SAS-A	DDS
PHQ-9	9.39	5.14	.61**	.46**	.53**	.64**	.58**
FNE	19.30	6.18	-	.52**	.65**	.89**	.45**
SAD-N	15.21	4.89		-	.54**	.81**	.35**
SAD-G	9.36	3.25			-	.82**	.48**
SAS-A	43.87	12.14				-	.50**
DDS	62.15	31.17					-

FIGURE I: PATH ANALYSIS FOR MEDIATING ROLE OF DYSFUNCTIONAL DAYDREAMING WITH SOCIAL ANXIETY AND DEPRESSION IN ADOLESCENTS



**DISCUSSION**

The vital objective of this study was to investigate the relationship between Dysfunctional Daydreaming, Depression and Social Anxiety among Adolescents. As adolescence is a critical developmental period, teenagers have a lot of pressure from their parents, society and peer groups. These factors combine and develop feelings of anxiety in adolescents, as they have limited resources. They want to enjoy more but are unable to compete with their desires, leading to sadness and emotional distress. Sadness and emotional distress are vital ingredients to have Dysfunctional Daydreaming. Results also indicated a significant positive correlation between Depression, Social Anxiety and Dysfunctional Daydreaming. In previous research, it was suggested that individuals are stressed and deal with undesirable thoughts by wandering thoughts. Subsequently, their repetitive thoughts and daydreams may worsen and result in depression<sup>16</sup>. Similarly, several researchers defined a direct association between daydreaming and signs of depression<sup>17,18</sup>. Dysfunctional daydreamers are consciously aware of their condition or ailment but are frightened of exposing it, which generates social isolation<sup>19</sup> in addition to social phobia and anxiety<sup>20</sup>.

The Individuals with Maladaptive Daydreaming reported pre-existing anxiety and depression disorders and were prone to a greater urge for daydreams<sup>21,22</sup>. During the COVID-19 outbreak, individuals with or without mental disorders used daydreaming as a coping strategy to nullify the impact of COVID-19. A binary logistic regression revealed that compared to controls, individuals with maladaptive daydreaming experienced higher anxiety and depression<sup>23</sup>. The associations of childhood trauma, social anxiety absorption and fantasy dependence with maladaptive daydreaming have been investigated. MD is linked significantly with childhood trauma and social anxiety<sup>24,25</sup>. The relationships among daydreaming, suicidal and depressive symptoms are seen in undergraduates and have been found to have a predictive role of daydreaming in Depression and suicidality<sup>26</sup>. Negative relations between daydreaming frequency and positive mood have been explored. The study's findings indicate that an increase in daydreaming decreases positive attitudes, which means daydreaming is directly related to negative symptoms such as feeling sad and anxious etc., proving there is a relation between daydreaming and negative symptoms, which was also investigated in the current study<sup>27</sup>. Thus, people with MD have poor regulation of emotions and low mental health<sup>28</sup>.



## **CONCLUSION**

As adolescents are the future of every nation, this study finds positive and significant relationships among Dysfunctional Daydreaming, Depression and Social Anxiety among Adolescents. Further, this study confirmed the partially effective mediation of dysfunctional daydreaming between social support and Depression.

**Ethical Permission:** University of Gujrat ERC letter No. PSY/UOG/21/2722, Dated; 26-04-2021.

**Conflict of Interest:** The authors have no conflict of interest to declare.

**Financial Disclosure / Grant Approval:** No funding agency was used for this research.

**Data Sharing Statement:** The data supporting this study's findings are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

## **AUTHOR CONTRIBUTIONS**

Shafiq S: Conceived idea, analyze data, draft manuscript

Batool S: Data collection, thesis writing

**REFERENCES**

1. Somer E, Soffer-Dudek N, Ross CA. The comorbidity of daydreaming disorder (maladaptive daydreaming). *J Nerv Ment Dis.* 2017; 205(7): 525-30.
2. Barušs I. Alterations of consciousness: An empirical analysis for social scientists. *Am Psychol Assoc.* 2003.
3. Killingsworth MA, Gilbert DT. A wandering mind is an unhappy mind. *Science.* 2010; 330(6006): 932-935.
4. Bigelsen J, Lehrfeld JM, Jopp DS, Somer E. Maladaptive daydreaming: Evidence for an under-researched mental health disorder. *Consciousness and Cognition.* 2016; 42: 254-66.
5. American Psychiatric Association. Diagnostic and statistical manual of mental disorders. Washington. DC: Am Psychiatric Assoc. 2013.
6. World Health Organization. Adolescent health. 2018. Available from: <http://www.who.int/wastpacific/health-topics/adolescent-health>.
7. La Greca AM, Harrison HM. Adolescent peer relations, friendships, and romantic relationships: Do they predict social anxiety and Depression? *J Clin Child Adolescent Psychology.* 2005; 34(1): 49-61.
8. Alenizi MM, Alenazi SD, Almushir S, Alosaimi A, Alqarni A, Anjum I et al. Impact of maladaptive Daydreaming on grade point average (GPA) and the association between maladaptive daydreaming and generalized anxiety disorder (GAD). *Cureus.* 2020; 12(10): e10776. doi:10.7759/cureus.10776
9. Marchetti I, Van de Putte E, Koster EH. Self-generated thoughts and Depression: from daydreaming to depressive symptoms. *Front Human Neurosci.* 2014; 8: 131-133.
10. Soffer-Dudek N, Somer E. Trapped in a daydream: Daily elevations in maladaptive daydreaming are associated with daily psychopathological symptoms. *Front Psychiatry.* 2018: 194-199.
11. Anwar M, Aqeel M, Shuja KH. Linking Social Support, Social Anxiety and Maladaptive Daydreaming. *Foundation University J Psychology.* 2018; 2(2): 140-80.
12. Kiran I, Ahsan S, Zonash R. Self-generated thoughts as predictors of depressive symptoms among university students. *Pak J Physiology.* 2020; 16(1): 52-5.
13. Ahmad S, Hussain S, Akhtar F, Shah FS. Urdu translation and validation of PHQ-9, a reliable identification, severity and treatment outcome tool for Depression. *J Pak Med Assoc.* 2018; 68(8): 1166-70.
14. La Greca AM, Lopez N. Social anxiety among adolescents: Linkages with peer relations and friendships. *Journal of abnormal child psychology.* 1998; 26(2): 83-94.
15. Ahmad R, Bano Z. Translation and psychometric assessment of social anxiety scale for adolescents in Pakistan. *Pak J Psychology.* 2013; 44(1): 67-80.
16. Marchetti I, Van de Putte E, Koster EH. Self-generated thoughts and Depression: from daydreaming to depressive symptoms. *Front Human Neurosci.* 2014; 8: 131-134.
17. Epel ES, Puterman E, Lin J, Blackburn E, Lazaro A, Mendes WB. Wandering minds and aging cells. *Clin Psychol Sci.* 2013; 1(1): 75-83.
18. Markman KD, Klein WM, Suhr JA. Handbook of imagination and mental simulation. Psychology Press; 2012 Sep 10.
19. Uslu H. Understanding the relationship between media use and maladaptive daydreaming. Georgetown University; 2015.

## ONLINE FIRST

20. Somer E, Soffer-Dudek N, Ross CA, Halpern N. Maladaptive daydreaming: Proposed diagnostic criteria and their assessment with a structured clinical interview. *Psychology of Consciousness: Theory, Research, and Practice*. 2017; 4(2): 176-189.
21. Somer E, Abu-Rayya HM, Schimmenti A, Metin B, Brenner R, Ferrante E, Göçmen B, Marino A. Heightened levels of maladaptive daydreaming are associated with COVID-19 lockdown, pre-existing psychiatric diagnoses, and intensified psychological dysfunctions: A multi-country study. *Front Psychiatry*. 2020: 1146-1149.
22. Ross CA, Ridgway J, George N. Maladaptive daydreaming, dissociation, and the dissociative disorders. *Psychiatric Research and Clinical Practice*. 2020; 2(2): 53-61.
23. Musetti A, Franceschini C, Pingani L, Freda MF, Saita E, Vegni E, Zenesini C, Quattropiani MC, Lenzo V, Margherita G, Lemmo D. Maladaptive daydreaming in an adult Italian population during the COVID-19 lockdown. *Front Psychology*. 2021; 12: 838-842.
24. Somer E, Herscu O. Childhood Trauma, Social Anxiety, Absorption and Fantasy Dependence: Two Potential Mediated Pathways to Maladaptive Daydreaming. *J Addict Behav Ther Rehabil*. 2017; 5: 2-5.
25. Abu-Rayya HM, Somer E, Knane H. Maladaptive daydreaming is associated with intensified psychosocial problems experienced by female survivors of childhood sexual abuse. *Violence Against Women*. 2020; 26(8): 825-37.
26. Chu C, Rogers ML, Gai AR, Joiner TE. Role of thwarted belongingness and perceived burdensomeness in the relationship between violent daydreaming and suicidal ideation in two adult samples. *J Aggression Conflict Peace Res*. 2017; 10(1): 11-23. doi:10.1108/JACPR-10-2016-0255
27. Tudino RF, Mowry NL, Jellison WA. Does Life Satisfaction Mediate the Relationship Between Mood and Daydreaming Frequency? *Psi Chi J Psychol Res*. 2020; 25(2): 2325-7342.
28. West MJ, Somer E. Empathy, emotion regulation, and creativity in immersive and maladaptive daydreaming. *Imagination, Cognition and Personality*. 2020; 39(4): 358-73.