



## SOURCES OF STRESS AND ANXIETY IN TEENAGE YEARS

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### **Abstract**

Adolescence has evolved into an increasingly complex stage of life, likely due to various social and technological changes. An increasing number of cases of adolescents with anxiety problems are being reported (McLaughlin & Hatzenbuehler, 2009). Stressors have multiplied, making it more important than ever to focus on understanding and addressing adolescent health (Radez et al., 2021; Caelear et al., 2021). This paper aims to explore the correlations between stress factors and anxiety in adolescents. The sample consists of 70 adolescents, randomly selected from schools in Arad, who participated in an online study. The following tools were applied to assess the major dimensions of anxiety and sources of stress in children and adolescents: the Multidimensional Anxiety Scale for Children (March & Sullivan, 1999) and the Adolescent Stress Questionnaire (Bryne, Davenport, & Mazanov, 2007). The results indicate an association between anxiety and sources of stress in adolescence, as well as differences based on family structure.

**Keywords:** *adolescence, stress, anxiety, family, school.*

### **Introduction**

Adolescence has been considered, almost by definition, a time of increased stress (Spear, 2000) because of the multiple changes experienced concurrently, which include physical maturation, the drive for independence, the increased importance of social interactions, and brain development. While newfound independence can be stimulating, it can also make a teenager feel overwhelmed by change, which has led some researchers throughout history to characterize adolescence as full of "storm and stress" (Hall, 1904).

This description is supported by evidence showing a sharp increase in the onset of mental illnesses from childhood to adolescence, as well as concerning health statistics related to mortality during this stage of life. One key psychological change typical of adolescence is the amplification of emotional experiences, which has been suggested to play a role in the development of mental health issues and suicidal tendencies. Adolescence represents the most vulnerable period for the onset of psychiatric conditions (Kessler, Berglund, Delmer, Jin, Merikangas, & Walters, 2005, Runcan et al. 2023), with anxiety reported to peak later in life and suicide ranking as the fourth major cause of death. These findings, alongside data from adults indicating that anxiety disorders are the most prevalent form of psychiatric illness (Kessler et al., 2005), highlight the critical need to understand the development and driving factors that lead to anxiety and related pathologies.

Stress and anxiety pose significant challenges for many teenagers. Stress is often characterized by feelings of tension, frustration, worry, sadness, and withdrawal, typically lasting from a few hours to a few days (Bryne et al., 2007, Runcan, 2020). Teenagers experience stress for various reasons, with the most common including: breaking up with a boyfriend or girlfriend, more frequent disputes with or between parents, sibling issues, shifts in the family's financial status, health problems within the family, conflicts with peers. Additionally, children raised by single parents or from dysfunctional families often face distressing situations that contribute to stress and anxiety (Bryne, McKay, & Percy, 2014).

These events that trigger stress revolve around the two most significant domains of an adolescent's life: home and school (Bryne et al., 2007). They are often tied to issues of conflict and loss. Loss can refer to both real and perceived experiences, not necessarily something tangible; it can also represent the loss of something intrinsic, such as self-esteem, respect, friendship, or love.

Teenagers often respond to stress and anxiety with intense anger and externalizing behaviors, which can be either passive or aggressive. They may scream, fight, and complain about nearly everything. Other common signs include increased drinking, smoking, drug use, and more frequent crying – especially among girls. They may also show less interest in spending time with their family or following their parents' rules and requests (Kessler, DuPont, Berglund, & Wittchen, 2019).

Eventually, most young people will mature and take responsibility for their own emotional health and stability (Schwarzer, 2001). However, during their formative years, parents, teachers, and mental health professionals must remain vigilant to signs and patterns that

indicate potential risks. Recognizing an adolescent's stress and anxiety enables adults to implement effective measures and support the adolescent's emotional development.

### **Purpose and objectives**

The present research aims to highlight the relationships between the symptoms of anxiety and the sources of stress in adolescents, represented by issues with family, academic performance, frequency of attending school, romantic connections, social pressure from peers, interaction with teachers, perceptions of an uncertain future, conflicts between school and leisure activities, financial strain and adult future obligations.

Therefore, the first objective is to evaluate anxiety from several perspectives (physical signs, social anxiety, anxiety of separation and avoidance of pain and suffering) and sources of stress in adolescents, by applying a set of scales that specifically target these dimensions.

The second objective of the research consists of investigating the association relations between the multiple dimensions of anxiety and stress factors in adolescence, by calculating the correlation coefficients between the monitored variables. The research also aims to detect differences in adolescent anxiety and stress based on the adolescent's family structure, single or two parents families.

### **Hypotheses**

- 1) There is a relationship between sources of stress and anxiety in adolescents.
- 2) Family structure (single-parent or two-parent households) affects the sources of stress and anxiety in adolescents.

### **Participants**

A total of 70 adolescents aged 13 to 19 years ( $m=16.19$ ,  $sd=1.8$ ) participated in the research, randomly recruited from national schools and colleges within the radius of the Arad municipality, 21 males (28.6%) and 49 females (70%), with one subject who did not declare his gender. A percentage of 34.3% of the sample, i.e. 24 subjects, come from single-parent families, and 65.7% of the sample, i.e. 46 subjects, come from two-parent families.

### **Instruments**

Multidimensional Anxiety Scale for Children, an inventory for assessing the major dimensions of anxiety for children and adolescents, from 8 to 19 years. The 39 items,

developed by John S. March (March & Sullivan, 1999) for measuring specific symptoms, distinguish between the major symptoms of anxiety through: the physical symptoms scale (consisting of the somatic symptoms scale and the tension scale), the social anxiety scale (consisting of the fear of humiliation and the fear of mistakes scale), the pain avoidance scale (consisting of the perfectionism scale and the coping scale anxious), the separation anxiety-panic scale, the anxiety disorder index, the total index and the inconsistency index.

MASC's major contributions to the field of measuring anxiety issues in children and adolescents, compared to previous anxiety assessment scales, which were derived from measurement scales for adults, is the recognizing of childhood-specific anxieties.

Respondents choose one answer from the existing ones on a scale, where 0 indicates that the symptom never occurs, 1 indicates that the symptom rarely applies, 2 that the symptom occurs sometimes and 3 means that the symptom occurs very often. The rating is done by adding up all the items.

The Adolescent Stress Questionnaire (Bryne et al., 2007) is the most current and extensively used self-report instrument developed specifically to examine the nature of stress factors during adolescence (Doom & Gunnar, 2013). The questionnaire consists of 55 items, defining a 10-factor model that covers the sources of stress for adolescents and their intensity: problems at home, academic performance, school attendance, frequency of attending school, romantic connections, social pressure from peers, interaction with teachers, perceptions of an uncertain future, conflicts between school and leisure activities, financial strain and adult future obligations. Items are rated on a Likert scale, from 1 (not at all stressful) to 5 (very stressful). The score for each stressor is obtained by summing the responses to the subscales, and the total sum gives an overall stress score. A high score on either the subscales or the whole questionnaire indicates a high level of stress in the adolescent.

## **Procedure**

The evaluation was conducted online, through electronic messaging applications. In addition, the participants filled in demographic data: age, sex, family structure etc. The analysis was conducted with SPSS (IBM) 19.0, the data collected through the online form were exported to spreadsheets and numerically coded. In order to demonstrate the hypotheses, we calculated descriptive statistics and scatter indices for the two scales used in the study (see table 1).

**Table 1. Statistics for anxiety and stress sources for adolescents**

|                           | N     |         | Mean  | Median | Mode            | Std. Deviation |
|---------------------------|-------|---------|-------|--------|-----------------|----------------|
|                           | Valid | Missing |       |        |                 |                |
| Physical symptoms         | 70    | 0       | 13.24 | 13.00  | 19              | 7.507          |
| Social anxiety            | 70    | 0       | 11.69 | 10.00  | 19              | 6.477          |
| Separation anxiety        | 70    | 0       | 5.26  | 5.00   | 6               | 3.694          |
| Harm avoidance            | 70    | 0       | 17.13 | 18.00  | 18 <sup>a</sup> | 4.640          |
| Problems with family      | 70    | 0       | 17.89 | 16.50  | 10 <sup>a</sup> | 11.378         |
| Academic performance      | 70    | 0       | 13.40 | 13.00  | 10              | 5.908          |
| School frequency          | 70    | 0       | 6.01  | 6.00   | 12              | 3.816          |
| Romantic connections      | 70    | 0       | 7.74  | 8.00   | 0               | 5.599          |
| Peer influence            | 70    | 0       | 8.37  | 7.00   | 0               | 7.572          |
| Engagement with teachers  | 70    | 0       | 9.04  | 8.00   | 3 <sup>a</sup>  | 6.128          |
| Uncertain future          | 70    | 0       | 7.76  | 8.50   | 12              | 3.601          |
| School/leisure activities | 70    | 0       | 10.59 | 10.50  | 10 <sup>a</sup> | 5.923          |
| Financial strain          | 70    | 0       | 5.77  | 5.50   | 0 <sup>a</sup>  | 3.961          |
| Adult obligations         | 70    | 0       | 4.09  | 4.00   | 0               | 3.152          |

a. Multiple modes – smallest value.

Pearson's correlation coefficients (table 2) show positive correlations, significant at sig.  $\leq$  0.05 threshold, between physical symptoms of anxiety and stress caused by: problems with family ( $r=.407$ ), academic performance ( $r=.364$ ), peer influence ( $r=.378$ ), engagement with teachers ( $r=.404$ ), uncertain future ( $r=.472$ ) and financial strain ( $r=.378$ ). In addition, they show significant positive correlations between social anxiety and stress caused by: problems with family ( $r=.350$ ), academic performance ( $r=.399$ ), romantic connections ( $r=.387$ ), peer influence ( $r=.550$ ), engagement with teachers ( $r=.407$ ), uncertain future ( $r=.418$ ), conflicts between school and leisure activities ( $r=.276$ ) and financial strain ( $r=.291$ ).

**Table 2. Correlations coefficients between anxiety and stress**

|                      |      | Physical symptoms | Social anxiety | Separation anxiety | Harm avoidance |
|----------------------|------|-------------------|----------------|--------------------|----------------|
| Problems with family | r    | .407**            | .350**         | .211               | .098           |
|                      | Sig. | .000              | .003           | .079               | .418           |
| Academic performance | r    | .364**            | .399**         | -.070              | .014           |
|                      | Sig. | .002              | .001           | .566               | .909           |
| School frequency     | r    | -.019             | .104           | .017               | -.224          |
|                      | Sig. | .874              | .392           | .888               | .063           |

|                           |      |        |        |       |       |
|---------------------------|------|--------|--------|-------|-------|
| Romantic connections      | r    | .210   | .387** | .037  | .065  |
|                           | Sig. | .081   | .001   | .762  | .590  |
| Peer influence            | r    | .378** | .550** | .219  | .100  |
|                           | Sig. | .001   | .000   | .068  | .412  |
| Engagement with teachers  | r    | .404** | .407** | .145  | .024  |
|                           | Sig. | .001   | .000   | .229  | .842  |
| Uncertain future          | r    | .472** | .418** | -.069 | .148  |
|                           | Sig. | .000   | .000   | .569  | .220  |
| School/leisure activities | r    | .227   | .276*  | -.059 | -.040 |
|                           | Sig. | .059   | .021   | .626  | .744  |
| Financial strain          | r    | .378** | .291*  | .130  | -.059 |
|                           | Sig. | .001   | .014   | .284  | .627  |
| Adult obligations         | r    | .014   | .196   | .049  | .079  |
|                           | Sig. | .910   | .104   | .686  | .513  |

\*. Sig. 0.05 (2-tailed).

\*\*. Sig. 0.01 (2-tailed).

Also, a significant, positive correlation was observed between global anxiety and stress scores ( $r=.471$ ). No correlations were found between the dimensions separation anxiety and distress avoidance and sources of stress in adolescents.

Following the analysis of the first hypothesis, anxiety is positively associated with most sources of adolescent stress. Thus, a high level of physical symptoms and social anxiety will also imply high degrees of stress related to family issues, academic performance, peer influence, engagement with teachers, uncertain future, and financial strain. A high level of social anxiety will also imply high levels of romantic relationship stress and conflicts between school and leisure activities.

In order to investigate the second hypothesis, the sample of subjects was divided into two experimental groups, the group of teenagers with single-parent families, made up of 24 subjects, and the group of teenagers with two-parent families, made up of 46 subjects. The hypothesis examines differences in anxiety and sources of stress in adolescents, depending on family structure.

**Table 3. Group Statistics – family structure**

|                   | Family structure | N  | Mean  | t     | Sig. |
|-------------------|------------------|----|-------|-------|------|
| Physical symptoms | Single           | 24 | 13.04 | -.161 | .873 |
|                   | Two              | 46 | 13.35 | -.156 | .877 |
| Social anxiety    | Single           | 24 | 11.79 | .098  | .922 |

|                           |        |    |       |        |      |
|---------------------------|--------|----|-------|--------|------|
|                           | Two    | 46 | 11.63 | .101   | .920 |
| Separation anxiety        | Single | 24 | 5.13  | -.215  | .831 |
|                           | Two    | 46 | 5.33  | -.207  | .837 |
| Harm avoidance            | Single | 24 | 18.63 | 1.990  | .051 |
|                           | Two    | 46 | 16.35 | 1.910  | .063 |
| Problems with family      | Single | 24 | 13.04 | -2.686 | .009 |
|                           | Two    | 46 | 20.41 | -2.927 | .005 |
| Academic performance      | Single | 24 | 11.88 | -1.577 | .120 |
|                           | Two    | 46 | 14.20 | -1.691 | .096 |
| School frequency          | Single | 24 | 5.38  | -1.012 | .315 |
|                           | Two    | 46 | 6.35  | -1.002 | .322 |
| Romantic connections      | Single | 24 | 6.88  | -.936  | .353 |
|                           | Two    | 46 | 8.20  | -.888  | .380 |
| Peer influence            | Single | 24 | 6.63  | -1.404 | .165 |
|                           | Two    | 46 | 9.28  | -1.481 | .144 |
| Engagement with teachers  | Single | 24 | 6.92  | -2.151 | .035 |
|                           | Two    | 46 | 10.15 | -2.268 | .027 |
| Uncertain future          | Single | 24 | 6.83  | -1.567 | .122 |
|                           | Two    | 46 | 8.24  | -1.446 | .156 |
| School/leisure activities | Single | 24 | 8.13  | -2.615 | .011 |
|                           | Two    | 46 | 11.87 | -2.640 | .011 |
| Financial strain          | Single | 24 | 4.92  | -1.311 | .194 |
|                           | Two    | 46 | 6.22  | -1.325 | .192 |
| Adult obligations         | Single | 24 | 2.88  | -2.400 | .019 |
|                           | Two    | 46 | 4.72  | -2.648 | .010 |

We made statistical inferences with independent samples T test to check whether differences between groups were significant (table 3). There are significant differences ( $\text{sig.} \leq .05$  threshold), for harm avoidance ( $t=1.99$ ), family issues ( $t=-2.68$ ), engagement with teachers ( $t=-2.15$ ), school / leisure ( $t= -2.61$ ) and for adult obligations ( $t=-2.40$ ). For the symptoms of anxiety and other stress factors, no significant differences are found according to the family structure.

It is therefore observed that the anxiety to avoid harm or suffering is higher in teenagers with single-parent families ( $m=16.36$ ), than in teenagers with two-parent families ( $m=18.63$ ). It is also observed that for most sources of stress adolescents with two-parent families scored higher than adolescents with single-parent families, with the exception of stress caused by romantic relationships. Thus, for the stress caused by problems at home, teenagers with two-parent families obtained a higher mean ( $m=20.41$ ) than teenagers with single-parent families

( $m=13.04$ ); for the stress of interacting with teachers, teenagers with two-parent families obtained a higher mean ( $m=10.15$ ) than teenagers with single-parent families ( $m=6.92$ ); for stress regarding conflicts between school and free time, teenagers with two-parent families obtained a higher mean ( $m=11.87$ ) than teenagers with single-parent families ( $m=8.13$ ); and for adult responsibility, teenagers with two-parent families obtained a higher mean ( $m=4.72$ ) than teenagers with single-parent families ( $m=2.88$ ).

Therefore, the differences for anxiety symptoms and sources of stress according to family type are significant, with adolescents from two-parent families showing higher harm avoidance anxiety and higher levels of stress related to problems at home, interaction with teachers, school/leisure conflicts, and adult responsibility than adolescents from single-parent families.

### **Conclusions**

The present research aimed to highlight the relationships between the symptoms of anxiety and the sources of stress in adolescents, by evaluating anxiety and the sources of stress in adolescents from several perspectives, by scales that specifically target these dimensions.

Thus, in adolescents, high degrees of physical symptoms and social anxiety also imply high stress related to problems at home, school performance, peer pressure, interaction with teachers, future uncertainty, and financial pressure. A high level of social anxiety will also imply high levels of romantic relationship stress and conflicts between school and leisure activities.

Adolescents from two-parent families showed higher pain-avoidance anxiety and higher levels of stress related to problems at home, interaction with teachers, school/leisure conflicts, and adult responsibility than adolescents from single-parent families.

Therefore, the association between anxiety and the sources of stress in adolescence as well as the differences according to the family structure were demonstrated. Like any research, it also has limitations, such as the small number of participating subjects or the application of questionnaires that have not yet been validated for Romanian adolescents.

However, the findings of this research support the conclusions of other research (Aldwin, 2007; Moore, March, Albano, & Thienemann, 2010), which deal with stress in adolescents and the mechanisms by which it leads to psychiatric pathology, to symptoms of anxiety or depression. Today's teenagers are more stressed than ever, with record levels of stress-related internalizing symptoms. There are good reasons for teenagers to worry: a global pandemic,

war in Europe and Middle East, mass shootings, economic insecurity, and staggering costs of living across the globe. In addition, the day-to-day stresses teenagers have faced for generations, such as how they are perceived by their peers, teachers and potential romantic partners, and increasingly how cope in a competitive and demanding academic landscape. In conclusion, stress is a normal and even defining feature of adolescence that enables adolescents to acquire a wide variety of complex social and intellectual skills as they move into adulthood and eventually become fully integrated adults in society.

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