IJPES
www.ijpes.com
International Journal of Psychology and Educational Studies
ISSN: 2148-9378

Is Psychological Inflexibility a Predictor of Depression and Anxiety of Pre-Adolescents?[1]

Aykut KUL[2], **Fulya TÜRK**[3]

[2]*Faculty of Education, Gaziantep University, Gaziantep, Türkiye* 0000-0002-2851-2222

[3]*Faculty of Education, Yildiz Technical University, Istanbul, Türkiye* *0000-0003-1896-8418*

ARTICLE INFO

Article History
Received 09.03.2024
Received in revised form 10.06.2024
Accepted 03.07.2024
Article Type: Research Article

ABSTRACT

Research on mental health issues, such as anxiety and depression, which have become prevalent among pre-adolescents and lead to impaired functioning in family, academic, and social domains, is critically important. One prominent theoretical approach to explaining anxiety and depression symptoms is Acceptance and Commitment Therapy (ACT) and its Psychological Inflexibility Model. This study aims to elucidate the relationship between psychological inflexibility levels in pre-adolescents and their anxiety and depression levels. The Revised Children's Anxiety and Depression Scale—Child Version (RCADS) and the Avoidance and Fusion Questionnaire for Youth (AFQ-Y8) Child Form were used as data collection tools. Data were collected from 327 sixth-grade students (178 male and 149 female) attending three different public schools in Gaziantep, and a simple linear regression model was established with the obtained data. The findings indicated that psychological inflexibility significantly predicts internalizing disorder levels (R = .716, R Square = .513; p <.01), total anxiety levels (R = .668, R Square = .446; p <.01) and depression levels (R = .692, R Square = .479; p <.01) of pre-adolescents. These results contribute to the literature on explaining anxiety and depression in pre-adolescents, and future studies should investigate the relationship between psychological inflexibility and externalizing problems such as aggression and anger.

Keywords:
Acceptance and commitment therapy, psychological inflexibility, depression, anxiety, pre-adolescents

1. Introduction

1.1. Anxiety and Depression in Pre-Adolescence

The prevalence of anxiety and depression among pre-adolescents is increasing (Barker et al., 2019; Ghandour et al., 2019; Merikangas et al., 2009). A meta-analysis examining the prevalence of mental disorders in children and adolescents found the worldwide prevalence of any anxiety disorder to be 6.5% and any depressive disorder to be 2.6% (Polanczyk et al., 2015). Another study reported that 7.1% of children and adolescents experienced anxiety, 7.4% had behavioral problems, and 3.2% suffered from depression (Ghandour et al., 2019). Furthermore, during the COVID-19 pandemic, the prevalence of clinically significant depression and anxiety symptoms rose to 25.2% and 20.5%, respectively (Racine et al., 2021). In another prevalence study, the prevalence of childhood affective disorders in Turkey was reported to be 2.5% (Karaçetin et al., 2018). On the other hand, according to the results of a study on the prevalence of childhood anxiety disorders in Turkey, this rate was found to be 5.2% (Mutluer et al., 2023).

[1]This research was produced from Aykut Kul's doctoral thesis titled "Comparison of the Effectiveness of Acceptance and Commitment Therapy and Cognitive Behavioral Therapy on Anxiety Levels of Pre-adolescents" and was presented as an oral presentation at the EABCT 2023 Congress.

[2] Corresponding author's address: Gaziantep University, Faculty of Education, Şehitkamil/Gaziantep /Türkiye
e-mail: aykutkul@gantep.edu.tr

Citation: Kul, A. & Türk, F. (2024). Is psychological inflexibility a predictor of depression and anxiety of pre-adolescents? *International Journal of Psychology and Educational Studies*, *11*(3), 272-282. https://dx.doi.org/10.52380/ijpes.2024.11.3.1373

Despite their notable prevalence among children and adolescents, the incidence of these disorders has surged during the pandemic, a global crisis. Additionally, 15.9% to 61.9% of children identified as anxious or depressed have comorbid anxiety and depressive disorders, with these measures highly correlated (Brady & Kendall, 1992). This comorbidity varies depending on the specific anxiety disorder (Cummings et al., 2014) and significantly impacts the future mental health of children and adolescents (Cummings et al., 2014). The onset age for anxiety disorders is 11 years (Davis et al., 2011), while it is 14.9 years for major depression (Lewinsohn et al., 1994). Therefore, pre-adolescence and adolescence are crucial periods for understanding and preventing psychopathology. A comprehensive understanding of the mechanisms and predictive factors underlying these psychological conditions is essential for planning effective intervention and prevention strategies (Essau, 2008).

Many individual, familial, and social factors may contribute to the emergence and persistence of anxiety disorders and depression in adolescents. Individual factors include temperament, personality traits, genetic background (Drake & Ginsburg, 2012), the presence of parental anxiety, especially in the mother (Creswell et al., 2013), and parenting styles (Eastburg & Johnson, 1990). Familial and social factors, such as receiving negative feedback from peers, social rejection, and peer relationships (Teachmen et al., 2007; Siegel et al., 2009), also play significant roles. Similarly, socio-demographic and cultural factors (Shorey et al., 2022), genetic factors (Sullivan et al., 2000), personality traits (Compas et al., 2004), gender (Wichstrom, 1999), cognitive characteristics (Beck, 1976), stressful life events and interpersonal relationships (Hankin, 2006), school relationships (Wickersham et al., 2021), discrimination (Stirling et al., 2015), and parental factors (Yap & Jorm, 2015) are influential.

The theoretical paradigms supporting the etiology of anxiety and depression in pre-adolescents are multifaceted, encompassing biological, psychological, and environmental dimensions (Cole et al., 2008; Hankin & Abramson, 2001). Psychological theories emphasize cognitive, emotional, and behavioral factors. Cognitive theories suggest maladaptive cognitive processes, such as negative self-beliefs, cognitive biases, and dysfunctional thought patterns, contribute to anxiety and depression (Beck, 1976). Emotion-focused theories propose difficulties in emotion regulation, and increased emotional reactivity predisposes pre-adolescents to these disorders (Gross & Thompson, 2007). Behavioral theories indicate that learned associations between environmental stimuli and undesirable outcomes, as well as maladaptive coping strategies, contribute to the emergence of anxiety and depression (Mineka & Zinbarg, 2006). Another significant theory is Acceptance and Commitment Therapy (ACT) and its Psychological Flexibility Model.

1.2. Acceptance and Commitment Therapy

ACT is a present-focused, mindfulness-based approach stemming from the radical behavioral school, supported by scientific data, and based on the relationship between language and cognition (Relational Frame Theory, RFT). ACT adopts a transdiagnostic and process-oriented approach rather than a psychopathology-oriented one (Hayes et al., 1996; Hayes et al., 2006; Herbert & Forman, 2011). The primary goal of ACT is to transform the individual's relationship with their challenging thoughts and feelings, thereby improving quality of life, rather than merely reducing symptomatology as in traditional cognitive-behavioral therapy (CBT). ACT interventions include awareness, acceptance, cognitive defusion, clarification of values, and value-based behavior to enhance psychological flexibility (Hayes et al., 2006).

Psychological flexibility, as defined in the flexible hexagon model, summarizes the ability to connect with the present moment flexibly, engage with internal experiences (emotions, thoughts, and bodily sensations) without judgment or defense, and act under meaningful life principles (Hayes et al., 2012). Conversely, psychological inflexibility refers to inflexible and avoidant responses that lead to psychological distress and functional impairments (Hayes et al., 2006). The main components of psychological flexibility are acceptance, cognitive defusion, present-moment awareness, contextualized self, clarification of values, and value-oriented behaviors, while psychological inflexibility includes experiential avoidance, cognitive fusion, loss of contact with the present moment, conceptualized self, distancing from and avoiding values, and impulsivity (Hayes et al., 2006; Hayes et al., 2012).

According to the ACT approach, narrow and rigid behavioral responses to disturbing internal experiences are fundamental processes in developing psychopathologies such as depression and anxiety (Yavuz, 2015). Learned and reinforced experiential avoidance underlie many psychopathological problems. Individuals

who cannot tolerate distressing experiences develop and maintain avoidance strategies to prevent them (Hayes et al., 1996). Cognitive fusion, where thoughts dominate behaviors as individuals perceive their thoughts as real, also contributes to psychopathology (Hayes, 2004). Consequently, variables in the psychological inflexibility model, primarily experiential avoidance and cognitive fusion, lead to psychopathological formations.

1.3. Acceptance and Commitment Therapy for Children and Adolescents

Numerous studies with adult samples have demonstrated that psychological inflexibility strongly predicts stress, psychopathology, poor mental health, and quality of life (Bond et al., 2011; Gloster et al., 2011; Hernández-López et al., 2021; Kashdan & Rottenberg, 2010; Levin et al., 2014; Tyndall et al., 2020). Although research with children and adolescents is less extensive, existing evidence suggests psychological inflexibility is associated with internalizing and externalizing mental health problems, particularly symptoms of anxiety and mood disorders (García-Rubio et al., 2020; Greco et al., 2008; Muris et al., 2017; Simon & Verboon, 2016; Valdivia-Salas et al., 2017). Studies show that pre-adolescents with high psychological inflexibility are more prone to anxiety and depression symptoms, even after controlling for relevant demographic and clinical covariates (McEvoy et al., 2010). Longitudinal research further supports the predictive value of psychological inflexibility in predicting the onset and persistence of anxiety and depression symptoms in adolescents (McLaughlin & King, 2015).

During pre-adolescence, individuals experience significant changes in their physical, psychosocial, and cognitive domains. There are notable physical changes, such as transitioning from concrete to abstract thinking, becoming less dependent on parents, adapting to school structures, taking on more responsibilities, and shifting to a success- and performance-based academic structure (Karababa et al., 2018). This period also involves adolescence, gender role definition, changes in self-concept, exploration of personal values, peer approval, autonomy, and emotional changes (Myrick & Martorell, 2011). Additionally, this period marks the onset of anxiety and depression. Thus, it is essential to conduct research on the determinants of anxiety and depression, including psychological inflexibility and flexibility, to identify potential psychological risk factors and intervention and prevention methods (Hosek, 2022).

While there is considerable research on anxiety and depression in children and adolescents, studies on the relationship between anxiety, depression, and psychological inflexibility in pre-adolescents are limited. Therefore, this study aims to explain the relationship between psychological inflexibility and depression and anxiety levels in pre-adolescents. Using simple linear regression analysis, we hypothesize that psychological inflexibility will significantly predict anxiety and depression levels.

2. Methodology

2.1. Research Model

This study was designed to examine the relationship between psychological inflexibility levels and depression and anxiety levels in pre-adolescents by utilizing predictive correlational analysis, one of the relational survey models. A predictive correlational design is a research methodology that examines the relationships between variables to predict future outcomes based on observed data (Creswell & Creswell, 2018).

2.2. Research Sample

The population of this study consists of sixth-grade students in Gaziantep province in the fall semester of the 2022-2023 academic year. The sample of the study consists of 327 sixth-grade students, 178 of whom are male and 149 of whom are female, who are studying in three different public schools. In the study, the convenience sampling method, one of the non-random sampling methods, was used. Convenient sampling is sampling that is easy to reach, available, and conducted on people who are willing (voluntary) to participate in the study (Büyüköztürk et al., 2014). Since collecting data in the middle school sample is more difficult and requires different procedures compared to collecting data in the adult sample, the researcher preferred to use the convenient sampling method. It is useful in studies where the population is difficult to access or when the researcher has constraints regarding time, budget, or accessibility (Marshall, 1996).

2.3. Data Collection Tools and Procedure

In this study, the "Avoidance and Fusion Questionnaire for Youth (AFQ-Y8) Child Form" was used to measure the psychological inflexibility levels of pre-adolescents, and the Revised Children's Anxiety and Depression Scale-Child Version (RCADS) was used to measure their depression and anxiety levels. Since both measurement tools are valid and reliable measurement tools developed for the age group of pre-adolescents, they were deemed appropriate to be used within the scope of this research.

Avoidance and Fusion Questionnaire for Youth (AFQ-Y8) Child Form: Developed by Greco et al. (2008), the AFQ-Y8, which measures the levels of experiential avoidance and cognitive fusion, is the short form of the Avoidance and Fusion Questionnaire for Youth developed by the same name and consists of 8 items. The scale is scored on a 5-point Likert scale (not at all true = 0, somewhat true = 1, fairly true = 2, true = 3, very true = 4) and is a self-report-based measurement tool that evaluates the characteristics related to the sub-dimensions of experiential avoidance and cognitive fusion. The total score of the scale varies between 0-32. High scores obtained from the scale indicate a high level of avoidance and consolidation. Büyüköksüz and Erözkan (2019) conducted the Turkish adaptation of the scale. In the Turkish validity and reliability study, the Cronbach's alpha reliability coefficient of the scale was obtained as .78, while the Cronbach's alpha coefficient was obtained as .82 as a result of the reliability analysis conducted within the scope of this study.

Revised Children's Anxiety and Depression Scale-Child Version (RCADS): The Turkish validity and reliability study of this scale, developed by Chorpita et al. based on DSM-IV diagnostic criteria, was conducted by Görmez et al. The Cronbach Alpha internal consistency coefficient of the scale is .95. The scale includes 4-point Likert-type scoring (never = 0, sometimes = 1, often = 2, always = 3). In addition to total anxiety and total anxiety-depression (the sum of all subscales), the scale includes six subscales, including separation anxiety disorder (AD) (7 items), generalized anxiety disorder (AD) (6 items), panic disorder (PD) (9 items), social phobia (SF) (9 items), obsessive-compulsive disorder (OCD) (6 items), and major depressive disorder (MDD) (10 items), and consists of 47 items in total. The total anxiety-depression score that can be obtained from the scale varies between 0-141. It can be said that as the scores obtained from the scale increase, individuals' internalizing disorder levels increase. The Cronbach Alpha internal consistency coefficient of the scale in this study was .94.

Procedure: The data for the study were collected by applying the Avoidance and Fusion Questionnaire for Youth (AFQ-Y) Child Form and the Revised Children's Anxiety and Depression Scale-Child Version (RCADS) face-to-face to students in three different public schools in Gaziantep province. Before applying the scales, the researcher gave instructions about the scales to the pre-adolescents. In addition, while collecting data, he answered the pre-adolescents' questions about the scale items and made sure they understood the items. The process of answering the scales lasted about 10 to 15 minutes.

2.4. Data Analysis

In the study, the data of the participants who systematically left the scale items blank were excluded from the evaluation. Initially, while there were 368 data points in the data set, Mahalonobis distance values were calculated for the detection of extreme values, and the data of 15 participants with extreme values were excluded from the analysis according to the scores obtained. In addition, the data of 26 participants who did not systematically complete the measurement tools or gave the same answers were excluded from the data set. After removing these data, the analyses were conducted with a data set of 327 participants.

The scatter dot diagram was examined for normality and linearity, and it was determined that the distribution was elliptical. In addition to descriptive statistics, kurtosis and skewness values were examined for normality, and the results are given in Table 1.

After it was determined that the data set normality and linearity criteria required for parametric tests, Pearson Correlation Analysis and Simple Linear Regression analysis were performed through the SPSS 27.00 package program.

Table 1. *Descriptive Statistics*

	N	Mean	SD	Skewness	Kurtosis
RCADS	327	55.19	22.61	.319	-.364
RCADS- Total Anxiety	327	45.38	18.36	.284	-.414
RCADS-Depression	327	9.82	5.67	.502	-.326
AFQ-Y8	327	11.26	6.83	.441	-.650

RCADS: Revised Children's Anxiety and Depression Scale- Internalizing Disorder, RCADS- Total Anxiety: Revised Children's Anxiety and Depression Scale Total Anxiety, RCADS-Depression: Revised Children's Anxiety and Depression Scale- Depression Subscale, AFQ-Y8: Avoidance and Fusion Questionnaire for Youth- Psychological Inflexibility

When Table 1 is examined, it is seen that pre-adolescents had internalizing disorder (X̄= 55.19, SD= 22.61), total anxiety (X̄= 45.38, SD= 18.36), depression (X̄= 9.82, SD= 5.67) and psychological inflexibility (X̄= 11.26, SD= 6.83). It is also observed that the skewness (.28 to .44) and kurtosis (-.65 to -.33) coefficients vary between +1.96 and -1.96.

2.5. Ethical

The study has ethics committee permission from the Gaziantep University Social and Human Sciences Ethics Committee Commission, dated February 12, 2022, and numbered 270318(16). Application permission was also obtained from the Ministry of National Education.

3. Findings

In this section, the predictive power of psychological inflexibility levels of pre-adolescents' anxiety and depression levels was examined with Pearson correlation analysis and simple linear regression, and the findings were presented, respectively. The results obtained from the simple linear correlation analysis conducted to determine the relationship between psychological inflexibility, anxiety, and depression levels in pre-adolescents are given in Table 2.

Table 2. *Correlations Between Psychological Inflexibility, Internalizing Disorder, Anxiety, and Depression Levels*

	1	2	3	4
1. RCADS	1			
2. RCADS- Total Anxiety	.983**	1		
3. RCADS-Depression	.804**	.681**	1	
4. AFQ-Y8	.716**	.668**	.692**	1

**p<.01, n=327; RCADS: Revised Children's Anxiety and Depression Scale- Internalizing Disorder, RCADS- Total Anxiety: Revised Children's Anxiety and Depression Scale Total Anxiety, RCADS-Depression: Revised Children's Anxiety and Depression Scale- Depression Subscale, AFQ-Y8: Avoidance and Fusion Questionnaire for Youth- Psychological Inflexibility.

When Table 2 is examined, there is a positive and significant correlation between psychological inflexibility and internalizing disorder .72, psychological inflexibility and total anxiety .67 and psychological inflexibility and depression levels of pre-adolescents .69. After the significant relationships between psychological inflexibility, internalizing disorder, total anxiety, and depression levels of pre-adolescents were determined, simple linear regression was used to reveal the predictive relationships. The results are given in Table 3.

Table 3. *Regression Analysis Results for the Prediction of İnternalizing Disorder, Total Anxiety and Depression*

Predicted Variables	Predicting Variable	B	SE	β	T	p
RCADS	Constant	28.494	1.688	-	16.877	.000
	AFQ-Y8	2.370	.128	.716	18.489	.000
		R = .716		R^2 = .513		
		F = 341.835		p = .000		
RCADS-Total Anxiety	Constant	25.147	1.462		17.204	.000
	AFQ-Y8	1.795	.111	.668	16.180	.000
		R = .668		R^2 = .446		
		F = 261.785		p = .000		
RCADS-Depression	Constant	3.347	.438		7.640	.000
	AFQ-Y8	.574	.033	.692	17.271	.000
		R = .692		R^2 = .479		
		F = 298.285		p = .000		

When Table 3 is examined, a significant relationship was observed between pre-adolescents' levels of psychological inflexibility and internalizing disorder (R = .716, R^2 = .513), and psychological inflexibility was found to be a significant predictor of internalizing disorder ($F_{(1-326)}$ = 341.835, p< .001). Psychological inflexibility explained 51% of the change in internalizing disorder. In addition, a significant relationship was observed between psychological inflexibility levels and total anxiety levels of pre-adolescents (R = .668, R^2 = .446), and psychological inflexibility was found to be a significant predictor of total anxiety ($F_{(1-326)}$ = 261.785, p< .001). It can be said that psychological inflexibility explains 45% of the change in anxiety level. Finally, a significant relationship was observed between psychological inflexibility levels and depression levels of pre-adolescents (R = .692, R^2 = .479), and psychological inflexibility was found to be a significant predictor of depression ($F_{(1-326)}$ = 298.285, p< .001). It can be said that psychological inflexibility explains 48% of the change in depression.

4. Discussion and Conclusion

In this study, the predictive effect of psychological inflexibility on depression and anxiety levels in pre-adolescents was examined. The findings indicated that psychological inflexibility positively predicted both depression and anxiety levels. Based on the research findings, it can be concluded that as the levels of psychological inflexibility increase, the levels of depression and anxiety in pre-adolescents will also increase. A notable result was that psychological inflexibility explains a significant portion of the variance in depression and anxiety in pre-adolescents.

When reviewing the relevant literature, it is observed that studies examining the relationship between psychological inflexibility, depression, and anxiety are predominantly conducted with adult samples (Bond et al., 2011; Gloster et al., 2011; Hernández-López et al., 2021). Studies conducted with adolescents, though fewer, show parallel findings to this study. Livheim et al. (2016) found that psychological inflexibility was highly correlated with anxiety and depression, indicating that the depression and anxiety symptoms in adolescents aged 12-20 years were related to psychological inflexibility. In another study, Muris et al. (2017) examined the relationships between psychological inflexibility levels and other psychological constructs and symptoms in adolescents aged 12-18 years. They found significant positive relationships between psychological inflexibility and anxiety, mood problems, somatization, and thought suppression, and negative relationships with self-compassion, self-worth, and mindfulness. Makriyianis et al. (2019) conducted a study that examined the mediating role of psychological inflexibility in the relationship between adverse childhood experiences and the depression and anxiety levels of university students. The results showed that psychological inflexibility mediated the relationship between negative childhood experiences and depression and anxiety levels. Valdivia-Salas et al. (2016) explored the relationship between psychological inflexibility, depression, and life satisfaction while adapting the Avoidance and Fusion Questionnaire for Youth (AFQ-Y) to Spanish culture. They found a positive and significant relationship between psychological inflexibility and depression and a significant negative relationship with life satisfaction. Lønfeldt et al. (2017) examined the relationship between third-wave cognitive constructs and anxiety in children and adolescents. Their meta-analysis revealed a medium effect size for mindfulness, a medium-high effect size for metacognitions, and a high effect size for psychological inflexibility. Simon and Verboon (2016) found a positive and significant relationship between psychological inflexibility and anxiety levels in data from 267 children aged 8-10 years, suggesting that high levels of psychological inflexibility are associated with high levels of anxiety.

When all these results are considered together, the high level of relationship between psychological inflexibility and the anxiety and depression levels of children and adolescents supports the applicability of the ACT model in these populations. Developing psychological flexibility can help pre-adolescents cope with these issues, as inflexibility is a known risk factor for psychopathology. In the context of depression, symptoms are strongly associated with a loss of flexibility, and ruminative reactions often involve cyclical and stereotypical thinking, which is also linked to inflexibility. Similarly, avoidance of painful experiences in anxiety is directly related to experiential avoidance (Kashdan & Rottenberg, 2010). Furthermore, psychological inflexibility is known to be associated with the maintenance of psychopathology (Morris & Mansell, 2018). Therefore, to develop psychological flexibility as a transdiagnostic process, it is necessary to conduct studies with adolescents in addition to adults.

This study utilized a non-clinical research group. Therefore, it is necessary to emphasize the following point: preventive, psychosocial studies, and psychoeducation aimed at reducing psychological inflexibility in non-clinical adolescents will also contribute to reducing their potential future vulnerability. According to Hayes and Hofmann (2017), behavioral and mental health are not merely the absence of psychological problems. The foundation of this therapy is based on an orientation towards value-driven behaviors and overcoming obstacles in this process (Bennet & Oliver, 2019). Therefore, it seems important to include more individual and group counseling activities aimed at increasing psychological flexibility in the psychological counseling and guidance services provided in schools. Additionally, it may be suggested that professionals working with adolescents incorporate the basic components of the ACT hexaflex, such as acceptance, cognitive defusion, present moment awareness, self-as-context, value clarification, and committed action, into their work to reduce depression and anxiety, provided it aligns with their theoretical orientation.

5. Limitations and Recommendations

This study has some limitations. One limitation is that the study group consisted only of sixth-grade students from three different public schools in Gaziantep. Future studies may consider expanding the research sample to include students from different cities. Additionally, this study examined the relationship between psychological inflexibility and internalizing problems such as depression and anxiety in pre-adolescents. Future research could also investigate the relationship between psychological inflexibility levels and externalizing problems such as aggression and anger in pre-adolescents. When examining the relationship between depression, anxiety, and psychological inflexibility, several other variables may influence this relationship. Potential variables include stress levels, coping strategies, social support, personality traits, mindfulness practices, etc. This study was conducted with pre-adolescents from the normal population, so it is important to examine these results in a clinical setting. Furthermore, this study was conducted as a cross-sectional study through convenience sampling, which may affect its generalizability.

6. References

Barker, M. M., Beresford, B., Bland, M., & Fraser, L. K. (2019). Prevalence and incidence of anxiety and depression among children, adolescents, and young adults with life-limiting conditions: a systematic review and meta-analysis. *JAMA pediatrics*, *173*(9), 835-844.

Beck, A. T. (1976). *Cognitive therapy and the emotional disorders*. Penguin.

Bennett, R., & Oliver, J. (2019). *Acceptance and commitment therapy: 100 key points and techniques*. Routledge.

Bond, F. W., Hayes, S. C., Baer, R. A., Carpenter, K. M., Guenole, N., Orcutt, H. K., ... & Zettle, R. D. (2011). Preliminary psychometric properties of the Acceptance and Action Questionnaire–II: A revised measure of psychological inflexibility and experiential avoidance. *Behavior therapy*, *42*(4), 676-688.

Brady, E. U., & Kendall, P. C. (1992). Comorbidity of anxiety and depression in children and adolescents. *Psychological Bulletin, 111*(2), 244–255. https://doi.org/10.1037/0033-2909.111.2.244

Büyüköksüz, E. ve Erözkan, A. (2019). Kaçınma ve birleşme ölçeği-gençler 8 (KBÖ-G8): Türk kültüründe faktör yapısı ve güvenirlik çalışmaları. *Journal of Cognitive Behavioral Psychotherapy and Research, 8* (1), 3-7.

Büyüköztürk, Ş., Çakmak, E. K., Akgün, Ö. A., Karadeniz, Ş. Ve Demirel, F. (2014). *Bilimsel araştırma yöntemleri* (18. Baskı). Pegem.

Cacioppo, S. (2019, April 25–28). *Evolutionary theory of social connections: Past, present, and future* [Conference presentation abstract]. Ninety-ninth annual convention of the Western Psychological Association, Pasadena, CA, United States. https://westernpsych.org/wp-content/uploads/2019/04/WPA-Program-2019-Final-2.pdf

Chorpita, B. F., Moffitt, C. E., & Gray, J. (2005). Psychometric properties of the revised child anxiety and depression scale in a clinical sample. *Behaviour research and therapy*, *43*(3), 309-322.

Cole, P. M., Luby, J., & Sullivan, M. W. (2008). Emotions and the development of childhood depression: Bridging the gap. *Child Development Perspectives*, *2*(3), 141-148.

Compas, B. E., Connor-Smith, J., & Jaser, S. S. (2004). Temperament, stress reactivity, and coping: Implications for depression in childhood and adolescence. *Journal of Clinical Child and Adolescent Psychology, 33*(1), 21-31.

Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3. Ed.). Sage.

Creswell, C., Apetroaia, A., Murray, L., & Cooper, P. (2013). Cognitive, affective, and behavioral characteristics of mothers with anxiety disorders in the context of child anxiety disorder. *Journal of abnormal psychology*, *122*(1), 26.

Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage.

Cummings, C. M., Caporino, N. E., & Kendall, P. C. (2014). Comorbidity of anxiety and depression in children and adolescents: 20 years after. *Psychological bulletin*, *140*(3), 816. https://doi.org/10.1097/00004583-199407000-00006

Davis, T., D., May, A. Whiting, S. E. (2011). Evidence-based treatment of anxiety and phobia in children and adolescents: current status and effects on the emotional response. *Clinical Psychology Review, 31*, 592-602.

Drake, K. L., & Ginsburg, G. S. (2012). Family factors in the development, treatment, and prevention of childhood anxiety disorders. *Clinical child and family psychology review*, *15*, 144-162.

Eastburg, M., & Johnson, W. B. (1990). Shyness and perceptions of parental behavior. *Psychological Reports*, *66*(3), 915-921.

Essau, C. A. (2008). Comorbidity of anxiety disorders in adolescents. *Depression and Anxiety, 25*(12), 134-149.

García-Rubio, C., Lecuona, O., Blanco Donoso, L. M., Cantero-García, M., Paniagua, D., & Rodríguez-Carvajal, R. (2020). Spanish validation of the short-form of the Avoidance and Fusion Questionnaire (AFQ-Y8) with children and adolescents. *Psychological Assessment*, *32*(4), e15.

Ghandour, R. M., Sherman, L. J., Vladutiu, C. J., Ali, M. M., Lynch, S. E., Bitsko, R. H., & Blumberg, S. J. (2019). Prevalence and treatment of depression, anxiety, and conduct problems in US children. *The Journal of pediatrics*, *206*, 256-267.

Gloster, A. T., Klotsche, J., Chaker, S., Hummel, K. V., & Hoyer, J. (2011). Assessing psychological flexibility: What does it add above and beyond existing constructs?. *Psychological assessment*, *23*(4), 970.

Gormez, V., Kılınçaslan, A., Orengul, A. C., Ebesutani, C., Kaya, I., Ceri, V., ... & Chorpita, B. (2017). Psychometric properties of the Turkish version of the revised child anxiety and depression scale–child version in a clinical sample. *Psychiatry and Clinical Psychopharmacology*, *27*(1), 84-92.

Grady, J. S., Her, M., Moreno, G., Perez, C., & Yelinek, J. (2019). Emotions in storybooks: A comparison of storybooks that represent ethnic and racial groups in the United States. *Psychology of Popular Media Culture*, *8*(3), 207–217. https://doi.org/10.1037/ppm0000185

Greco, L. A., Lambert, W., & Baer, R. A. (2008). Psychological inflexibility in childhood and adolescence: Development and evaluation of the avoidance and fusion questionnaire for youth. *Psychological Assessment, 20*(2), 93-102.

Gross, J. J., & Thompson, R. A. (2007). Emotion regulation: Conceptual foundations. In J. J. Gross (Ed.), Handbook of emotion regulation (pp. 3-24). Guilford Press.

Hankin, B. L. (2006). Adolescent depression: Description, causes, and interventions. *Epilepsy & behavior*, *8*(1), 102-114.

Hankin, B. L., & Abramson, L. Y. (2001). Development of gender differences in depression: An elaborated cognitive vulnerability-transactional stress theory. *Psychological Bulletin, 127*(6), 773-796.

Hayes, S. C., & Hofmann, S. G. (2017). The third wave of cognitive behavioral therapy and the rise of process-based care. *World psychiatry*, *16*(3), 245.

Hayes, S. C., & Strohsal, K. D. (Eds.) (2004). A *practical guide to Acceptance and Commitment Therapy*. Boston, MA: Springer.

Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes, and outcomes. *Behaviour Research and Therapy*, *44*(1), 1-25.

Hayes, S. C., Pistorello, J., & Levin, M. E. (2012). Acceptance and commitment therapy as a unified model of behavior change. *The Counseling Psychologist*, *40*(7), 976-1002.

Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (1999). *Acceptance and commitment therapy: An experiential approach to behavior change*. Guilford Press.

Hayes, S. C., Villatte, M., Levin, M., & Hildebrandt, M. (2011). Open, aware, and active: Contextual approaches as an emerging trend in the behavioral and cognitive therapies. *Annual Review of Clinical Psychology*, *7*, 141-168.

Hayes, S. C., Wilson K. G., Gifford, E. V., Follette, V. M. & Strosahl, K. (1996). Experiential avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment. *Journal of Consulting and Clinical Psychology, 64,* 1152–1168.

Hernández-López, M., Cepeda-Benito, A., Díaz-Pavón, P., & Rodríguez-Valverde, M. (2021). Psychological inflexibility and mental health symptoms during the COVID-19 lockdown in Spain: A longitudinal study. *Journal of contextual behavioral science*, *19*, 42-49.

Karababa, A., Oral, T., & Dilmaç, B. (2018). The role of perceived social support and value in prediction of school attachment among secondary school students. *Hacettepe Egitim Dergisi*.

Karacetin, G., Arman, A. R., Fis, N. P., Demirci, E., Ozmen, S., Hesapcioglu, S. T., ... & Tekden, M. (2018). Prevalence of childhood affective disorders in Turkey: An epidemiological study. *Journal of affective disorders*, *238*, 513-521.

Kashdan, T. B., & Rottenberg, J. (2010). Psychological flexibility as a fundamental aspect of health. *Clinical psychology review*, *30*(7), 865-878.

Levin, M. E., MacLane, C., Daflos, S., Seeley, J. R., Hayes, S. C., Biglan, A., & Pistorello, J. (2014). Examining psychological inflexibility as a transdiagnostic process across psychological disorders. *Journal of contextual behavioral science*, *3*(3), 155-163.

Lewinsohn, P. M., Clarke, G. N., Seeley, J. R., & Rohde, P. (1994). Major depression in community adolescents: age at onset, episode duration, and time to recurrence. *Journal of the American Academy of Child & Adolescent Psychiatry*, *33*(6), 809-818. https://doi.org/10.1097/00004583-199407000-00006

Livheim, F., Tengström, A., Bond, F. W., Andersson, G., Dahl, J., & Rosendahl, I. (2016). Psychometric properties of the Avoidance and Fusion Questionnaire for Youth: A psychological measure of psychological inflexibility in youth. *Journal of Contextual Behavioral Science*, *5*(2), 103-110.

Lønfeldt, N. N., Silverman, W. K., & Esbjørn, B. H. (2017). A systematic review and meta-analysis of the association between third-wave cognitive constructs and youth anxiety. *International Journal of Cognitive Therapy*, *10*(2), 115-137.

Makriyianis, H. M., Adams, E. A., Lozano, L. L., Mooney, T. A., Morton, C., & Liss, M. (2019). Psychological inflexibility mediates the relationship between adverse childhood experiences and mental health outcomes. *Journal of contextual behavioral science*, *14*, 82-89.

Marshall, M. N. (1996). Sampling for qualitative research. *Family Practice*, 13(6), 522-526.

McEvoy, P. M., Nathan, P., & Norton, P. J. (2009). Efficacy of transdiagnostic treatments: A review of published outcome studies and future research directions. *Journal of Cognitive Psychotherapy, 23*(1), 20-33.

McLaughlin, K. A., & King, K. (2015). Developmental trajectories of anxiety and depression in early adolescence. *Journal of Abnormal Child Psychology, 43*(2), 311-323.

Merikangas, K. R., Nakamura, E. F., & Kessler, R. C. (2009). Epidemiology of mental disorders in children and adolescents. *Dialogues in clinical neuroscience*, *11*(1), 7-20.

Mineka, S., & Zinbarg, R. (2006). A contemporary learning theory perspective on the etiology of anxiety disorders: It's not what you thought it was. *American Psychologist*, *61*(1), 10-26.

Miranda, C. (2019). *Exploring the lived experiences of foster youth who obtained graduate level degrees: Self-efficacy, resilience, and the impact on identity development* [Doctoral dissertation]. Pepperdine University. PQDT Open. https://pqdtopen.proquest.com/doc/2309521814.html?FMT=AI

Morris, L., & Mansell, W. (2018). A systematic review of the relationship between inflexibility/flexibility and transdiagnostic cognitive and behavioral processes that maintain psychopathology. *Journal of Experimental Psychopathology*, *9*(3), 2043808718779431.

Muris, P., Meesters, C., Herings, A., Jansen, M., Vossen, C., & Kersten, P. (2017). Inflexible youngsters: Psychological and psychopathological correlates of the avoidance and fusion questionnaire for youths in nonclinical Dutch adolescents. *Mindfulness*, *8*, 1381-1392.

Mutluer, T., Gorker, I., Akdemir, D., Ozdemir, D. F., Ozel, O. O., Vural, P., ... & Ercan, E. S. (2023). Prevalence, comorbidities and mediators of childhood anxiety disorders in urban Turkey: a national representative epidemiological study. *Social Psychiatry and Psychiatric Epidemiology*, *58*(6), 919-929.

Myrick, S. E., & Martorell, G. A. (2011). Sticks and stones may break my bones: Protective factors for the effects of perceived discrimination on social competence in adolescence. *Personal relationships*, *18*(3), 487-501.

Polanczyk, G. V., Salum, G. A., Sugaya, L. S., Caye, A., & Rohde, L. A. (2015). Annual research review: A meta-analysis of the worldwide prevalence of mental disorders in children and adolescents. *Journal of child psychology and psychiatry*, *56*(3), 345-365. 10.1111/jcpp.12381

Racine, N., McArthur, B. A., Cooke, J. E., Eirich, R., Zhu, J., & Madigan, S. (2021). Global prevalence of depressive and anxiety symptoms in children and adolescents during COVID-19: a meta-analysis. *JAMA pediatrics*, *175*(11), 1142-1150.

Sapolsky, R. M. (2017). *Behave: The biology of humans at our best and worst*. Penguin Books.

Shorey, S., Ng, E. D., & Wong, C. H. (2022). Global prevalence of depression and elevated depressive symptoms among adolescents: A systematic review and meta-analysis. *British Journal of Clinical Psychology*, *61*(2), 287-305.

Siegel, R. S., La Greca, A. M., & Harrison, H. M. (2009). Peer victimization and social anxiety in adolescents: Prospective and reciprocal relationships. *Journal of youth and adolescence*, *38*, 1096-1109.

Simon, E., & Verboon, P. (2016). Psychological inflexibility and child anxiety. *Journal of Child and Family Studies*, *25*, 3565-3573.

Stirling, K., Toumbourou, J. W., & Rowland, B. (2015). Community factors influencing child and adolescent depression: A systematic review and meta-analysis. *Australian & New Zealand Journal of Psychiatry*, *49*(10), 869-886.

Sullivan, P. F., Neale, M. C., & Kendler, K. S. (2000). Genetic epidemiology of major depression: review and meta-analysis. *American journal of psychiatry, 157*(10), 1552-1562.

Teachman, B. A., & Allen, J. P. (2007). Development of social anxiety: Social interaction predictors of implicit and explicit fear of negative evaluation. *Journal of Abnormal Child Psychology*, *35*, 63-78.

Tyndall, I., Waldeck, D., Pancani, L., Whelan, R., Roche, B., & Pereira, A. (2020). Profiles of psychological flexibility: A latent class analysis of the acceptance and commitment therapy model. *Behavior Modification*, *44*(3), 365-393.

Valdivia-Salas, S., Martín-Albo, J., Zaldivar, P., Lombas, A. S., & Jiménez, T. I. (2017). Spanish validation of the Avoidance and Fusion Questionnaire for Youth (AFQ-Y). *Assessment*, *24*(7), 919-931.

Wichstrøm, L. (1999). The emergence of gender difference in depressed mood during adolescence: the role of intensified gender socialization. *Developmental psychology, 35*(1), 232.

Wickersham, A., Sugg, H. V., Epstein, S., Stewart, R., Ford, T., & Downs, J. (2021). Systematic review and meta-analysis: the association between child and adolescent depression and later educational attainment. *Journal of the American Academy of Child & Adolescent Psychiatry*, *60*(1), 105-118.

Yap, M. B. H., & Jorm, A. F. (2015). Parental factors associated with childhood anxiety, depression, and internalizing problems: A systematic review and meta-analysis. *Journal of affective disorders*, *175*, 424-440.

Yavuz, K. F. (2015). Kabul ve kararlılık terapisi (ACT): Genel bir bakış. *Turkiye Klinikleri Journal of Psychiatry Special Topics*, *8*(2), 21-27.