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Investigation of the Effect of the Fear of COVID-19 on School Refusal in terms of Depression, Anxiety, Social Functioning and Academic Resilience

Keywords: School refusal; Anxiety; Depression; COVID-19

Abstract

Background: As one of the possible results of COVID-19 pandemic on young people, it is thought that school refusal and related problems, which have an important place among problematic school attendance problems, may come to light.

Aim: It is aimed to investigate whether depression-anxiety symptoms, social and adaptive functioning and academic resilience have a mediating role in the relationship between fear of infection to Covid-19 and school refusal.

Samples: The data collection process on the Turkish sample of 609 adolescents reached online has been completed.

Methods: The research was carried out with a correlational design based on a cross-sectional process.

Results: This study show that the fear of COVID-19 positively predicts depression-anxiety, and depression-anxiety negatively predicts academic resilience and social functioning, as well as social functioning and academic resilience, negatively and significantly predict school refusal and thus the variables in question mediate the relationship between the fear of COVID-19 and school refusal.

Conclusion: According to the results of the research, it was determined that the fear of COVID-19 constitutes the ground for depression and anxiety in adolescents and that depression-anxiety can also lead to the emergence of school refusal and thus problematic school absenteeism issues due to the effect of weakening academic resilience and social functionality.

Introduction

COVID-19 is defined as an epidemic that has spread rapidly all over the world in the past six months and affects both countries and individuals of all ages in many ways (WHO, 2020). Although the medical outcomes caused by the epidemic are the primary focus of countries and communities all over the world, it is likely that restrictive quarantine, etc., which are applied in order to prevent the spread of the epidemic and because of the fear of the epidemic, will have secondary consequences on children as well as adults. It is inevitable for the individuals to develop psycho-social problems because of witnessing the consequences of the epidemic and it's widely dissemination [1-5].

After WHO (2020) described COVID-19 as an epidemic, it is thought that the information about the infection of the virus, geographical coverage, incubation period and actual mortality rates, and especially the images reflected on visual and social media cause serious insecurity in individuals and that the restrictive measures that countries urgently apply trigger the fear that has been developed due to the epidemic [6]. Fear is a defense mechanism that the individual

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shows against dangerous situations and includes the basic reactions of the individual to survive these threatening situations. Naturally, disproportionate reactions and irrational ways of thinking are introduced depending on the mood that develops at the moment of $fear.\ These\ forms\ of\ reaction, which\ appear\ as\ secondary\ consequences$ of the epidemic process, are associated with various psychological disorders. When the literature is analyzed, studies showing that anxiety, depression and obsessive-compulsive symptoms come to the fore among the results of disproportionate and intense fear. There are studies showing that the intense and uncontrollable stress that develops due to the fear created by the epidemic also causes psychological consequences even in individuals who were healthy (without serious psychological symptoms) before the epidemic. It has been determined that studies on past outbreaks (Ebola, etc.) support these results and the importance of fear and tension created by the epidemic creates secondary consequences [7-10].

Although there is no evident epidemiological data on the psychological effects of COVID-19 on individuals and its effect on public health, the results of limited studies indicate that it should be taken seriously. The studies of Wang et al. (2020) and Shigemura et al. (2020) in Japan reported that one-third of the respondents developed severe anxiety, and about half a moderate anxiety. Brookset al. (2020) reported that fear of getting COVID-19 caused intense emotional and behavioral consequences such as anxiety, loneliness, boredom, anger and sleep problems. Xiang et al. (2020) stated that there may be PTSD, anxiety disorders, paranoid and psychotic disorders, depression, and even suicide among the behavioral and emotional consequences of this fear caused by COVID-19.

In line with the information given above, it is thought that both the medical and psycho-social dimensions of the epidemic and the long term school closures may trigger problematic school absenteeism issues in the future and that it will put pressure on their school commitment and motivation and eventually may have serious academic consequences in the short and long term. In the pre-epidemic period, there are studies showing that problematic school absenteeism issues have been becoming more common

among young people and becoming a problem threatening education systems [4]. Problematic school absenteeism is defined as showing at least 25% absenteeism for a certain period (monthly, semester, etc.). This includes part-time and full-time absences from a student and also planned behaviors to be late for school in the morning [11,12]. Psychological symptoms are also common in children with problematic school absenteeism problems. Among these, especially psychological adjustment problems, developing anti-social behaviors and anxiety disorders and conditions such as tendency to violence, suicidal tendency, substance abuse, contamination and risky sexual behaviors are particularly prominent [13,14].

Considering the visible aspects of problematic school absenteeism problems, school refusal, alienation from school, school dropout, skipping school, etc. behavior problems can be shown among them (18). Among these behavioral problems that are increasingly common among young people, school refusal has an important place [3]. School refusal is defined as a phenomenon that includes full or partial absenteeism, chronic lateness, developing deliberate behaviors attempting to skip the school in the morning or serious symptoms that accelerate the demand not to go to school in the future [14]. It is also suggested that school refusal, which is considered as an increasingly common situation in child psychiatry (Benoit et al., 2015), should be considered as a child mental health problem [6]. Considering the views that define the school refusal theoretically, it is understood that two basic indicators come to the fore. These are avoiding stressful situations at school and avoiding negative stimuli from school [14,24]. In this context, it is thought that the intense stress of the individuals caused by the fear and anxiety that emerge in the individual and society due to COVID-19 can deepen the avoidance responses and prepare the ground for the spread of the school refusal problem.

The results of the research showing that the prevalence among the youth among pre-epidemic period was 5-28% according to various socio-demographic variables indicate that the reflections of the school refusal have important consequences on the academic and psychosocial lives of the youth in the short and long term [14,16]. Among the short-term consequences of school refusal can be academic failure, becoming distanced from school work, legal and financial difficulties, peer isolation and conflict with parents, etc. and among the long-term results can be guilt feelings, school dropout, difficulties in professional, economic problems and marital life, adulthood psychological problems and substance [15,17-18]. In this sense, it is possible that the intense fear that will arise due to the COVID-19 and the secondary results expected to develop due to this fear will pose a significant pressure risk on these short- and long-term results.

In addition, there are a number of individual characteristics that are thought to reduce the risk of anxiety and depression symptoms expected to develop due to the fear of COVID-19 and the intense stress that this fear will create, on problematic school absenteeism issues and school refusal [19,20]. It is thought that social functioning may have an important place among these characteristics. Social functioning is defined as a positive quality, including emotional, cognitive, and linguistic processes related to a person's social skills [3,21]. In this respect, it can be said that the level of social functioning of the individual may have a protective function in the

negative results expected to develop due to the fear of COVID-19. The results of limited studies addressing the role of social functioning corroborate the perception that it may have a protective function against school refusal [3]. The results of the research conducted by Gonzálvez, et al. (2019) determined that there is a high relationship between low school refusal and high social functioning, whereas students with intense school refusal have low social functioning in school performance, peer and parent relationships. Similarly, Seçer and Ulaş (2020) found that social functioning has a high level and positive correlation with school refusal in young people. Therefore, it can be thought that social functioning is an important protective factor in preventing problematic school absenteeism issues such as school refusal, etc. in young people.

Academic resilience can be shown as another quality that is thought to reduce the risk of the fear of COVID-19 in the development of problematic school absenteeism issues in young people. Academic resilience, which can be considered as a derivative of psychological resilience [3], is defined as the tendency towards academic determination and success despite socially and psychologically stressful and difficult life events [22-25]. In this sense, young people with high academic resilience can be expected to show high levels of determination and success despite the negative effects of the intense fear and stress situation likely to develop due to the COVID-19 epidemic [3,32]. Although studies on the impact of academic resilience on problematic school absenteeism issues in young people are limited [3,26-28], It is thought that they can come to the fore as a quality that strengthens their positions against problematic school absenteeism issues. Accordingly, it is considered that the fear of COVID-19, which is expected to cause traumatic effects for individuals of all ages, can play a key protective role and eliminate the risk in terms of causing emotional and behavioral consequences like school refusal, which are expected to trigger in young people.

The Current Study

The aim of this research is to examine the effect of fear developed due to the COVID-19 outbreak on school refusal in the context of depression-anxiety, social functioning and academic resilience. For this purpose, it is thought that the fear of COVID-19 may trigger symptoms of anxiety and depression in adolescents and will have a negative impact on school refusal. On the other hand, it is thought that academic resilience and social functioning of young people may have a protective and mediating role limiting this negative effect. Determining the mediation role of these variables is expected to contribute to the widening of our perspective in terms of determining the nature of the psychological problems likely to arise as secondary results of the COVID-19 outbreak and understanding the individual qualities that lay the ground for problematic school absenteeism issues and that this wider perspective will contribute to the processes and knowledge to shape the intervention and action plans to prevent school refusal and problematic school absenteeism issues. The results of the research are considered to be important in terms of understanding the possible behavioral problems observed in young people after the epidemic and their reflections on problematic school absenteeism issues in Turkey, one of the countries which has been seriously affected by the COVID-19 outbreak.

The research questions to be answered withing this study are

- ➤ Does the fear of COVID-19 predict school refusal in young people?
- ➤ Does the fear of ➤COVID-19 predict the symptoms of depression and anxiety in young people?
- Are depression and anxiety symptoms a significant predictor of social functioning and academic resilience?
- ➤ Is social functioning and academic resilience a significant predictor of school refusal?
- ➤ Does social functioning and academic resilience play a role in the relationship between the fear of COVID-19 and depression-anxiety symptoms with school refusal

Materials & Methods

Participants

The participants of the study consisted of 609 adolescents between 14 and 19 years old (m = 16.62, Sd = 1.95). 57.40% of the participants are females and 42.6% are males. In the research, a two-step procedure was followed in the process of determining the participants. First, the data collection process was carried out online, primarily because of the school closures and the curfew imposed on individuals less than 20 years old due to being in the epidemic period. In this context, data were collected from a total of 609 high school students, which could be reached with the convenient sampling method. It was determined that 12.5% of the sample group had low level, 81.2% had moderate level and 6.3% had high level of fear of COVID-19. Similarly, it was found that 45.2% had low, 42.5% moderate and 12.3% had high levels of depressive symptoms and that 36.5% had low, 51.8% had moderate and 11.6% had high level of anxiety symptoms. In terms of school refusal, it was determined that 41.7% of the students showed low symptoms, 49.5% of them showed moderate and 8.7% showed high symptoms.

Measures

The Fear of COVID-19 Scale: It's a likert scale developed to evaluate the psychological symptoms evolving because of COVID-19 pandemic [1]. The scale consists of 7 items and one-dimension. Seçer and Ulaş (2020) conducted an adaptation study in Turkish culture on adolescents aged 14-19 (χ^2 / sd = 2.10, RMSEA: .041, , SRMR: .040; RMR: .037, CFI: .99). Even though the scale is a 7-liket scale in its original form, it is a four-point likert scale in the Turkish culture (Never-Always). The scores to get from the scale ranges from 7-28 and high scores are evaluated as high level of fear related to COVID-19.

Depression and Anxiety Scale for Children: It's a four-point likert scale developed to assess the anxiety symptoms and depression in adolescents and children and adapted to Turkish culture [3,12]. The scale consists of a total of 25 items, 10 of which assess depressive symptoms and 15 of which assess anxiety symptoms. The scale's model fit (X^2 /sd=1.49; RMSEA: .071, SRMR: .070; RMR: .065; CFI: .98) and Cronbach alpha values (.87) in Turkish culture indicate that it has adequate validity and reliability values. Answers given to the scale are never, rarely, often and always and the scores from the scale range from 25-100. High scores indicate high anxiety and depression.

School Refusal Assessment Scale: Developed by to measure

school rejection symptoms in children and adolescents [14]. The adaptation of the revised form of the scale by Heyne et al. (2019) to Turkish culture was made by Seçer and Ulaş (2020), and it is a self-report and four-point likert measurement tool (χ^2 / df = 2.21, RMSEA = .061, RMR: .58, SRMR: .60, NFI = .97, CFI = .98, GFI = .94). The scale includes a total of 24 items and four sub-dimensions. Cronbach alpha reliability values were determined as .87, .85, .83 and .84, respectively. Responses to the scale range from never (1) to always (4). The scores that can be obtained range from 24 to 96, and the high scores of each sub-dimension of the scale and the total scores indicate the school refusal.

Academic Resilience Scale: It is a self-report and likert measurement tool prepared to measure academic resilience in young people with reference to psychological resilience [9]. It was adapted to Turkish culture by Seçer and Ulaş (2020b). Contrary to its original form, it was determined that 22 items and three sub-dimensions of the scale were confirmed in Turkish culture ($\chi^2/sd=2.16$, RMSEA=.062, RMR: 55; NFI=.98, GFI=.96; CFI=.98,). Cronbach alpha reliability values were determined as .82, .79, and .82 for the sub-dimensions, respectively. The scores that can be obtained from the scale range from 22 to 88, and high scores are interpreted as high academic resilience. The scale is scored as the lowest 22 and the highest 88 with its 22-item structure and high scores are interpreted as a positive attribute.

Social Functioning Scale: It is a self-report and likert measurement tool developed to measure processes related to social functioning in children and adolescents [33-35]. The scale was adapted to Turkish culture by Seçer and Ulaş (2020b). In Turkish culture, it was determined that the scale's 20-item and four-factor structure has a good fit level ($\chi^2/sd=2.25$, RMSEA=.057, RMR: .50, SRMR: .61; NFI=.98, CFI=.98, GFI=.96). Scale's Cronbach alpha reliability values are .83, .81, .79 and .84. The scale is scored from 20 to 80, and the high scores obtained from the scale are evaluated as high social functioning.

Procedure and Data Analyses

The research process was initiated by getting ethical and legal permissions. The data collection process of the research was carried out online due to the restrictions like quarantine in Turkey. As such, the online survey form was sent to volunteered participants' mail and smart phones. The data collection process was based on volunteering and a separate link was provided to the participants directing them to the informed consent forms. The support and lead of the school administrators and the counselors was consulted during the data collection. The data collection was done within 15 days and the collected data was transferred to SPPS environment and reviewed in terms of parametric conditions. The data of 21 people were taken out from the data set due to the parametric conditions.

In the data analysis phase, a two-stage analysis process, which includes the confirmatory measurement model and the structural equation models, was carried out. Verification of the measurement model is proposed as a prerequisite for structural models [37]. The fit values of the tested measurement model ($\chi^2/\text{sd}=1.41$; REMSEA: .057, RMR: .49; SRMR: .066, GFI: .92; CFI: .95) showed that the model was confirmed. In the second stage, three different models including mediating relationships were constructed and analyzed. RMSEA,

RMR, SRMR, RFI, TLI, CFI, NFI, and GFI, which are recommended in the structural equation model and are frequently used as fit indices, were used in the research [22,38-40].

Results

Structural models developed in line with the research questions and the findings related to these models are presented in this section. In this context, the findings regarding Model 1 (Does the fear of COVID-19 directly predict the school refusal?) are presented in Figure 1 [41-43].

Considering the findings related to Model 1, which examines the predictive effect of the fear of COVID-19 on school refusal in the context of direct impact (X^2 (106,50)=43; CFI = 0.95; TLI = 0.94; NFI = 0.94; GFI = 0.92), it can be said that the fear of COVID-19 positively predicts school refusal in young people (β = .33, p <.01). Considering the findings and correlation coefficients, it is understood that the fear of COVID-19 has a strong effect on school refusal in adolescents (13%), and the hypothesis constructed is confirmed. After the verification of Model 1, other variables were included in the model for the purpose of the research and the change in the direct correlation coefficients was examined. The models to which other variables were added are named as Model 2 and Model 3. In this context, Model 2: was structured as "depression-anxiety, social functioning and academic resilience mediate the relationship between the fear of COVID-19 with school refusal", the findings obtained are presented in Figure 2 [14,44,48].

Figure 2 shows the contribution of other variables included in the relationship between the fear of COVID-19 and school refusal to the model. In this sense, the parameters given in Figure 2 can be evaluated in two contexts. *First*, the fear of COVID-19 positively predicts depression and anxiety symptoms in young people (β = .33, p <.01, 3.6%), and depression and anxiety predict social functioning (β = .-. 44, p <.01, 3.6%) and academic resilience (β = .-. 37, p <.01, 3.6%). In the same model, social functioning (β = -. 23, p <.01, 3.6%) and academic resilience (β = -. 20, p <.01, 3.6%) negatively predicts

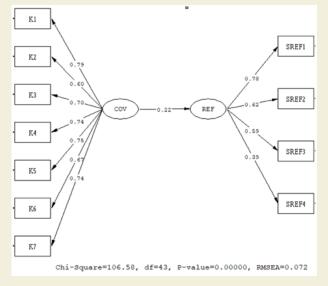


Figure 1: Standardized SEM results for Model 1

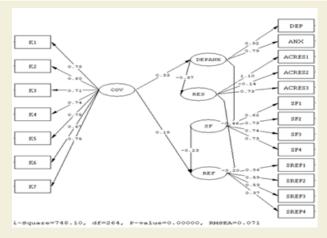


Figure 1: Standardized SEM results for Model 2.

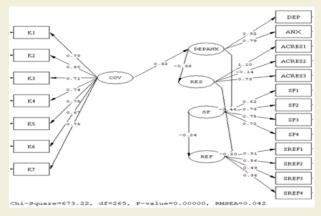


Figure 3: Standardized SEM results for Model 3.

school refusal. Second, in Model 2, is parameter changes between the fear of COVID-19 and school refusal (β = .19, p <.01, 3.6%). In Model 1, the fear of COVID-19 had a predictive coefficient of 13% on school refusal, while this rate fell to 3.6% in Model 2 [49]. Therefore, the direct paths between the fear of COVID-19 and school refusal were removed from the model, considering that the change observed in two different models in the relationship between the fear of COVID-19 and school refusal was caused by the mediating role of the variables included in the model. In this model, which is defined as Model 3, the effect of the fear of COVID-19 on school refusal was tested indirectly through the variables of depression-anxiety, social functioning and academic resilience. Figure 3 can be examined for the findings related to Model 3 [50-53].

Fit indices for Model 3, which tests the mediating role of depression-anxiety, social functioning and academic resilience in the relationship between the fear of COVID-19 and school refusal (χ^2 (265) = 673.22 / 1.97; CFI = 0.96; TLI = 0.96; SRMR = 0.062; RMSEA = 0.062) show that the tested model and the mediation of depression-anxiety, social functioning and academic resilience variables are confirmed. Accordingly, when Figure 3 is examined, the fear of COVID-19 positively predicts depression-anxiety (β = .32, p <.01), and depression-anxiety negatively predicts academic resilience

 $(\beta = -.36, p < .01)$ and social functioning $(\beta = -.46, p < .01)$, as well as social functioning $(\beta = -.24, p < .01)$ and academic resilience $(\beta = -.20, p < .01)$, negatively and significantly predict school refusal and thus the variables in question mediate the relationship between the fear of COVID-19 and school refusal. In line with this finding, it can be said that the fear of COVID-19 has a significant effect on school refusal based on the variables of depression-anxiety, social functioning and academic resilience [54].

Discussion

The findings of this study, in which we deal with the effect of fear developed due to the COVID-19 outbreak on school refusal in young people, are discussed in the context of models that have been constructed, and the evaluations made in this direction are presented below.

The first important finding obtained in line with the purposes of the research is that the fear of COVID-19 positively predicts school refusal in young. It is understood that problematic school absenteeism issues and school refusal may be affected by this fear, which is expected to develop as a secondary consequence of the anxiety and intense stress created by the epidemic process and practices such as quarantine etc. It is thought that the anxiety sensitivity addressed with the concept of "the expectancy model of fear" in the literature will be effective in this process [53,55]. In this sense, as a consequence of the anxiety and fear developed as a result of the epidemic process, the youth may have an intense expectation that some negative situations will arise, and therefore may develop a reaction with regard to avoidance and fear related to the possible negativities that can occur at school [3,14]. It is believed that this situation, which is expected to constitute the main basis of the school refusal, may lead the youth to face academic results in the short and long term.

Although the direct effect of the fear of COVID-19 on school refusal was found to be positively significant, a new model was designed to test the effect of COVID-19 fear on school refusal, considering that there may be variables likely to shape this relationship. In this model, defined as Model 2, the effect of fear of COVID-19 on school refusal through the variables of depression-anxiety, social functioning and academic resilience was examined both directly and indirectly. Although the fear of COVID-19 in Model 1 had a high predictive level of school refusal, it was determined that this effect decreased significantly in Model 2 and its indirect effect came to the fore. This finding can be interpreted as the effect of fear developed due to COVID-19 outbreak on school refusal develops depending on the determinative role of other variables. In Model 2, it was also determined that the fear of COVID-19 strongly predicts depression and anxiety. This finding is important in terms of understanding the secondary consequences of the outbreak for the young. Another finding reached in Model 2 is that depression and anxiety negatively predict social functioning and academic resilience, and both variables predict school refusal positively. These findings can be evaluated as the fact that social functioning and academic resilience have a protective function in terms of school refusal in the young. With the addition of the variables in question to the model, the paths from the fear of COVID-19 to school refusal were removed from the model and the full intermediary model was tested. The fit values of this model, which was designed as Model 3, were found to be better than other models.

Based on these findings, it can be said that the fear of COVID-19 will prepare the ground for depression and anxiety in young, and that social functioning and academic resilience have a protective function at the point that this negative affectivity process triggers negatives like school refusal [56-58].

Academic resilience is considered as a dimension of psychological resilience and is defined as academic determination and success despite the psychological and social stressors encountered in schoolrelated and difficult academic tasks [52]. It is considered that academic resilience can serve as an important protective function in terms of the possible depression and anxiety symptoms that may develop due to the impact of the fear of COVID-19 on the psychological status of the young, and problematic school absenteeism issues and school refusal. Ingul & Nordahl (2013) and Seçer and Ulaş (2020) determined that academic resilience can act as a buffer in the emergence of problematic school absenteeism and can be of a quality that provides and maintains school commitment. Based on the results that reveal the relationship of children with school refusal in the literature with the obvious clinical features of separation anxiety [14,18,23], generalized anxiety disorder [13,19,21], social anxiety disorder and mood disorders [28], it is thought that the fear of COVID-19 carries the risk of paving the way of school refusal in young people, but their academic resilience level may be an important factor that may limit this negative effect.

Findings of another variable addressed in this research are related to social functioning. Social functioning is defined as a quality that includes cognitive, emotional and linguistic processes related to the individual's social skills [38]. The results of this research show that fear of COVID-19 predicts social functioning negatively through depression and anxiety, and social functioning positively predicts school refusal. This finding, which is also compatible with the literature [44], can be evaluated as the fear developed due to the COVID-19 epidemic may trigger depression and anxiety in young people and thereby this can have a negative impact on the social functioning levels of the young. It can be thought that the possible decline in the social skills of children who are isolated from social environments, who cannot physically contact with their friends and whose tendency to use tablets, computers and play games increases due to staying at home can strengthen this effect as a result of the quarantine processes applied due to the epidemic, That being the case, It is considered that realizing the practices aimed at protecting and strengthening the social functionality of young people during and immediately after the epidemic can provide significant gains in this direction in order for negative situations that develop due to the COVID-19 not to be a source of behavioral problems like school

Limitations and Future Research

The findings of this research should be assessed within the following limitations. As the research was carried out within a critical period, the data were collected online. This carries the risk of selection bias considerably. Secondly, the research was carried out with a nonclinical sample. It is thought that conducting a similar research on a clinical sample would yield substantial results. It is possible that the use of data triangulation in future studies will provide significant gains in terms of the external validity of the results. It is also thought

that conducting intercultural studies may produce important outcomes in terms of literature, because the epidemic has a negative impact on all societies.

Implications

It is considered that the results of the research will have important effects for psychiatrists, psychologists and related researchers. Nowadays when the negative reflections of the COVID-19 process are getting worse, it is considered that it can be an important data source for professional in the field in terms of understanding the secondary consequences of the epidemic and the behavioral and emotional problems likely to develop in adolescents due to the epidemic and determining the necessary preventive, protective and remedial practices by determining the possible academic problems that will develop accordingly.

References

- Ahorsu DK, Lin CY, Imani V, Saffari M, Griffiths MD, et al. (2020) The Fear of COVID-19 Scale: development and initial validation. Intl J Ment Health Addict 27:1-9.
- Alva SA (1991) Academic invulnerability among Mexican-American students: the importance of protective resources and appraisals. Hispanic J Behav Sci 13: 18-34.
- Ay İ, Seçer İ, Ulaş S (2017) Adapting depression and anxiety questionnaire for children into Turkish: Reliability and validity studies. Int Education Stu 10: 185-193.
- 4. Balfanz R, Byrnes V (2012) The importance of being in school: A report on absenteeism in the nation's public schools. The Education Digest 78: 4.
- Banerjee D (2020) The other side of COVID-19: Impact on Obsessive Compulsive Disorder (OCD) and Hoarding. Psychiatry Res 288: 112966.
- Blumkin ZK (2016) The implementation of an evidence-based treatment for a complex case of school refusal. Evid-Based Pract in Child Adolesc Mental Health 1: 16-23.
- Briggs ES, Price IR (2009) The relationship between adverse childhood experience and obsessive-compulsive symptoms and beliefs: The role of anxiety, depression, and experiential avoidance. J Anxiety Disord 23: 1037-1046
- Brooks SK, Webster RK, Smith LE, Woodland L, Wessely S, et al. (2020) The psychological impact of quarantine and how to reduce it: rapid review of the evidence. Lancet 395: 912-920.
- Cassidy S (2016) The academic resilience scale (ARS-30): A new multidimensional construct measure. Front Psychol 7: 1787.
- Crowe LM, Beauchamp MH, Catroppa C, Anderson V (2011) Social function assessment tools for children and adolescnts: A systematic review from 1988 to 2010. Clin Psychol Rev 31: 767-785.
- 11. Çakmak SS, Ayvaşık HB (2007) The Relationship between drinking motives and anxiety sensitivity in university students. Turkish J Psychol 22: 91.
- Ebesutani C, Reise SP, Chorpita BF, Ale C, Regan J, et al. (2012) The Revised Child Anxiety and Depression Scale-Short Version: Scale reduction via exploratory bifactor modeling of the broad anxiety factor. Psychol Assess 24: 833-845.
- Egger HL, Costello JE, &Angold A (2003) School refusal and psychiatric disorders: A community study. J Am Acad Child Adolesc Psychiatry 42: 797-807.
- Fornander MJ, Kearney CA (2019) Family environment variables as predictors of school absenteeism severity at multiple levels: Ensemble and classification and regression tree analysis. Front Psychol 10: 2381.
- Garcia R (2017) Neurobiology of fear and specific phobias. Learn Mem 24: 462-471.

- 16. Gonzálvez C, Inglés CJ, Martínez-Palau A, Sanmartín R, Vicent M, et al. (2019) Child and adolescent social adaptive functioning scale: factorial invariance, latent mean differences, and its impact on school refusal behavior in Spanish children. Front Psychol 10: 1894.
- Hansen C, Sanders SL, Massaro S, Last CG (1998) Predictors of severity of absenteeism in children with anxiety-based school refusal. J Clin Child Psychol 27: 246-254.
- Heyne DA, Vreeke LJ, Maric M, Boelens H, Van-Widenfelt BM (2017) Functional assessment of school absenteeism problems: An adapted version of the school refusal assessment scale-revised. J Emotional Behav Disord 25: 178-192.
- Heyne D, King NJ (2004) "Treatment of school refusal," in Handbook of Interventions That Work With Children and Adolescents: Prevention and Treatment: 243-272.
- Heyne D, Gren-Landell M, Melvin G, Gentle-Genity C (2019) Differentiation between school absenteeism problems: Why and how? Cognitive Behav Practice 26: 8-34.
- 21. Heyne D, King NJ, Tonge BJ, Cooper H (2001) School refusal: Epidemiology and management. Paediatric Drugs 3: 719-732.
- Ingul JM, Nordahl HM (2013) Anxiety as a risk factor for school absenteeism: What differentiates anxious school attenders from non-attenders? Ann Gen Psychiatry 12: 25.
- Kearney CA, Graczyk P (2014) A response to intervention model to promote school absenteeism and decrease school absenteeism. In Child & Youth Care Forum 43: 1-25.
- 24. Kearney CA (2002) Identifying the function of school refusal behavior: A revision of the school refusal assessment scale. J Psychopathol Behav Assess, 24: 235-245.
- Kearney CA (2008) An interdisciplinary model of school absenteeism in youth to inform Professional practice and public policy. Educational Psychol Rev 20: 257-282.
- 26. Kearney CA (2008) School absenteeism and school refusal behavior in youth: a contemporary review. Clin Psychol Rev 28: 451-471.
- Kearney CA, Albano AM (2004) The functional profiles of school refusal behavior: Diagnostic aspects. Behav Modif 28: 147-161.
- Kearney CA, Bates M (2005) Addressing school refusal behavior: Suggestions for frontline professionals. Children & Schools 27: 207-216.
- Kearney CA, Bensaheb A (2006) School absenteeism and school refusal behavior:a review and suggestions for school-based health professionals. J School Health 76: 3-7.
- 30. King NJ, Bernstein GA (2001) School refusal in children and adolescents: A review of the past 10 years. J Am Acad Child Adolesec Psychiatry 40: 197-205.
- 31. Knollmann M, Knoll S, Reissner V, Metzelaars J, Hebebrand J (2010) School avoidance from the point of view of child and adolescent psychiatry: Symptomatology, development, course, and treatment. Dtsch Arztebl Int 107: 43-49
- Martin AJ, Marsh HW (2006) Academic resilience and its psychological and educational correlates: A construct validity approach. Psychol Schools 43: 267-281.
- Mazerolle L, Eggins E, Sydes M, Hine L, McEwan J, et al. (2018) Criminal Justice Responses to Domestic and Family Violence: A Rapid Review of the Evaluation Literature. Australia: University of Queensland.
- 34. McShane G, Walter G, Rey JM (2001) Characteristics of adolescents with school refusal. Aust N Z J Psychiatry 35: 822-826.
- Ornell F, Schuch JB, Sordi AO, Kessler FHP (2020) "Pandemic fear" and COVID-19: Mental health burden and strategies. Braz J Psychiatry 42: 232-235
- Peguero AA, Popp AM, Latimore TL, Shekarkhar Z, Koo DJ (2011) Social control theory and school misbehavior: Examining the role of race and ethnicity. Youth Violence Juvenile Justice 9: 259-275.

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- Perez W, Espinoza R, Ramos K, Coronado HM, Cortes R (2009) Academic resilience among undocumented Latino students. Hispanic J Behav Sci 31: 149-181
- 38. Price CS, Spence SH, Sheffield J, Donovan C (2002) The development and psychometric properties of a measure of social and adaptive functioning for children and adolescents. J Clin Child Adolesc Psychol 31: 111-122.
- Reardon S (2015) Ebola's mental-health wounds linger in Africa: Health-care workers struggle to help people who have been traumatized by the epidemic. Nature 510: 13-14.
- 40. Rocque M, Jennings WG, Piquero AR, Ozkan T, Farrington DP (2017) The importance of school absenteeism: Findings from the Cambridge study in delinquent development on the life-course effects of truancy. Crime & Delinquency 63: 592-612.
- 41. Rumberger RW (2011) Dropping Out: Why Student Drop Out of High School and What Can Be Done About It. Cambridge, MA: Harvard University Press.
- Satici B, Gocet-Tekin E, Deniz ME, Satici AS (2020) Adaptation of the Fear of COVID-19 Scale: Its Association with Psychological Distress and Life Satisfaction in Turkey. Int J Ment Health Addict 19: 1980-1988.
- 43. Schumacher RE, Lomax RG (2004) A Beginner's Guide to Structural Equation Modeling. Mahwah. NewJersey, NJ: Lawrence Erlbaum Associates.
- 44. Seçer İ (2014) The adaptation of School ResfusalAssesment Scale into Turkish: Reliability and validity studies. Pak J Statistics 30: 1197-1202.
- 45. Seçer İ, Ulaş S (2020) The mediator role of academic resilience in the relationship of anxiety sensitivity, social and adaptive functioning, and school refusal with school attachment in high school students. Front Psychol 11: 557.
- Shigemura J, Ursano RJ, Morganstein JC, Kurosawa M, Benedek DM (2020) Public responses to the novel 2019 coronavirus (2019-nCoV) in Japan: Mental health consequences and target populations. Psychiatry Clin Neurosci 74: 281-282.
- 47. Shin LM, Liberzon I (2010) The neurocircuitry of fear, stress, and anxiety disorders. Neuropsychopharmacology 35: 169-191.

- 48. Shultz JM, Cooper JL, Baingana F, Oquendo MA, Espinel Z, et al. (2016) The role of fear-related behaviors in the 2013-2016 West Africa Ebola virus disease outbreak. Curr Psychiatry Rep 18: 104.
- 49. Tabachnick B, Fidell L (2013) Using Multivariate Statistics, 6th Ed Boston:
- Talwar V, Lavoie J, Gómez-Garibello C, Crossman AM (2017) Influence of social factors on the relation between lie-telling and children's cognitive abilities. J Exp Child Psycholy 159: 185-198.
- 51. Seçer İ, Ulaş S (2020) An Investigation of the Effect of COVID-19 on OCD in Youth in the Context of Emotional Reactivity, Experiential Avoidance, Depression and Anxiety. Int J Ment Health Addict 19: 2306-2319.
- 52. Seçer İ (2020) Adaptation of the academic resiliance scale to Turkish culture: Reliability and validity. The Congress of VII Turkcess, Istanbul.
- 53. Vicent M, Inglés CJ, Sanmartín R, Gonzálvez C, Granados L, et al. (2017) Socially prescribed perfectionism and affect in Spanish children population. Euro J Invest Health, Psychol Education 7: 17-29.
- 54. Wang C, Pan R, Wan X, Tan Y, Xu L, et al. (2020) Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. Int J Environ Res Public Health 17: 1729.
- 55. Wang Y, McKee M, Torbica A, Stuckler D (2019) Systematic literature review on the spread of health-related misinformation on social media. Soc Sci Med 240: 112552.
- Wang MC, Haertal GD, Walberg HJ (1994) "Educational resilience in inner cities," America Challenges and Prospects, Edited by MC Wang and EW Gordon (Hillsdale, NJ: Lawrence Erlbaum), 45-72.
- 57. World Health Organization (WHO) (2020) Coronavirus disease (COVID-2019): Situation report-54.
- 58. Xiang YT, Yang Y, Li W, Zhang L, Zhang Q, et al. (2020) Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed. Lancet Psychiatry 7: 228-229.