

Evaluation of Irrational Beliefs and Basic Psychological Needs among Adolescents in Terms of Three Psychotherapeutic Approaches

Ergenlerde İrrasyonel İnançlar ve Temel Psikolojik İhtiyaçların Üç Psikoterapötik Yaklaşım Açısından Değerlendirilmesi

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ABSTRACT

Objective: The study aimed to evaluate the psychological needs of adolescents with rational emotive cognitive behavioral approach, self determination theory and psychoanalytic approach.

Method: The predictive correlational research method, one of the quantitative research models, was used in the study. Convenience sampling method, which is one of the non-probabilistic sampling methods, was used in the selection of the participants. Participants are a total of 220 people, 106 girls and 114 boys, aged 12-18. Demographic Information Form, Rational Emotive Self-Determination Scale for Adolescents and Reynolds Adolescent Adjustment Screening Inventory were used as data collection tools.

Results: Irrational beliefs on basic psychological needs in adolescents are associated with psychological stress, positive self-perception, anger, and antisocial behaviors. The need for autonomy was determined to be significant on all dependent variables of irrational beliefs; the need for relatedness predicted irrational beliefs, antisocial behaviors and positive self-perception; and the need for competence predicted only irrational beliefs and psychological stress at a statistically significant level.

Conclusion: The results emphasize the importance of considering adolescents' anger, antisocial behavior, psychological distress, and positive sense of self in relation to psychological constructs called autonomy irrational beliefs, relatedness irrational beliefs, and competence irrational beliefs.

Keywords: Psychological needs, psychoanalytic approach, cognitive-behavioral approach, adolescents

ÖZ

Amaç: Bu araştırma, akılcı duygusal davranışçı yaklaşım, kendini belirleme kuramı ve psikanalitik yaklaşım çerçevesinde ergenlerin psikolojik ihtiyaçlarının değerlendirilmesini amaçlamıştır.

Yöntem: Araştırmada nicel araştırma modellerinden biri olan yordayıcı korelasyonel araştırma yöntemi kullanılmıştır. Katılımcıların seçiminde olasılığa dayalı olmayan örnekleme yöntemlerinden uygun örnekleme yöntemi kullanılmıştır. Katılımcılar 106 kız ve 114 erkek olmak üzere yaşları 12-18 arasında toplam 220 kişiden oluşmaktadır. Veri toplama araçları olarak Demografik Bilgi Formu, Ergenler İçin Akılcı Duygucu Öz Belirlenim Ölçeği (ADÖB-Ö) ve Reynolds'un Ergenler İçin Uyum Süreçleri Taraması Ölçeği (REİDTÖ) kullanılmıştır.

Bulgular: Ergenlerde temel psikolojik ihtiyaçlara ilişkin akılcı olmayan inançların; psikolojik stres, olumlu benlik algısı, öfke ve antisosyal davranışlarla ilişkili olduğu bulunmuştur. Ergenlerde özerklik ihtiyacının, akılcı olmayan inanışların tüm bağımlı değişkenleri üzerinde etkili olduğu; ilişkili olma ihtiyacının, akılcı olmayan inanışlarla antisosyal davranışlar ve olumlu benlik algısını yordadığı; yeterlilik ihtiyacının ise yalnızca akılcı olmayan inanışlarla psikolojik stresi istatistiksel olarak anlamlı düzeyde yordadığı saptanmıştır.

Sonuç: Bulgular, özerklik akılcı olmayan inançları, ilişkisellik akılcı olmayan inançları ve yeterlilik akılcı olmayan inançları olarak adlandırılan psikolojik yapılarla ilişkili olarak; ergenlerin öfkesini, antisosyal davranışlarını, psikolojik zorlanmalarını ve olumlu benlik duygusunu dikkate almanın önemini vurgulamaktadır.

Anahtar sözcükler: Psikolojik ihtiyaçlar, psikanalitik yaklaşım, bilişsel-davranışçı yaklaşım, ergenler

Introduction

Rational Emotive Behavior Therapy (REBT), also known as Rational Emotive Cognitive Behavior Therapy (RECBT), Psychoanalysis Theory (PT), and Self Determination Theory (SDT), each have distinct approaches and treatments, while also sharing some similarities. The cognitive behavioral approach and the psychoanalytic approach exhibit certain similarities in their underlying attitudes and principles, despite each therapeutic approach maintaining its unique framework and characteristic (Messer 1986). The RECBT personality theory has the potential to become even more comprehensive and robust by integrating the well-known defense mechanisms from psychoanalytic theory (Ziegler 2016). This integration would involve dissociating these defense mechanisms from Freud's theoretical concept of the dynamic unconscious and instead anchoring them in Ellis's understanding of the unconscious mind (Ziegler 2016). By doing so, the RECBT theory could benefit from the rich insights of both psychoanalytic and cognitive-behavioral approaches, enhancing its explanatory power and applicability in understanding human behavior and psychological functioning. For example, several experimental trials have investigated the potential of Rational Emotive Behavior Therapy (REBT) to effectively regulate and enhance defense mechanisms in the adolescent population (Hamidi and Paidar 2016).

This paper aims to evaluate SDT's fundamental psychological needs in light of RECBT, PT and SDT. Many studies in the adolescents behaviors' literature involve the examination of a particular theory of personality. The evaluation of a particular therapy approach with psychological variables that are close to or derived from that therapy approach contradicts the falsifiability principle of science. During adolescence, individuals may experience the negative effects of cognitive, behavioral and emotional changes. In literature, seems like variables which being tested in some studies are alike each other. Studies on adolescents' behaviors need to be expanded with new psychological variables and plus, these variables need to be evaluated by different psychotherapy approaches rather than a single approach. Especially in order to understand the problems in interpersonal relationships, adaptation to school and family relationships better, we may need to conceptualized new variables. The aim of this study is to evaluate the healthy development of adolescents through two therapy theories (cognitive behavioral and psychoanalytic) by evaluating a new term: irrational beliefs on the basic psychological needs (Artiran 2015, 2020). Additionally the primary objective of this research is to build upon previous studies by conducting an ongoing, iterative investigation into the potential integration of RECBT with SDT (Davis and Turner 2020, Jones 2023). By expanding on existing research, this study aims to further explore and understand the potential benefits and synergies that may arise from combining these therapeutic approaches. Through a series of comprehensive examinations and interventions, this study will contribute to the growing body of knowledge on the integration of RECBT with SDT, ultimately providing valuable insights for practitioners and researchers in the field of psychology.

Cognitive Behavioral Therapy and Psychoanalytic Therapy are presented as two very different approaches among psychotherapy theories. It is often assumed that these two approaches do not resemble the assessment approaches in adolescents' mental disorders, the possible causes of the disorder, and the methods and techniques used in treatment (Leichsenring et al. 2006). However, it can be claimed that many psychotherapy theories are influenced by each other in their theoretical structure (Larsson 2006). Moreover, although the methods are handled differently in different approaches, they can provide a similar benefit on mental problems (Güven and Gökçe 2018). As in RECBT, the internal conversations of the cognitive restructuring processes that are at the center of cognitive behavioral approaches coincide with the psychoanalytic approach, perhaps not methodically, but purposefully, in terms of involving the acquisition of the client's self-awareness. Dr. Albert Ellis, who is the one who came up with the idea of cognitive behavioral therapy (CBT), spent the first eight years of his career as a psychoanalytic therapy (PT) practitioner, with the training and supervision he received. Likewise, Aaron T. Beck, the founder of Cognitive Therapy, received his training on this approach as well. Although Ellis and Beck criticized the PT and Freud in their own theories, their inferences continued for many years by citing Freud as an example in the foundations of their theories. Psychoanalytic theorists propose that there is an inherent interplay and integration between the conscious and unconscious aspects of the mind, particularly through the functioning of the ego (Freud 1927, Meissner 1981). In contrast, cognitive approaches depict personality not as a singular, unified system, but rather as a multitude of individualized selves or self schemas that are activated by various causes.

Traces of psychoanalytical approach can be seen in REBT and CBT which Ellis has put forward. For example, the concept of ego anxiety (Lega and Ellis 2001), which is frequently used in cognitive analysis in RDDT, clearly reminds Freud's concept of ego. In particular, the irrational beliefs of excessive demanding, which is the most fundamental element of the theory, were revealed by inspiring from the ideas of Karen Horney, the famous psychotherapist from the Neo-Freudian school (Ellis 2002). Ellis (2002) stated in his book "Overcoming

Resistance" that the integration of REBT therapy with psychoanalytic therapy may be necessary to assist clients. On the other hand, while he is conceptualizing the theory of Beck, who is the founder of Cognitive Therapy, his definitions such as internal dialogues (eg automatic thoughts), core beliefs (schemas constructed in childhood) and also his personal correspondence show that he continues to think in a psychoanalytic way even after leaving psychoanalysis (Rosner 2012)

It is clear that irrational beliefs are not just about REBT or CBT. According to Ellis (2002), irrational beliefs take place at the preconscious level before the consciousness level. However, Ellis is a psychotherapist who believes that unconscious processes only have little effect on psychopathological disorders. Sigmund Freud (1915) was one of the first to theorize, with the discovery of the unconscious, that the human mind and behavior are not wholly rational and consciously controllable. He then suggests that the resulting behaviors and relationships with others emerge as a product of the interaction of rational and irrational processes in the psychic apparatus: the Id, Ego, and Superego (Freud 1923). The concept of irrational belief does not exist as a basic concept in current psychoanalytic theory.

Nevertheless, some psychoanalysts, especially in America, have attempted to conceptualize this term. According to Irving Bieber (1974), who is the leading among these, irrational beliefs should be considered in two ways; primary irrational beliefs and a secondarily irrational beliefs that are developed following primary. Irrational beliefs at the primary level should be grouped in three basic areas: 1) Irrational beliefs that are derivatives of current experience: Although these beliefs accurately reflect the truth of a specific experience with the parent during some part of childhood, they are also inappropriately transferred to situations in the present time because in the current situation, it is other people who are involved and these beliefs are irrational as they are not applicable to them. 2) Irrational beliefs that are the derivative of distortions towards satisfaction of desire. 3) Irrational beliefs are distorted irrational beliefs which are based directly on the misinterpretation of reality (psychotic processes). Secondary irrational beliefs, on the other hand, are mechanisms of defense and repair directed at primary irrational beliefs. For example, if a person who experiences the collapse of his mother as a result of postpartum depression after having a sibling in his childhood has the (primary) irrational belief that his mother will abandon him and replace him with his sibling, he will develop secondary irrational beliefs against this threat: to be indispensable, to feel the obligation to be the best of everything, a compulsive need for hyper-competitive relationships and excellence. In conclusion, Bieber stated that these irrational belief systems form the basis of psychopathology. Contrary to Bieber's views, the founder of REBT, Ellis, claims that the thoughts of obligation are the primary irrational belief. The fact that the child in the above example thinks that his mother will leave him and fill his place with his brother is a secondary belief. In other words, according to Ellis (1994), we first develop rules and obligations, then if these rules and obligations do not come true, we have irrational beliefs of disaster, inability to endure or devaluation.

Basic psychological needs (BPN) (autonomy, relatedness, competence needs), one of the variables of this study, is a concept introduced by Self-Determination Theory (SDT) and has been experimentally studied in many studies (Deci and Ryan 2000). SDT is a theory that connects human motivation and optimal functioning. It reveals that there are two basic types of motivation, intrinsic and extrinsic, and they are powerful forces in shaping both who we are and how we act (Deci and Ryan 2008). SDT conceptualizes the basic psychological needs that are innate and necessary for ongoing psychological maturation, internalization, and well-being for autonomy, relatedness, competence needs (Deci and Ryan 2000). BPN are associated with individuals' attachment theories since childhood, both from cognitive theories and from a psychoanalytic perspective (Deci and Ryan 2008). Considering the fact intrinsic motivations are actively related to the actions that people are interested in and they provide growth and development (Ryan et al. 2000), feelings of autonomy, relatedness and competence are vital for intrinsic motivation.

In this study, the Rational Emotional Self-Determination Scale-For Adolescents (RESA-A) scale, which evaluates cognitive processes in the context of BPN and was developed by Artıran (2015, 2020), was used. According to Artıran (2015), cognitive dysfunctional thought structures and irrational beliefs play a critical role in meeting these needs. The more irrational thoughts individuals have, the harder for them to meet their needs (Artıran 2020). The concept of autonomy refers to the ability of the individual to act freely, to take their own decisions, and to claim their responsibilities. It defines the individual completing his / her own behavior and standing behind his / her behaviors (Deci & Ryan 1985a, 2000); however, extrinsic (eg, peer pressure) and internal factors (eg dysfunctional thought structures) may cause the need for autonomy not to be met.

According to the SDT, autonomy is the most important among BPN and it is the precondition of competence and relatedness needs. According to the theory, when the psychological need for autonomy is not met,

individuals will not be able to satisfy their competence and relatedness needs in a healthy way (Deci and Ryan 1985b, Ryan 1995, Ryan et al. 2011).

There are some traditional and modern approaches that explain the development of autonomy during adolescence. For example, according to the psychoanalytic approach, autonomy can occur as a result of conflict with the authority and possible individualization experience in relations between the child and their parents, especially in the anal period and later in adolescence (Freud 1905, Erickson 1950). According to Blos (1967), a certain continuity and permanence in the personality structure can only be achieved with the completion of the adolescence which is the "second individuation" period. In adolescence, regressive and progressive movements follow each other. In this way, the psychological basis is prepared for the inner turmoil, rebellious expression, unpredictability and confusion. On the other hand, research in attachment theory shows that adolescent disengagement develops against the backdrop of secure relationships with parents (Bohler 2012). In adolescence, the habitual behavioural patterns which the child has developed through activating the attachment system come into conflict with the striving for independence. The adolescent has to find a new balance between the attachment processes and the search for autonomy. Together with the sexual system, the attachment system drives on the development of the love relationship and the attachment function of the parent-child relationship is then increasingly carried over into new, affectively significant and intimate relationships with peers (Allen 2008). Among adolescents who are either insecurely attached or disorganised, the transformation of the attachment relationships and separation from the parents remains in conflict.

Based on cognitive approach, autonomy can occur when individuals decide and act by choosing one option among others in line with their goals and wishes (Musaoglu & Güre, 2005). Competence, one of the other two psychological needs, is related to the feelings of mastery and capability in an individual's activities. When individuals feel that they can achieve their projects in life and achieve their goals, they are able to meet their psychological need for competence (Deci and Ryan 2000, Ryan and Deci 2017). Relatedness is related to the interpersonal dimension that reflects the degree to which a person feels connected to others, that they have caring relationships, and that they belong to a community. The SDT theory argues that these three needs are universal in that they must remain firm in their relationship to healthy and positive functions, regardless of their cultural context (Deci and Ryan 2000, Ryan and Deci 2017).

The subject examined in the findings of this study is the effect of irrational beliefs within the limits of basic psychological needs on anger, behavioral disorders, psychological stress and, as a positive variable, on positive self-perception in adolescents. The findings obtained from the research were interpreted in the scope of Cognitive behavioral approach and the Psychoanalytic approach.

Method

In this study, the researchers used a method called predictive correlational research, which is a way to gather information and make predictions. By examining the relationships between variables, it was tried to predict the other by starting from one of the variables (Büyüköztürk, et al. 2010). In this particular research endeavor, the primary aim of the researchers was to gain a comprehensive understanding of the potential impact that specific beliefs pertaining to our fundamental psychological needs may have on adolescents.

Sample

Convenience sampling method was used while determining the participants of the study. Gpower program was used to determine the required sample size for the research. Multiple linear regression was chosen as the statistical test and F tests were chosen as the test family. Medium effect size (Effect size $f^2 = 0.15$), 5% margin of error (α err prob = 0.05), 0.95 test power (Power (1- β err prob) = 0.95) and number of predictors 3 was entered as and the minimum sample size was calculated to be 119. The study was conducted with 232 participants, taking into account the possibility of missing values, extreme values and invalid data.

The inclusion criterion is being between the ages of 10-19, which the World Health Organization accepts as the age range of adolescence. Exclusion criteria are that participants have a history of cognitive impairment or major psychiatric disorder (such as schizophrenia, substance abuse, dementia) that may affect their ability to answer the scale questions. During the preliminary checks before data analysis, 12 participants who were found to have filled out the questionnaires incompletely were excluded from the analysis. Participants consisted of a total of 220 adolescents, 106 girls (48.2%) and 114 boys (51.8%), aged 12-18 (M: 14.86, SD: 1.884).

Procedure

Ethical approval was obtained for the study with the decision of Düzce University Scientific Research and Publication Ethics Committee dated 02.03.2021 and numbered 19343. After obtaining the necessary permissions from their parents, surveys were conducted face-to-face (n= 140) in Istanbul province and on the internet (n= 80) by the researchers. The purpose of the research was explained to the participants verbally and / or in writing and instructions on how to answer the questionnaire were given. Child Consent Form and Informed Consent Form for Research Purposes were signed by both children and by their parents. The surveys were answered in an average of 25 minutes.

Measures

Demographic Information Form, Rational Emotional Self-Determination Scale-For Adolescents (RESA-A) and Reynolds' Adolescents Adaptation Screening Scale (RAASI) were used as data collection tools.

Rational Emotional Self-Determination Scale-For Adolescents (RESA-A).

The scale, which evaluates cognitive processes in the context of basic psychological needs, was developed by Artıran (2015, 2020). Basic psychological needs are set forth in SDT as the need for autonomy, competence and relatedness. On the other hand, psychological disorders are tried to be explained on the basis of four irrational beliefs in REBT. The RESA-A scale, as a scale that brings together the assumptions of these two theories, measures irrational beliefs in adolescents on the axis of basic psychological needs (Artıran 2015). The RESA-A scale is a three-factor scale, with 18 items for the Need for Autonomy Irrational Beliefs (AIB) ($\alpha = .78$); 18 items for the Need for Relatedness Irrational Beliefs (RIB) ($\alpha = .84$); 15 items for Need for Competence Irrational Beliefs (CIB) ($\alpha = .82$). All items in the scale are one-sided (negative), there is no reverse scoring. It is a 5-point Likert type scale (1 = Strongly disagree, 5 = Strongly agree).

The highest score that can be obtained from the scale is $51 \times 5 = 255$, and the lowest possible score is 51. Evaluation is done separately for each psychological need (autonomy, relatedness and competence). The interpretation of the scale in practice can be exemplified as follows: If an adolescent has a high score (72 points and above) for his irrational beliefs about the need to relate (relatedness), it means that they have irrational beliefs in meeting these psychological needs. This is interpreted as his / her irrational beliefs constitute an obstacle to meeting his / her need. If another adolescent scored very low (18-24), this means that he / she is not able to meet his / her competency need and it would be appropriate to examine why his / her motivation, willingness and energy is low clinically. If the adolescent has a score between 24-72 points, it is concluded that his / her irrational beliefs are met at a normal level, he / she has a problem only as of the period of the test, but does not need a clinical treatment. In this study, the internal consistency value for RIB was found to be $\alpha = .90$, for AIB it was $\alpha = .93$ and for CIB it was $\alpha = .90$.

Reynolds Adolescent Adjustment Screening Inventory (RAASI).

The scale developed by Reynold (2001) is a self-report scale consisting of 32 items. The scale, adapted to Turkish by Meriç (2007), has a 5-point Likert type rating (1 = Strongly disagree, 5 = Strongly agree). The scale measures adolescents' psychological adjustment processes in the last six months. Four factor structures were discovered in the confirmatory factor analysis of the scale, which was prepared for adolescents between the ages of 12-19: Antisocial behavior, anger problem, psychological stress and positive self-perception as a positive variable. Internal consistency reliability level (Cronbach's Alpha) is $\alpha = .91$; $\alpha = .64$ for positive self-perception; $\alpha = .69$ for antisocial behavior; $\alpha = .71$ for anger management problems and $\alpha = .83$ for emotional disorders. As 3-point or 5-point Likert scale can be used in the scale, it was evaluated with a 5-point Likert scale in this study (never = 1, quite rarely = 2, sometimes = 3, often, almost always = 5). Positive self dimension was evaluated in reverse. High scores indicate that the adolescent is unsuccessful in adaptation processes.

Statistical Analysis

It was checked whether the data were suitable for normal distribution. In this context, arithmetic mean, mode and media being equal or close, skewness and kurtosis coefficients close to 0 within the limits of +1.5 -1.5 are considered as evidence for the existence of normal distribution (Tabachnick and Fidell 2013). It was determined that the data of the study were within these limits so parametric tests were able to be used for analysis. While deciding whether the data is suitable for regression analysis, the multicollinearity among the independent variables was checked and it was seen that the correlation values were not over .70. In addition, it has been

observed that the tolerance values are greater than .10 and the VIF values are less than 10 and there is no multiple common linearity. The normal probability plot of the residual standardized for regression, P-P, scatter plot was examined in the analyzes performed to determine whether the conditions of outliers, linearity, co-variance and residual independence, which are other assumptions of the regression analysis, were met, and it was found that there were no violations. In addition, whether there were participants with a standard value greater than 3.3 for extreme values and Mahalanobis Distances were checked and it was determined that there was no situation that would violate the regression assumptions. The other assumptions of the regression analysis, normality, linearity, covariance and residual independence conditions were also met.

Results

In correlation analysis, correlation between the variables was found between weak and moderate levels (Table 1). It was seen that the results were suitable for regression analysis and so, the next step was the linear regression analysis.

Variables	M	SD	1	2	3	4	5	6	7
1- AIB	49.23	15.12							
2- RIB	47.55	14.14	.308**						
3- CIB	39.20	11.57	.237**	.526**					
4- Antisocial	21.22	9.72	.244**	.274**	.238**				
5- Anger	12.48	5.09	.289**	.164*	.184**	.690**			
6- Psychological Stress	30.72	9.71	.301**	.240**	.300**	.261**	.506**		
7- Positive Self	20.50	4.10	-.406**	-.340**	-.379**	-.257**	-.167*	-.340**	

p < .001, M = Mean, SD = Standard Deviation, AIB = Need for Autonomy Irrational Beliefs, RIB = Need for Relatedness Irrational Beliefs, CIB = Need for Competence Irrational Beliefs

Multiple linear regression analysis was conducted to determine the predictive level of irrational beliefs of autonomy, relatedness and competence on antisocial behaviors in adolescents. Before the analyzes, multiple common linearity among the independent variables were checked and it was determined that the correlation values were between .137 and .476. In addition, it was seen that the tolerance values were between .74 and .93, and the VIF values were between 1.08 and 1.35. According to these results, there is no multiple common linear problem among the independent variables. The other assumptions of the regression analysis, normality, linearity, co-variance and residual independence conditions were also met. In addition, whether there were participants with a standard value greater than 3.3 for extreme values and Mahalanobis Distances were checked and it was determined that there was no situation that would violate the regression assumptions. The results obtained are presented in Table 2.

Variables	B	Std.Err	β	t	p
(Constant)	7.84	3.22		2.43	.016
AIB	.122	.047	.188	2.61	.010
RIB	.161	.058	.224	2.77	.006
CIB	-.003	.069	-.003	-.040	.968
R ² = .11 F(3-185) = 7.41 p = .000					

AIB = Need for Autonomy Irrational Beliefs, RIB = Need for Relatedness Irrational Beliefs, CIB = Need for Competence Irrational Beliefs

According to the results of the multiple linear regression model (F((3-185))= 7.41 p= .000) which was established to determine the level of prediction level of irrational beliefs of basic psychological needs, it was determined that they explain 11% of the variance in adolescents' antisocial behavior. When the standardized regression coefficients were examined in order to determine the relative importance order of the independent variables on the dependent variable, it was seen that the RIB (β = .224), the AIB (β = .188) and the YEI (β = -.003), respectively. Accordingly, it was found that the antisocial behaviors of adolescents were predicted mostly by the RIB, the second by the AIB, and the contribution of CIB to the model was not significant.

Multiple linear regression analysis was performed to predict the levels of anger, psychological stress and positive self-perception among adolescents of irrational beliefs of autonomy, relatedness, and competence among basic psychological needs. Before the analyzes, conditions such as multiple common linearity, normality, and absence of extreme values among the independent variables were checked and the analyzes were carried out by seeing that the required assumptions for regression analysis were not violated. The results obtained are presented in Table 3.

Variables	B	Std.Err.	β	t	p
(Constant)	7.31	1.54		4.73	.000
AIB	.088	.024	.264	3.74	.000
RIB	.038	.029	.107	1.32	.006
CIB	-.025	.035	-.058	-7.30	.968

$R^2 = .09$ $F(3-204) = 6.65$ $p = .000$

AIB = Need for Autonomy Irrational Beliefs, RIB = Need for Relatedness Irrational Beliefs, CIB = Need for Competence Irrational Beliefs

According to the results of the model of the multiple linear regression model ($F_{((3-204))} = 6.65$ $p = .000$), which was established to determine the level of prediction level of irrational beliefs of basic psychological needs, it was determined that they explain 9% of the variance in adolescents' anger level. When the standardized regression coefficients were examined to determine the relative importance order of the independent variables on the dependent variable, it was seen that they were AIB ($\beta = .264$), RIB ($\beta = .107$) and CIB ($\beta = -.003$), respectively. Accordingly, it was seen that only AIB predicted the level of anger in adolescents, and the contribution of RIB and CIB to the model was not significant.

Variables	B	Std.Err.	β	t	p
(Constant)	14.09	2.84		4.96	.000
AIB	.149	.044	.234	3.43	.000
RIB	.028	.054	.041	.518	.605
CIB	.200	.064	.241	3.41	.002

$R^2 = .16$ $F(3-201) = 12.47$ $p = .000$

AIB = Need for Autonomy Irrational Beliefs, RIB = Need for Relatedness Irrational Beliefs, CIB = Need for Competence Irrational Beliefs

According to the results of the model of the multiple linear regression model ($F_{((3-201))} = 12.47$ $p = .000$), which was established to determine the level of prediction level of irrational beliefs of basic psychological needs, it was determined that they explain 16% of the variance in adolescents' stress level (Table 4). When the standardized regression coefficients were examined in order to determine the relative importance order of the independent variables on the dependent variable, it was seen that they were AIB ($\beta = .234$), CIB ($\beta = .241$) and RIB ($\beta = .041$), respectively. According to this, it was found that the level of psychological stress in adolescents was predicted mostly by the AIB, the second by the CIB, and the contribution of the RIB to the model was not significant.

Variables	B	Std.Err.	β	t	p
(Constant)	28.79	1.15		25.09	.000
AIB	-.086	.017	-.322	-4.93	.000
RIB	.058	.022	-.201	-2.68	.000
CIB	.032	.026	-.090	-1.24	.218

$R^2 = .23$ $F(3-203) = 19.63$ $p = .000$

AIB = Need for Autonomy Irrational Beliefs, RIB = Need for Relatedness Irrational Beliefs, CIB = Need for Competence Irrational Beliefs

According to the results of the multiple linear regression model ($F_{((3-203))} = 19.63$ $p = .000$), which was established to determine the level of positive self-perception in adolescents, irrational beliefs of autonomy, relatedness and competence among basic psychological needs, autonomy, relatedness and competence irrational beliefs explain 23% of the variance in positive self-perception level (Table 5). When the standardized regression coefficients were examined to determine the relative importance order of the independent variables on the dependent variable, it was seen that they were AIB ($\beta = -.322$), RIB ($\beta = -.201$) and YEI ($\beta = -.090$), respectively. Accordingly, it was observed that the level of positive self-perception in adolescents was mostly predicted by the AIB, followed by the RIB. It was found that the contribution of CIB to the model was not significant.

Discussion

Biological and cognitive changes during adolescence can have positive (such as assertiveness, high self-confidence, empathic, high self-esteem) or negative consequences (such as psychosomatic complaints, antisocial behavior disorders, anxiety, depression, low self-esteem) (Rhodes et al. 2013). The evaluation of basic psychological needs and internal processes (cognitive and emotional) may contribute to supporting positive factors and resolving negative ones. It can be assumed that the research is effective in revealing whether the research determines the basic psychological needs of adolescents on the basis of irrational beliefs. During adolescence individuals go through changes both physically and mentally. This is also a period known as the stage, which holds great importance in their overall development. This stage serves as a foundation, for acquiring

skills like assessment, decision making and adaptation. Moreover it greatly influences their thinking patterns has a profound impact on how they see themselves. Apart from these aspects there are three basic psychological needs that adolescents strive to meet; autonomy, relatedness and competence (Véronneau et al. 2005). These needs play a role in their psychological well being and contribute significantly to their overall development during this transformative phase of life. On the other hand, there is a vast amount of literature available that demonstrates a moderate correlation between irrational beliefs and problems experienced during adolescence. As a result, it is necessary to develop a new conceptualization that incorporates three psychological needs and irrational beliefs together in order to provide a more comprehensive explanation for some of the psychological issues encountered by adolescents. Adolescents often face a multitude of diverse and numerous psychological variables. For instance, significance of self-esteem and implicit self-esteem in relation to various life stages, beginning from childhood. It was emphasized that when assessing implicit self-esteem and observing its reflection, consideration should be given to the impact of these factors on the subconscious dimension and implicit self-esteem (Avşaroğlu 2018). The self-determination theory, which focuses on the motivations of adolescents, has been supported by evidence that suggests these motivations stem from three basic psychological needs (Eryılmaz et al. 2019). Even when examining negative variables like irrational beliefs, anger, or antisocial behavior, this study provides valuable insights into the motivational aspects of adolescent psychology.

The main focus of this research is to assess the presence of irrational beliefs on adolescence and how they relate to their basic psychological needs. Specifically, the study aims to examine the impact of autonomy, relatedness, and competence needs on irrational beliefs, which are referred to as AIB, CIB, and RIB respectively. The study seeks to understand the connection between three psychological needs irrational beliefs and anger, antisocial behaviors, psychological stress, and positive self-perception among adolescents.

Generally, the results of the study showed that three basic psychological irrational beliefs are related to antisocial behaviors, anger, psychological stress and positive self-perception in adolescents. The current findings align with previous research outcomes (Artıran 2015, Artıran Simsek and Turner 2020). It was observed that AIB had a significant impact on various aspects, including antisocial behaviors, anger, psychological stress, and positive self-perception. RIB is effective in addressing antisocial behaviors and promoting a positive sense of self, but it does not have any significant influence on anger and psychological stress. On the other hand, CIB was found to only have a determining effect on psychological stress, with no observed impact on the other three dependent variables.

The prominence of AIB's position underscores the vital significance of addressing the requirement for independence among adolescents. The outcomes of the study align closely with the discoveries of the Self-Determination Theory (SDT), particularly in SDT research where it is widely acknowledged that the psychological necessity for autonomy consistently takes precedence over other psychological needs such as competence and relatedness. (Ryan and Deci 2008). Additional research conducted by Artıran (2015, 2019, Artıran et. al. 2020) has further illustrated the impact of irrational beliefs on the needs for autonomy. Previous studies have also revealed a connection between irrational beliefs and various negative outcomes, including antisocial behavior, anger, psychological stress, and positive self-perception (Artıran 2015). In fact, it has been observed that irrational beliefs can provoke anger and aggression within interpersonal relationships (Fives et al. 2010). Cahn (1998) defines the process of autonomy, in other words subjectivation, as a differentiation process that allows the adolescent to appropriate a gendered body and to use its own creative capacities, starting with the internal demand to regulate his own thought. While establishing a balance between being close to the parent and the need to provide autonomy by separating from it supports a positive self-design, not being able to establish this balance will increase mental tension and anger in adolescents and lead to some symptom formation ranging from addiction to antisocial behavior (Jeammet 1992). The level of emotional autonomy among adolescents has been found to have a strong and positive correlation with their empathic tendencies (Deniz and Uzun 2020). As adolescents continue to grow and develop their emotional autonomy, a notable outcome is their increased tendency to exhibit elevated levels of empathy. As a result of this heightened empathy, their ability to engage in rational thinking (e.g. rational beliefs, functional thoughts) is further reinforced. In the absence of autonomy, individuals are prone to experiencing psychological disorders. One such example is the occurrence of personal identity traumas that arise from a breach of self-autonomy (Öztürk et al. 2021).

The research findings reveal that RIB (reactive and instrumental aggression) serves as a significant predictor of antisocial behaviors among adolescents. It has been observed that individuals exhibiting antisocial behaviors tend to display manipulative tendencies in their interpersonal relationships, struggling to demonstrate empathy towards others' emotions (Lykken 1995). The study conducted by Tian, Liu, Huang, and Huebner (2013) focused on adolescent students and found that during the middle adolescence stage, both teacher and peer support play

a crucial role in influencing the overall well-being of adolescents in relation to their school experiences. This support can be seen as an integral aspect of the concept of need for relatedness. Meeting the need for relatedness has an impact on relationships with school, family and friends (Harris and Orth 2020). Positive self-perception is one of the important elements in these interpersonal relationships. In this study, it was observed that AIB predicted the positive self-perception in adolescents the most, followed by RIB. In addition, the effect of RIB on non-antisocial behaviors -behaviors that support compliance- and positive self has been found. On the other hand, although RIB is relational, it has been found that its effect on psychological stress is not significant. It can be assumed that therapeutic interventions on irrational beliefs about the need for relatedness may be supportive in this context. Also, in the analytic process, in order to meet the need for relatedness in a healthy way, it is necessary to create a framework with clear boundaries and continuity (Freud 1913).

When analyzing the findings of the research, it is important to note that CIB only shows effectiveness in reducing psychological stress and does not have an impact on other variables. Despite the interconnectedness of thoughts on efficacy, it was discovered that they do not significantly influence positive self-perception. The results suggest that positive self-perception is determined by AIB and RIB, but it is still possible that CIB could have an effect on it. This aspect should be further investigated in future studies. Additionally, the research found that CIB does not have a significant effect on antisocial behavior and anger. These findings suggest that adolescents who engage in antisocial behavior do not view themselves as inadequate. Psychoanalytic theory supports this notion, emphasizing that antisocial adolescents use defenses of power and dominance to compensate for their narcissistic vulnerability, making it impossible for them to admit to their inadequacy. Instead, they seek to gain power over others and experience victory as a means of narcissistic repair (Diatkine and Balier 2004).

Despite the fact that the results yielded valuable findings, there exist certain limitations pertaining to the methods used for obtaining and analyzing these results, which consequently hinder the ability to make definitive predictions. The results of this research need to be retested in future research, especially in experimental settings. The small sample size of the study and the selection of the adolescents participating in the study from the non-clinical population limits clinical predictions. Although regression analysis deals with the measure of dependence between variables, it doesn't have to carry the meaning of causality.

Conclusion

This study has examined the recent conceptualization of three fundamental psychological needs, namely autonomy, relatedness, and competence, and their association with irrational beliefs within the cognitive behavior paradigm, self-determination theory, and psychoanalytic perspective. The findings highlight the significance of considering adolescents' anger, antisocial behaviors, psychological distress, and positive sense of self in relation to these newly identified psychological constructs, referred to as autonomy irrational beliefs, relatedness irrational beliefs, and competence irrational beliefs. According to Kendal and Stuart (1967, 1968) a statistical relationship can never be a causal relationship, no matter how strong and meaningful it is; after all, our causality thoughts must come from outside of statistics, from a theory one way or another. In other words, theoretical thoughts are necessary in order to talk about a causality. Subsequent research endeavors may delve into the integrative exploration of divergent psychotherapeutic paradigms, such as cognitive and psychodynamic theories, alongside motivational theories.

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