

Psychological Inflexibility, Ruminative Thinking, Worry and Self- Compassion in Relation to College Adjustment

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Research Article

Received: 12.11.2021

Revised: 31.3.2022

Accepted: 14.4.2023

Abstract

The mental health of college students has received more attention due to increase of psychological distress starting from the beginning of university life. Acceptance and Commitment Therapy (ACT) is one of the third wave Cognitive Behavioral approaches, focuses on behavior change by emphasizing acceptance and awareness with its core concept of psychological inflexibility. This study aimed to investigate the role of psychological inflexibility, rumination, worry and self-compassion on college adjustment by implementing structural equation modeling. 657 (486 female, 171 male) freshman students at a state university participated in the study. In terms of data collection tools, The University Life Scale, Acceptance an Action Questionnaire-II, the Ruminative Thought Style Questionnaire, The Penn State Worry Questionnaire and The Self-Compassion Scale were used. The results indicated that psychological inflexibility significantly predicted students' self-compassion, rumination, worry and college adjustment levels. On the other hand, the results also revealed that while self-compassion significantly predicted the college adjustment, rumination and worry levels did not significantly predicted the college adjustment of freshman students. Finally, while self compassion was a partial mediator in the relationship between psychological inflexibility and college adjustment, ruminative thinking and worry were not significant mediators. The discussions and implications of the study were presented, as well as suggestions for further studies.

Keywords: psychological inflexibility, ruminative thinking, worry, self-compassion, college adjustment

Psikolojik Katılık, Ruminatif Düşünme, Endişe ve Öz- Şefkatin Üniversiteye Uyum ile İlişkisi Öz

Üniversitenin ilk yıllarından itibaren artan psikolojik zorluktan dolayı üniversite öğrencilerinin ruh sağlığı daha fazla ilgi görmeye başlamıştır. Üçüncü dalga bilişsel davranışçı yaklaşımlardan birisi olan Kabul ve Kararlılık Terapisi (KKT), temel kavramı olan psikolojik esneklik ile davranış değişimine kabul ve farkındalık boyutuyla odaklanmaktadır. Bu çalışma psikolojik esneklik/katılık, ruminatif düşünme, endişe ve öz-şefkatin üniversiteye uyum üzerindeki rolünü yapısal eşitlik modellemesi ile araştırmayı amaçlamıştır. Bu araştırmaya bir devlet üniversitesinde birinci sınıfta öğrenim görmekte olan 657 (486 kadın, 171 erkek) öğrenci katılmıştır. Araştırmada veri toplama araçları olarak, Üniversite Yaşam Ölçeği, Kabul ve Eylem Formu-II, Ruminatif Düşünme Stili Ölçeği, Penn Eyalet Endişe Ölçeği, Öz-Şefkat Ölçeği kullanılmıştır. Araştırmanın bulguları psikolojik esneklik/katılığın öğrencilerin öz-şefkat, ruminatif düşünme, endişe ve üniversiteye uyum düzeylerini anlamlı bir şekilde yordadığını ortaya koymuştur. Diğer taraftan, bulgular ayrıca öz- şefkatin üniversiteye uyumu anlamlı bir şekilde yordadığını ancak ruminatif düşünme ve endişenin üniversiteye uyumu anlamlı olarak yordamadığını ortaya koymuştur. Son olarak, öz şefkatin psikolojik esneklik ile üniversiteye uyum arasında kısmi bir aracı etkiye sahip olduğu fakat ruminatif düşünme ve endişenin bu ilişkide anlamlı bir aracı rolünün olmadığı sonucuna ulaşılmıştır. Bu araştırmaya dair tartışma, sonuç ve gelecek çalışmalara dair öneriler sunulmuştur.

Anahtar Sözcükler: psikolojik katılık, ruminatif düşünme, endişe, öz şefkat, üniversiteye uyum

To cite this article in APA Style:

Aydın, Y. (2023). Psychological inflexibility, ruminative thinking, worry and self- compassion in relation to college adjustment. *Bartın University Journal of Faculty of Education*, 12(2), 422-434. <https://doi.org/10.14686/buefad.1022706>

INTRODUCTION

Beginning a new chapter in one's life means adapting to new information, challenges and experiences such as becoming a parent, changing jobs, or retiring from work (Morton et al., 2014), and the transition of a young adult's life from high school to college is no exception (Brooks & Dubois, 1995; Morton et al., 2014). Going to college is an important experience in a young adult's life as it represents a new lifestyle that is very different from high school. There is therefore no doubt that starting college for the first time can be a very stressful experience and is associated with various academic, personal, emotional and social difficulties (Brandy et al., 2015; Crede & Niehorster, 2012; Tao et al., 2000). Upcraft et al. (2005) suggest that students' first-year experience and adjustment in college can be affected by other, but still fairly indetermined personal, psychological, and environmental factors. The main challenges of the transition include adapting to an academic level that is way higher than that of high school (Johnston, 2010), homesickness (Thurber & Walton, 2012), changes in daily routines, time management, sleeping and eating routines (Semplonius & Willoughby, 2018). The challenges that arise from such a different and new environment, social and academic relationships can often be a cause of stress (Buote et al., 2007; Clinciu, 2013; Sasaki & Yamasaki, 2007). Adjustment to college life is therefore often associated with anxiety, depression, stress, anger, and even mental illness. Clinciu (2013) suggested that difficulties encountered during adjustment are among the major causes of students dropping out of college or sometimes even more severe results such as suicidal thoughts as the risk factors among university students increased after Covid-19 outbreak (Lazaro-Perez et al., 2023). Considering how stressful and demanding the transition process can be for freshman students, it is unsurprising that psychological distress, mostly expressed through depression and other symptoms of anxiety, represents a serious health-issue among all college students.

One of the main predictors of psychological distress and related problems for college students is rumination (Morrison & O'Connor, 2005), which shortly can be defined as passive and persistent thinking about a situation and usually creates an emotional distress (Sansone & Sansone, 2012). Rumination has been found to be strongly related to depression and loneliness in college students (Zawadzki et al., 2013), and this is particularly relevant for freshman students as they tend to have certain social and emotional difficulties during the adjustment period of college life. Furthermore, De-Chen's (2009) study of freshman college students indicated that rumination, self-esteem, and perfectionism are significantly predictors of the level of depressive symptoms that may occur. While both rumination and worry are two forms of repetitive thinking related to psychopathology, rumination represents the thoughts about the past (Nolen-Hoeksema et al., 2008), worry is more anxious apprehension or uncontrollable thoughts about the future (Borkovec, 1994). Segerstrom et al. (2000) found that rumination and worry are highly correlated and suggested that they should therefore be considered under the single umbrella term: "repetitive thought". Paolini et al. (2006) found that worry was considered as being an important factor that influences the adjustment process. In the past few decades there has been an expanding interest in studying ruminative thinking and worry with college students in relation to perfectionism (Harris et al. 2008), general depression, Covid-19 related depression (Kong et al. 2015; Luttenbacher, 2021), and procrastination (Constantin et al., 2018).

Apart from the repetitive thoughts as risk factors for Major Depressive Disorder (MDD) and anxiety (Nolen-Hoeksema, 2000), self-compassion can be considered as a protective factor for newcomers in college life. Self-compassion is simply defined by Neff (2011) as acting with a kind, understanding, and accepting way towards yourself when you are having a hard time due to experiencing problematic feelings and thoughts, or sometimes due to noticing something that you do not like about yourself. Self-compassion, in other words, is being open to suffering through experiencing all kinds of feelings and thoughts in a non-judgmental manner. Research reveals that individuals with high levels of self-compassion tend to be more psychologically fit, happy, and optimistic, as well as less anxious and depressed (Neff, 2009). Several studies have been conducted with college students on the relationship between self-compassion and various variables, including social and academic difficulties (Terry et al., 2013), procrastination, academic anxiety and motivation (Williams et al., 2008), physical and psychological well-being (Hall et al., 2013), and also personality traits (Neff & McGehee, 2010). As with many other psychological problems, the college adjustment process has a detrimental effect on freshmen in terms of uncertainties, fear of failure in academic and social life. However, there is no doubt that self-compassion skills play a helpful role for freshmen as a protective factor that allow them to cope with the difficulties that arise throughout the adjustment process. In this regard, Ekşi et al. (2022) found in a recent study that self-compassion was found to be a significant coping method with stress among Turkish university students. Another recent study with college students revealed that perceived stress was found to be negatively correlated with self-compassion and mindfulness, positively related to experiential avoidance (Martinez-Rubio et al., 2023).

Mental health problems including anxiety, depression, substance abuse and non-suicidal self-injury (NSSI) are common among college students (Blanco et al., 2008; Kiekens et al., 2023). In addition to these mental health issues, Covid-19 as a global threat, profoundly impacted college students' lives recently. Along with changes in physical settings, students had difficulties in terms of financial issues, social and emotional adversities, health, romantic relationships, and death throughout the pandemic (Fruehwirth et al., 2021; Han et al., 2021; Truchot et al., 2021). According to data revealed by UNESCO (2022), approximately 7 million higher education students affected the COVID 19 in Turkey. The detrimental impact of COVID 19 on college students was all the way from social isolation, fear, anxiety, and to general mental health (Duygulu et al. 2023).

Psychological inflexibility (PIF), which aims to explain psychopathology and human behavior from a functional contextualism perspective, is one psychological process that can be helpfully applied during college adjustment. PIF, the core concept of Acceptance and Commitment Therapy (ACT, Hayes et al., 1999), can be understood as being an antonym of the concept defined, i.e. being the process of being in the present moment without any defense. This means being a fully conscious human while at the same time adapting one's behavior, where necessary, by taking actions in the service of chosen values (Hayes, et al., 2006; Hayes et al., 1999). PIF consists of six core processes, namely present moment awareness, values, committed actions in the service of values, self as context, cognitive defusion, and acceptance (Hayes et al., 2012). PIF was found to be associated among college students with depression, anxiety, general psychological distress (Forman et al., 2007; Levin et al., 2014; Masuda, & Tully, 2011), procrastination (Aydın & Aydın, 2022; Scent & Boes, 2014), perfectionism (Crosby et al., 2013), alcohol and substance use (Levin et al., 2012), mindfulness (Aydın & Aydın, 2021)

With the aforementioned theoretical background and literature in mind, the main objective of this study was to investigate the relations between psychological inflexibility, rumination, worry, self-compassion, and college adjustment by using Structural Equation Model (SEM). Therefore, this study specifically aimed to test the following hypothesis in a holistic model:

- H1: Psychological inflexibility significantly predicts self-compassion in university students.
- H2: Psychological inflexibility significantly predicts ruminative thinking in university students.
- H3: Psychological inflexibility significantly predicts worry in university students.
- H4: Psychological inflexibility significantly predicts college adjustment in university students.
- H5: Self-compassion significantly predicts college adjustment in university students.
- H6: Ruminative thinking significantly predicts college adjustment in university students.
- H7: Worry significantly predicts college adjustment in university students.

H8: Self-compassion, rumination, and worry significantly mediate the relationship between psychological inflexibility and college adjustment.

METHOD

Research Design

The purpose of this study was to examine the predictive relationships between psychological inflexibility self-compassion, ruminative thinking, worry and college adjustment, and mediating role of self-compassion, ruminative thinking, and worry in the relationship between psychological inflexibility and college adjustment. For this purpose, the current study utilized correlational survey model in order to explain the degree of exchange between two or more variables (Karasar, 2009).

Study Group

657 undergraduate first year college students participated in the study. While 486 (74 %) participants were females, 171 (26 %) were males. The age of the participants ranged from 18 to 25 ($M = 18,64$, $SD = 1.18$). Of the total participants, 358 (54.5%) of the sample were from the Faculty of Education, 136 (20.7%) were from the School of Health, 87 (13.2%) were from the Faculty of Economics and Administrative Sciences, 56 (8.5%) were from the Faculty of Engineering and Architecture, and 20 (3.0%) were from the Faculty of Medicine.

Data Collection Tools

The University Life Scale (ULS). University adjustment was measured using ULS (Aladağ et al., 2003). The ULS has six subscales, namely (i) adjustment to college environment, (ii) emotional adjustment, (iii) personal

adjustment, (iv) relationships with the opposite sex, (v) academic adjustment, (vi) social adjustment and 48 items with a 7- point Likert scale that range from (not at all applicable) (1), to (totally applicable) (7). Higher scores represent better adjustment to college life. The Cronbach Alphas of the subscales ranged between 0.63 and 0.80. The Cronbach alpha for total ULS was 0.91.

The Acceptance and Action Questionnaire- II (AAQ-II). AAQ-II has been developed by Bond et al., (2011) to measure levels of psychological inflexibility. It has a single factor structure with 7 items on a Likert scale ranging from 1 (never true) to 7 (always true). The Cronbach Alpha of the one-factor solution of AAQ-II was 0.88. A study of the validity and reliability of the Turkish scale was conducted by Yavuz et al. (2016). The Turkish form of the scale was applied to a study of 107 undergraduate students with a mean age of 21.8. The Cronbach Alpha of the TAAQ-II was 0.90. A single-factor solution with Principal Component Analysis (PCA) was applied by the authors to test the factor structure of TAAQ-II, and this structure was found to be similar to the original AAQ-II. A single-factor structure explained 61.802% of the total variance (Yavuz et al., 2016).

The Ruminative Thought Style Questionnaire (RTSQ). The Ruminative Thought Style Questionnaire (RTSQ) was originally developed by Brinker and Dozois (2009). The scale consists of 20 items rated on a Likert type scale from 1 (not at all descriptive of me) to 7 (describes me best). The scale considers the positive, negative, and neutral facets of global rumination, namely repetitive, recurrent, uncontrollable, and intrusive thinking. The Cronbach Alpha of the original scale was 0.92. A validity and reliability study of the RTSQ was carried out on 262 university students by Karatepe et al. (2013). The Turkish adaptation study also revealed a single-factor structure. The Cronbach Alpha of the scale was found to be high, namely 0.91.

The Penn State Worry Questionnaire (PSWQ). The scale was originally developed by Meyer et al. (1990) and has 16 items with a single factor structure. The minimum score that can be obtained on this scale is 16, and the maximum is 80. Yilmaz et al. (2008) conducted a validity and reliability study of the PSWQ into Turkish with 561 participants. The Turkish form of the scale has a two-factor structure: the first factor, which has 11 items and is positively scored, indicates the presence of worry, while the second one, which has 5 reverse-coded items, indicates the absence of items of worry. The Cronbach Alpha score of the Turkish version of PSWQ was 0.91, and the Cronbach Alpha of the subscales, namely the presence and absence of worry, was found to be 0.92 and 0.68, respectively. In addition, while the Guttman split-half reliability was 0.91, the test-retest reliability was found to be 0.88 ($p < .01$), 0.88 ($p < .01$) and 0.72 ($p < .01$), respectively (Yilmaz et al., 2008). Even though the Turkish version of the scale has a two-factor structure, there are many other studies which support having a unidimensional structure for the scale. Therefore, a unidimensional form of the scale was used in this current study.

The Self- Compassion Scale (SCS). The 26-item Self Compassion Scale (SCS) was developed by Neff (2003a) to understand how people treat themselves in difficult times. In other words, the main aim of the scale was to measure continual self-compassion. It is a five-point Likert type scale ranging from “almost always” to “almost never”. Higher scores obtained on this scale indicate a high level of self-compassion. The original SCS has six subscales: self-kindness, self-judgment, common humanity, isolation, mindfulness, and over-identification. Akin, Akin, and Abacı (2007) translated the scale and conducted a validity and reliability study on 633 non-clinical college students into Turkish culture. The Turkish form of the SCS supported the six- factor structure of the scale as a result of Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). Finally, the Cronbach Alpha coefficients for the sub-scales vary between 0.48 and 0.71 (Akin et al., 2007).

Data Collection

The approval of the Human Subjects Ethics Committee was obtained prior to data collection, with the data being collected from freshman students from different faculties and schools in the university. The measures were administered face to face during class time, and it took participants approximately 20 minutes to complete the survey. The participants were given the informed consent form on the first page of the study forms, and data was obtained from participants who were over 18 on voluntary basis.

Data Analysis

The first step of the data analysis process was a preliminary analysis of the accuracy of the data, including examination of missing values and outliers. This analysis resulted in 47 cases of this current study being excluded due to more than 5% of the required values being missing. In other words, those cases ($n=47$) were subjected to listwise deletion due to a non-ignorable number of missing values. Following these eliminations, the sample size of the study was 657 (571 females and 206 males) with a mean age of 18.67 ($SD = .44$). As suggested by Kline (2011), the missing value analysis was concluded by attaining mean values for those cases which had less than 5% of the data missing data.

Both univariate and multivariate outliers were also examined before running the analysis. While the univariate outliers were examined according to their standardized (z) scores, multivariate outliers were tested by

checking values of Mahalanobis Distance (MD). In this regard, as proposed by Tabachnick and Fidell, (2007), cases that are not between -3.29 and +3.29 could be considered as being outliers. In this current study, this applied to only seven cases. It was decided that the seven outliers be kept in the data due to the large sample size of the study (Tabachnick & Fidell, 2007). In addition, as a result of the analysis of multivariate outliers, there were 15 cases which generated greater MD values than the critical value. However, it was decided that those cases be retained due to the fact that there were no significant changes when the cases were removed from the data analysis.

The data was also screened to check that it was normally distributed, and via skewness and kurtosis values. According to the results, all of the variables in this study were found to be approximately skewed, with a skewness score of between -1 and +1. The kurtosis scores were within the acceptable values of -3.0 to + 3.0. Pearson Correlation Coefficients method was used to assess the associations between psychological inflexibility, rumination, worry, self-compassion and college adjustment.

Finally, regression and mediation analyses in the SEM model were tested by using AMOS20 software with all study variables. The findings were reported by considering Chi- Square/ Degrees of freedom (χ^2/df), Normed Fit Index (NFI), Compared Fit Index (CFI) and Tucker-Lewis Index (TLI), the Root Mean Square Error of Approximation (RMSEA). The proposed model in which psychological inflexibility, self-compassion, rumination, and worry were stated as endogenous variables, college adjustment was placed as the exogenous variable in the model (Figure 1).

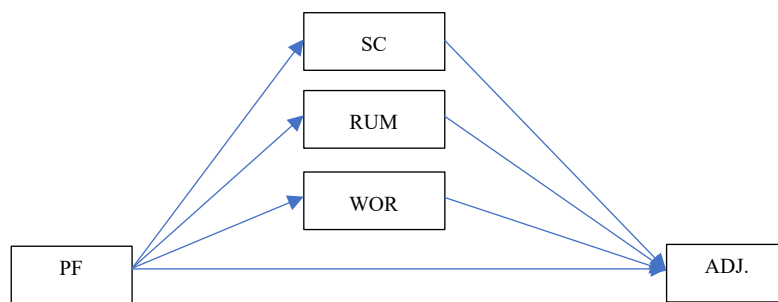


Figure 1. Proposed measurement model.

PF: Psychological Inflexibility; SC: Self-Compassion; RUM: Ruminative Thinking; WOR: Worry; ADJ.: College Adjustment

FINDINGS

In this part of the research the descriptive statistics and bivariate correlations between study variables were presented. Then, the predictive roles of psychological inflexibility, self-compassion, ruminative thinking, and worry were given based on the hypothesis. Finally, the findings of the mediation analyses were presented.

Descriptive Statistics and Correlation Results

Table 1 indicates a correlation matrix for all variables. It can be seen in the results of the correlation analysis that while college adjustment demonstrates a significant relationship with self-compassion, it was also found to be negatively and significantly associated with rumination, worry and psychological inflexibility.

Table 1. Descriptive Statistics, Reliability Values, Bivariate Correlations, CFA Values

	α	Mean	SD	1	2	3	4	5	CMIN/DF	CFI	TLI	RMSEA
1.ADJ.	.89	4.99	.772	1					2.18	.82	.80	.04
2. WOR	.90	3.01	.803	-.435*	1				3.43	.94	.93	.06
3. RUM	.89	4.95	1.081	-.386*	.591*	1			2.49	.96	.95	.05
4. SC	.91	3.14	.653	.525*	.597*	-.489*	1		2.25	.94	.93	.04
5. PF	.85	3.43	1.318	.542*	.554*	.550*	-.605*	1	2.06	.99	.98	.04

*p< .005

CFA: Confirmatory Factor Analysis, PF: Psychological Inflexibility; SC: Self-Compassion; RUM: Ruminative Thinking; WOR: Worry; ADJ.: College Adjustment

Prediction and Mediational Results

This study was based on eight hypotheses. Based on the SEM analysis the results of the first seven-research hypothesis as shown in the Figure 3, revealed that psychological inflexibility was a found to be a significant predictor of self-compassion ($\beta = -.71$) (H1), ruminative thinking ($\beta = .70$) (H2) and worry ($\beta = .74$) (H3). Moreover, psychological inflexibility significantly predicted college adjustment as hypothesized ($\beta = -.57$) (H4), and self-compassion also significantly predicted college adjustment ($\beta = .18$) (H5). Furthermore, college adjustment was not significantly predicted by rumination ($\beta = .05$) (H6) and worry ($\beta = -.05$) (H7) as opposed to the proposed hypothesis.

Finally, the role of psychological inflexibility on college adjustment was tested before analyzing the mediational model. As a result of the simple linear regression analysis psychological inflexibility came out as a significant predictor of college adjustment ($\beta = -.57$) and it accounted for 32% of total variance (Figure 2) in college adjustment. Followingly, the hypothesis eight aimed to test the mediating role of self-compassion, ruminative thinking, and worry in the relationship between psychological inflexibility and college adjustment.

As a result of model testing (Figure 3) only self-compassion had a partial mediating role between psychological inflexibility and college adjustment as the previous significant relationship between psychological inflexibility and college adjustment remained but regression coefficient decreased ($\beta = -.48$). The overall amount of variance on college adjustment explained by psychological inflexibility, self-compassion, ruminative thinking, and worry was 38%. Additionally, as a result of model testing (Figure 3) following fit indices results were emerged: $\chi^2/df = 2.32$, NFI: .85, CFI: .91, TLI: .90 and RMSEA: .04. The values greater than .90 in CFI and TLI scores were the indicators of a good or acceptable fit (Bentler & Yuan, 1999, Schumacker & Lomax, 2004). Additionally, NFI value was found to be .85 and that was a mediocre fit. Finally, for the RMSEA values in the range of 0.000 and 0.05 indicate good fit, 0.05 and 0.08 indicate fair fit, and those scores between 0.08 and 0.10 mediocre fit, and those higher than 0.10 indicate poor fit (Browne & Cudek, 1993). RMSEA score showed a good fit (MacCallum et al., 1996).

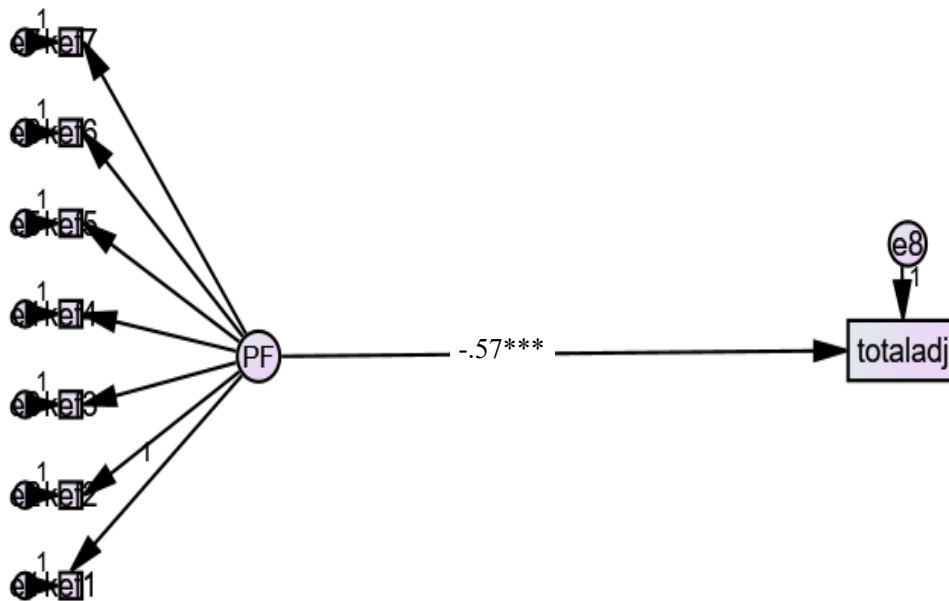


Figure 2. Simple linear regression model ($n=657$) between psychological inflexibility and college adjustment

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.00$

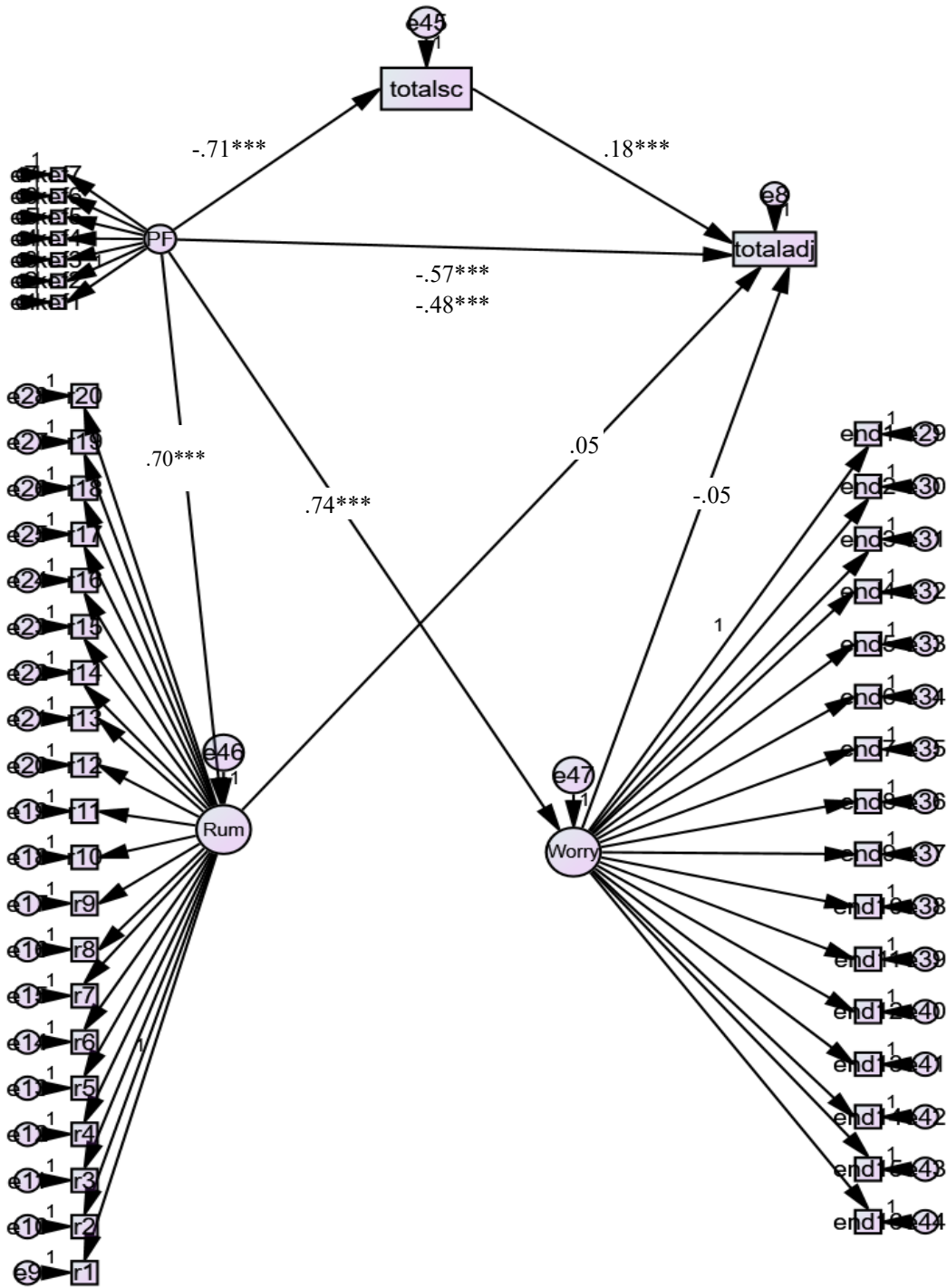


Figure 3. Mediation model ($n=657$) of psychological inflexibility on college adjustment through self-compassion, rumination, and worry. Standardized effects are presented. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Discussion & Conclusion

The main purpose of this study was to investigate the associations between psychological inflexibility, self-compassion, rumination, worry, and college adjustment simultaneously in a structural model. Additionally, this study also aimed to test the mediating roles of self-compassion, ruminative thinking, and worry in the relationship between psychological inflexibility and college adjustment. College adjustment as the dependent variable in this study was found to be significantly correlated with other independent variables by having the highest correlation with psychological inflexibility.

According to the results, psychological inflexibility was negatively and significantly associated with self-compassion and positively and significantly associated with rumination and worry as stated in the first three hypothesis. In other words, psychologically inflexible freshman students have difficulties to have compassionate attitude towards themselves and they tend to ruminate and worry. These findings were in parallel with the literature as Morrison and O'Connor (2005) stated that ruminative thoughts and stress could be the major causes of psychological distress in college students. In addition, self-compassionate attitude among college students was significantly and positively related to well-being (Bluth & Blanton, 2014) and negatively related to stress in college (James, 2013).

Moreover, psychologically inflexible students have some difficulties in college adjustment process. The results also revealed that freshman students who have high self-compassion are more likely to adjust the college life. A study conducted by Terry et al. (2013) on 119 college students supports the findings of the first hypothesis which revealed the positive and significant association between self-compassion and college adjustment. In Terry et al.'s (2013) study, it was shown that those who have higher self-compassion demonstrate lower depression, less homesickness, and are more satisfied in attending the college. Similarly, Hall et al. (2013) investigated the role of self-compassion on students' well-being with 182 undergraduates, and the results revealed that self-compassion was a significant predictor of both the physical, and the psychological, well-being of college students. Self-compassion can be a protective factor against anxiety, depression, and related psychological problems (Neff et al., 2007), as well as adjustment difficulties for freshman students. Finally, it is not surprising, when considering the overarching nature of self-compassion that involves mindfulness, common humanity, and self-kindness components, that the study indicated that being compassionate towards yourself may help to overcome adjustment difficulties.

Finally, as a result of the current study while self-compassion had a partial mediating role in the proposed model, ruminative thinking and worry did not have any mediating role between psychological inflexibility and college adjustment. In plain language college adjustment was significantly explained by psychological inflexibility through self-compassion. Self-compassion generally supports positive outcomes in individuals such as happiness and optimism (Neff, 2009), resilience in university students (Permatasari & Meilita, 2022), and recently Covid 19 related coping with stress mechanisms in university students (Huang & Wang, 2022). The significant mediating role of self-compassion in this model can be understood from a contextual behavioral science perspective. Self-compassion in the context of college adjustment process can be considered as a vital source of human strength since it evokes kindness, feelings of connectedness, tolerance and acceptance, and it also helps individuals to find a meaning and hope in difficult times (Neff et al. 2007). On the other hand, ruminative thinking and worry could possibly be taken into consideration as experiential avoidances from Acceptance and Commitment Therapy perspective. Experiential avoidance (EA) is simply defined as the avoidance of unwanted feelings, emotions, thoughts, and sensations (Hayes et al. 1999). EA behaviors may perfectly work in the short run to deal with difficulties and may provide short term relief, but they can be very detrimental when dealing with problems in the long run (Harris, 2022). In this regard, rumination and worry as repetitive thinking strategies may help freshman students to deal with adjustment difficulties but create more detrimental effects in the long run.

The value of the present study cannot be correctly evaluated without considering its limitations. First, the data of this study was gathered during a single period, which prohibits researchers from taking a wide range perspective of the college adjustment phenomenon. Future research would therefore benefit from longitudinal data in order to better appreciate whether PIF, rumination, worry, and self-compassion predict or explain the college adjustment over time. A second limitation was connected to the convenience sampling strategy which contacted the participants who were available at the time of data collection. Gender inequality (74% of the participants were female and 26% were male) was one of the results of the convenience sampling in this study. Researchers collected more than 50% of the data from the faculty of education, which was typically mainly attended by female students. In addition, as the study only consisted of first-year college students at a single university, the results cannot be generalized to all college students. Future studies should therefore take this point into consideration when conducting extension studies. The third point that must be mentioned was that the college adjustment scale that was used in this present study contains some sensitive questions related to students' sexual and emotional life. Care needs to be taken by future researchers who should be careful about items of this type since some questions can be culturally problematic.

Statements of Publication Ethics

This study was conducted in accordance with the 1964 Declaration of Helsinki and ethical standards. Informed consent was obtained from all participants. The approval of the Human Subjects Ethics Committee was obtained (2014/116) prior to data collection process. This study was not funded by any organization or institution.

Researchers' Contribution Rate

The article was completely conducted by the author.

Conflict of Interest

The author declares that there is no conflict of interest associated with this paper.

Acknowledgement

This study was based on the author's doctoral thesis submitted to Middle East Technical University, Ankara, Turkey. This study was presented as an oral presentation at the 5th International Eurasian Educational Research Congress in 2018.

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