

Relationships between Career Adaptability, Organizational Commitment, Loneliness at Work, Burnout, and Job Satisfaction

Ahmet Kara

Assoc. Prof. Dr., Kastamonu University, Faculty of Humanities and Social Sciences, Department of Psychology, Turkey, ahmetkara@kastamonu.edu.tr

Erman Kayışdağ

Dr., Eskişehir Osmangazi University, Faculty of Education, Department of Special Education, Turkey, ekayisdag@ogu.edu.tr

Hafız Bek

Assoc. Prof. Dr., Usak University, Faculty of Education, Department of Guidance and Psychological Counseling, Turkey, hafiz.bek@usak.edu.tr

This research aims to examine the mediating roles of loneliness at work and burnout in the relationship between career adaptability, organizational commitment, and job satisfaction. The analysis was conducted with 256 Turkish teachers. Data were collected with the Organizational Commitment Scale, Career Adaptabilities Scale, Loneliness at Work Scale, Burnout Measure, and Job Satisfaction Scale. Data were analyzed with a two-stage structural equation modeling technique. According to the research findings, it has been proven that the mediatory effects of loneliness at work and burnout are significant in the relationship between career adaptability, organizational commitment and job satisfaction. In conclusion the research findings were confirmed by the Dual-Factor Theory. In future studies, dual-factor theory can be tested with a longitudinal analysis based on time interval measurements.

Keywords: career adaptability, job satisfaction, loneliness at work, organizational commitment, burnout, teachers, dual-factor theory

INTRODUCTION

Job satisfaction is an evaluation indicator that explains an individual's general situation, work environment, and attitude toward their professional experience (Saputra & Mahaputra, 2022). Organizational commitment is a concept that expresses the desire of the individual to believe in organizational goals, accept these goals, and stay in the organization (Castellano et al., 2021). Career adaptability is defined as the ability of an individual to cope with the changes and transitions in the career development process, from preparation for career and profession to career termination (Eryılmaz & Kara, 2018; Kara, 2024; Savickas & Profeli 2012). Loneliness at work is expressed as a negative emotion experienced in the workplace, which makes it increasingly difficult for the individual to establish genuine social relationships due to increasing competition or various complicated relationships at work (Jung et al., 2021). Burnout is not a personal problem that may be a subject for self-help but an individual reaction to job stress that occurs as a result of specific characteristics of work activity and can eventually become chronic and cause mental, emotional, and physical complications (Edu-Valsania et al., 2022).

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Hypothesis Development and Conceptual Framework

Relationships between Organizational Commitment and Job Satisfaction

Studies in the literature examine the relationship between organizational commitment and job satisfaction. For example, a survey conducted by Loan (2020) found that organizational commitment is a variable that predicts job satisfaction. In another study, it was seen that organizational commitment significantly positively impacts job satisfaction (Amin, 2022). In another study conducted by Azeem (2014), it was determined that employees with high organizational commitment have higher job satisfaction. In summary, based on the studies mentioned above, it has been accepted in the current research that organizational commitment is a variable that predicts job satisfaction.

Relationships between Career Adaptability and Job Satisfaction

Reviewing the literature, studies deal with the relationship between career adaptability and job satisfaction. For example, in the survey conducted by Fiori et al. (2015), it was seen that career adaptability positively and significantly predicted job satisfaction. In the study conducted by Zacher and Griffin (2015), the relationship between career adaptability and job satisfaction of young and elderly employees was examined. According to the study's findings, it was observed that career adaptability predicted job satisfaction affirmatively in both groups, while career adaptability increased job satisfaction more among young employees. In a study conducted by Han and Rojewski (2015) with the structural equation model, the effect of career adaptability on job satisfaction was investigated. According to the results of the analysis, it has been concluded that career adaptability, which is improved with social support, also positively affects job satisfaction and increases it. Kulbaş & Kara (2021) revealed significant relationships between job satisfaction and career adaptability in a study on teachers working in special education schools. In conclusion, based on the studies mentioned above, the hypothesis that career adaptability predicts job satisfaction has been established in the current research.

Relationships between Loneliness at Work and Job Satisfaction

In the literature, studies evaluate the relationship between loneliness in business life and job satisfaction. To articulate perceptibly, a survey conducted by Krug et al. (2021) revealed that the more employees perceive further social identity continuity, the less lonely they feel. Thus, they are more satisfied with their jobs. Moreover, according to Yener and Schermer (2020), loneliness at work causes lower job satisfaction and deterioration of employees' health. According to them, if the managers exchange ideas and communicate more frequently with the employees, it will facilitate a reduction in the loneliness observed at work and an increase in job satisfaction, together with an enhancement of the self-confidence of the employees. According to the findings of the research conducted by Tabancalı (2016) on teachers, emotional deprivation and professional association, which are the dimensions of loneliness at work, significantly affect internal satisfaction. In addition, a professional association is an essential predictor of inner happiness. It was determined that emotional deprivation and professional association had a significant relationship with extrinsic satisfaction, and only professional association significantly predicted extrinsic satisfaction. In summary, based on the studies mentioned above, it was assumed in the current research that loneliness at work predicts job satisfaction.

Relationships between Burnout and Job Satisfaction

In the literature, studies address the relationship between burnout and job satisfaction. In a survey conducted by Tourigny et al. (2010), it is seen that burnout and job satisfaction are correlated variables. It was found that as the negative behaviors of the employees caused by burnout in the workplace decreased, their job satisfaction increased. In a study conducted by Ali and Ali (2014), a negative relationship was found between burnout and job satisfaction, and it is revealed that as

burnout increases, job satisfaction decreases. The study by Gharakhani and Zaferanchi (2019) determined that as the burnout experienced by individuals increased, their job satisfaction decreased. As a result, based on the studies mentioned above, burnout is accepted as a variable that predicts job satisfaction in the current research.

The Mediating Roles of Loneliness at Work and Burnout in The Relationship between Career Adaptability, Organizational Commitment, and Job Satisfaction

The structural model constructed in this study is based on the dual-factor theory (Herzberg et al., 1959). This theory categorized the factors that increase and decrease employees' job satisfaction. Accordingly, gains such as taking responsibility, advancement, and success of the employee in business are expressed as job requirements, conceptualized as factors that increase job satisfaction (Herzberg et al., 1959). In this direction, organizational commitment and career adaptability increase job satisfaction in this research. On the other hand, factors such as toxic relationships with coworkers, low wages, unfavorable working conditions, and job insecurity are defined as work environment and environment and cause dissatisfaction (Herzberg et al., 1959). In this context, this research evaluated loneliness at work and burnout as factors that reduce job satisfaction. Explanations of this theory are theoretical. This research has contributed to the literature by empirically testing these theoretical explanations with structural equation modeling. In this respect, the present research is expected to provide a basis and direction for future studies.

Present Research

The present research is valuable because it holistically addresses the factors that increase and decrease job satisfaction. More concretely, incidental to the increase in job satisfaction of individuals, their job performance (Loan, 2020), organizational commitment (Aboramadan et al., 2020) and life satisfaction (Lambert et al., 2021) increase, while their level of job stress (Dodanwala et al., 2022), burnout (Wu et al., 2021) and intention to quit work (De Simone et al., 2018) decrease.

This research was conducted with the participation of special education teachers and psychological counselors. Special education teachers and psychological counselors can get stuck in various roles (e.g., case management, individualized instruction, etc.) that require high mental and physical energy. Being trapped in these professional roles and decreased interest and energy can lead to chronic and persistent job stress, negatively affecting teachers' health, well-being, motivation, job performance, and student outcomes (Ansley et al., 2016; Maslach, 2003; Shen et al., 2015). In the face of this negative situation, there is a need to determine the factors affecting the job satisfaction of special education teachers and psychological counselors working in the human-oriented professional group. At this point, this research predicts that increasing the career adaptability and organizational commitment of special education teachers and psychological counselors will reduce their feelings of burnout and loneliness at work and improve their job satisfaction. On the other hand, experiencing more burnout and loneliness is expected to cause them to be less satisfied with their jobs.

Previous studies have found several factors that can affect the level of job satisfaction experienced by teachers, such as the overall school environment, access to resources, and the manageability of workload. In addition, the level of school support perceived by a teacher directly affects job satisfaction (Mastropieri, 2001; Prather-Jones, 2011). As can be seen, previous studies generally emphasize the effect of classroom management and school climate on job satisfaction. However, having low job satisfaction is seen as one of the leading indicators of teachers leaving their workplaces (Emery & Vandenberg, 2010; Paquette & Rieg, 2016). Besides, since special education teachers and psychological counselors are much more engaged in case management and individualized teaching with their students, their burden is higher than in other teaching fields. At this point, considering the factors that both increase and decrease the job satisfaction of private teachers and psychological counselors in the context of causality can make it easier for them to stay committed

in their field, feel good at work, and provide more qualified education to their students. At this point, it is contemplated that the current research will contribute to the literature in terms of revealing the factors that both reduce and increase the job satisfaction of both special education teachers and psychological counselors with a structural model based on a cause-effect relationship holistically and comprehensively. In addition to all these, although there are studies dealing with the relationships between the variables in the structural model, no structural model research has been found in which these five variables are together. As a result, this research aims to examine the mediating roles of loneliness at work and burnout in the relationship between career adaptability, organizational commitment, and job satisfaction. The hypotheses of this study are as follows:

- H¹:** More positive organizational commitment will predict lower loneliness at work.
- H²:** Higher career adaptability levels will predict lower loneliness at work.
- H³:** More positive organizational commitment will predict lower levels of burnout.
- H⁴:** Higher levels of career adaptability will predict lower levels of burnout.
- H⁵:** More positive organizational commitment will predict higher levels of job satisfaction.
- H⁶:** More positive career adaptability will predict higher levels of job satisfaction.
- H⁷:** More positive loneliness at work will predict lower levels of job satisfaction.
- H⁸:** More positive burnout will predict lower levels of job satisfaction.
- H⁹:** The mediating effects of loneliness at work and burnout are significant between organizational commitment and job satisfaction.
- H¹⁰:** The mediating effects of loneliness at work and burnout are significant between career adaptability and job satisfaction.

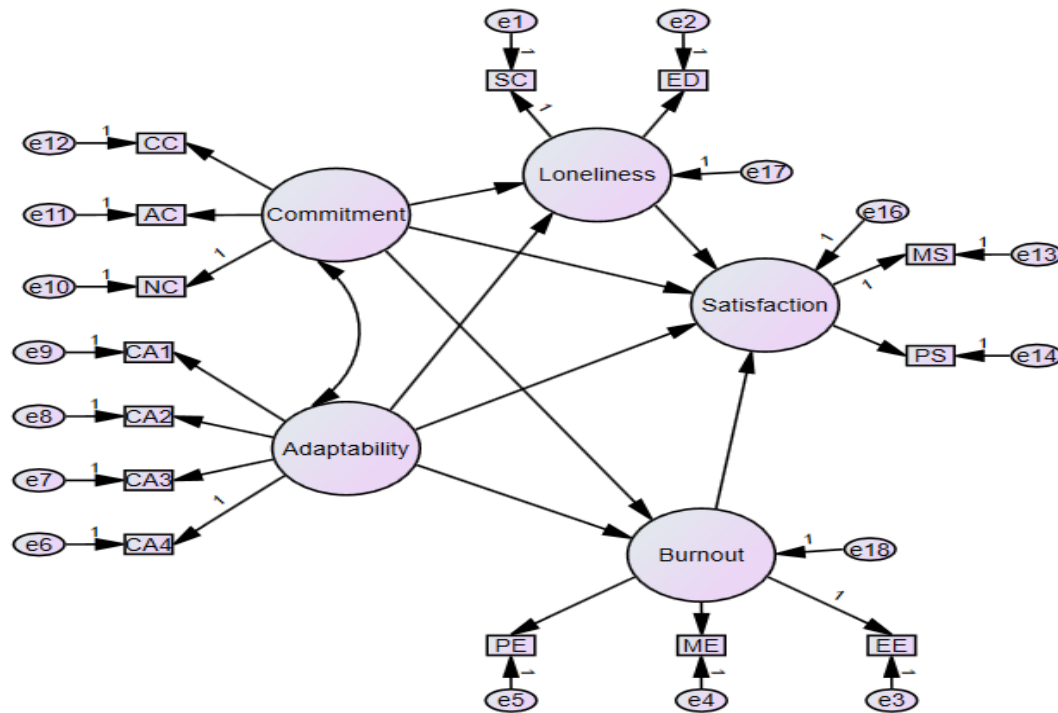


Figure 1

Hypothetical structural model based on dual-factor theory (Herzberg et al., 1959)

Note. Commitment: Organizational Commitment; Adaptability: Career Adaptability; Loneliness: Loneliness at Work; Satisfaction: Job Satisfaction; NC: Normative Commitment; AC: Affective Commitment; CC: Continuance Commitment; CA1: Confidence; CA2: Curiosity; CA3: Control; CA4: Concern; SC: Social Companionship; ED: Emotional Deprivation; EE: Emotional Exhaustion; ME: Mental Exhaustion; PE: Physical Exhaustion; MS: Material Satisfaction; PS: Professional Satisfaction.

METHOD

This Research Group and Procedure

Data collection was done using a Google survey. In this survey, an informed consent form was prepared for the participants. In addition, using a feature of the Google survey ensured that the participants did not leave questions/items blank. On the other hand, (2 persons) were excluded from the analysis because the participant marked their approval as no. The research was conducted with 256 volunteer teachers. Of these teachers, 173 (67.6%) are women and 83 (32.4%) are men. In addition, these teachers [$Age^{Range} = 22-58$, $Age^{Mean} = 35.00$, $Age^{Sd} = 8.87$] were selected by criterion sampling method. These criteria are not having any psychiatric diagnosis, working as a teacher in special education and guidance and psychological counseling, and volunteering. In addition, in this research group, 205 (80.1%) work in the public sector and 51 (19.9%) in the private sector. In addition, the seniority of these teachers [94 of them 0-5 years (36.7%); 57 of them are 6-10 years (22.3%); 27 of them are 11-15 years (10.5%); 19 of them are 16-20 years (7.4%) and 59 of them are over 20 years (23.0%)]. Finally, 131 (51.2%) employees are guidance and psychological counseling, and 125 (48.8%) are special education.

Data Collection Tools

Organizational Commitment Scale (OCS): OCS, was developed by Meyer et al. (1993). Dağlı et al. (2018) performed validity and reliability analyses of the OCS Turkish adaptation. OCS includes 18 items and three dimensions (normative commitment, affective commitment, and continuance commitment). It is understood that the in-construct validity with the confirmatory factor analysis technique has acceptable fit indices ($\chi^2/df = 2.10$, RMSEA = 0.07, CFI = 0.90, GFI = 0.88). In addition, the total explained variance in the OCS's exploratory factor analysis results was 52.71% (Dağlı et al., 2018). In addition, the entire OCS was calculated as Cronbach Alpha = 0.88 by Dağlı et al. (2018). Cronbach Alpha of the current research was found ($\alpha = .77$ for normative commitment, $\alpha = .95$ for affective commitment, and $\alpha = .78$ for continuance commitment) (see Table 1).

Career Adaptabilities Scale (CAS): CAS was developed by Savickas and Profeli (2012). Its Turkish adaptation, validity, and reliability studies were carried out by Kanten (2012). In its original form, CAS is a structured scale with 24 items and four dimensions (Confidence, Curiosity, Control, and Concern). As a result of confirmatory factor analysis by Kanten (2012), five items were removed. The remaining 19 items and the four-dimensional construct were confirmed, and the fit indices ($\chi^2/df = 3.5$, RMSEA = 0.07, NNFI = 0.92; CFI = 0.93, GFI = 0.90) were calculated as acceptable. It was also obtained in Kanten's (2012) reliability analysis ($\alpha = .81$ for confidence, $\alpha = .79$ for curiosity, $\alpha = .77$ for control, and $\alpha = .61$ for concern). The Cronbach Alpha values calculated in the current research were determined as ($\alpha = .90$ for confidence; $\alpha = .88$ for curiosity, $\alpha = .87$ for control, and $\alpha = .86$ for concern) (see Table 1).

Loneliness at Work Scale (LAWS): LAWS was developed by Wright et al. (2006). The Turkish adaptation, validity, and reliability studies of the LAWS were carried out by Doğan et al. (2009). LAWS has 16 items and a two-dimensional (social companionship and emotional deprivation) structure. Acceptable fit indexes of the LAWS (IFI = 0.99, RMSEA = 0.04, NFI = 0.98; CFI = 0.99, GFI = 0.95) were reported in the confirmatory factor analysis findings calculated for construct validity (Doğan et al., 2009). In addition, the internal consistency coefficient of the sub-dimensions of LAWS was found to be $\alpha = .83$ for social companionship and $\alpha = .87$ for emotional deprivation (Doğan et al., 2009). The current research reliability analysis was detected as $\alpha = .89$ for social friendship and $\alpha = .92$ for emotional deprivation (see Table 1).

Burnout Measure (BM): BM was developed by Pines and Aronson (1988). Its Turkish adaptation, validity, and reliability studies were carried out by Çapri (2006). BM is a three-dimensional (emotional, mental, and physical exhaustion) and 21-item measurement tool. In the exploratory factor analysis conducted by Çapri (2006) for construct validity, it was observed that the total explained variance of the BM was found to be 53.96%. In addition, the Cronbach Alpha reliability analysis of BM was detected as $\alpha = 0.93$ by Çapri (2006). The Cronbach Alpha values calculated in the current research were determined as ($\alpha = .93$ for emotional exhaustion, $\alpha = .88$ for mental exhaustion, and $\alpha = .89$ for physical exhaustion) (see Table 1).

Job Satisfaction Scale (JSS): JSS was developed by Hackman and Oldham (1975). Validity and reliability analysis of JSS were performed by Koca and Özçifçi (2015). JSS is a data collection tool with 14 items and two dimensions (material satisfaction and professional satisfaction). In the exploratory factor analysis calculated for the construct validity of the JSS, the total explained variance in one sample was 67.22%; in another example, it was found to be 63.13% (Koca & Özçifçi, 2015). In addition, in the reliability analysis conducted by Koca and Özçifçi (2015), Cronbach Alpha = 0.87 of all JSS in a sample; another sampling was calculated as $\alpha = 0.90$. The reliability analysis of the current research showed that ($\alpha = .89$ for professional satisfaction and $\alpha = .84$ for material satisfaction) (see Table 1).

Data Analysis

In this research, preliminary analyses were carried out first. In this context, normality assumptions were evaluated according to kurtosis and skewness values (Tabachnick & Fidell, 2007). For the other preliminary analysis, multicollinearity, VIF, tolerance values, and Pearson Product Moment Correlation Coefficient were considered (Kline, 2015). As a result, the assumptions of the preliminary analysis were met (see Table 1 and 2). Then, the data were analyzed using a two-stage structural equation modeling technique (Anderson & Gerbing, 1988). In addition, the validity of both measurement and structural models was evaluated according to standardized path coefficients, standardized factor loads, t values, and some fit indices [χ^2/df , AGFI, GFI, NFI, CFI, RMSEA, RFI, IFI, and TLI]. The interpretation of these fit indices is explained in Table 3 (Bentler & Bonnet, 1980; Marsh et al., 2006; Schermelleh-Engel et al., 2003). Also, the significance of the mediation effects of loneliness at work and burnout variables was tested with bootstrap analysis by making 1000 resamples (Hayes, 2017). Mediation effects are considered significant when the lower and upper bound intervals do not contain zero (Shrout & Bolger, 2002) (see Table 4). Finally, Maximum Likelihood was used as the estimation method in this research.

FINDINGS

Preliminary Analysis

In the current research, normality and multicollinearity were evaluated for preliminary analysis. In this research, skewness values were between -1.13 and .93, while kurtosis values were between -.78 and 1.39 (see Table 1). Since these results were between -1.5 and +1.5 (Tabachnick & Fidell, 2007), the assumption of normality was confirmed in the current research.

The current research observed that the tolerance value varied between .61 and .94, and the VIF value varied between 1.05 and 1.73. Since the VIF value of these findings is less than five and the tolerance value is greater than .10 (Kline, 2015), it is seen that there is no multicollinearity problem in the current research. In support of this, since the Pearson Product Moment Correlation Coefficient between latent variables (see Table 2) is not .90 and above, it is understood that there is no multicollinearity problem.

Table 1
Descriptive statistics and measurement reliability

Observed Variables	Mean	Std. Deviation	Skewness	Kurtosis	α
AC	19.66	6.94	-.29	-.73	.95
CC	16.08	5.54	.05	-.70	.78
NC	16.44	5.36	.12	-.42	.77
CA1	26.98	3.39	-1.13	1.39	.90
CA2	19.76	4.21	-.59	.00	.88
CA3	21.98	3.25	-.96	.41	.87
CA4	11.24	2.94	-.33	-.68	.86
ED	19.08	8.44	.67	-.27	.92
SC	13.00	5.67	.86	.33	.89
PE	20.81	9.44	.65	-.14	.89
ME	19.08	8.49	.79	.16	.88
EE	19.69	10.90	.93	-.01	.93
MS	4.40	2.27	.50	-.78	.84
PS	43.25	9.83	-.36	-.14	.89

Note. NC: Normative Commitment; AC: Affective Commitment; CC: Continuance Commitment, CA1: Confidence; CA2: Curiosity; CA3: Control; CA4: Concern; SC: Social Companionship; ED: Emotional Deprivation; EE: Emotional Exhaustion; ME: Mental Exhaustion; PE: Physical Exhaustion; MS: Material Satisfaction; PS: Professional Satisfaction.

Table 2

Pearson product moment correlation coefficient between latent variables

Latent Variables	1	2	3	4	5
1. Organizational Commitment	1				
2. Career Adaptability	.100	1			
3. Loneliness at Work	-.347**	-.194**	1		
4. Burnout	-.233**	-.223**	.615**	1	
5. Job Satisfaction	.594**	.193**	-.570**	-.527**	1

Note. **p<.01

Testing Two-Stage Structural Equation Modeling*Testing the Measurement Model (Phase 1)*

When the measurement model is tested; fit indices [χ^2/df (164.402/64) = 2.56, AGFI= .85, GFI= .91, NFI= .93, CFI= .95, RMSEA= .07 90% CI (.064-.093), RFI= .90, IFI= .95 and TLI= .94] were found to be at an acceptable level. In addition, it was observed that the standardized factor loadings of the measurement model ranged between (.27 and 1.23), and all t values were significant (see Figure 2). All these results prove that the measurement model has been validated.

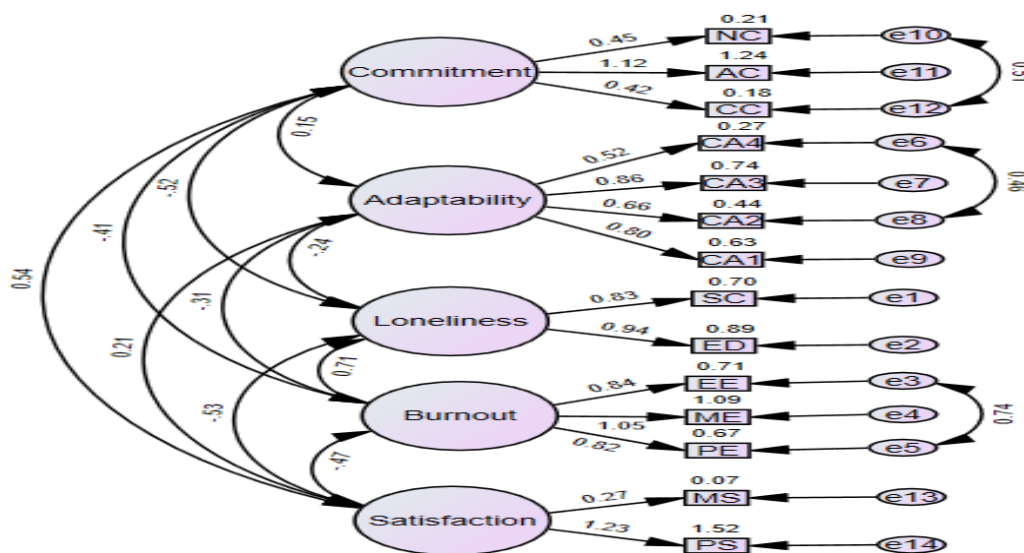


Figure 2

Standardized factor loads and R² of the measurement model

Note. ***p<.001; **p<.01; Commitment: Organizational Commitment; Adaptability: Career Adaptability; Loneliness: Loneliness at Work; Satisfaction: Job Satisfaction; NC: Normative Commitment; AC: Affective Commitment; CC: Continuance Commitment; CA1: Confidence; CA2: Curiosity; CA3: Control; CA4: Concern; SC: Social Companionship; ED: Emotional Deprivation; EE: Emotional Exhaustion; ME: Mental Exhaustion; PE: Physical Exhaustion; MS: Material Satisfaction; PS: Professional Satisfaction.

Testing Structural Models (Phase 2)*Results of the Hypothetical Structural Model*

The current research aimed to determine the cause-effect relationships between latent variables such as organizational commitment, career adaptability, loneliness at work, burnout, and job satisfaction.

Based on this aim, a two-stage structural equation modeling technique was used. It is seen that the measurement model, which is the first phase, is confirmed based on the above findings (see Figure 2). Therefore, the second phase has been passed. As a result of testing the hypothetical structural model, standardized path coefficients were obtained (see Figure 3).

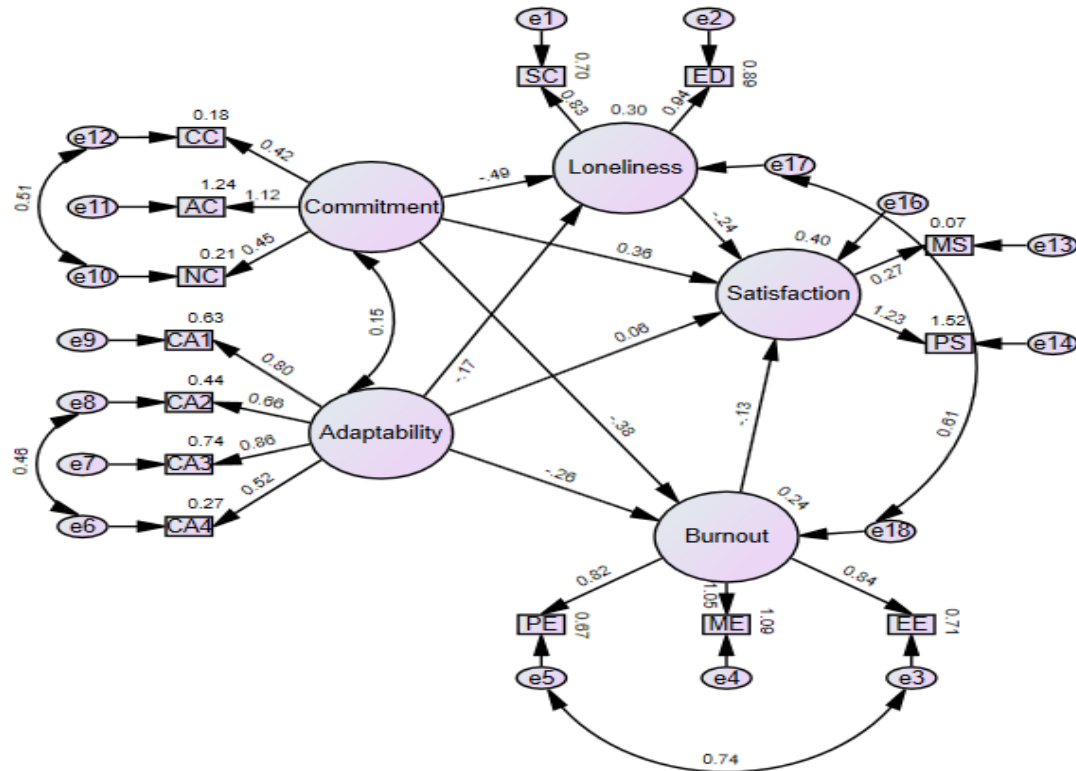


Figure 3

Standardized path coefficients and R^2 of the hypothetical structural model

Note. *** $p < .001$; ** $p < .01$; * $p < .05$; Commitment: Organizational Commitment; Adaptability: Career Adaptability; Loneliness: Loneliness at Work; Satisfaction: Job Satisfaction; NC: Normative Commitment; AC: Affective Commitment; CC: Continuance Commitment; CA1: Confidence; CA2: Curiosity; CA3: Control; CA4: Concern; SC: Social Companionship; ED: Emotional Deprivation; EE: Emotional Exhaustion; ME: Mental Exhaustion; PE: Physical Exhaustion; MS: Material Satisfaction; PS: Professional Satisfaction.

Results of the Final Structural Model

The hypothetical structural model results found that a path (Career Adaptability \rightarrow Job Satisfaction) was not statistically significant. At this point, a non-significant path was excluded from the analysis. The analysis was repeated. As a result of the final structural model analysis, it was observed that fit indices (see Table 3) and standardized path coefficients (see Figure 4) were consistent with the data.

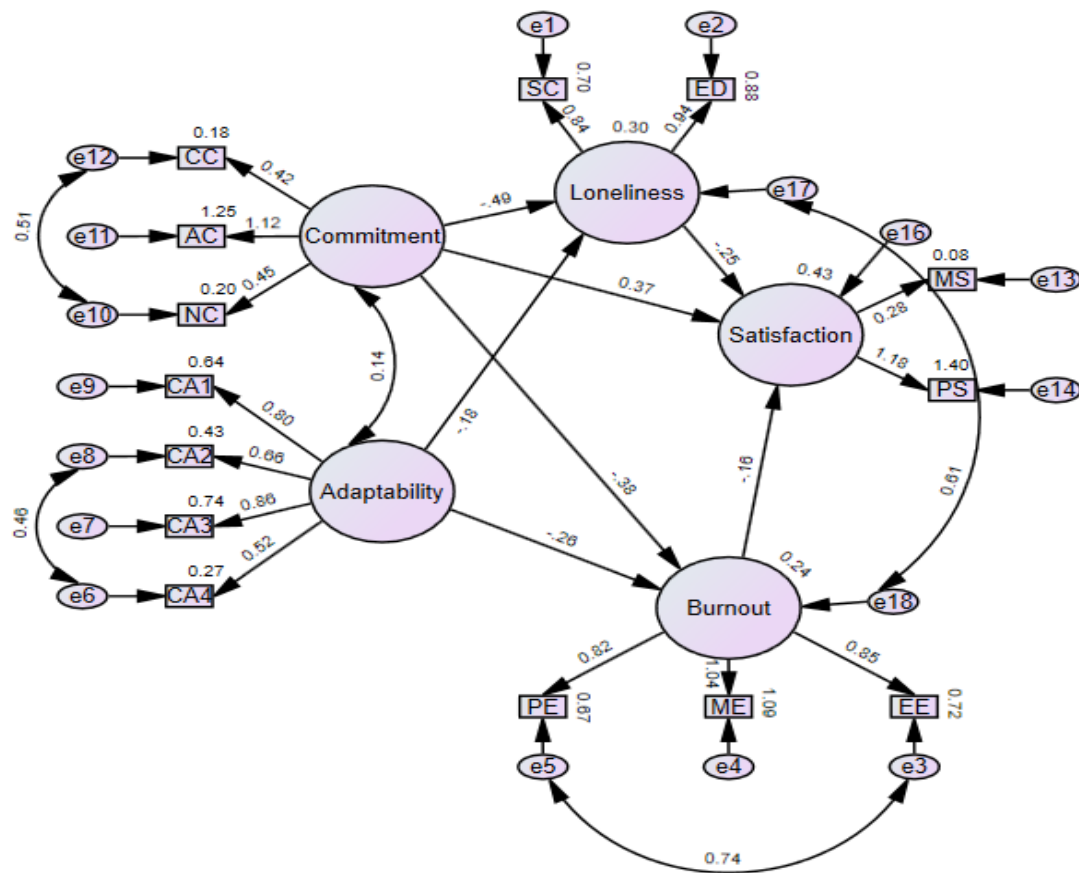


Figure 4

Standardized path coefficients and R^2 of the final structural model

Note. *** $p < .001$; ** $p < .01$; * $p < .05$; Commitment: Organizational Commitment; Adaptability: Career Adaptability; Loneliness: Loneliness at Work; Satisfaction: Job Satisfaction; NC: Normative Commitment; AC: Affective Commitment; CC: Continuance Commitment; CA1: Confidence; CA2: Curiosity; CA3: Control; CA4: Concern; SC: Social Companionship; ED: Emotional Deprivation; EE: Emotional Exhaustion; ME: Mental Exhaustion; PE: Physical Exhaustion; MS: Material Satisfaction; PS: Professional Satisfaction.

According to Figure 4, a one-unit increase in Organizational Commitment was related to a 0.49 ($t = -6.381$; $p < .001$) unit decrease in Loneliness at Work and a 0.38 ($t = -5.736$; $p < .001$) unit decrease in Burnout. A one-unit increase in Career Adaptability was related to a 0.18 ($t = -2.840$; $p < .01$) unit decrease in Loneliness at Work and a 0.26 ($t = -4.027$; $p < .001$) unit decrease in Burnout. A one-unit increase in Organizational Commitment was related to a 0.37 ($t = 2.854$; $p < .01$) unit increase in job satisfaction. A one-unit increase in Loneliness at Work was related to a 0.25 ($t = -2.520$; $p < .05$) unit decrease in job satisfaction. Finally, A one-unit increase in burnout was related to a 0.16 ($t = -2.330$; $p < .05$) unit decrease in job satisfaction. When the explained variances (R^2) were examined, Organizational Commitment and Career Adaptability accounted for approximately 30% of Loneliness at Work and 24% of Burnout. Organizational Commitment, Loneliness at Work, and Burnout together explained approximately 43% of the variations in Job Satisfaction.

Table 3
Fit Indices of the final structural model

Fit Indices	Fit Measures	Results of the Final Model	Remark
¹ χ^2/df	$2 \leq \chi^2/df \leq 3$	2.57	Acceptable fit
¹ AGFI	$85 \leq AGFI \leq .90$	.85	Acceptable fit
¹ GFI	$.90 \leq GFI \leq .95$	.90	Acceptable fit
¹ NFI	$.90 \leq NFI \leq .95$	.93	Acceptable fit
¹ CFI	$.95 \leq CFI \leq .97$	.95	Acceptable fit
¹ RMSEA	$.05 \leq RMSEA \leq .08$	.07	Acceptable fit
² RFI	$.90 \leq RFI \leq .95$	.90	Acceptable fit
² IFI	$.90 \leq IFI \leq .95$	.95	Acceptable fit
³ TLI	$.90 \leq TLI \leq .95$	.94	Acceptable fit

Source: (¹Schermelleh-Engel et al., 2003; ²Bentler & Bonnet, 1980; ³Marsh et al., 2006).

Bootstrapping Analysis (Significance of Loneliness at Work and Burnout mediating effects)

In the current research, firstly, it was tested whether the mediating effects of loneliness at work and burnout were significant in the relationship between organizational commitment and job satisfaction. Secondly, it was evaluated whether the mediation effects of loneliness at work and burnout were significant in the relationship between career adaptability and job satisfaction. For this, bootstrapping analysis was performed by making 1000 resamples and determining the lower-upper bound confidence intervals (see Table 4).

Table 4
Bootstrapping analysis of the final structural model

Predictor variable	Mediator variables	Predicted variable	(β)	SE	Estimate (95% CI)	p
Organizational Commitment	Loneliness at Work and Burnout	Job Satisfaction	.185	.036	[.126, .277]	.000
Career Adaptability	Loneliness at Work and Burnout	Job Satisfaction	.086	.032	[.034, .162]	.001

Note. * $p < .05$, SE: Standard Error.

According to Table 4, the indirect effect of organizational commitment on job satisfaction was found to be significant [$(\beta) = .185$, Estimate (95% CI= .126, .277), $p < .05$]. In addition, the indirect effect of career adaptability on job satisfaction was detected to be significant [$(\beta) = .086$, Estimate (95% CI= .034, .162), $p < .05$]. Based on all these, firstly, it has been proven that the mediation effects of loneliness at work and burnout are significant in the relationship between organizational commitment and job satisfaction. Finally, it was confirmed that the mediation effects of loneliness at work and burnout were substantial in the relationship between career adaptability and job satisfaction.

Table 5
Evaluation of final structural model

	Model pathways	Standardized Coefficients	p	Effect Size	Remark
<i>Direct effect</i>					
H ¹	Commitment → Loneliness	-0.49	.000	Medium	Supported
H ²	Adaptability → Loneliness	-0.18	.005	Medium	Supported
H ³	Commitment → Burnout	-0.38	.000	Medium	Supported
H ⁴	Adaptability → Burnout	-0.26	.000	Medium	Supported
H ⁵	Commitment → Satisfaction	0.37	.004	Medium	Supported
H ⁶	Adaptability → Satisfaction	0.06	.146	Low	Unsupported
H ⁷	Loneliness → Satisfaction	-0.25	.012	Medium	Supported
H ⁸	Burnout → Satisfaction	-0.16	.020	Medium	Supported
<i>Indirect Effect</i>					
H ⁹	Commitment → Loneliness and Burnout → Satisfaction	0.18	.000	Medium	Supported
H ¹⁰	Adaptability → Loneliness and Burnout → Satisfaction	0.08	.001	Low	Supported
<i>Total Effect</i>					
	Commitment → Satisfaction	0.55		High	-
	Adaptability → Satisfaction	0.14		Medium	-

Note. ***p<.001; **p<.01; *p<.05; Commitment: Organizational Commitment; Adaptability: Career Adaptability; Loneliness: Loneliness at Work; Satisfaction: Job Satisfaction; Path coefficients effect size as low below .10, medium below .30, and high above .50 (Kline, 2015).

DISCUSSION

The final structural job satisfaction model was obtained in the current research based on fit indices, standardized path coefficients, factor loadings, *t* values, and bootstrap findings. Studies that established the binary relationships between variables supported this final structural model (studies addressing the relationship between organizational commitment and job satisfaction (Amin, 2022; Azeem, 2014; Loan, 2020), studies evaluating the relationships between career adaptability and job satisfaction (Fiori et al., 2015; Han & Rojewski, 2015; Kulbaş & Kara, 2021; Zacher & Griffin, 2015), studies examining the relationships between loneliness and job satisfaction at work (Krug et al., 2021; Tabancalı, 2016; Yener & Schermer, 2020) studies exploring the connections between burnout and job satisfaction (Ali & Ali, 2014; Gharakhani & Zaferanchi, 2019; Tourigny et al., 2010), studies examining the relationships between organizational commitment and loneliness at work (Stoica & Brate, 2019; Wahyuni & Muaf, 2021), studies addressing the relationships between organizational commitment and burnout (Allen & Meyer, 1990; Chuo, 2003; Tan & Akhtar, 1998), studies evaluating the relationships between career adaptability and loneliness at work (Eryılmaz & Kara, 2021; Fiori et al., 2015; Maggori et al., 2013), studies conducted on the relationships between career adaptability and burnout (Doğanülkü & Kırdök, 2021; Zhao et al., 2023). However, since there is no structural model research in the literature that includes variables such as organizational commitment, career adaptability, burnout, loneliness at work, and job satisfaction, it can be asserted that the current research has indeed responded to a significant need.

The current research concluded that the mediating roles of loneliness at work and burnout in the relationship between career adaptability, organizational commitment, and job satisfaction were significant. Findings of these mediation effects can be explained by the dual-factor theory developed

by Herzberg et al. (1959). In the dual-factor theory, the factors that will motivate and uplift the employees at work are seen as the factors that increase their job satisfaction (Herzberg, 1968). In the current research, career adaptability and organizational commitment can be considered satisfying factors for employees. Also, according to the dual-factor theory developed by Herzberg et al. (1959), the lack of some factors related to the work environment and the environment makes employees unhappy and reduces their job satisfaction. According to this research, loneliness and burnout variables at work can be deemed as factors that cause dissatisfaction. As a consequence, the findings of the mediating effects in the current research are confirmed by the dual-factor theory. The current research has been enlightening and a step forward for the literature by holistically and empirically testing the factors that increase job satisfaction (career adaptability, organizational commitment) and the factors that decrease job satisfaction (burnout and loneliness at work). As a result, Figure 5 summarizes the relationships between the dual-factor theory and the current research findings.

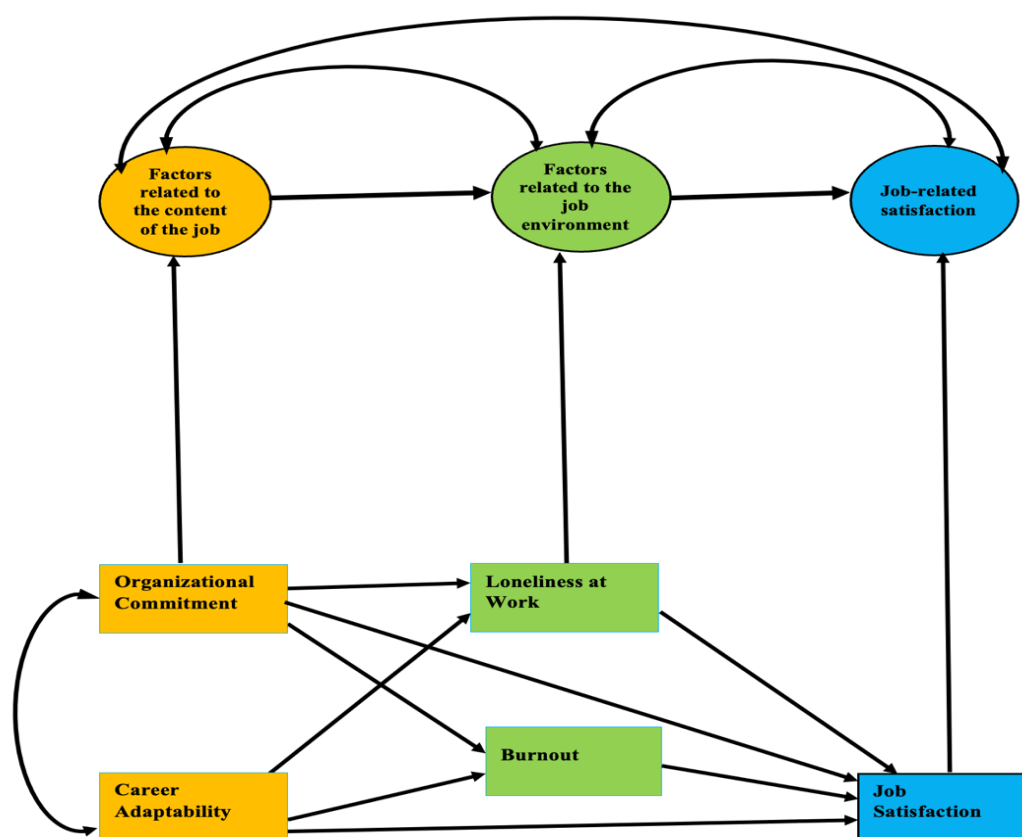


Figure 5
Summarizing results in terms of the dual-factor theory

CONCLUSION AND SUGGESTIONS

This research aims to examine the mediating roles of loneliness at work and burnout in the relationship between career adaptability, organizational commitment, and job satisfaction. According to the research findings, it has been verified that the mediation effects of loneliness at work and burnout are significant in the relationship between career adaptability, organizational commitment and

job satisfaction among Turkish teachers. In conclusion the research findings were proved by the Dual-Factor Theory.

Based on the findings of the current research, practical and research-oriented suggestions can be made. There are experimental studies in the literature on increasing career adaptability in Turkey (Eryılmaz & Kara, 2020a; Eryılmaz & Kara, 2020b). However, experimental studies to increase job satisfaction are limited. In future studies, the model's dimensions obtained in this research can be used as content in experimental studies to increase job satisfaction. In addition, career counselors can be guided by the model obtained in the current research while counseling employees with low job satisfaction. On the other hand, in the current research, dual-factor theory was empirically tested based on cross-sectional and instantaneous data. In future studies, dual-factor theory can be tested with a longitudinal analysis based on time interval measurements. Also, qualitative research with a phenomenological design could be developed to explore the experiences and perceptions of teachers with high job satisfaction in the future. The current study is limited to special education teachers and psychological counselors. Similar studies can be conducted on employees in different teaching or professional groups.

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