

The Effect of Preschool Teachers' Emotion Regulation Skills and Levels of Cognitive Flexibility on Classroom Management

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Abstract

The aim of this study is to examine the effects of emotion regulation skills and cognitive flexibility levels on preschool teachers' choice of classroom management strategies. 211 preschool teachers participate in the research, which uses the relational survey model, one of the quantitative research methods. Emotion Regulation Difficulty Scale, Cognitive Flexibility Inventory, Classroom Management Strategies Scale are used in the research. As a result of the research, it is determined that preschool teachers' emotion regulation and cognitive flexibility levels are high and that they can control their emotions better when their professional experience increases and that the cognitive flexibility of experienced ones who are new to the profession is better. In addition, it is seen that preventive and problem-oriented strategies are at a high level in classroom management and that their supportive strategies are at a moderate level. In addition, it is determined that awareness levels from emotion regulation difficulties and control levels from cognitive flexibility are effective on supportive and problem-oriented classroom management strategies, but not on preventive strategies.

Keywords: Preschool, classroom management, cognitive flexibility, emotion regulation.

Okul Öncesi Öğretmenlerinin Duygu Düzenleme Becerileri ile Bilişsel Esneklik Düzeylerinin Sınıf Yönetimine Etkisi

Öz

Bu araştırmanın amacı, okul öncesi öğretmenlerinin sınıf yönetimi stratejileri tercihlerinde duygu düzenleme becerileri ile bilişsel esneklik düzeylerinin etkisini incelemektir. Nicel araştırma yöntemlerinden ilişkisel tarama modeli kullanılan araştırmaya 211 okul öncesi öğretmeni katılmıştır. Araştırmada Duygu Düzenleme Güçlüğü Ölçeği, Bilişsel Esneklik Envanteri ve Sınıf Yönetimi Stratejileri Ölçeği kullanılmıştır. Araştırma sonucunda, okul öncesi öğretmenlerinin duygu düzenleme ve bilişsel esneklik düzeylerinin yüksek olduğu, mesleki tecrübeleri arttıkça duygularını daha iyi kontrol edebildikleri, mesleğe yeni başlayanların ise bilişsel esnekliklerinin daha iyi olduğu belirlenmiştir. Ayrıca sınıf yönetimde önleyici ve soruna yönelik stratejileri yüksek düzeyde, destekleyici stratejileri ise orta düzeyde kullandıkları ve duygu düzenleme güçlüklerinden farkındalık düzeyleri ile bilişsel esnekliklerinden kontrol düzeylerinin destekleyici ve soruna yönelik sınıf yönetimi stratejileri üzerinde etkili olduğu, ancak önleyici stratejiler üzerinde etkili olmadığı tespit edilmiştir.

Anahtar kelimeler: Okul öncesi, sınıf yönetimi, bilişsel esneklik, duygu düzenleme.

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INTRODUCTION

Classroom management is the process of the teacher taking account of the individualistic differences and the nature of the classroom interactions of the children by making them feel trust and belonging providing appropriate educational environments for learning and providing motivation (Tal, 2010). In a classroom consisting of well-motivated students, learning-teaching activities are more effective, problem behaviours that can be seen in the classroom are reduced, classroom management is easier and student participation is expected to be at a higher level (Özkan, 2005). Children are more successful in transference the knowledge and ability they have gained in these classes to live, adapting to social environments, and their relationships with family and peer groups (Akgün et al., 2011). In classrooms with a high level of classroom management skills and, as an outcome of it, a positive classroom climate, it is indicated that children's academic skills example language, mathematics, literacy and social skills such as self-regulation are enabled and that academic success increases (Burchinal et al., 2010; Downer et al., 2007; Mashburn, et al., 2008), and that the incidence of problem behaviour is reduced or even prevented (Flores & Jacoby, 2017; Marzano & Marzano, 2003; Norris, 2003; Pianta & Hamre, 2009; Snyder et al., 2011). In other words, it is stressed that problem behaviours and teacher burnout (Evers et al., 2004; Flores & Jacoby, 2017) and a decrease in academic achievement (Allyon & Roberts, 1974; Frick et al., 1991) are commonly observed in a classroom with inadequate classroom management skills. Goals such as maintaining uninterrupted education, ensuring effective instructor-child interaction, and achieving the goals of children's compliance with the rules and self-regulation process increase the importance of teachers and classroom management especially in pre-school classes (Zembar & İlçi Küsmüs, 2020).

A warm, affectionate relationship between the instructor and the child and effective classroom management, in which consistent and stable classroom rules are applied, affects the teacher's emotion regulation skills (Buettner et al., 2016). Preschool teachers are faced with many situations in which they may show signs of emotion regulation difficulties while applying their daily routines: Such as heavy workloads, behavioural problems of students (Friedman-Krauss et al., 2014; Zhai et al., 2011), working for low wages (Hall -Kenyon et al., 2014), parent-teacher, teacher-manager relationship (Rentzou, 2012). These difficulties reason to feel preschool teachers to intense stress, difficulty in communicating effectively with children and teachers' emotional difficulties and even depression (Curbow et al., 2000). It is emphasized that preschool teachers with emotion regulation difficulties and depressive indications at negative classroom climate and classroom management which have ineffective teacher-child interaction in such a classroom atmosphere are inevitable (Gerber et al., 2007; Hamre & Pianta, 2004; Jeon et al., 2014; Whitaker et al., 2015). Because preschool teachers who have difficulty in emotion regulation have difficulty in establishing effective teacher-child interaction and managing behavioural problems and at the same time they show signs of professional burnout (Buettner et al., 2016). Difficulty in sensation regulation and intense stress strain the personal resources of preschool teachers, negatively affect their functional skills and daily routines (Montgomery & Rupp, 2005), their capacity to tolerate children decreases, and they encounter more problems in classroom management regarding students' behaviours (Chang, 2009). Studies have emphasized that emotionally indecisive and stressed primary school teachers show less tolerance to challenging behaviours (Kokkinos et al., 2005), similarly preschool teachers become more desensitized by displaying fewer sensitive behaviours in their interactivities with kids, and kids exhibit more negative sensations and display aggressive behaviours (Buettner et al., 2016; de Schipper et al., 2009; Rentzou, 2012). As a result, preschool teachers, who have difficulty in emotional regulation and work stress, will reflect their emotional dilemma to the classroom environment and prepare an environment for children to have low participation and social-emotional inadequacy and decrease academic achievement (Ota et al., 2012; Siekkinen et al., 2013; Sutton et al., 2009). What is expected from a teacher who has coped with emotion regulation difficulties is to make learning environments more enjoyable by reflecting and expressing positive sensations rather than negative sensations in the classroom surroundings, contributing to the child's development of a positive attitude towards school (Turner et al., 2003).

However, teachers need to have the ability to find immediate solutions to successive daily problems, to be able to rapidly attention and reaction to changes in students and the classroom environment. Preschool teachers who have such coping skills can prevent the problems from growing (Oishi et al., 2018). Therefore, teachers need to respond to the needs of each student (Yaşar-Ekici & Balcı, 2019), adapt to different and unusual situations and develop alternative perspectives towards these situations (Çuhadaroğlu, 2013) and contribute to the academic success of students (Çelikkaleli, 2014). Cognitive flexibility, which is defined as the ability to switch between thoughts and find alternative solutions to problems (Crone et al., 2004, Dennis & Wander Wal, 2009), as organising meaningfully related situations by reformatting them, as transferring attention away from a single source to another

source (Stahl & Pry, 2005), as the ability to adapt thoughts and behaviours (Barbey et al., 2013), as gaining competence to adapt to multiple options by recognising options before deciding on behaviour (Bilgin, 2009), allows us to choose a different strategy by abandoning an unhelpful cognitive strategy when faced with a problem (Scott, 1962). Individuals with an advanced level of cognitive flexibility can be described as focusing their attention fully on a subject, thinking analytically, flexible in adapting to change (Schouten et al., 2000), are responsible, and have high self-confidence (Martin & Rubin, 1994; Martin & Anderson, 1998), can show excessive tolerance to conflicts (Chung et al., 2012).

Based on this information, it is thought that emotion regulation and cognitive flexibility skills may be effective on preschool teachers' classroom management skills. However, in previous research generally, it is seen that there are research related between teachers' classroom management skills and gender (Kaplan, 2018; Yeşilyurt & Çankaya, 2008; Zembat et al., 2017) and working year (Dinçer & Akgün, 2015; Yıldırım, 2016; YaşarEkici et al., 2017; Zembat & İlçi Küsmüş, 2020), teacher's age (Dinçer & Akgün, 2015; Yıldırım, 2016; Metin et al., 2017; Zembat & İlçi Küsmüş, 2020), education level (Ata & Akman, 2016; Zembat & İlçi Küsmüş, 2020), self-efficacy perceptions (Demir, 2015; Demir & Şahin Ası, 2018) and burnout levels (Adıgüzel, 2016). No research has been found examining the effect of teachers' emotion regulation skills and cognitive flexibility levels. Therefore, the purpose of this study is to examine the effects of emotion regulation skills and cognitive flexibility levels on preschool teachers' choice of classroom management strategies. For this aim, answers to the following questions were sought.

1. What is the relationship between preschool teachers' difficulties in emotion regulation, cognitive flexibility and classroom management strategies?
2. Do preschool teachers' emotion regulation difficulties, cognitive flexibility, and classroom management strategies differ according to gender, educational status, age and professional seniority?
3. Is there a significant relationship between preschool teachers' emotion regulation difficulties, cognitive flexibility, and classroom management strategies?

Do preschool teachers' emotional regulation difficulties and cognitive flexibility determine their classroom management strategies?

METHOD

In the following section, the methodology of the present study is systematically delineated, aligning with the recognized three stages of scale development, encompassing eight steps as outlined by DeVellis (2012). These stages include design, development, and evaluation, each contributing to the comprehensive description of the study group, the nuanced development process of the FES scale, data collection instruments, and rigorous data analysis techniques. The process adheres to the principles and stages that DeVellis (2012) has detailed, emphasizing conceptual clarity, psychometric validation, and empirical justification. The step-by-step articulation of these phases ensures transparency and replicability, underscoring the study's contribution to the research on feedback experiences within the educational setting.

FINDINGS

Research Model

The relational survey model, a quantitative research technique, is used in this study to analyse the relationship between the variables. The relational screening model is a model that seeks to ascertain the direction and magnitude of change in two or more variables (Karasar, 2012). It is regarded reasonable to carry out a relational study to look at how preschool teachers' struggles with emotion control and their cognitive flexibility affect their use of classroom management techniques.

Research Ethics

Informed consent was received from each participant, and the university (19/01/2022-29/17) granted ethics approval for the current study. The participants were told the goals of the study, the steps that would be taken to carry it out, and how long it would take. They were also told that participation in the study was entirely voluntary. Without incurring any consequences, they had the right to revoke their consent and stop taking part at any moment. The teachers who freely took part in the study were labelled as K1, K2.

Population and Sample

Preschool teachers employed by Turkish pre-school educational institutions constitute the population of this study. The sample for the study is chosen using an easily accessible sampling approach that saves the researcher time, money, and labour (Büyükoztürk et al., 2016). The population in this study is formed using the idea of sample accessibility. Preschool teachers employed by the pre-school education institution were contacted during the fall semester of the 2021–2022 academic year by WhatsApp and phone. Teachers who agreed to participate in the study willingly filled out a Google form used for data collection. Table 1 lists the demographics of the preschool teachers who took part in the study.

Table 1. Demographic Information Regarding Pre-school Teachers Who Have Participated in the Research

Variables		n	%
Gender	Female	198	93,8
	Male	13	6,2
Educational Attainment	Undergraduate	187	88,6
	Post-graduate	24	11,4
Age	22 – 32	38	18
	33 – 38	43	20,4
	39 – 44	71	33,6
	45 and over	59	28
	1-10 years	72	34,1
Professional Seniority	11-20 years	124	58,8
	20 years and over	15	7,1

According to Table 1, 93,8% of the pre-school teachers participating in the research are female and 6,2% are male. 88,6% of the participants have undergraduate education, 11,4% have graduate education and 18% are 22-32; 20,4% 33-38; 33,6% were 39-44; 28% of them are in the age group of 45-over. In addition, 34,1% of teachers are 1-10; 58,8% of them have a working period of 11-20 and 7,1% have a working time of 26 years or more.

Data Collection Tools

In this study, “Personal Information Form, Emotion Regulation Difficulty Scale, Cognitive Flexibility Inventory, and Classroom Management Strategies Scale” were used as data collection tools.

Personal Information Form (PIF): The KBF form showing the gender, age, educational status, and professional seniority of the preschool teachers in the study group was prepared by the researchers.

Emotion Regulatory Difficulty Scale (ERDS): In 2010, Rugancı and Gençöz translated the ERDS, which was created by Graetz and Roemer (2004). The ERDS uses a 5-point Likert Type scale with a total of 36 items and 6 sub-dimensions (1: almost never, 2: rarely, 3: sometimes, 4: often, 5: almost always). A minimum of 36 and a maximum of 180 points can be earned in the original scale. It demonstrates that the difficulty in emotion regulation grows along with the scale score. Rugancı and Gençöz (2010) did confirmatory factor analysis first to look at the factor structure of the scale in the study of adaptation to Turkish, but they were not included in the Turkish version of the scale because the tenth item in the scale had a low load value and decreased the internal consistency coefficient (0,06). Since it did not demonstrate enough association with the scale, 35 items were analysed. The internal consistency coefficient (Cronbach's Alpha) for the Turkish version of the ERDS ranged between 0,75 and 0,90 for its sub-dimensions and was 0,94 for the entire scale. Additionally, the test-retest reliability coefficient was calculated to be 0,83 in the entire scale and between 0,60 and 0,85 in its sub-dimensions (Rugancı & Gençöz, 2010).

Cognitive Flexibility Inventory (CFI): CFI created by Dennis and Vander Wal (2010), measures a person's capacity to generate alternative, harmonious, appropriate, and balanced thinking in challenging circumstances. The scale, which has 20 items, has two subscales. The alternatives subscale's Cronbach's alpha value in its original version was 0,91 for both the first and last measurements. The Cronbach's alpha values of the control subscale were 0,86 in the first measurement and 0,84 in the final measurement. In the adaptation study of Gülüm and Dağ (2012), a similar two-factor structure was attained. The factor analysis led to the identification of two sub-dimensions; the "alternative (1, 3, 5, 6, 8, 10, 12, 13, 14, 16, 18, 19, 20)" and the "control (2, 4, 7, 9, 11, 15, 17)". The "Alternatives" sub-dimension consists of statements that the individual can come up with other solutions to challenging situations or that there may be alternative explanations for real-world issues and human behaviour. The 'control' sub-dimension consists of statements about the ability to control challenging situations. For instance, “I consider many options before making a decision.” is an item that can be found in the alternative dimension of

the scale, and “I have difficulty in making decisions when faced with difficult situations.” can be seen in the control dimension. While the Control subscale (7 questions) had a Cronbach's alpha value of 0,85 and an explained variance of 13,27%, the Alternatives subscale (13 items) had a Cronbach's alpha value of 0,89 and a variance of 36,57%. Despite the fact that Cronbach's alpha value for the entire scale is .90, the total percentage of variance that the entire scale can explain is 49,8%. The inventory has a range of scores, with 20 being the lowest and 100 being the most. Reverse coding is used for the scale's items 2, 4, 7, 9, 11, and 17.

Classroom Management Strategies Scale (CMSS): The “classroom management strategies scale” developed by Büyüktaşkapu-Soydan, Durmuşoğlu-Saltalı, and Öztürk-Samur (2022) was used. The relevant scale consists of three sub-dimensions, 13 sub-dimensions that are related to these three sub-dimensions, and 89 items. Within the first sub-dimension of the scale, the "preventive strategies scale", seven sub-dimensions are program and routines (questions 1 to 11), transitions between activities (questions 12 to 16), organizing the classroom environment (questions 17 to 21), encouraging participation in activities (questions 22 to 27), teaching behaviour expectations (questions 28 to 34), supportive dialogues (questions 35 to 41) and giving direction (questions 42 to 48) and 48 items. Six sub-dimensions within the second sub-dimension "supportive strategies scale" are social skills and emotional competence (questions 49 to 54), understanding and expressing emotions (questions 55 to 60), problem solving (questions 61 to 66), friendship skills (questions 67 to 73, supporting children with persistent problem behaviours (questions 74 to 76) and family education and participation (questions 77 to 83) and 35 items. There are 6 items (between the 84th and 89th questions) in the "problem-oriented strategies scale" dimension, which is the third sub-dimension. The scale includes a five-point Likert-type evaluation ranging from strongly disagree (1) to strongly agree (5). The variance explained according to the exploratory factor analysis was 72.62%. The Cronbach Alpha reliability coefficient for the reliability of the scale was found as $\alpha=0,98$. As a result of confirmatory factor analysis, acceptable fit values were reached with $\chi^2= 11272,586$, RMSEA=0,059, SRMR=0,069, CFI=0,843 and TLI=0,837.

Data Analyses

Before analysing the data collected for this research, it was examined whether there was missing data and it was concluded that there was no missing data. Outliers were examined by looking at the total, standard Z scores and box plots for predictor and predicted variables. 24 data with a Z score greater than +3 and less than -3 were determined and were not included in the analysis because they were seen as extreme values. In addition, the kurtosis and skewness coefficients were examined for the normal distribution of the data and it was determined that the data showed a normal distribution. By subtracting 24 data from 235 data, analyses related to the research questions were made using 211 data.

FINDINGS

In this section, the results of the analysis of the data obtained regarding the research questions are given respectively. In the first sub-problem of the study, the descriptive statistics results of the answers given by the pre-school teachers to the question “What is the level of emotion regulation difficulties, cognitive flexibility and classroom management strategies of preschool teachers?” are given in Table 2.

Table 2. Descriptive Statistics Results on Pre-school Teachers' Emotion Regulation Difficulty, Cognitive Flexibility and Classroom Management Strategies

Scale	Scale and Dimensions	Number of Items	Score Interval	\bar{X}	Ss	Coefficient of Skewness
Scale for The Difficulty of Emotional Regulation (ERDS)	ERDS	35	35-175	64,68	16,59	0,829
	Explicitly	5	5-25	8,53	2,66	0,571
	Awareness	5	5-25	9,72	2,86	0,396
	Refusal	6	6-30	10,18	4,03	0,998
	Strategies	8	8-40	14,27	5,06	0,870
	İmpulse	6	6-30	10,24	3,49	0,833
Inventory of Cognitive Flexibility (CFI)	Objectives	5	5-25	11,72	3,87	0,531
	CFI	20	20-100	84,06	9,99	-0,608
	Control	7	7-35	27,70	4,64	-0,534
Scale for Classroom Management Strategies (CMSS)	Alternative	13	13-65	56,36	6,55	-0,587
	CMSS	89	89-445	395,73	31,61	-0,415
	Preventive	48	48-240	214	16,91	-0,261
	Supportive	35	35-175	151,50	13,89	-0,581
	Problem Oriented	6	6-30	27	2,78	-0,588

In Table 2, descriptive statistics regarding the independent variables of emotion regulation difficulty and cognitive flexibility and the dependent variable of classroom management strategies are given. While the average of the scores obtained from the CMSS, which includes the most items, is the highest ($\bar{x}=395,73$, $Ss=31,61$), and the average of the scores obtained from the 35-item ERDS is the lowest ($\bar{x}=64,68$, $Ss=16,59$). The average of the scores obtained from the CFI, which includes 20 items, is 84.06, and the standard deviation is 9,99. It is seen that the skewness and kurtosis values of all scales and sub-dimensions used in this study are between -1,5 and 1,5, and the assumption of normality is met (Tabachnick & Fidell, 2013).

In order to evaluate preschool teachers' levels of emotion regulation difficulties, cognitive flexibility and classroom management strategies, the lowest score they can get from the sub-dimensions of the scales was subtracted from the highest score and the result was divided into three and the low, medium and high levels of the participants were determined. In this respect, openness, awareness and goals, which have an equal number of items in the emotion regulation difficulty scale, are low 5-11,66; medium 11,67-18,33; high is 18,34-25 points. In addition, 6-14 low, 15-23 medium and 24-30 high score levels were determined in the sub-dimensions of rejection and impulse, which have the equal number of items of ERDS. In the strategies sub-dimension of ERDS, 8-18,66 was low; 18,67-29,33 medium; 29,34-40 is high. The score ranges in the control dimension of the cognitive flexibility inventory were 7-16,33 for the low level; 16,34-15,67 for intermediate level and 25,68-35 for high level. In the alternative dimension of CFI, 13-30,33 low, 30,34-47,67 moderate and 47,68-65 high level were determined. Finally, 48-112 low, 113-117 moderate, and 178-240 high levels in the preventive dimension of CMSS, while 35-81,6 low, 81,7-128,3 moderate and 128,4-176 high levels in the supportive dimension. The ranges calculated in the problem-oriented sub-dimension of the CMSS are 6-16 for low level, 15-23 for medium level and 24-30 for high level. According to the level ranges determined for the sub-dimensions of each scale used in this study, it was determined that the participants had low levels in the dimensions of openness, awareness, refusal, strategies and impulse of ERDS. It was also determined that it had a moderate level in the goals sub-dimension and a high level in all sub-dimensions of the cognitive flexibility inventory. It has been determined that CMSS uses preventive and problem-oriented strategies at a high level. In addition, in the sub-dimension of supportive strategies, it is seen that it is close to the middle level with an arithmetic mean of 151,50 and 13,8. Considering these values, it can be said that they use supportive strategies at a moderate level.

In the second sub-problem of the research, the question results of “Do preschool teachers' emotion regulation difficulties, cognitive flexibility and classroom management strategies differ according to gender, educational status, age and professional seniority?” based on LSD test are given in Table 3 for age and Table 4 for seniority.

Table 3. The Comparison of Pre-school Teachers' Total Scores and Sub-scores of ERDS, CFI and CMSS in Terms of Age

Scales	Age	n	\bar{X}	Ss	F	p	Significant Difference
ERDS	22-32	38	71,50	18,58	4,357	0,005	22-32/45 and over 33-38/45 and over
	33-38	43	71,25	13,43			
	39-44	71	65,63	18,07			
	45 and over	59	61,37	14,71			
Explicitly (EX)	22-32	38	9,36	3,19	3,734	0,012	22-32/39-44 22-32/45 and over 33-38/45 and over
	33-38	43	9,13	2,49			
	39-44	71	8,30	2,45			
	45 and over	59	7,81	2,45			
Awareness (AW)	22-32	38	10,18	3,14	5,170	0,002	33-38/22-32 33-38/45 and over 39-44/22-32 45 and over/22-32
	33-38	43	12,93	2,85			
	39-44	71	11,84	3,25			
	45 and over	59	11,54	3,27			
Refusal (RE)	22-32	38	10,97	4,38	1,182	0,318	
	33-38	43	10,48	3,79			
	39-44	71	10,15	4,33			
	45 and over	59	9,47	3,52			
Strategies (ST)	22-32	38	15,71	5,07	3,456	0,017	33-38/45 and over
	33-38	43	15,37	4,42			
	39-44	71	14,05	5,46			
	45 and over	59	12,83	4,64			
Impulse (IM)	22-32	38	11,21	4,02	3,592	0,015	22-32/45 and over 33-38/45 and over
	33-38	43	11,00	3,20			
	39-44	71	10,15	3,51			
	45 and over	59	9,18	3,04			
Objectives(OBJ)	22-32	38	14,05	4,22	8,148	0,000	22-32/33-38, 22-32/39-44 22-32/45 and over 33-38/39-44, 33-38/45 and over
	33-38	43	12,32	3,35			
	39-44	71	11,11	3,86			
	45 and over	59	10,52	3,31			
CFI	22-32	38	86,60	9,88	2,926	0,035	22-32/33-38 45 and over/33-38
	33-38	43	81,27	10,50			
	39-44	71	82,92	9,34			
	45 and over	59	85,83	9,98			
Control (CO)	22-32	38	58,44	6,48	4,214	0,006	22-32/33-38 22-32/45 and over
	33-38	43	53,74	7,18			
	39-44	71	56,04	6,11			
	45 and over	59	57,30	6,10			
Alternative (AL)	22-32	38	28,15	4,17	1,500	0,216	
	33-38	43	27,53	4,44			
	39-44	71	26,88	4,48			
	45 and over	59	28,52	5,15			
CMSS	22-32	38	397,65	26,66	1,287	0,280	
	33-38	43	387,76	33,29			
	39-44	71	399,43	33,79			
	45 and over	59	395,86	30,26			
Preventive (PR)	22-32	38	210,26	15,23	1,258	0,290	
	33-38	43	206,55	18,06			
	39-44	71	212,83	17,87			
	45 and over	59	211,11	15,73			
Supportive (SU)	22-32	38	160,31	11,72	0,772	0,511	
	33-38	43	156,09	14,59			
	39-44	71	159,46	14,31			
	45 and over	59	158,12	14,19			
Problem Oriented (PO)	22-32	38	27,07	2,47	6,364	0,000	22-32/33-38 39-44/33-38 45 and over /33-38
	33-38	43	25,11	2,71			
	39-44	71	27,14	2,86			
	45 and over	59	27,11	2,56			

When Table 3 is examined, it is seen that there is a statistically significant difference the ages of the pre-school teachers in all ERDS ($F_{(3,207)} = 4,357, p < 0,01$) and in all sub dimensions such as openness ($F_{(3,207)} = 3,734, p < 0,05$), awareness ($F_{(3,207)} = 5,170, p < 0,01$), strategies ($F_{(3,207)} = 3,456, p < 0,05$), impulse ($F_{(3,207)} = 3,592, p < 0,05$) and goals ($F_{(3,207)} = 8,148, p < 0,01$). In addition, statistically significant differences were found in all CFI ($F_{(3,207)} = 2,926, p < 0,05$) and total control sub dimension ($F_{(3,207)} = 4,214, p < 0,01$) and problem-oriented classroom management strategies ($F_{(3,207)} = 6,364, p < 0,01$) and the age groups of preschool teachers. However, it is not found that statistically significant differences between dependent variables such as preschool teachers' refusal to accept ($F_{(3,207)} = 1,182, p > 0,05$), CMSS ($F_{(3,207)} = 1,287, p > 0,05$), preventive ($F_{(3,207)} = 1,258, p > 0,05$), supportive ($F_{(3,207)} = 0,772, p > 0,05$), and problem-oriented ($F_{(3,207)} = 6,364, p < 0,01$).

($3,207$) = $0,772$, $p > 0,05$) according to their age. LSD test was performed to find out between which groups the differences between the age groups were. According to these test results, it is seen that the averages of the 22-32 age group ($\bar{x} = 71,50$) and 33-38 age group ($\bar{x} = 71,25$) are higher than those aged 45 and over ($\bar{x} = 61,37$) in ERDS. In the openness dimension, it was determined that the average of the participants between the ages of 22-32 was higher than those aged 39-44 and 45 years and older. In the awareness dimension, it is seen that the average of 33-38 age range is higher than 22-32 and 45 years old and above. It was also determined that the mean of the 39-44 age group was higher than the 22-32 age group and finally the 45 and older age group compared to the 22-32 age group. In the dimension of strategies, it can be stated that the average of 33-38 years old is higher than 45 years old and over. In the dimension of impulse, the average of 22-32 and 33-38 age range is higher than 45 years and over. In the objectives dimension, it was determined that the averages of individuals aged 22-32 were higher than those aged 33-38, 39-44 and 45 years and older. And finally, it can be stated that the averages of 33-38 are higher than those of 39-44 and 45 and above. Finally, it was determined that the age ranges of pre-school teachers in the whole of the CFI were 22-32 aged and 45 and above were higher than those of 33-38. In the control dimension, it is seen that the averages of 22-32 are higher than those aged 33-38 and 45 and over. In the problem-oriented dimension of classroom management strategies, the averages of 22-32 compared to 33-38, 39-44 compared to 33-38, and 45 years and older compared to 33-38 were determined to be higher.

Table 4. The Comparison of Pre-school Teachers' ERDS, CFI and CMSS Scores in Terms of Professional Seniority

	Seniority	n	\bar{X}	Ss	F	p	Significant Difference
ERDS	1-10 years	72	69,13	16,70	3,913	0,021	1-10/21years and over
	11-20 years	124	66,48	16,95			
	21 years and over	15	56,00	11,88			
Explicitly (EX)	1-10 years	72	8,88	2,76	5,723	0,004	1-10/21 years and over
	11-20 years	124	8,58	2,59			
	21 years and over	15	6,40	1,72			
Awareness (AW)	1-10 years	72	11,59	3,32	0,128	0,880	
	11-20 years	124	11,68	3,22			
	21 years and over	15	12,06	3,41			
Refusal (RE)	1-10 years	72	10,31	4,15	2,550	0,081	1-10/21 years and over
	11-20 years	124	10,37	4,02			
	21 years and over	15	7,93	2,78			
Strategies	1-10 years	72	15,01	4,74	3,888	0,022	1-10/21 years and over
	11-20 years	124	14,24	5,27			
	21 years and over	15	11,06	3,47			
Impulse (IM)	1-10 years	72	10,76	3,55	2,974	0,053	1-10/21 years and over
	11-20 years	124	10,16	3,47			
	21 years and over	15	8,40	2,69			
Objectives (OBJ)	1-10 years	72	12,55	3,88	3,339	0,037	1-10/11-20
	11-20 years	124	11,43	3,84			
	21 years and over	15	10,13	3,41			
CFI	1-10 years	72	85,29	9,57	1,218	0,298	
	11-20 years	124	83,16	10,04			
	21 years and over	15	85,60	11,45			
Control (CO)	1-10 years	72	57,00	6,22	0,852	0,428	
	11-20 years	124	55,87	6,68			
	21 years and over	15	57,33	7,07			
Alternative (AL)	1-10 years	72	28,29	4,20	1,163	0,315	
	11-20 years	124	27,29	4,79			
	21 years and over	15	28,26	5,31			
CMSS	1-10 years	72	392,52	30,11	0,893	0,411	
	11-20 years	124	396,65	33,17			
	21 years and over	15	403,66	24,61			
Preventive (PR)	1-10 years	72	208,62	16,37	1,086	0,340	
	11-20 years	124	211,23	17,69			
	21 years and over	15	215,00	11,72			
Supportive (SU)	1-10 years	72	157,65	13,12	0,435	0,648	
	11-20 years	124	158,76	14,54			
	21 years and over	15	161,20	12,28			
Problem Oriented (PO)	1-10 years	72	26,25	2,84	1,802	0,168	
	11-20 years	124	26,88	2,79			
	21 years and over	15	27,46	2,19			

As seen in Table 4, the professional seniority type of pre-school teachers is found a statistically significant difference is observed in all ERDS ($F_{(3,207)} = 3,913, p < 0,05$) and sub-dimension of openness ($F_{(3,207)} = 5,723, p < 0,05$), non-acceptance ($F_{(3,207)} = 2,550, p < 0,05$), strategies ($F_{(3,207)} = 3,888, p < 0,05$), impulses ($F_{(3,207)} = 2,974, p < 0,05$) and goals ($F_{(3,207)} = 3,339, p < 0,05$). It is seen that this difference is generally in favour of those with a professional seniority of 1-10 years. In terms of dependent variables CFI ($F_{(3,207)} = 1,218, p > 0,05$), control ($F_{(3,207)} = 0,852, p > 0,05$), patency ($F_{(3,207)} = 1,163, p > 0,05$), CMSS ($F_{(3,207)} = 0,893, p > 0,05$), preventive ($F_{(3,207)} = 1,086, p > 0,05$), supportive ($F_{(3,207)} = 0,435, p > 0,05$) and problem-oriented ($F_{(3,207)} = 1,802, p > 0,05$), no statistically significant differences were found between the professional seniority of teachers.

The correlation coefficient results for the question in the third sub-problem of the study “Is there a significant relationship between preschool teachers' emotion regulation difficulties, cognitive flexibility and classroom management strategies?” are given in Table 5.

Table 5. The Relations between Pre-school Teachers' ERDS and CFI and CMSS Scores

	SDER	EX	AW	RE	ST	IM	OBJ	CFI	CO
CMSS	-0,180**	-0,182**	-0,241**	-0,093	-0,132	-0,120	-0,092	0,236**	0,287**
Preventive	-0,169*	-0,176*	-0,200**	-0,071	-0,111	-0,110	-0,137	0,207**	0,250**
Supportive	-0,159*	-0,164*	-0,254**	-0,091	-0,130	-0,105	-0,031	0,241**	0,291**
Problem Oriented	-0,189**	-0,144*	-0,272**	-0,132	-0,152	-0,120	-0,067	0,234**	0,307**

* $p < 0,01$ ** $p < 0,05$

When Table 5 is examined, no statistically significant relationship was found between the sub-dimensions of rejection, strategy, impulse, and purpose of the preschool teachers' ERDS and the alternative sub-dimension of CFI, the whole of the CMSS, and the preventive, supportive, and problem-oriented sub-dimensions. Therefore, the dimensions of rejection, strategy, impulse and purpose of ERDS and the alternative sub-dimension of CFI were not included in the analysis. A moderate and high level of correlation was found between the whole ERDS and the openness and awareness sub-dimensions, the whole CFI and control sub-dimensions, and the whole CMSS and sub-dimensions.

The results of the analysis regarding the question of the fourth sub-problem of the study “Do preschool teachers' emotional regulation difficulties and cognitive flexibility determine their classroom management strategies?” are given in Table 6.

Table 6. The Effect of Pre-school Teachers' ERDS and CFI Scores to CMSS Scores

Variables	<i>Preventive</i> [$R=0,28; R^2=0,078$] $F(3;207)=5,848; p=0,001$		<i>Supportive</i> [$R=0,32; R^2=0,104$] $F(3;206)=7,982; p=0,00$		<i>Problem Oriented</i> [$R=0,33; R^2=0,114$] $F(3;207)=8,872; p=0,00$	
	β	t	β	t	β	t
<i>Explicitly</i>	-0,317	-0,645	-0,006	-0,015	0,036	0,452
	0,520	0,988	0,988	0,652	0,652	0,652
<i>Awareness</i>	-0,647	-1,520	-0,703	-2,040	-0,146	-2,130
	0,130	0,043	0,043	0,034	0,034	0,034
<i>Control</i>	0,416	1,964	0,427	2,483	0,098	2,868
	0,051	0,014	0,014	0,005	0,005	0,005

When Table 6 is examined, the openness and awareness dimension of the emotion regulation difficulties of preschool teachers and the control sub-dimension of cognitive flexibility were found to be significant as a whole of the classroom management strategies such as preventive ($F_{(3,207)} = 5,848, p < 0,05$), supportive ($F_{(3,206)} = 7,982, p < 0,05$), and the problem-oriented strategies ($F_{(3,207)} = 8,872, p < 0,05$) thanks to multiple regression model. Teachers' emotional regulation difficulties for openness and awareness, and their cognitive flexibility in control dimension, together with their preventive strategies, constitute 8% ($R^2=0,078$) of the total variance. This also explains 10% of the total variance for supportive strategies ($R^2=0,104$) and problem-oriented strategies for 11% ($R^2=0,114$) of total variance. According to the standardized regression coefficient (β), the relative importance of the independent variables on preventive, supportive and problem-oriented strategies is control, awareness and openness for each independent variable. When the t-test results regarding the significance of the regression coefficients are examined, it is seen that only awareness and cognitive flexibility, which are among the emotional

regulation difficulties of the teachers, are a significant influence on the supportive ($p < 0,05$) and problem-oriented ($p < 0,05$) strategies of the classroom management strategies. However, it can be said that preventive strategies ($p > 0,05$), which are among the classroom management strategies, are not affected by emotional regulation difficulties, openness and awareness, and cognitive flexibility by control variables.

DISCUSSION

It has been detected that early childhood teachers have low emotional regulation difficulties and high cognitive flexibility levels. Çuhadaroğlu (2013) determined that the cognitive flexibility levels of instructors and instructor candidates are high. Yaşar Ekici and Balcı (2019) found that their emotional reactivity levels decrease when the cognitive flexibility level of early childhood teacher candidates increases. These results coincide with the finding that while the cognitive flexibility levels of the teachers' participation in our research are high, their emotion regulation difficulties are low.

In our research, it was determined that early childhood teachers use preventive and problem-oriented strategies at a high level and supportive strategies at a moderate level in classroom management. Türk et al. (2019) reveal that preschool teachers focus on behaviour management and prevention of undesirable behaviours in their classroom management practices. In addition, it has been determined that preschool teachers in many countries prefer models that focus on traditional teacher-child interaction and give control to teachers [see, for example, Balli, 2011 (USA); O'Neill & Stephenson, 2012 (Australia); Akar et al., 2010 (Turkey)] and use reward and punishment methods in classroom management (Balli, 2011; Ozmon & Craver, 2008; Şahin-Sak et al., 2018). However, researchers now focus on emotionally supportive classroom management education (Hu et al., 2016; Dicke et al., 2015). It has been detected that preschool teachers' awareness levels, which are among the emotional regulation difficulties, are effective on supportive and problem-oriented strategies from classroom management strategies, but it has no effect on preventive strategies. It is considered that since the strategies for the problem are the strategies applied at the time of the problem and the supportive strategies applied after the problem, it is thought that the teacher's emotion regulation skills are affected. Because preventive strategies are strategies that are determined and implemented long before a problem occurs, they are thought to be unaffected by emotion regulation skills. Other studies supporting our research findings were also found in the literature: Kara and Dikici Sığırtmaç (2022) revealed that there is a positive relationship between teachers' emotion regulation skills and classroom management skills. Gerber et al., (2007) emphasized that there is a relationship between teachers' emotional well-being, classroom management skills and classroom quality. It was emphasized that the recognition of the emotional and psychological health of those who provide child care and education is important for the quality of care and education of children. Similarly, Amato and Keith (1991) underlined that negative interactions between children and adults are important for the development of children's social-emotional functions. The fact that the emotional health of those who provide child care and education is not good has also revealed that these people tend to spend less time with children (Arnold et al., 1998; Hamre and Pianta, 2004). Jeon et al., (2014) emphasized that emotionally fatigued teachers do not have enough energy in classroom management, child care and providing learning opportunities. Buettner et al., (2016) stated that high emotional load is associated with teachers' negative reactions and lower levels of participation in the profession.

It has been detected that preschool teachers' cognitive flexibility and control levels are effective unsupportive and problem-oriented strategies from classroom management strategies. In addition to, it was stated that it had no effect on preventive strategies. The effect of the control sub-dimension, which reflects the thoughts of teachers that difficult situations can be controlled, on supportive and problem-oriented strategies in classroom management reveals that preschool teachers perceive the difficult situations they encounter in the classroom as events that can be coped with. Oishi et al., (2018) underline that teaching is a profession associated with a wide variety of stress factors and that early childhood teachers need to acquire realistic and adaptive stress coping behaviours that rely on high cognitive flexibility in order to define problems correctly and give appropriate answers. Teachers need to have the ability to quickly solve successive daily problems, quickly notice the changing atmosphere of students and the classroom, and react instantly to them. Therefore, it is important that teachers' cognitive flexibility skills are developed. Bilgin (2017) underlined that as individuals' cognitive flexibility levels increase, their self-control skills are better and they are more open to development, and they exhibit more emotionally inconsistent behaviours when their cognitive flexibility scores decrease. Camcı-Erdoğan (2018) study reveals that pre-service teachers' problem-solving skills increase when their cognitive flexibility levels increase. Similarly, other studies reveal that people with problem-solving and cognitive flexibility skills develop a self-confident, objective and impartial perspective and can think creatively.

It was determined that teachers over the age of 45 and with more than 21 years of experience had fewer emotion regulation difficulties. According to this finding, it can be said that they can better control their emotions when the professional experience of preschool teachers increases. Akgün and Yılmaz (2021) revealed that there is an important difference in the emotion regulation behaviour of early childhood teachers according to their professional seniority and that the emotion regulation behaviours of early childhood teachers with professional seniority of 20 years and above are higher than those of teachers with professional seniority between 1-5 and 6-10 years. As individuals mature with age, they can look at events from a wider perspective, produce more different solutions to troubled situations, and accommodate new situations more easily.

It is indicated that preschool teachers between the ages of 22-32 have the highest scores in the cognitive flexibility control sub-dimension. According to this finding, it can be said that the cognitive flexibility control sub-dimension of preschool teachers who have just started their profession is better. Since the 'Control' sub-dimension of the cognitive flexibility scale determines the opinions of the teachers about the control of difficult situations, it can be said that teachers who are new to the profession have a higher level of cognitive flexibility that they can control difficult situations. Temel (2021) revealed that teachers who are just at the beginning of their professional life have a higher level of understanding of the complexity of challenging situations or events. Ateş and Sağar (2021), state that university students with high cognitive flexibility can see and evaluate alternative situations and options, and offer different solutions.

CONCLUSION & RECOMMENDATIONS

It has been detected that early childhood teachers have high levels of emotion regulation and cognitive flexibility; they can control their emotions better when their professional experience increases. It has been shown that the cognitive flexibility of newcomers to the profession is better. In addition, it was found that they used preventive and problem-oriented strategies at a high level and supportive strategies at a moderate level in classroom management.

Nowadays, classroom management focuses on expectations about learning rather than preventing problems before they occur or managing the process when they occur. Classroom management models that encourage active learning and individual participation in cooperation with children by enriching learning environments in the process of achieving success are preferred rather than models that maintain order only by following the rules (Hamre, et al. 2012). This means that nowadays classroom management models are rapidly changing from traditional models to preventive, developmental and holistic models. In other words, classroom management models; that see learners as social beings, take into account their personal and psychological needs, integrate positive teacher-student relationships with supportive environmental conditions, apply methods that facilitate learning, and create a rich learning environment; are preferred (Gehlbach, Brinkworth, & Harris, 2012). For this reason, it is important to include preschool teachers in practical education so that they can use preventive and problem-oriented strategies as well as supportive strategies integrally in classroom management (Karademir & Saatçioğlu, 2021).

It was determined that awareness levels from emotion regulation difficulties and control levels from cognitive flexibility were effective on supportive and problem-oriented classroom management strategies, but not on preventive strategies. According to these findings, it can be stated that supporting the emotion regulation skills of new teachers and cognitive flexibility levels of experienced teachers will have a positively impact on classroom management skills. Thus, the rate of preschool teachers' use of preventive and problem-oriented strategies as well as supportive strategies in classroom management can be increased. Therefore, it is suggested to add content that supports early childhood teachers' cognitive flexibility and emotion regulation skills to education programs that support preschool teachers' classroom management skills. In these trainings, it is recommended that attention should be paid to supporting the emotion regulation skills of early childhood teachers who are new to the profession, and the cognitive flexibility levels of experienced teachers.

Statements of Publication Ethics

The principles of publication ethics were obeyed in the study. Ethical permission of the research was approved by Yozgat Bozok University, Human Research Ethics Committee (19/01/2022-29/17).

Researchers' Contribution Rate

Authors	Literature review	Method	Data Collection	Data Analysis	Results	Conclusion	(Other)
Author 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Author 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Author 3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Conflict of Interest

There are no conflicts of interest in this study.

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