

Relationships Between Preschool Teachers' Cognitive Flexibility, Mindfulness, and Self-Efficacy

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Abstract

The aim of this study is to examine the relationships between preschool teachers' cognitive flexibility levels, mindfulness levels, self-efficacy perceptions, and to determine whether cognitive flexibility and mindfulness of preschool teachers predict self-efficacy of preschool teachers. The study, which is a correlational survey, consists of 230 preschool teachers working in the spring term of the 2020-2021 academic year. Cognitive Flexibility Inventory, Conscious Awareness Scale, Preschool Teachers' Self-Efficacy Beliefs Scale, and Personal Information Form were used as data collection tools. In the analysis of the data, Independent Samples *t* test, one-way ANOVA, Scheffe, Pearson's Correlation and Regression Analysis were conducted. Regarding the research, it was found that cognitive flexibility, mindfulness, and self-efficacy of preschool teachers were positively and significantly related to each other. In addition, it was noted that self-efficacy perception levels mostly decreased as the duration of experience decreased. In parallel, it was found that the self-efficacy of teachers over the age of 30 was higher than that of teachers aged 30 and younger. Additionally, it was concluded that cognitive flexibility and mindfulness of preschool teachers significantly predicted their self-efficacy perceptions. In line with the findings, various suggestions were presented for educators and researchers.

Keywords

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Okul Öncesi Öğretmenlerinin Bilişsel Esneklikleri, Bilinçli Farkındalıkları, Öz Yeterlikleri Arasındaki İlişkiler

Öz

Bu çalışmanın amacı, okul öncesi öğretmenlerinin bilişsel esneklik düzeyleri, bilinçli farkındalık düzeyleri ve öz yeterlik algıları arasındaki ilişkiyi belirlemek ve bunun yanında okul öncesi öğretmenlerinin bilişsel esneklik ile bilinçli farkındalıklarının okul öncesi öğretmenlerinin öz yeterlik algısını yordayıp yordamadığını belirlemektir. İlişkisel tarama modelinin kullanıldığı araştırmanın çalışma grubunu 2020-2021 eğitim öğretim yılı bahar döneminde görev yapmakta olan 230 okul öncesi öğretmeni oluşturmaktadır. Veri toplama aracı olarak Bilişsel Esneklik Envanteri, "Bilinçli Farkındalık Ölçeği, Okul Öncesi Öğretmenlerinin Öz Yeterlik İnançları Ölçeği ve Kişisel Bilgi Formu kullanılmıştır. Verilerin analizinde Bağımsız Gruplar *t* testi, tek faktörlü ANOVA, Scheffe, Pearson Korelasyon ve Regresyon Analizi uygulanmıştır. Yapılan analizler sonucunda, okul öncesi öğretmenlerinin bilişsel esneklik, bilinçli farkındalık ve öz yeterliklerinin birbirleri ile pozitif ve anlamlı bir şekilde ilişkili olduğu bulunmuştur. Bunların yanında, öz yeterlik algılarında, büyük çoğunlukla deneyim süresi azaldıkça düşüş yaşandığı dikkati çekmiştir. Buna paralel olarak, 30 yaş üzerindeki öğretmenlerin öz yeterlikleri, 30 yaş ve altındaki öğretmenlerden daha fazla olduğu bulunmuştur. Ayrıca okul öncesi öğretmenlerinin bilişsel esneklik ve bilinçli farkındalıklarının, öz yeterlik algılarını anlamlı düzeyde yordadığı sonucuna varılmıştır. Elde edilen bulgular doğrultusunda eğitimcilere ve araştırmacılara çeşitli önerilerde bulunulmuştur.

Anahtar Sözcükler

Bilişsel esneklik
Bilinçli farkındalık
Öz yeterlik
Okul öncesi eğitim


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Genişletilmiş Türkçe Özet

Giriş

Bilişsel esneklik, bilinçli farkındalık ve öz yeterlik, öğretmenlerin sahip olması gereken beceriler arasında yer almaktadır. Bilişsel açıdan esnek öğretmenler çeşitli stratejileri sınıf ortamına adapte edebilmekte ve öğrencilerin bu becerileri kendi yaşamlarına adapte etmelerine yardımcı olabilmektedirler (Aybek, 2007). Alanyazında yapılan çalışmalara bakıldığında bilinçli farkındalık seviyeleri yüksek olan bireylerin ise kaygı, depresyon ve stres düzeylerinin düşük olduğu (Demir, 2017) gözlenmektedir. Yine öz yeterliği yüksek öğretmenlerin mesleklerini icra ederken daha istikrarlı ve istekli biçimde çaba gösterdikleri (Tunç ve Kıncal, 2021), problem çözme becerilerinin de daha üst düzeyde olduğu görülmektedir (Oğuz, 2017).

Okul öncesi öğretmenlerinin öz yeterlik algıları ile ilgili yapılan araştırmalara göre sınıf yönetim becerileri (Bay, 2020; Semerci ve Uyanık Balat, 2018); yaş ve mesleki deneyim (Koç ve Sak, 2017); problem çözme (Kesgin, 2006), öğretim tutumları (Kırkış ve Çetinkaya, 2020); iş tatmini (Skaalvik ve Skaalvik, 2010); dışadönüklük (Bullock, Coplan ve Bosacki, 2015); işe bağlı, tutkulu ve pozitif olma (Lipscomb, Chandler, Abshire, Jaramillo ve Kothari, 2021) gibi pek çok unsur ile anlamlı ilişkilere sahip olduğu gözlenmiştir.

Alanyazında okul öncesi öğretmenlerinin bilişsel esneklik, bilinçli farkındalık ve öz yeterliklerinin birlikte ele alındığı bir çalışmaya rastlanmamıştır. Yapılan araştırma, bu faktörleri bir araya getirerek okul öncesi dönemi öğretmenleri ile yürütülen tek araştırma niteliği taşıması yönüyle önemli görülmektedir. Ayrıca öğretmenlerin yüksek öz yeterlik inançlarına sahip olması, güçlü hedefler ortaya koyarak daha fazla sorumluluk alma ve yüksek performans gösterme bakımından ihtiyaç duyulan bir niteliktir (Yoldaş, Yetim ve Küçükoğlu, 2016). Bu becerilerin ilişkileri incelendiğinde eğitimde yeni strateji, yöntem ve tekniklerin keşfedilmesi; eğitim sisteminde meydana gelen ya da gelebilecek hızlı değişimlerde öğretmenlerin kendisinin ve sınıfındaki çocukların uyum sürecini dinamik hale getirmesi; eğitim-öğretim programlarının daha etkili ve verimli yürütülmesinin sağlanacağı düşünülmektedir. Bu araştırmanın temel amacı, okul öncesi öğretmenlerinin bilişsel esneklikleri, bilinçli farkındalıkları ve öz yeterlik algıları arasındaki ilişkinin incelenmesidir.

Yöntem

Bu bölümde çalışma modeli, çalışma grubu, veri toplama araçları, veri toplama süreci, veri analizi ve etik konular açıklanmıştır. Bu çalışmada, nicel araştırma yöntemlerinden biri olan ilişkisel tarama modeli kullanılmıştır. İlişkisel tarama modeli, iki veya daha çok değişken arasındaki birlikte değişim varlığını veya derecesini belirlemeyi amaçlayan araştırma yöntemidir (Karasar, 2014). Araştırmanın örnekleme, kartopu örnekleme ile seçilmiş; ilk olarak bağlantı kurulmuş olan öğretmenlerin desteğiyle başka okul öncesi öğretmenlerine ulaşılmıştır. Google Forms uygulaması üzerinden öğretmenlere anket formları gönderilmiş; yanıtlar çevrimiçi olarak alınmıştır. Örnekleme katılan 230 okul öncesi öğretmenin (23'ü erkek) yaş ortalaması 36.52'dir. Çalışma grubundaki 11 öğretmen özel bağımsız anaokullarında görev yapmakta iken, 219 öğretmen ise resmi bağımsız anaokullarında görev yapmaktadır. Araştırmada verilerin toplanması amacıyla Kişisel Bilgi Formu; Dennis ve Vander Wal (2010) tarafından geliştirilen, Sapmaz ve Doğan (2013) tarafından Türkçeye uyarlanan beşli Likert tipinde 20 maddeden oluşan Bilişsel Esneklik Envanteri; Brown ve Ryan (2003) tarafından geliştirilen, Özyeşil, Arslan, Kesici ve Deniz (2011) tarafından Türkçeye uyarlanan; 15 maddelik, altılı Likert tipinde Bilinçli Farkındalık Ölçeği ve Tepe ve Demir (2012) tarafından geliştirilen beşli Likert tipindeki 37 maddeyi kapsayan Okul Öncesi Öğretmenlerinin Öz Yeterlik İnançları Ölçeği kullanılmıştır. Veri toplama sürecinde COVID-19 pandemi koşulları nedeniyle okullar ziyaret edilememiş ve bu nedenle tanınan okul öncesi öğretmenlerine ilk erişim sağlanmıştır. Dolayısıyla öncelikle Çukurova Üniversitesi'nden mezun olup Adana'da resmi bağımsız anaokullarında çalışmakta olan ve iletişim bilgilerinin mevcut olduğu okul öncesi öğretmenlerine erişilmiş; daha sonra bu öğretmenlerin tanıdıkları okul öncesi öğretmenlerine ulaşılmıştır. Çalışmaya katılmaya gönüllü olan her bir öğretmenden, resmi veya özel bağımsız anaokullarında görev yapan öğretmen arkadaşlarına anket formlarını iletmeleri için ricada bulunulmuştur. Verilerin analizinde SPSS Paket Programı kullanılarak *t* test, tek faktörlü ANOVA, Scheffe, frekans, yüzde, korelasyon, regresyon ve Cronbach's Alpha istatistiksel analizleri uygulanmıştır. Araştırmada etik ilkelere uyularak tüm katılımcılardan aydınlatılmış onam ve kullanılan ölçekleri geliştiren araştırmacılardan gerekli izinler alınmıştır. Yazarlar, yazarlık, araştırma ve mevcut çalışmayı yayınlamak için herhangi bir mali destek almamıştır.

Bulgular

Araştırmadan elde edilen bulgulara göre bilinçli farkındalık ve öz yeterlik cinsiyete göre farklılaşmazken; bilişsel esnekliğin erkeklerde, kadınlara oranla anlamlı olarak yüksek olduğu tespit edilmiştir. Bunun yanında, öğretmenlerin bilişsel esneklik, bilinçli farkındalık ve öz yeterlik düzeyleri, eğitim seviyelerine göre anlamlı farklılık göstermemiştir. Ayrıca öğretmenlerin bilişsel esneklik ve bilinçli farkındalık düzeyleri, mesleki deneyim süresine göre farklılaşmazken, 8-11 yıl arası mesleki deneyime sahip olan okul öncesi öğretmenleri ile 16 yıl ve üzerinde mesleki deneyime sahip olanların öz yeterlikleri, yedi yıl ve altında mesleki deneyime sahip

öğretmenlerden anlamlı olarak daha yüksek bulunmuştur. Bilişsel esneklik ve BF düzeyleri yaşa göre farklılaşmazken, 30 yaşın üzerindeki okul öncesi öğretmenlerinin öz yeterlikleri, 30 yaş ve altındaki öğretmenlerden anlamlı olarak daha yüksek bulunmuştur. Korelasyon analizi sonuçlarına göre ise, bilişsel esneklik ve bilinçli farkındalık arasında pozitif, istatistiksel olarak anlamlı ve düşük seviyede; bilişsel esneklik ve öz yeterlik arasında pozitif, istatistiksel olarak anlamlı ve orta seviyede; bilinçli farkındalık ve öz yeterlik arasında pozitif, anlamlı ve düşük seviyede bir ilişkinin olduğu tespit edilmiştir. Son olarak, regresyon analizi sonuçları, bilişsel esneklik ve bilinçli farkındalığın birlikte, öz yeterliği istatistiksel olarak anlamlı bir biçimde yordadığını ortaya koymuştur ($p < .05$).

Sonuç ve Tartışma

Bu araştırma temel olarak, okul öncesi öğretmenlerinin bilişsel esneklik ve bilinçli farkındalıklarının, öz yeterlik algıları ile ilişkili olduğunu ortaya koymaktadır. Araştırma sonuçlarına göre bilişsel esneklik düzeyleri kadınlarda erkeklere oranla düşük çıkmıştır. Öğretmenlerin bilişsel esneklik ve bilinçli farkındalıklarının, yaş ve mesleki deneyime göre istatistiksel olarak anlamlı olmadığı saptanmış olsa da, yaş ile mesleki deneyim süresi arttıkça bu düzeylerin genel anlamda artış gösterdiği dikkati çekmektedir. Ayrıca 8-11 yıl ile 16 yıl ve üzerinde mesleki deneyime sahip olan öğretmenlerin öz yeterliklerinin, yedi yıl ve altında deneyime sahip öğretmenlerden daha yüksek olduğu belirlenmiştir. 30 yaşın üzerinde olan okul öncesi öğretmenlerinin öz yeterlikleri, 30 yaş ve altındaki öğretmenlerden daha yüksek bulunmuştur.

Bilişsel esneklik ve bilişsel farkındalığın etkileri pek çok alanda kendini göstermektedir. Bu alanlardan bazıları mutluluk (Asıcı ve İkiz, 2015), sorunlarla baş etme becerisi (Bedel ve Ulubey, 2015), sosyal yetkinlik beklentisi (Bilgin, 2009), anlaşmazlıklara karşı tolere edici olma (Martin, Anderson ve Thweatt, 1998), öz anlayış/öz duyarlılık (Martin, Staggers ve Anderson, 2011), karar verme stratejileri (Bilgiç ve Bilgin, 2016), psikolojik iyi oluş (Zümbül, 2019), yaşam doyumu (Yelpaze ve Yakar, 2019) ve mesleki doyumdur (Öksüz ve Yiğit, 2020). Bu yönüyle bilişsel esneklik ile bilinçli farkındalık, öğretmenlerin kişisel ve mesleki gelişimlerine büyük katkılar sunarak, hem öz yeterlik algılarını hem de yaşam kalitelerini artırmaktadır. Ayrıca bu becerilere sahip öğretmenlerin, yakın çevrelerine ve öğrencilerine sahip oldukları becerileri aşılama potansiyeli vardır. Öğretmenler böylece, toplumun gelişmesi yönünde önemli adımlar atabilecek bir konumda yer almaktadır. Bu araştırmada, öz yeterlik algısı üzerinde bilişsel esnekliğin ve bilinçli farkındalığın etkisi ortaya konmuştur. O halde okul öncesi öğretmenlerinde öz yeterliğin gelişmesi amacı ile bu iki özelliğin geliştirilmesinin önem taşıdığı söylenebilir.

Introduction

Some fluent forms of intelligence are needed to overcome problems when knowledge is occasionally insufficient (Çuhadaroğlu, 2013). Cognitive flexibility is one of the phenomena, which is a necessity to solve the problems and does not remain in the limit of knowing (Demir & Doğanay, 2009). Cognitive flexibility is considered as human's ability to orient to certain conditions, to move from one concept to another, or the capacity to deal different adversities with multidimensional tactics (Asıcı & İkiz, 2015). Within this framework, cognitive flexibility requires the integration of different ideas or the selection of the most suitable idea among various thoughts. To adapt new events or situations, produce concurrently more than a way out, and overcome difficulties, individuals should have the skill to see alternatives (Bilgin, 2009).

Cognitive flexibility is seen as a skill that includes the educational process (Çuhadaroğlu, 2013). Thus, students of teachers with different levels of cognitive flexibility are expected to go through different processes. As a matter of fact, it is recognized that teachers serve a function in the advancement of thinking skills that indicate cognitive flexibility (Özdemir, 2005). Moreover, the skills that students will acquire in the learning process show parallelism with the skills that teachers have. Hence, the transfer of many skills, including thinking skills to students is only possible if teachers have these skills (Hayırsever & Oğuz, 2017).

Teachers are the basic building blocks that make it possible to implement changes and innovations in education systems. Teachers have the advantage of providing their students with many skills during the course of active learning process (Aybek, 2007). In order to convey these skills, teachers should be always self-improving, open-minded, able to think critically, produce alternative solutions to problem situations, and adapt to different environments. Besides, to make accurate and diverse transfers, cognitive flexibility, which includes the adaptation of relational process strategies (Çuhadaroğlu, 2013), contributes to teachers' integrating various strategies into the classroom environment and students' use of these skills in their own lives (Aybek, 2007).

Another competence that is thought to be possessed by teachers is mindfulness. Mindfulness emerges in the manner that engages circumspection which has its origins in the Eastern meditation, also it seems that it has become widespread in Western culture over time (Özyeşil, Arslan, Kesici, & Deniz, 2011). Mindfulness, which can be identified as focalizing one's caution on hodiern case, inner and outside world, and accepting, captures clear and lively instant experiences without judgment (Deniz, Erus, & Büyükcebeci, 2017). Therefore, it corresponds to focusing on the present, instead of creating mental scenarios about former times and worrying about the following days (Sarıçalı & Satıcı, 2017).

It is observed that people with stately levels of mindfulness possess low levels of anxiety, depression, and stress (Demir, 2017). Conscious awareness acts as a shield against the obstacles and problems that the individuals may encounter. Thus, mindfulness is a term that has effects on psychological welfare and favorable psychological wellness (Zümbül, 2019). Psychological wellness is self-actualization, full functioning and living a meaningful life when faced with existential challenges and difficulties such as pursuing significant aims, self-improvement, and constituting healthy communication with others (Deniz et al., 2017). Supporting well-being also reveals the importance of mindfulness. Furthermore, realizing that negative feelings and thoughts are not absolute reflections of reality, these feelings and thoughts are not permanent and there is no need to be self-accusatory, are among the effects of mindfulness on positive mood (Hartman, 2010).

The quality of education has great importance for individual and social development. Considering that the characteristics of education contingent upon teachers, the way to enhance quality in education is to increase educators' proficiency (Eroğlu & Özbek, 2018). Since rapid changes are being experienced in the field of education in the social dimension, teachers need to adapt to these changes quickly and increase their personal and professional qualities (Çelik, Yorulmaz, & Çokçalışkan, 2019). To ensure effectiveness in education and come up with a solution about troubles they would face during the period of rapid change, teachers' perceptions of competence in their professional fields are crucial (Bakaç & Özen, 2017). A teacher's adequacy, which is defined as acquirement, wisdom, capability and demeanor that a teacher must possess to fulfill his/her occupation influentially and productively (Millî Eğitim Bakanlığı [MEB], 2017), is undoubtedly one of the components that will shape the quality of education. Hence, teachers should use their mental, physical, social, and emotional potentials, knowledge, skills, and qualities in the most efficient way, also, constantly renew themselves and keep their knowledge up to date (Baldu, 2014).

It is foreseen that self-efficacy, which is one of the predicted qualities of preschool teachers (Ertan, 2016) and includes the evaluation of the individual's own competencies, emerged as a factor of the observation-based cognitive process that explains the learning process within the scope of social learning theory, the foundations of which were laid in the 1940s (Tarakcı, 2019). Albert Bandura, the pioneer of social learning theory, expressed self-efficacy notion as one's self-adjudgment about the success of the activities he/she does to achieve a certain performance (Bandura, 1977); that is to say, Bandura argues that self-efficacy beliefs determine how a person will perceive, meditate, act, and encourage himself/herself in certain situations (Bandura, 1994).

Self-efficacy belief is an important element in determining how people use or perceive their sentiments, cogitations, motivations, and demeanors (Kaya, 2019). Considering the personal differences of teachers, it is possible that they show different practices and behaviors in learning environments and act with different emotions and thoughts (Kaya & Demir, 2014). Despite these differences, it is known that teaching as a profession that requires high qualifications that can fully bear the responsibility of human life (MEB, 2017), indicates the competencies to be possessed. In other words, there are competencies that every teacher should have for a qualified education. Furthermore, it has been expected that teachers, whose perceptions of self-efficacy are higher, would probably strive more consistently and willingly while performing their profession, and thus they would be more qualified (Tunç & Kınca, 2021). In addition, the teachers with higher self-efficacy would be expected to carry much more problem-solving skills, and expected to be the best guides to their students (Oğuz, 2017). Yaşar Ekici (2017), there beside, states that teachers with low self-efficacy are further hesitant; they perceive difficulties as a personal threat; they avoid some tasks; consequently, their senses of responsibility in reaching their goals are quite low.

Self-efficacy perception, which is one of the cornerstones of self-improvement, success, and alteration (Gömleksiz & Serhatlıoğlu, 2013), affects extremely important factors for teachers such as applying instructional innovations, control and management skills, and the education process (Şenol & Ergün, 2015). Accordingly, determining, evaluating, and developing teachers' self-efficacy beliefs for the preschool period (Gülay, 2009), which has effects on both short-term and long-term, have a special place in teachers' life.

Research infers that, the self-efficacy perceptions of preschool educators have many effects. It has been determined that there are significant relationships between preschool teachers' self-efficacy perceptions and classroom administration abilities (Bay, 2020; Semerci & Uyanık Balat, 2018), age, professional experience, and participation in activities such as seminars, conferences, congresses, courses, and symposiums (Koç & Sak, 2017), problem solving approach (Kesgin, 2006), and teaching attitudes (Kırkıç & Çetinkaya, 2020). When the studies conducted abroad on self-efficacy perceptions are examined, low self-efficacy beliefs of educators were associated with emotional exhaustion and depersonalization. However, teachers with high self-efficacy had high job satisfaction (Skaalvik & Skaalvik, 2010). Besides, the duration of instruction practice and class administration self-efficacy were positively related, and the self-efficacy of extroverted teachers was high (Bullock, Coplan, & Bosacki, 2015). Furthermore, as preschool educators' self-efficacy increased, their work engagement increased. One of the results of a research studied by Lipscomb, Chandler, Abshire, Jaramillo, and Kothari (2021) is that, when teachers have feelings and thoughts about making an expressive privilege in kids' lives, teachers would be passionate and had positive energy in their profession. In another research it is certified that the knowledge management levels of teachers with higher self-efficacy were higher in all dimensions (organizing, creating, sharing and applying knowledge) (Baezat Aflakifard, & Shahidi, 2014). Furthermore, preschool teachers' self-efficacy and collectivism (mentality of crew cooperation and its effects on adjudication) were significantly related, and educators' self-efficacy was estimated at the hands of interactive relation between children's participation and teachers' sense of cooperation (Guo, Justice, Sawyer, & Tompkins, 2011). Additionally, it is testified that preschool teachers' self-efficacy perceptions are multidimensional and school climate has significant effects on self-efficacy levels (Kim & Kim, 2010).

The studies regarding relationship between self-efficacy perceptions and mindfulness, have been concluded that university students' self-efficacy has a remarkable influence on their mindfulness (Yıldırım & Atilla, 2020); as the mindfulness and self-efficacy levels of undergraduate students in the USA increase, their well-being increases and also their depression, stress and anxiety levels decrease (Soysa & Wilcomb, 2013). Moreover, Greason and Cashwell (2011) confirmed that mindfulness is a substantial precursor of guidance self-efficacy on graduate-level counseling trainees and doctoral counseling students. Besides, when the connection between awareness and management self-efficacy of preschool administrators in Head Start programs was examined by Becker and Whitaker (2018), it was found that administrators with higher levels of awareness reported more management self-efficacy. Another research, which is aimed to evaluate teachers' five-way awareness scores and perceived self-efficacy scores from kindergarten to 12th grade, concluded that relationship between self-efficacy and awareness was statistically significant and positive (Gardner, 2018). Another research was carried out upon high school students in Istanbul; according to the research, the students' self-efficacy and awareness were interrelated; as awareness increased, success also increased (Arıcı Özcan & Vural, 2020).

When the studies on association between self-efficacy beliefs and cognitive flexibility are investigated, a positive and moderate correlation between information technology teacher nominees' self-efficacy perceptions about programming and cognitive flexibility is observed (Özgür & Çuhadar, 2015). Studies also show that there is a favorable and moderately significant correlation between self-efficacy perceptions and cognitive flexibility of inclusive classroom teachers (Erdem, 2015). Additionally, in a study researched by Saasati, Youefi, and Gholparvar (2020), a training program was implemented for effective parenting, and it was revealed that it increased parenting self-efficacy and cognitive flexibility of mothers. Moreover, studies have shown that

university students' self-efficacy and cognitive flexibility had a predictive role in reducing emotional distress (Sarteshneizy, Lotfi, Pirmoradi, & Farid 2020); influential advisor qualifications and advisor self-efficacy significantly predict the cognitive flexibility of counselors (Buyruk Genç & Yüksel Şahin, 2020); the relation between academic self-proficiency and cognitive flexibility levels of prospective calisthenic exercise and sports teachers was positively significant. In a study examining the predictive assignments of cognitive flexibility, self-efficacy, and intellectual soundness of Turkish teenagers, cognitive flexibility was strongly related to self-efficacy and mental well-being; academical, social and sentimental self-efficacy mediated the connection between cognitive flexibility and intellectual soundness was found (Demirtaş, 2020).

It is clearly distinguishable that research evaluating preschool educators' cognitive flexibility, self-efficacy and mindfulness together does not exist in the relevant literature. This research is considered important as it is the only research conducted with preschool teachers by bringing these factors together. Preschool teachers, who have an undeniable value in human life and who will fulfill their duties in the preschool period, which includes critical processes, must have very high qualifications (Kesicioğlu & Güven, 2014). In favor of enhancing these qualities, examining the cognitive flexibility and mindfulness of preschool teachers from different aspects will draw a roadmap; thereby, it will be possible to contribute to the development of children at the highest level. Having self-efficacy beliefs is another quality needed to be possessed by teachers in terms of taking more responsibility and showing high performance by setting strong goals (Yoldaş, Yetim, & Küçükoğlu, 2016). Determining self-efficacy beliefs reveals which aspects of preschool teachers should be advanced for their professional and personal development. Furthermore, all these factors may lead to the discovery of new strategies, procedures, and techniques in education; make the adaptation process of the teacher and the children in the class dynamic when there is a sudden change in education system; enable the education and training programs to be carried out more effectively and productively. Consequently, with the presence of qualified preschool teachers who are open for improvement, crucial changes will occur in the lives of children and children will also be able to make positive progress in their own lives.

Purpose of the Research

The aim of this study is to examine the relationships between preschool teachers' cognitive flexibility, mindfulness levels, and their self-efficacy perceptions. In line with this aim, answers to the following questions will be sought:

1. Is there any relation between preschool teachers' cognitive flexibility levels and mindfulness levels?
2. Is there any relation between preschool teachers' cognitive flexibility levels and their self-efficacy perceptions?
3. Is there any relation between the mindfulness levels of preschool teachers and their self-efficacy perceptions?
4. Do preschool teachers' cognitive flexibility and mindfulness levels together significantly predict their self-efficacy perceptions?

Method

In this section, research design, participants, data collection tools, data collection process, data analysis, and ethical issues were explained.

Research Design

In this research, correlational survey model, which is one of the quantitative research methods, was used in order to examine the cognitive flexibility, mindfulness, and self-efficacy relationships of preschool teachers. Survey research is a study that aims to acquire data to decide upon definite characteristics of a coterie such as interests, skills, abilities, and attitudes (Büyüköztürk, Çakmak, Akgün, Karadeniz, & Demirel, 2020). The correlational survey pattern is an exploratory method that involves collecting data to determine the degree to which a relationship exists between two or more variables (Karasar, 2014). Accordingly, it was aimed to explore relations between preschool educators' cognitive flexibility, mindfulness, and self-efficacy perceptions with regards to several variables.

Participants

Universe of this study involves preschool teachers who work in independent kindergartens in the spring term of 2020-2021 academic year. In this study, snowball sampling method, which is one of the purposive sampling methods, was used. Snowball sampling method is used in cases when it is difficult to access the units of the universe or when information about the universe is incomplete (Parker, Scott, & Geddes, 2019; Tenzek, 2017). Schools could not be visited due to the COVID-19 pandemic conditions. Thus, snowball sampling method was chosen because preschool teachers who graduated from Çukurova University and work in Adana are known, and their contact information is available. Hence, firstly, preschool teachers working in Adana in official independent kindergartens were attained and then more preschool teachers were reached through them. Compendiously, each teacher who volunteered to participate in the study and who were accessible were asked to send the questionnaire

forms to their fellow teachers working in public or private independent kindergartens. Because of the COVID-19 pandemic conditions, questionnaire forms prepared via the Google Forms application were sent to the preschool teachers and the responses were received online. Of the 230 preschool teachers participating in the study, 23 (10%) are male and 207 (90%) are female. As the majority of teachers in the study work in Adana (119), others work in different provinces of Turkey (Şanlıurfa, Mersin, Kahramanmaraş, İstanbul, Gaziantep, Ankara, Siirt, etc.). The average age of 230 preschool teachers in the study is 36.52. Additionally, in the study group, while 11 teachers work in private independent kindergartens, 219 teachers work in public independent kindergartens.

Data Collection Tools

The personal Information Form, the Cognitive Flexibility Inventory, the Mindfulness Scale, and the Preschool Teachers' Self-Efficacy Beliefs Scale were implemented to acquire input in this study.

Personal Information Form. An individual information questionnaire was created by the researcher to collect information about teachers, including variables such as teachers' age, gender, professional experience, education level, and the city teachers work in.

Cognitive Flexibility Inventory. The Cognitive Flexibility Inventory, which was developed by Dennis and Vander Wal (2010), was adapted to Turkish; its validity and reliability were conducted by Sapmaz and Doğan (2013). The inventory is comprised of two dimensions: alternatives and control. The alternatives dimension composes of 13 items; this dimension consists of items that suggest alternative solutions to difficult situations or several interpretations for life situations and people behavior. The control dimension consists of 7 items; this dimension involves statements that designate difficult situations can be controlled (Sapmaz & Doğan, 2013).

The Cognitive Flexibility Inventory is a five point Likert scale ranging from strongly disagree (1) to strongly agree (5). Items 2, 4, 7, 9, 11, and 17 of the scale are reverse coded. Three separate types of scores can be procured from the scale: total cognitive flexibility score, alternatives dimension score and control dimension score. Total score correlation between the original and Turkish form of the inventory is .97. Additionally, Cronbach Alpha reliability coefficients are .90 for the whole scale, .90 for alternatives dimension, and .84 for control dimension (Sapmaz & Doğan, 2013). In this research, Cronbach's Alpha coefficient was found as .90.

Mindfulness Scale. The Mindfulness Scale (MS) generated by Brown and Ryan (2003) was adapted into Turkish by Özyeşil et al. (2011). The MS gauges probable inclination to be conscious of momentary experiencing in daily life. The MS, which is a 6-point Likert-type scale (almost always, often, sometimes, rarely, quite rarely, almost never), composes of 15-items. There is a significant and positive correlation between the scores obtained from English and Turkish forms (Özyeşil et al., 2011).

The MS has only one factor structure, so it gives a single total score. High scores obtained from MS indicate that overall consciousness is high. The one-dimensional model was certified in consequence of confirmatory factor analysis (RMSEA = .06, SRMS = .06, GFI = .93, AGFI = .91). Item factor load for each item of the scale ranged from .48 to .81. Cronbach's Alpha internal consistency coefficient of the MS was figured as .80 and test-retest correlation was calculated as .86 (Özyeşil et al., 2011). In current research, Cronbach's Alpha coefficient of the MS was calculated as .87.

Preschool Teachers' Self-Efficacy Beliefs Scale. The Preschool Teachers' Self-Efficacy Beliefs Scale, which is a five-point Likert type, developed by Tepe and Demir (2012), has six elements and consists of 37 items. The elements of the scale were determined as learning and teaching process, communication skills, family participation, planning, organization of learning environments and classroom management. The scale items were graded as none, little, medium, very, and completely. Total item correlation coefficient for the scale ranged from .65 to .81. In interpretation of arithmetic means, average values between 1.00-5.00 determined as none: 1.-1.80, little: 1.81-2.60, medium: 2.61-3.40, very: 3.41-4.20, and completely: 4.21-5.00. Cronbach Alpha reliability coefficient was calculated as .97 for the whole scale, .91 for learning and teaching process subdimension, .90 for communication skills subdimension, .90 for family involvement subdimension, .87 for planning subdimension, .88 for organization of learning environments, and .87 for classroom management subdimension. The current research calculated Cronbach's Alpha coefficient of the scale as .97.

Data Collection Process

The data of the research were collected online through questionnaire forms. In this process, schools could not be visited because of the COVID-19 Pandemic; therefore, first of all, preschool teachers who graduated from Çukurova University and working in public independent kindergartens in Adana with available contact information were reached. Afterwards, these teachers were required to reach their friends who work at private or public independent kindergartens as preschool teachers. Consequently, through accessible preschool teachers working in Adana, more preschool teachers were able to access the questionnaire forms.

Data Analysis

SPSS Package Program was used to calculate the data obtained. At first, it was checked that whether data has a normal distribution or not. Cognitive flexibility levels, mindfulness levels and self-efficacy scores of preschool teachers were calculated with regards to several factors using statistical analysis such as *t* test, one-way analysis of variance (ANOVA) and Scheffe. Besides, in analysis of demographic characteristics, frequency, percentage; in scales' reliability analysis, Cronbach's Alpha statistical analysis were applied. Relations between cognitive flexibility and mindfulness scores were evaluated using the correlation coefficient. Likewise, relevance among cognitive flexibility and preschool teachers' self-efficacy scores; mindfulness and preschool teachers' self-efficacy scores were evaluated through the correlation coefficient. Regression Analysis was used to calculate predictive power of teachers' mindfulness levels and cognitive flexibility levels upon their self-efficacy perceptions.

Ethical Issues

Investigators of this study proclaim that the search was carried out in conformity with ethical principles. Informed consent was received from all participants of the study. Authors have gotten no financial backing for authorship, research, and publishing the current study.

Findings

In this section, in line with this research's aim, results of the data analysis are presented.

In Table 1, regarding the gender variable, whether there were differences in Cognitive Flexibility (CF), Mindfulness (M), and Self Efficacy (SE) perceptions were analyzed with independent samples *t* test.

Table 1
Independent Samples t Test Results of Preschool Teachers' CF, M and SE Scores Regarding Gender

	Gender	<i>n</i>	\bar{X}	Median	Min.	Max.	SD	<i>t</i>	<i>p</i>
CF	Female	207	4.15	4.15	2.80	5.00	0.50	-5.00	0.000*
	Male	23	4.50	4.50	4.00	5.00	0.29		
M	Female	207	4.36	4.40	1.07	5.93	0.77	1.99	0.059
	Male	23	3.82	4.07	1.87	5.67	1.27		
SE	Female	207	4.60	4.73	2.95	5.00	0.43	0.35	0.723
	Male	23	4.57	4.65	4.03	4.97	0.30		

* *p* < .05

On the basis of the results obtained, it was observed that M and SE did not vary in reference to gender, while CF differed by gender. Men's CF level was found to be significantly higher than of women.

Independent Samples *t* test analysis conducted to determine whether CF, M and SE of preschool teachers differ as regards to their educational attainment were presented in Table 2.

Table 2
Independent Samples t Test Results of Preschool Teachers' Levels of CF, M and SE Regarding Education Levels

	Education	<i>n</i>	\bar{X}	Median	Min.	Max.	SD	<i>t</i>	<i>p</i>
CF	Bachelor's Degree	206	4.17	4.15	2.80	5.00	0.50	-1.57	0.118
	Master's Degree	24	4.34	4.35	3.70	5.00	0.41		
M	Bachelor's Degree	206	4.30	4.37	1.07	5.93	0.85	-0.41	0.682
	Master's Degree	24	4.37	4.43	2.93	5.67	0.81		
SE	Bachelor's Degree	206	4.60	4.70	2.95	5.00	0.42	0.01	0.988
	Master's Degree	24	4.60	4.70	3.59	5.00	0.41		

In reference to the table, CF, M and SE levels of preschool teachers did not differentiate as to whether they have bachelor's degree or a master's degree. On the other hand, the average of cognitive flexibility and mindfulness of educators with master's degree and minimum scores they received from all scales were detected as higher than teachers with a bachelor's degree.

The one-way ANOVA test was conducted to specify whether CF, M and SE of preschool teachers differ regarding their occupational experience, and the results were presented in Table 3.

Table 3
Results of the One-Way ANOVA for CF, M, and SE Levels Regarding Occupational Experience (PE)

	PE (year)	<i>n</i>	\bar{X}	<i>SD</i>	<i>F</i>	<i>p</i>
CF	7 years and below	48	4.12	0.53	1.25	0.294
	8 - 11 years	60	4.20	0.51		
	12 - 15 years	71	4.15	0.49		
	16 years and above	51	4.29	0.45		
M	7 years and below	48	4.19	0.88	1.30	0.275
	8 - 11 years	60	4.23	0.84		
	12 - 15 years	71	4.32	0.73		
	16 years and above	51	4.49	0.95		
SE	7 years and below	48	4.37	0.52	8.49	0.000*
	8 - 11 years	60	4.68	0.30		
	12 - 15 years	71	4.57	0.43		
	16 years and above	51	4.74	0.31		

* $p < .05$

Results showed that teachers' CF and M levels had no differences as regards to duration of occupational experience, while their SE differ. In reference to Scheffe Test, SE level of preschool teachers with 8-11 years of occupational experience and those with 16 years or more were determined as pointedly higher than those with 7 years or less occupational experience.

The one-way ANOVA test was conducted to specify whether CF, M and SE of preschool teachers differ by the age variable, and the results were given in Table 4.

Table 4
Results of the One-Way ANOVA for CF, M, and SE Levels Regarding Age

	Age	<i>n</i>	\bar{X}	<i>SD</i>	<i>F</i>	<i>p</i>
CF	30 years and below	51	4.11	0.55	1.05	0.373
	31 - 36 years	61	4.15	0.50		
	37 - 42 years	78	4.25	0.46		
	43 years and above	40	4.23	0.47		
M	30 years and below	51	4.18	0.87	1.09	0.353
	31 - 36 years	61	4.25	0.82		
	37 - 42 years	78	4.44	0.69		
	43 years and above	40	4.31	1.10		
SE	30 years and below	51	4.39	0.51	5.61	0.001*
	31 - 36 years	61	4.66	0.28		
	37 - 42 years	78	4.64	0.43		
	43 years and above	40	4.67	0.37		

* $p < .05$

According to the Table 4, while teachers' cognitive flexibility and mindfulness scores did not vary regarding age, teachers' self-efficacy differed depending on the age factor. In compliance with the Scheffe Test, SE scores of preschool teachers in the age groups of 31-36, 37-42, 43 and above was found to be significantly higher than the teachers aged 30 and below.

In Table 5, it was indicated the result of Correlation Analysis between CF, M, and SE.

Table 5
Pearson's Correlation Analysis Results of Preschool Teachers' CF, M and SE Levels

	CF	M	SE
CF	1	0.248**	0.471**
M		1	0.235**
SE			1

** $p < .01$

Table 5 indicated the result of Correlation Analysis that concluded the relationships between CF (mean = 4.19; *SD* = 0.49), *M* (mean = 4.31; *SD* = 0.85) and SE (mean = 4.60, *SD* = 0.42). As regards to the results obtained, it is clearly seen that there was a positive and statistically significant ($p = .000$) relationship between CF and M. In

other words, as CF increased, M also increased. There was a weak rank connection between CF and M, $r(df) = .248, p = .000$. Moreover, there was a positive and statistically significant ($p = .000$) relationship between CF and SE. In the present case, when CF increased, SE also increased. Due to the fact that $r(df) = .471$ in the relationship between CF and SE, there was an intermediate relation between the two variables. When the relationship between M and SE was studied, it was ascertained that there was a positive and noteworthy ($p = .000$) correlation. Accordingly, as M increased, SE also increased. There was a weak correlation between M and SE, $r(df) = .235$.

Table 6

Regression Analysis Results on Whether CF and M Predict SE

	<i>n</i>	β	<i>SD</i>	<i>t</i>	<i>p</i>
CF	230	0.44	0.05	7.35	0.000*
M	230	0.13	0.03	2.11	0.036*

* $p < .05$

Results of the Regression Analysis carried out as to whether M along with CF predicts preschool teachers' SE were presented in Table 6. The results obtained has pointed that CF and M together predict SE in a statistically significant way ($p < .05$). The predictive power of cognitive flexibility and mindfulness on self-efficacy was determined as 23.7% ($R^2 = 0.237$).

Discussion and Conclusion

This research basically reveals that preschool teachers' cognitive flexibility and mindfulness are related to their self-efficacy perceptions. Considering the outcomes of the research, self-efficacy and mindfulness levels did not differentiate by gender, and cognitive flexibility ratings were lower in women than in men. Additionally, as the averages of the scales related to cognitive flexibility, mindfulness and self-efficacy applied to preschool educators are examined, it can be deduced that teachers with master's degree have further scores than teachers with bachelor's degree. Although it was determined that cognitive flexibility and mindfulness levels of teachers weren't statistically significant with age and professional experience, it was noteworthy that these levels increased in general as age and professional experience increased. Furthermore, regarding occupational experience, self-efficacy levels were statistically significant; the self-efficacy of teachers who have 8-11 years and 16 years or more occupational experience was considerably much more than teachers with seven years or less occupational experience. Also, the self-efficacy of preschool teachers aged over 30 was found to be significantly higher than of teachers aged 30 and younger. Over and above, there was a positive, statistically significant, and low relation between cognitive flexibility and mindfulness; there was a positive, statistically significant, and moderate relation between cognitive flexibility and self-efficacy; there was a positive, statistically significant, and weak correlation between mindfulness and self-efficacy. In addition, it was concluded that preschool educators' self-efficacy was predicted by preschool educators' cognitive flexibility and mindfulness.

Studies showing that cognitive flexibility differs regarding gender (Asıcı & İkiz, 2015; Güvenç, 2019; Parlaktaş, 2018; Yelpeze & Yakar, 2019), studies proving that self-efficacy differs regarding occupational experience and age (Aslan & Kalkan, 2018; Infurna, Riter, & Schultz, 2018; Koç & Sak, 2017; Şenol & Ergün, 2015), studies revealing positive and noteworthy relation between cognitive flexibility and mindfulness (Aydın Sünbül, 2020; İmiroğlu, Demir, & Murat, 2021; Martinez & Dong, 2020; Moore & Malinowski, 2009; Peker Akman & Demir, 2021; Sinnott, Hilton, Wood, & Douglas, 2020; Wen, Zhang, Liu, Du, & Xu, 2021), studies proving the existence of positive relationship between cognitive flexibility and self-efficacy (Akçay Özcan & Kıran, 2016; Buyruk Genç & Yüksel Şahin, 2020; Çelikkaleli, 2014; Doğan Laçın & Yalçın, 2019; Doğan Yatar, 2020; Jiatong, Murad, Li, Gill, & Ashraf, 2021; Kaptanbaş Gürbüz & Sezgin Nartgün, 2018; Kıran Esen, Özcan, & Sezgin, 2017; Malkoş & Aydın Sünbül, 2020; Özgür & Çuhadar, 2015; Pepe, 2021), studies showing that there is a positive and statistically important relation between mindfulness and self-efficacy (Arıcı Özcan & Vural, 2020; Esentürk & Yalçın, 2019; Fallah, 2017; Greason & Cashwell, 2011; Hanley, Palejwala, Hanley, Canto, & Garland, 2015; Iskender, 2009; Kord, 2018; Latorre, Monica, Platt, Shook, & Daniels, 2021; Tang, Han, Yang, Zhao, & Zhang, 2019) support the findings of this study.

People with high cognitive flexibility have a more positive perspective towards themselves, their lives and their environment (Bedel & Ulubey, 2015). These positive perspectives also show themselves in the form of critical thinking, creative thinking, and overcoming stress (Çuhadaroğlu, 2013). Thus, it can be deduced that those who can overcome high levels of the stress and who can think critically and creatively also have high cognitive flexibility levels. Moreover, as stated by people with high cognitive flexibility, it is known that as they encounter a situation or event that challenges them, they do not have difficulty in coping with it (Gülüm & Dağ, 2012). Therefore, these people have more self-compassion and they are more successful in reducing emotional stress (Yelpeze & Yakar, 2019). In this context, it is possible that they can move forward without giving up in the face

of difficulties and become stronger in overcoming problems. Additionally, those who have cognitive flexibility can put forward more balanced and harmonious thoughts instead of having negative and inconsistent thoughts (Gülüm & Dağ, 2012). Therefore, they can have both a positive and a wider perspective by removing incompatible and inconsistent thoughts from themselves. Furthermore, individuals with these abilities can easily restructure their knowledge and radically change their reactions to situational demands (Çelikkaleli, 2014). It is considered that having such a skill in fast-growing world is valuable from the point of adapting to change and making a difference. Besides, people who have high levels of cognitive flexibility are far from strict and absolute rules and being fixed-minded, and they display a pluralistic approach with an open mind (Bedel & Ulubey, 2015). Consequently, people can make healthier decisions and develop strategies by evaluating all ideas, as opposed to closing themselves off to different ideas. In the educational environment, teachers encounter a wide variety of students with different personality traits. By virtue of this, educators are supposed to possess cognitive flexibility skills in areas such as what behaviors they will exhibit in various circumstances, how they can deliver solutions in problematical situations, and how they can maintain balance when an unusual event occurs (Çuhadaroğlu, 2013).

Although mindfulness is a common practice used in cognitive therapies, it uses change mechanisms such as metacognition, emotion regulation, attention, and exposure (Demir, 2015). Mindfulness-based practices that use these change mechanisms teach to keep thoughts and emotions separate from each other and assume that learning this will allow more objective experiences in lived events, thus preventing the individual from falling into previous negative cognitive patterns (Hartman, 2010). In this respect, mindfulness has the function of emotion regulation which refers to intentional or self-acting enterprises to affect which sensations individuals have, when and how feelings are acquired or notified (Goodall, Trejnowska, & Darling, 2012). Moreover, sense arrangement includes fluctuations in one or more directions of emotion, including occurring events or situations, attention, evaluation, subjective experience, behavior, or physiology (Mauss, Bunge, & Gross, 2007). Besides, the ability to regulate emotions enables people to continue their actions in line with the applicable goals they create, as well as supporting the formation of an internal state of balance. This skill keeps individuals in a window of tolerance between very low arousal and hyperarousal, through which optimal social functioning and goal-commitment become possible (Chambers, Gullone, & Allen, 2009).

Improving mindfulness contributes to individuals being away from prejudice, accepting without judgment, and gaining attitudes and personality traits towards understanding (Öksüz & Yiğit, 2020). Accordingly, teachers' mindfulness skills are considered as a valuable quality to improve these attitudes and transfer the skills to their students. Furthermore, considering the problems that teachers have to struggle with (Öksüz & Yiğit, 2020), thanks to conscious awareness that focuses on the present and uses attention effectively, teachers would have the ability to organize the educational environment in accordance with different conditions and apply different strategies as well as solving problems. Hence, mindfulness provides teachers with a foresight about what and how they will teach students (Kocaarslan & Otacıoğlu, 2018). Another aspect of mindfulness is that individuals develop their managerial control skills. Managerial control is an important competence that affects many areas of life, and academic achievement is accepted as one of these areas, and the non-judgmental acceptance of thoughts and feelings plays a complementary role in the effective initiation of managerial control (Teper, Segal, & Inzlicht, 2013). Considering this, it can be speculated that mindfulness, which includes some cognitive and affective skills, is essential in the training of qualified teachers. In addition to all these spheres of influence of mindfulness that include teachers and students, it is argued that mindfulness is a personality trait that can be acquired and developed through education (Weinstein, Brown, & Ryan, 2009).

The effects of cognitive flexibility and mindfulness span various areas in human life. There are studies showing that cognitive flexibility and mindfulness are associated with many variables such as happiness (Asıcı & İkiz, 2015), ability to cope with problems (Bedel & Ulubey, 2015), expectation of social competence (Bilgin, 2009), having indulgence in the face of disagreements (Martin, Anderson, & Thweatt, 1998), self-compassion (Martin, Staggars, & Anderson, 2011), decision making strategies (Bilgiç & Bilgin 2016), psychological well-being (Zümbül, 2019), life satisfaction (Yelpaze & Yakar, 2019), and professional satisfaction (Öksüz & Yiğit, 2020). Moreover, it is envisaged that there are behaviors and attitudes teachers should exhibit in educational process. Adapting to the classroom environment, considering the individual differences of their students, loving their professions, making new attempts to improve themselves, determining the most appropriate and most effective strategies, providing maximum benefit to both themselves and their students, thinking creatively and critically can be given as examples of these behaviors and attitudes. From this point of view cognitive flexibility and mindfulness increase the quality of life of teachers including both their personal and professional development. Additionally, teachers with these skills who are able to transfer the skills to their students would take steps towards the development of society.

Within the context of the current study, the effect of cognitive flexibility and mindfulness on self-efficacy was revealed. In that case, it would be a correct statement to express that the development of these two features is

substantial for the improvement of preschool teachers' self-efficacy. The suggestions in parallel with this research are presented below.

Recommendations

In compliance with results of this research, the following recommendations can be made:

1. Several trainings and seminars can be held to improve the cognitive flexibility and mindfulness of preschool teacher candidates. Courses or practices can be included in undergraduate education programs to improve the prospective teachers' cognitive flexibility and mindfulness. The effects of these training programs on the participants can be investigated.
2. Various strategies can be developed to improve preschool education teacher candidates' self-efficacy and they can be integrated within the content of preschool education courses. Research can be conducted on what these strategies might be.
3. The relation between preschool teachers' cognitive flexibility, mindfulness and self-efficacy can be addressed in longitudinal studies.
4. In-service trainings can be implemented for preschool teachers to discover and realize activities that can increase children's cognitive flexibility and mindfulness. Hence, studies can be carried out about how new activities can be developed.
5. The connection between preschool teachers' cognitive flexibility, mindfulness, self-efficacy and children's self-efficacy perception, children's cognitive flexibility and mindfulness can be examined.

Limitations

This research was conducted online due to COVID-19 Pandemic and therefore there was limited access to teachers. Also, the research is limited to the teachers working in public independent kindergartens in Adana and their associates working in public or private independent kindergartens in several provinces in Turkey which were selected by snowball sampling method. In addition, the research is limited to the spring term of 2020-2021 academic year.

Statement of Responsibility

Aslı Bekirler managed the design of research process, data collection, methodology, data analysis, writing review, and translation; Raziye Günay Bilaloğlu managed the design of research process, data collection, supervision, reviewing and editing processes of the article.

Declaration of Competing Interest

No potential conflict of interest was reported by the authors.

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